

March 3, 2020

To: Vladimir Lyubetsky
From: Julia Garofalo
CC: Josh Safdie, Verónica Mansilla

Re: Northeast Metro Tech High School – Accessibility Audit



ARCHITECTURE +ACCESSIBILITY

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On Wednesday, February 19, 2020, KMA staff Julia Garofalo and Verónica Mansilla performed a comprehensive accessibility audit of the immediate site, entrances, and all public and employee spaces at Northeast Metropolitan Regional Vocational School, located at 100 Hemlock Road in Wakefield, MA. The purpose of this audit was to identify conditions that do not comply with either the 2010 Americans with Disabilities Act (ADA) Standards or 521 CMR: The Rules and Regulations of the MA Architectural Access Board (MAAB).

Renovations are planned for this building that are expected to exceed 30% of the full and fair cash value of the building, which will trigger full compliance with 521 CMR. DRA Architects has been hired as the architect of record and understand that any existing architectural barriers within the project area will need to be mitigated, or a variance from the MAAB sought. The architects will use the findings of this report as a basis for their work.

Building Description

Northeast Metropolitan Regional Vocational School was built in 1968 with a small storage outbuilding constructed in 1975. The two-story building includes various classrooms, vocational shops, and administrative spaces, a cafeteria, an indoor pool, a gymnasium, a library, and the nurse's office. To the west and north of the building are a football/track field with grandstand, basketball courts, baseball/softball fields, playground and a practice field.

Jurisdictional Overview

Northeast Metropolitan Regional Vocational School is defined under the Americans with Disabilities Act as a *place of public accommodation* and under 521 CMR as a *public building*. As such, they will be subject to certain accessibility requirements when the planned alterations are made to the buildings.

521 CMR

521 CMR: The Rules and Regulations of the MAAB is a section of 780 CMR: the MA Amendments to the International Building Code 2015. 521 CMR governs the “design, construction, and renovation of public buildings to make them accessible to, functional for, and safe for use by persons with disabilities.” The specific scoping provisions for renovations are reproduced in part here:

3.3 EXISTING BUILDINGS

All additions to, reconstruction, remodeling, and alterations or repairs of existing public buildings or facilities, which require a building permit, or which are so defined by a state or local inspector, shall be governed by all applicable subsections in 521 CMR 3.00: JURISDICTION.

3.3.1 If the work being performed amounts to less than 30% of the *full and fair cash value of the building* and

- a. if the work costs less than \$100,000, then only the work being performed is required to comply with 521 CMR; or
- b. if the work costs \$100,000 or more, then the work being performed is required to comply with 521 CMR. In addition, an accessible public entrance and an accessible toilet room, telephone, drinking fountain (if toilets, telephones and drinking fountains are provided) shall also be provided in compliance with 521 CMR.

3.3.2 If the work performed, including the exempted work, amounts to 30% or more of the full and fair cash value of the building (see definitions in 521 CMR 5.00), the entire building is required to comply with 521 CMR.

3.3.3 Alterations by a tenant do not trigger the requirements of 521 CMR 3.3.1b and 3.3.2 for other tenants. However, alterations, reconstruction, remodeling, repairs, construction, and changes in use falling within 521 CMR 3.3.1b and 3.3.2, will trigger compliance with 521 CMR in areas of public use, for the owner of the building.

Because the anticipated renovation work is expected to cost greater than 30% of the full and fair cash value of the building, Section 3.3.2 will apply. This means that DRA Architects will have to bring the entire building into compliance with 521 CMR – or request variances not to do so on an issue-by-

issue basis, on the basis of *impracticability*. In addition, DRA Architects will have to ensure that all entrances to the building are made accessible. Any new construction must meet all of the requirements of 521 CMR.

2010 ADA Standards

Title III of the Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability by public accommodations and requires places of public accommodation and commercial facilities to be designed, constructed, and altered in compliance with the accessibility standards established under the ADA.

