

PROJECT APPROVALS

PROJECT APPROVALS NARRATIVE

6A.3.3 - 01

6A.3.3 – 01a

**OFFICE OF THE
INSPECTOR
GENERAL**

CM-R APPROVAL



GLENN A. CUNHA
INSPECTOR GENERAL

The Commonwealth of Massachusetts
Office of the Inspector General

JOHN W. McCORMACK
STATE OFFICE BUILDING
ONE ASHBURTON PLACE
ROOM 1311
BOSTON, MA 02108
TEL: (617) 727-9140
FAX: (617) 723-2334

March 23, 2021

David DiBarri, Superintendent
Northeast Metropolitan Regional Vocational School District
100 Hemlock Road
Wakefield, MA 01880

**Re: Application to Use the Construction Management At-Risk Alternative
Delivery Method for the Northeast Metropolitan Regional Vocational High
School Project**

Dear Superintendent DiBarri:

On February 25, 2021, pursuant to M.G.L. c. 149A and 945 CMR 2.00, the Northeast Metropolitan Regional Vocational School District (District) submitted an application to use the construction management at-risk (CM at-risk) alternative delivery method for the Northeast Metropolitan Regional Vocational High School project.

Based on all the information provided, the District has met the statutory requirements for using the CM at-risk delivery method. Accordingly, the Office of the Inspector General (Office) is issuing this notice to proceed to use the CM at-risk delivery method as specified in M.G.L. c. 149A, §§ 1-13, and to use the plan and procedures submitted.

This approval is conditioned on the District using a CM at-risk firm that the Division of Capital Asset Management and Maintenance (DCAMM) certified, as well as DCAMM-certified trade contractors. Therefore, the District must require each CM at-risk firm to supply both a certificate of eligibility and an update statement during both the prequalification phase and the technical proposal phase of the selection process. In addition, the District must require each trade contractor to supply a certificate of eligibility and an update statement during the prequalification phase and again at the bidding phase of the selection process. The District must reject as invalid all contractors' statements of qualifications, proposals and bids that do not provide such certificates of eligibility or update statements.

If, during the course of the project, the District changes its owner's project manager or designer, please submit information about the new project manager or designer to the Office. Also, if the District decides not to proceed with the CM at-risk delivery method, please notify the Office.

David DiBarri, Superintendent
Northeast Metropolitan Regional Vocational School District
March 23, 2021
Page 2 of 2

Please feel free to contact me or Mary Kolesar, Senior Policy Analyst, if you have any questions or concerns.

Sincerely,

A handwritten signature in blue ink, reading "Glenn A. Cunha". The signature is fluid and cursive, with the first name "Glenn" being more prominent.

Glenn A. Cunha
Inspector General

cc: Theodore Nickole, School Building Committee Chair
Kevin L. Nigro, Managing Director, PMA Consultants, LLC

6A.3.3-01

PROJECT APPROVALS

Massachusetts Department of Elementary & Secondary Education (DESE) – Special Education

Special Education spaces proposed for this project were approved by DESE via correspondence dated August 13, 2021. Refer to section 6A.3.2-04 within this submission for copy of the letter from DESE.

Massachusetts Historical Commission (MHC)

Project Notification Form was submitted to the Massachusetts Historical Commission on 6/25/2020 in compliance with 950 CMR 71.00. No written response was received within 30 days (950 CMR 71.07 (2.)(f)) The project does not exceed relevant thresholds.

Office of the Inspector General (OIG) – CM-R

The Office of the Inspector General has approved the application to use the Construction Management At-Risk delivery method for Northeast Metro Tech. Please find the approval letter from the OIG (dated March 23, 2021) included at the end of this section.

Massachusetts Environmental Policy Act Office (MEPA)

MEPA review determined that no further action is required.

Environmental Notification Form (ENF)

The Massachusetts Environmental Policy Act (MEPA) thresholds, as included in 301 CMR 11.03 were reviewed by the design team for this project. The project does not meet any of the thresholds required to submit an Environmental Notification Form.

Environmental Impact Report (EIR)

The project does not meet any of the threshold required to submit an Environmental Notification Form (ENF). The Secretary of Energy & Environmental Affairs makes the determination if an Environmental Impact Report is required after review of an ENF (which is not required for this project).

Article 97 Land Disposition Policy

No Article 97 land so agency review not required.

Massachusetts Department of Environmental Protection (MASSDEP)

No agency review or action required.

