BUILDING SYSTEMS NARRATIVES

SITE NARRATIVE

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WARNER LARSON
LANDSCAPE ARCHITECTS

Northeast Metro Technical High School **MSBA Schematic Design Submission**
Wakefield, MA

SITE NARRATIVE – June 17, 2021

The Northeast Metro Technical High School (NEMT) site is located between Farm Street and Water Street, off of Hemlock Road in the Town of Wakefield MA. The Site is behind, to the east of the Wakefield Memorial High School. South of the existing school building lies a forested area. To the east of the site, abutting the property is the Breakheart Reservation. Access to the Breakheart Reservation is provided through the school property.

The proposed site design and landscape character is inspired by the natural beauty found throughout the surrounding area and take inspiration from the Breakheart Reservation Park aesthetics. The proposed site topography is influenced by the existing granite bedrock formation. Minimal disturbance to the surround areas is a focus of the overall site design. The new school and surrounding site improvements are designed to maximize the existing forest and topography of the site. This will anchor the school into the landscape and keep the character of the area.

The new high school building is positioned on the high point of the property to the south of the existing school location. A new, secondary, site access point will be created off Farm Street to the west as well as maintaining the current site access drive off Hemlock Road. This new access road weaves its way through the site and follows the existing topography. The school building was positioned as to minimize the amount of rock cut required for construction. The elevation of the building will provide commanding views of the surrounding area. A student parking lot will be constructed to the south of the new school building with separate bus loops for student drop-off and pickup. A larger parking lot will be located north of the new school building on the existing school site. A series of low impact elevated boardwalks will provide an accessible path to the lower parking lot along with a series of stairs for a more direct connection. The area where the current school building is located will become the athletic fields for the school. This new building location allows the existing school facility and athletic fields to remain in operation while the new high school building is constructed and minimizes the need for temporary facilities and services in the process.

A 24 feet wide service/emergency driveway loops around the building providing access to the culinary program, high-bay shops and service area. Supporting facilities such as auto repair and

body shop repair storage are located along the north side of the building. A separate maintenance garage is located south of the school at the school parking lot. The lower parking lot is for students and is controlled by electronic access gates. On the weekend and after school hours this parking lot will be opened to the general community. A separate parking lot will be dedicated for school vehicle use only and is located on the existing basketball courts, south of the existing running track/football field. A 12-stall parking lot is dedicated for users of the Breakheart Reservation and will be open to the community at all times.

All driveways and parking areas will be constructed of vehicular rate bituminous asphalt and be curbed. Radius on turns is designed to allow cars, buses, emergency and service vehicles to navigate the site. Parking stall dimensions and access dive lanes are designed to conform to the Town of Wakefield's by-laws. Parking stalls are 9' wide and 18' deep, drive lanes are 24' wide for 2-way traffic.

The athletic fields are located on the existing school building area. A new running track with a synthetic football field will be installed. A 750-person grandstand structure will be installed on the west side of the track. A confession/restroom building will be located under this bleacher structure. To the west of the track an irrigated natural grass turf field will be installed. This field will host softball and soccer fields. Athletic sports lights will be installed for the track and football fields. A bank of 5 tennis courts will be installed to the north of the softball/soccer field. The existing irrigated natural grass baseball field will be renovated and upgraded. The lower natural grass practice fields will be renovated and a new JV softball field installed. Asphalt access drives will provide maintenance and emergency access to the sport fields. A satellite athletic support building is located at the base of the main access drive and will house changing rooms, offices and additional support for the athletic complex.

The building configuration creates a main entrance plaza on the southern side of the school building. This courtyard provides comfortable microclimates in the spring and fall. This area can be used for gathering spaces that maximize the days per year students can utilize the outdoors for their studies and lunch period. There is also a separate outdoor dining space for staff that is buffered by planting. Another outdoor area will be provided on the eastern side of the building and will support the culinary program. This culinary program provides food service open to the public and the outdoor dining terrace is prominently visible at the approach to the main entrance to the school. Green roofs are proposed on various portions of the school building for

sustainability and climate resiliency. There are 2 large roof decks that will provide students the ability to utilize the outdoor environment and learn about green roof technology. These roof courtyards are a mix of pedestal pavers, natural surfacing materials and seating. There is a single non-accessible green roof that will be installed over the cafeteria area. The planting medium is primarily extensive green roof with some areas being semi-intensive to support shade loving native perennials/grasses and a smaller area being intensive with 24 inches soil profile to support large shrubs. An outdoor playground to support the Pre-K program will be located on a roof with complete safety and compliance. The need for locating this on the roof was to provide the Pre-K students a safe access away from the vehicular traffic and vocational shops.

Pedestrian movement through the site has been carefully designed to minimize driveway crossings while connecting to parking areas and athletic fields. Vertical granite curbs line all building adjacent sidewalks. Driveway approach angles are engineered to eliminate straight lines heading directly toward entry doors. There will be vertical obstructions at the main entry doors providing another level of security. These vertical obstructions will be bollards, stone block seat walls or changes in the topography. Accessible parking stalls have been distributed into all the parking areas and all are located within 200' of a building entry or to the facility they are intended to support. These accessible parking stalls have the associated curb ramps where necessary along with striped crosswalks. Each of the main entries of the school building have extended canopies to protect the entrances and adjacent walkways. Students arriving to the school by bus are dropped off along the sidewalks on the eastern and southern driveways. They will enter the school at the main south entrance (adjacent to the High School Office) or the eastern entrance (next to the Superintendent's Office). Parent drop-off will be in the southern parking lot where the students will walk to the main entry along a paved sidewalk. This walkway in the southern parking lot has raised crosswalks to help slow vehicles and increase pedestrian safety. Students that arrive by their own vehicles will either park in the southern parking lot and walk to the main entry along the main access path. Students will also be able to park in the lower parking lot at the athletic fields. These students will then walk up the hill along the pathway consisting of stairs and landings, or along an accessible route of elevated ramping boardwalks. During dismissal busses will queue along the eastern and southern driveways and along the back of the building. Students will be dismissed from their last period class/ shop and leave via the most convenient exit to the front of the building. Parents in cars who arrive early will wait to pick up students in the south parking lot. Students will exit the building via the south

entrance to meet them. Students leaving via their own vehicle will leave via the main entrance or lower-level entrance and walk back down the hill to the student parking lot. Accessible routes are provided to all site program areas. There is an accessible route from the lower parking lot to the main school building that utilizes an elevator within the athletic support building and a series of elevated boardwalk HC ramps. All the athletic fields, including the bleacher structure and press box, will be fully accessible.

The planting scheme on the site intends to compliment the surrounding forested area. Native species are proposed and laid out in an organic pattern to mimic the forest. Low points are strategically located to help direct stormwater into bioretention basins. Irrigation of the sites planting are limited to high impact areas at the school building and to the natural grass baseball field. The lower athletic practice fields will remain non-irrigated. Irrigation source is from the town water supply.

Site Lighting will be set on pole mounted fixtures. Roadway and drive lanes will be illuminated with 25’ tall fixtures. Pedestrian light fixtures will be installed at a lower height to provide a more people friendly lighting level. These site lighting fixtures will have LED lamps and are intended to meet the dark sky or similar guidelines. There will be lighting at the athletic fields for after hour use. Illumination levels will conform to IES guidelines for site lighting levels. Security cameras will use light poles as needed to ensure site coverage as designed.