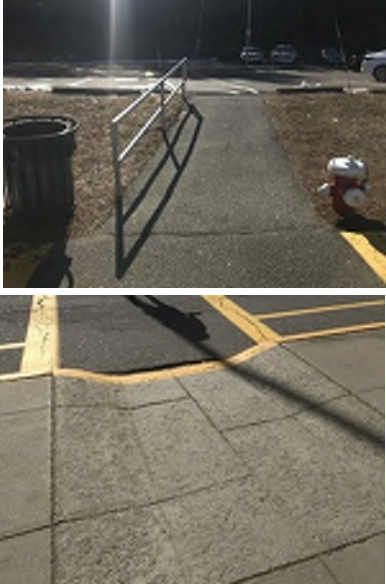
Buildings and elements constructed or altered after January 23rd, 1993 were required to comply with the 1991 ADA Accessibility Standards. Buildings and elements constructed or altered after March 15, 2012 are required to comply with the 2010 ADA Standards, with the exception that anything constructed or altered prior to March 15, 2012 that complies with the 1991 ADA Standards is not required to proactively be brought into compliance with the 2010 ADA Standards.

The alteration requirements under Section 202.4 state in part that “an *alteration* that affects or could affect the usability of or access to an area containing a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the *altered* area, including the rest rooms, telephones, and drinking fountains serving the *altered* area, are readily *accessible* to and usable by individuals with disabilities.” This means that DRA Architects will have to establish an accessible entrance to the building and eliminate any instances of non-compliance along the path of travel leading to or within the building. This requirement is identical to the requirement of 521 CMR that an accessible entrance be established.

Summary of Findings

The following table details the barriers noted during our audit that would need to be mitigated in order to satisfy the above requirements under the ADA and 521 CMR. Please note that this was a comprehensive audit, and so any items within the project area that are not mentioned may be assumed to fully comply with 521 CMR and the ADA Standards.

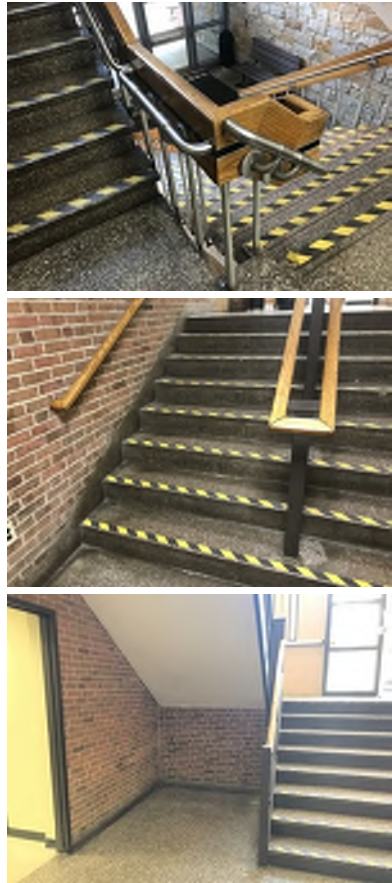
EXTERIOR & ENTRANCE ISSUES		
#	Barrier	Photo
1.	Entrances Not all of the entrances are accessible due to a step or change of level $>1/2"$.	
2.	Egress Doors Most egress doors are not accessible, due to a step or change of level $>1/2"$, @ 1". Most do not lead to an accessible route.	
3.	Parking near Main Entrance There is no signage indicating the van accessible parking space. Some parking spaces lack signage at the head of the space. The designated accessible parking spaces have slopes $>2\%$, @ 2.7%.	 

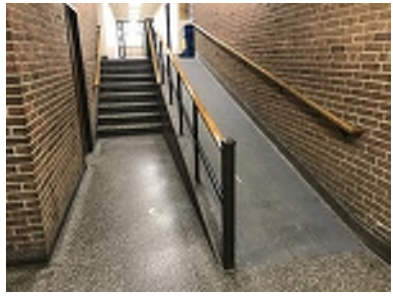
4.	Route from Parking to the Main Entrance The slopes of the ramps are >8.3%, @ 8.8%-13%. Handrails are not provided on both sides of the ramps. Handrail extensions are not provided at the top and bottom of the ramps. The slope of the curb cut is >8.3%, @ 10.8% and the flared sides are >10%, @ 20.7%.	
5.	Main Entrance The intercom is mounted >48" AFF, @ 56.5".	
6.	Walkways Cracks and bulging create abrupt changes in level. Most cross-slopes are >2%, @ up to 4%. Most running-slopes are >5%, @ up to 8.5%.	