Massachusetts Department of Transportation (MASSDOT)

No agency review or action required; the project is not adjacent to any state highway layout.

Massachusetts Department of Public Health (DPH)

Not applicable.

Environmental Protection Agency (EPA) - National Pollutant Discharge Elimination System (NPDES)

The proposed project will disturb more than one acre of land and is therefore subject to the requirements of the NPDES program. A Notice of Intent (NOI) will need to be filed with EPA New England by the owner and contractor 14 days prior to the start of site construction. In conjunction with the EPA NOI filing, a Stormwater Pollution Prevention Plan (SWPPP) that specifies the means and methods that will be used for erosion and stormwater runoff control during construction must be prepared. The SWPPP will be prepared by September of 2022.

Massachusetts Architectural Access Board (AAB)

Currently, the project does not have any unique circumstances that require a variance from the Access Board.

Town of Wakefield - Fire Department

Preliminary review of the site and fire safety systems occurred in July of 2022 and will continue through the Construction Document phase. In addition, prior to the start of construction a blasting permit will be required.

Town of Wakefield - Wetlands Permitting

Abbreviated Notice of Resource Area Delineation (ANRAD) fixing the limits of the wetland resource areas issued in July of 2021. Please find Form WPA 4B include at the end of this section.

A Notice of Intent (NOI) for the proposed work will be submitted in September of 2022 with public hearings expected through the fall of 2022.

Town of Wakefield - Utility Connections (Sewer & Water)

Final configuration of water and sewer connections to be reviewed by the Town of Wakefield DPW during the Construction Documents Phase. Review and issuance of the connection permits to be completed by the Construction Manager prior to the start of construction.

Town of Wakefield - Traffic Advisory Committee (TAC)

Project has been meeting with TAC in the summer of 2022 to discuss traffic impacts and proposed mitigation including the creation of a signalized intersection at the new drive/Farm Road intersection.

Town of Wakefield - Local Zoning

An analysis of the proposed project design as it relates to local zoning has been performed by the Design Team. Refer to attached Site Development Requirements memorandum attached to the end of this section.

The project Team provided a design update to Wakefield town departments, including planning & zoning. The School District has engaged a local attorney, the Law Offices of Brian D. McGrail, to assist the Project with the permitting process in the Town of Wakefield.

6A.3.3 – 01b

**DEPT. ENVIRO.
PROTECTION**

**—
WPA FORM 4B**



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

313-600

MassDEP File Number

eDEP Transaction Number

Wakefield

City/Town

A. General Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

From: Wakefield
1. Conservation Commission

2. This Issuance is for (check one):

a. ☒ Order of Resource Area Delineation

b. ☐ Amended Order of Resource Area Delineation

3. Applicant:

David Di Barri
a. First Name b. Last Name

Northeast Metropolitan Regional Vocational School
c. Organization

100 Hemlock Road
d. Mailing Address

Wakefield MA 01880
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):

a. First Name b. Last Name

c. Organization

d. Mailing Address

e. City/Town f. State g. Zip Code

5. Project Location:

100 Hemlock Road Wakefield 01880
a. Street Address b. City/Town c. Zip Code

Map 40A Lot 0RS
d. Assessors Map/Plat Number e. Parcel/Lot Number

f. Latitude g. Longitude

(in degrees, minutes, seconds):

6. Dates: 2/04/2021 05/27/2021 7/08/2021
a. Date ANRAD filed b. Date Public Hearing Closed c. Date of Issuance



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4B – Order of Resource Area Delineation

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

313-600

MassDEP File Number

eDEP Transaction Number

Wakefield

City/Town

A. General Information (cont.)

7. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Topographical Survey, Northeast Metro Regional Voc School, EX1-EX14

7/07/2021 (last
revision date)

a. Title

c. Title

d. Date

B. Order of Delineation

1. The Conservation Commission has determined the following (check whichever is applicable):

- a. ☒ **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

1. ☒ Bordering Vegetated Wetlands
2. ☒ Other resource area(s), specifically:

a. Isolated Wetland, NHESP Certifiable Vernal Pool

- b. ☐ **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:

a.

- c. ☐ **Inaccurate:** The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 4B – Order of Resource Area Delineation

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

313-600

MassDEP File Number

eDEP Transaction Number

Wakefield

City/Town

B. Order of Delineation (cont.)

3. ☐ The boundaries were determined to be inaccurate because:

C. Findings

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, § 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation.