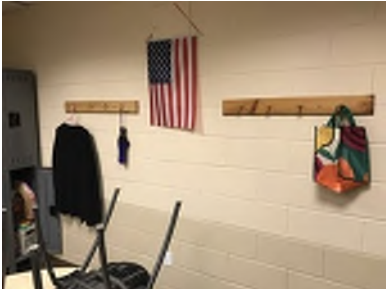
7.	Parking near Pool Area Entrance (#02) The designated accessible parking spaces have slopes >2%, @ 4.2%-6.9%. The access aisles are <60" wide and do not connect to an accessible route. The slope of the curb cut is >8.3%, @ 11%. The designated accessible parking spaces lack signage at the head of each space.	
8.	Ramp to Pool Area Entrance (#02) The ramp lacks edge protection. Handrail extensions are not provided at the bottom of the ramp. The clear space between the handrail and the wall is >1.5", @ 2". The bottom landing is not level, @ 10%. There is no level landing where the ramp changes direction, @ 6.7%.	
9.	Pool Area Entrance (#02) The intercom is mounted >48" AFF, @ 59". The stairs lack handrails on both sides.	

10.	Parking near Breakheart Inn Entrance The designated van accessible parking space lacks signage at the head of the space. The designated van accessible parking space has slopes >2%, @ 7%.	
11.	Ramp to Breakheart Inn Entrance The ramp lacks edge protection. The ramp lacks handrails on both sides. The lower handrail is not mounted 18"-20" AFF, @ 22".	
12.	Playing Fields There is no accessible route to the sport fields. There is no accessible route to the bleachers and no accessible seating provided.	
13.	Playground There is no accessible route provided to reach the playground equipment.	

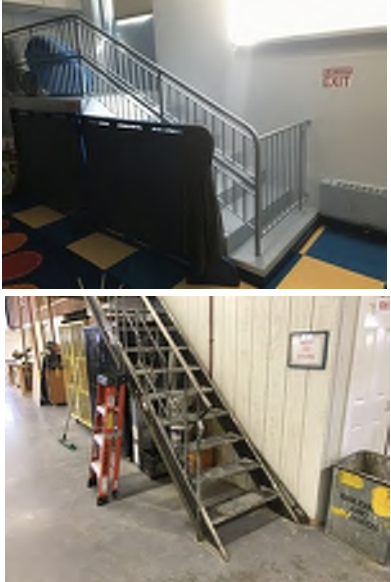
14.	Interior Courtyards The courtyard is not located on an accessible route. The courtyard has areas of deterioration creating abrupt changes of level. The picnic tables do not provide the required knee and toe clearance.	
INTERIOR		
15.	Signage All rooms lack tactile/Braille signage mounted on the latch side of the door. Designated accessible toilet rooms lack the International Symbol of Accessibility.	
16.	Illuminated Exit Signs The illuminated exits signs on the first floor of the building lack the International Symbol of Accessibility.	No Image
17.	Double-Leaf Doors The double doors leading to the library and graphics shop lack at least one leaf that provides the 32" minimum clear width, @ 29".	

18.	Doors Most doors throughout the building have knob hardware that requires tight grasping, pinching, and/or twisting of the wrist to operate. Some doors require >5lbs of force to open. Most doors to adjacent classrooms lack the required 32" minimum clear width, @ 25". Most doors lack the required 18" pull side maneuvering clearance. Some thresholds are >1/2" high and not beveled, @ 1". All recessed doors lack the required 12" minimum push side maneuvering clearance where both a latch and closer are provided.	
19.	Interior Stairs The inside handrails on dogleg stairs are not continuous. There are no handrail extensions at the top and bottom of the stairs. The handrails are not mounted 33"-38" AFF, @ 31" AFF. Some stairs lack handrails on both sides. Some stairs have handrails with cross sections that are not rounded or oval. The headroom under the stairs on the basement floor provides <80" of vertical clearance.	