This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).

D. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

313-600

MassDEP File Number

eDEP Transaction Number

Wakefield

City/Town

E. Signatures

7.15.21
Date of Issuance

Please indicate the number of members who will sign this form.

4
1. Number of Signers

Signatures

Signature of Conservation Commission Member

FRANK J. LUCIANI JR.
Printed Name

Signature of Conservation Commission Member

ROBERT J. ROMANO
Printed Name

Signature of Conservation Commission Member

Peter Miller
Printed Name

Signature of Conservation Commission Member

TERESA A. BELMONTE
Printed Name

Signature of Conservation Commission Member

Printed Name

Signature of Conservation Commission Member

Printed Name

Signature of Conservation Commission Member

Printed Name

Signature of Conservation Commission Member

Printed Name

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on _____ unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

2. ☐ By hand delivery on

3. ☒ By certified mail, return receipt requested on

a. Date

a. Date

7.15.21

7010 1870 0003 1664 9744

6A.3.3 – 01c

**SITE
DEVELOPMENT
REQUIREMENTS**

ZONING

SITE DEVELOPMENT REQUIREMENTS

Structures and Fences

Due to the significant topographic changes throughout this site, retaining walls will likely be needed to address grade changes and provide accessibility. Other site structures include retrofitting or replacing the bleachers and press box as well as storage and irrigation sheds.

Fencing is required at athletic fields and outdoor courts and as well as to enclose the pre-kindergarten play area. Fencing is also needed to enclose utility and services areas as well as securing automotive storage and bus parking. Fence guards may be needed along retaining walls and along the top of exposed excavated ledge faces for safety, and perimeter fencing at portions of the site boundary is a security consideration where the school building is in close proximity.

Site Access and Circulation

In general, improvements to the site must maintain the safe entry and exit to the site from Hemlock Road. Proposed design includes primary site access from Farm Street.

Better separation of bus and car circulation with adequate queueing distance on site will improve traffic flow and minimizing driveway crossings along pedestrian routes will improve safety.

Facility service

Trash and recycling pick-up areas are required in multiple locations outside service and vocational programs, including sawdust collection. There also needs to be provisions for delivery access to the kitchen and receiving area(s). Most of the vocational programs require direct vehicular access to the building and outdoor storage as do the mechanical equipment such as the generator, transformer and chillers.

Parking and Paving

There are currently approximately 430 parking spaces at the site for passenger vehicles and vans, 1/3 of which are located within the secured fenced in area around the sides and rear of the school. The spaces that are fenced in are used for school vehicles, automotive technology and staff parking. Sixteen bus parking spaces are also located within the fenced in area behind the school. Two hundred and seventy-six parking spaces are located in front of the school including spaces reserved for accessibility, visitors and approximately 6 designated for Breakheart Reservation and 9 for the Reading Cooperative Bank.

Replicating the existing parking quantity and general proximity to supported programs in the school building is the starting point for site planning and evaluating the programmatic trade offs relative to the site constraints. All parking areas will be paved and curbed.

Wakefield, MA

Maximum Bldg Height (ft.)	35'**
Maximum Stories (no.)	2.5
Maximum Building Coverage (%)	30%
Min Open Area (%)	40%**

Under 2312 Educational uses are permitted in a SR District.

***STRUCTURE** — A combination of materials for permanent or temporary occupancy or use, such as a building, bridge, trestle, tower, framework, retaining wall, tank, tunnel, tent, stadium, reviewing stand, platform, swimming pool, shelter, pier, wharf, bin, fence, sign or the like.

****HEIGHT OF BUILDING** — The vertical distance of the highest point of the roof above the average finished grade of the ground immediately adjoining the building, as computed before the building is actually erected. This definition excludes chimneys, ventilators, skylights, water tanks, bulkheads, elevator penthouses and other accessory structures which are required or are customarily carried above the roofs of buildings and towers, spires, domes, cupolas and similar parts of buildings if such areas are not used for living or storage purposes and if such structures are not equal to more than 20% of the space occupied by the ground floor of the building. Such accessory structures shall not exceed required height limits by more than 20 feet. Any berm or earth structure changing the grade of the ground shall be added to the elevation of the building to determine its height under this chapter.

*****OPEN AREA** — A yard area which is unbuilt upon but which may include sidewalks, swimming pools, terraced areas, patios, tennis courts, play courts, playground facilities or similar facilities and is not devoted to streets, driveways or of-street parking or loading areas.

Adjacent properties to the east, west and north are zoned SR, while a parcel to the southwest is zoned Business (B) and is also in the Wireless Communication Services Overlay District. Attention should be paid to any specific buffer or screening requirements of which are outlined below.

§ 108-1

Permit required; exceptions; conditions.

- A. The removal of soil, loam, sand or gravel from any parcel of land not in public use in the Town of Wakefield, except as hereinafter provided for, shall be allowed only after a written permit therefor has been obtained from the Zoning Board of Appeals (hereinafter, the "Board") appointed under the zoning and building laws of the Town of Wakefield,[1] and then only after a public hearing of which due notice is given.

VIII SPECIAL PERMITS AND SITE PLAN REVIEW

§190-43 A special permit is not required for educational uses in any district. A special permit may be required if off-street parking, off-street loading, or building set back and coverage requirements cannot be met. A special permit may be granted by the Zoning Board of Appeals, as described in the referenced section of the zoning by-laws.

§190-46 All proposals within a Business District must be approved by the Planning Board through site plan review prior to the issuances of any building permit. The site plan review submission requirements are described in the referenced section of the zoning by-laws. If a special permit is required, refer to section §190-45 for site plan review in conjunction with special permit applications.

§ 190-46. Site plan review where special permit is not required. [Added 6-5-1989 ATM by Art. 51]

All proposals which are located in an area of the Town zoned as a Neighborhood Business District, a Limited Business District, a Business District, a Limited Industrial District or an industrial District and which do not require a special permit from the special permit granting authority must be approved by the Planning Board through site plan review prior to the issuance of a building permit.

§ 190-31 General regulations.

G.

Screening and buffer strips in industrial, business, and multiple residence districts.

(1)

Screening and buffer strips containing no buildings, parking areas or accessory uses shall be required in any industrial, business or multiple residence district which abuts a residential district. The minimum width of this strip shall be 15 feet, of which 10 feet shall not be paved.

(2)

The strip shall contain a screen of plantings of vertical habit not less than three feet in width and four feet in height at the time of occupancy of such lot and shall grow to a minimum of four feet in width and five feet in height at maturity. Individual shrubs or trees shall be planted not more than 10 feet on center and shall thereafter be maintained by the owner or occupants so as to maintain a dense screen year round. At least 50% of the plantings shall consist of evergreens. A solid wall or fence, five feet in height, complemented by suitable plantings, may be substituted for such landscaped screen planting. No screen shall be closer than five feet to a public or private street right-of-way line.

Article VII Parking and Loading Requirements

The Zoning By-Law should be referenced for more detailed requirements. Several applicable landscape standards are summarized below:

C. Size of parking spaces. Each required of-street parking space shall be marked and shall not be less than nine feet in width and 18 feet in length for angle parking or 22 feet in length for parallel parking, exclusive of drives, walks and maneuvering space.

D. Aisles. Each required of-street parking space shall have direct access to an aisle or driveway having a minimum width of 24 feet in the case of two-way traffic (22 feet for aisles providing access primarily for overnight parking) or the following widths in the case of one-way traffic only:

Angle of Parking	Minimum Aisle Width (feet)
Parallel	12
30°	11
45°	13
60°	18
90°	20

1 loading space required for education. 12' wide, 14' height and 30' long

- Driveways shall not exceed a width of 20 feet in residential districts without a special permit from the Board of Appeals, and 60% of the front yard shall be maintained as open area, without parking
- Traffic visibility at driveways and corners. A fence, hedge, wall, sign or other structure shall not be over 2 ½ feet in height above the adjacent ground within 5 feet of the lot line
- Landscaping of parking lot:
 - Surfaced areas of off-street parking areas shall be set back a minimum of 7.5 feet from all buildings
 - Open parking areas shall be separated from the street line by a landscaped strip not less than 15 feet in width, except at entrances and exits
 - At least 5% of the interior of any parking lot with 40 or more parking spaces shall be landscaped
 - Planted with shade trees of a species and size approved by the Town Arborist
 - Minimum of one tree for every 2,000 square feet of parking area and location approved by Town Arborist

- Any trees surrounded on three or more sides by pavement shall be planted with a raised island bound by a curb a minimum of six inches high, covered with a porous material for water drainage to the tree roots, and have a surface drainage area immediately around the tree a minimum of 30 square feet in area
- Planting or screening along the perimeter shall not be counted as part of the 5%

I.

Driveways.

[Amended 11-8-2004 RTM by Arts. 30, 33, 34]

(1)

Unless authorized by special permit, which may permit a driveway of no more than 40 feet, driveways serving parking facilities shall not exceed 30 feet in width at the street line and shall not be spaced closer than 100 feet to another driveway serving the same lot.

[Amended 11-8-2007 RTM by Art. 4]

(2)

No driveway shall have an average gradient of more than 10% over the 40 feet thereof adjacent to the point where such driveway meets the street. See § **190-37I(3)(d)** below for common driveways.

§ 190-40Protection of residence districts.

Except for parking accessory to dwellings, all parking and loading, including outdoor storage, sale or service to automobiles or to their occupants, shall meet the following requirements:

A.

Access. All such parking or loading areas shall have access either directly from a public way or through a business or industrial district and not through a residential district.

B.

Screening. All such parking or loading areas in any district shall be screened in accordance with § **190-31G**.

C.

Illumination. All illumination of such parking and loading areas shall be continuous light installed and shielded in such a manner that will prevent direct light from shining upon any other property in a residence district.

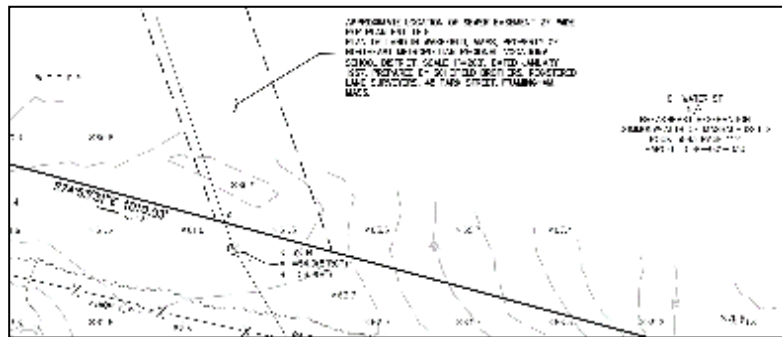
Table of Required Off-Street Parking

Wakefield, MA

Principal Use	Number of Spaces Required
Schools	2.0 per 3 staff members, plus 1.0 per 3 students of driving age (unless car usage is prohibited) or 1.0 per 6 seats in largest place of assembly (whichever is greater)

Easements

Northeast Metropolitan Regional Vocation School has a Sewer Easement on adjacent Breakheart Reservation.



The New England Power Company has a right of way, on adjacent Breakwater Reservation land, that parallels the entire eastern border of the NE Metro Tech site.

Wetlands and/or Flood Restrictions

Wetlands

The Massachusetts Wetlands Protection Act grants local Conservation Commission jurisdiction over work within 100' of most wetland resources (within 200' of a river). There are wetlands located along the east side of the site associated with the brook, on site bordering vegetated wetlands and isolated vegetated wetlands in the undeveloped portions of the site, and wetlands to the north of the site (beyond the softball/practice field) that are associated with the Mill River. Work in the buffer zone of any of those jurisdictional areas will require the filing of a Notice of Intent (NOI) with the Wakefield Conservation Commission. Projects of this scale typically have their NOI's and supporting stormwater plans and calculations peer reviewed during the permitting process.

Flood Plain

Based on the Flood Insurance Rate Map (FIRM), Community Panel Number 25017C0431E dated June 4, 2010 the existing school site is not within any mapped Flood Hazard Area (100-year flood). There are areas of Flood Hazard Areas associated with the Mill River, those areas are immediately adjacent to the Mill River and appear to not extend onto school property.

Emergency Vehicle Access

The single site access at Hemlock Road provides access for emergency vehicles, and there is emergency vehicle access around the entire perimeter of the school building. Improvement to emergency vehicle access at athletic facilities is required.

Safety and Security Requirements

As noted above, a second site access from Farm Street will be evaluated as part schematic design, along with safety and security improvements to the existing access at Hemlock Road. A guard shack currently exists at this site access. Maximizing the distance between the building and site access points while keeping clear sight lines along the approach to the building will be studied in the development of site plan alternatives. Fencing to secure the perimeter of program areas or the site boundary where distance is limited will also be factored into the site planning.

Utilities & Drainage**Storm Drainage**

Storm drainage for the site will need to comply with Massachusetts Stormwater Management standards. Massachusetts Stormwater Management standards require that the rate of stormwater flows off the site not be increased. They also require that the quality and quantity of stormwater be addressed by treating the stormwater to remove possible contaminants and that a portion of the stormwater be directed to the groundwater. Areas that see vehicular traffic could have their stormwater quality addressed through mechanical means such as water quality inlets or by “greener” systems such as rain-gardens, constructed wetlands, bio-swales, etc. Runoff from roofs and landscaped areas are considered clean and treatment prior to recharge or discharge is not required. Rates of runoff from the site would be addressed by either decreasing the existing amount of impervious area or by detaining or infiltrating stormwater on-site. Detention/retention ponds, constructed wetlands, underground infiltration systems, porous pavement and rainwater recycling are all examples of some best-management practices (BMP’s) used to address stormwater rate and volume. Typically, on large school sites, similar to NEMT, with varied topography and soils, a variety of different BMP’s are employed to mitigate stormwater flows.

Water

Water to the site is currently supplied via an 8-inch line that enters the site from the Hemlock Road drive and loops around the existing building. The existing service is considered inadequate for existing needs. To accommodate future demand, including fire flows, an additional connection to the Town of Wakefield water system will be required. Two connections (one existing and one new) to the Town of Wakefield system will eliminate the long dead-end service that the school currently has, will provide redundancy, and increase available flows. A second connection point to the Town of

Wakefield, MA

Wakefield system would preferably follow the route of a second vehicular access into the campus.

Sanitary Sewer

Any future development on the site will require that sanitary flows from food-preparation areas be segregated and directed through an external grease-trap. Portions of the existing sanitary sewer system, including the connection to the Town of Wakefield system, can be incorporated into the future development after being video inspected and repaired as required. Typical repairs might include spot repairs to address broken pipe, root removal and slip-lining. The size of the existing system (8-inch), is adequate to support future development.

Natural Gas

There is currently no natural gas serving the site. If future development incorporates the need for natural gas, the size and connection point of the future service will be determined by the utility provider in conjunction with the project's MEP Consultant. Having a proposed gas service parallel the route of a new second water service would be preferred to minimize site costs and disturbance.

Athletic Fields

The current athletic facilities program is summarized in the Existing Conditions Report. Recreating or renovating the existing athletic facilities depending on the overall site plan, is required to meet the needs of the school's sports programs. Improvements to access, layout, drainage and materials are needed to provide safe and durable facilities that meet the level of program use.

Synthetic turf and sports lighting is required at the primary game field for it to be able to accommodate the number of teams currently using this facility (3 football, 4 soccer and 1 field hockey in the fall and 2 boys lacrosse and 2 girls lacrosse in the spring). A new or reconstructed running track is required as the existing track is not regulation size and in unsafe condition.

The maximum bleacher seating requirement for sports is estimated to be 500-550 spectators for football homecoming, but graduation is held at the field during good weather and fills the existing bleacher to capacity, approximately 2,000+ seats at 18"/seat as defined by building code.

The current baseball field location does not allow space for dugouts or spectator seating near the infield.

Tennis is played at the adjacent Wakefield High School, basketball is played indoors exclusively, cross country utilizes Breakheart Reservation.

The softball field and football practice field at the low side of the site to the north, require drainage and irrigation improvements as well as an accessible route and safe spectator seating at the softball field.

Outdoor Educational Spaces

The significant topographic changes in the surrounding natural environment include forested hilltop ledge outcroppings and low lying wetlands providing a wealth of opportunities for outdoor learning. Accessibility and safety (prevention from tick bites for instance) present limitations to convenience of daily use. The schematic design site plan alternatives will seek to incorporate convenient outdoor spaces shared with other uses (such as the cafeteria) that are close and easily accessible to the building with good solar exposure for comfort in fall and spring. Accessible routes required for the athletic facilities will provide opportunities to explore the surrounding natural environment safely.

Site Orientation and Other Location Considerations and Issues

A co-occupied site with construction and school functions occurring simultaneously will be a significant factor in developing the site plan along with balancing site development costs associated with changes to existing grades due to the preponderance of ledge throughout the site. One of the biggest challenges, and opportunity, is to provide a final site and building design that is functionally uncompromised and does not reflect these site limitations in the appearance and experience of the finished construction.