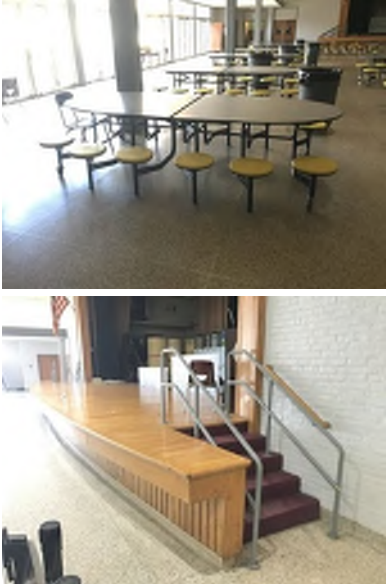
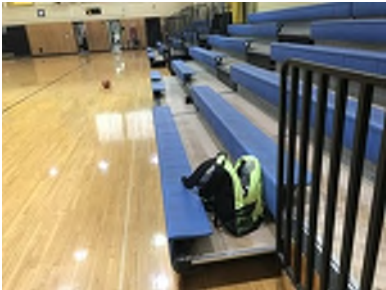
20.	Interior Ramp The slope of the ramp is >8.3%, @ 22%. The ramp lacks edge protection. The ramp lacks compliant handrails on both sides.	
21.	Vertical Access There is no accessible route to the second floor and basement.	No Image
22.	Lift near Cafeteria The lift is not flush with the finished floor, @ 1" AFF. The doorway lacks the required 18" minimum pull side maneuvering clearance.	
23.	Drinking Fountains Many drinking fountains lack the required 27" AFF minimum knee clearance for a forward approach, @ 26.75" AFF. All drinking fountain spouts are mounted >36" AFF, @ 44" AFF. Most drinking fountains protrude >4" into the circulation route, @ 18".	 

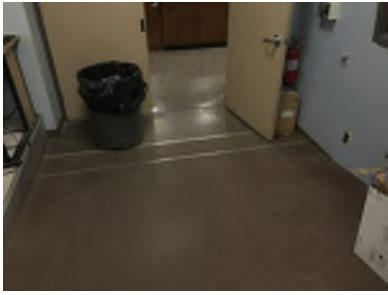
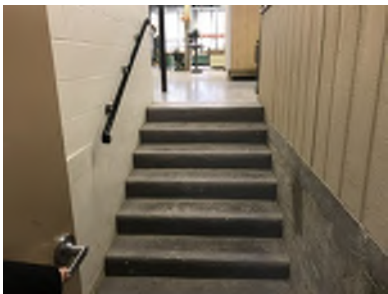
24.	Protruding Objects There are elements throughout the building that protrudes >4", @ up to 23", including hand sanitizer dispensers, paper towel dispensers, data boxes, and fire extinguishers.	
25.	Fire Pull Boxes Many fire pull boxes are mounted >48" AFF for a forward approach and >54" AFF for a side approach, @ 56" AFF.	
26.	Telephones All telephones are mounted >48" AFF for a forward approach and >54" AFF for a side approach, @ 54.5" AFF.	
27.	Hooks Most coat hooks are mounted >54" AFF, @ up to 64".	

28.	Furniture Many of the furniture in classrooms and offices obstruct the required clear floor space, door maneuvering clearance, and accessible routes.	
29.	Lockers At least 5% of the lockers, but no less than one, do not provide accessible hardware that is operable with a closed fist.	
30.	Reception & Transaction Counters Many of the reception and transaction counters lack a 36" minimum wide portion mounted at 36" AFF maximum, @ 43" AFF (i.e. main office, school store, Breakheart Inn).	
31.	Offices and Service Rooms Many offices and service rooms lack the required turning space. Many offices have pedestal tables that do not provide the required knee and toe clearance.	
32.	Teacher's Lounge The sink lacks the required knee clearance for a forward approach. The sink is >34" AFF, @ 36" AFF.	

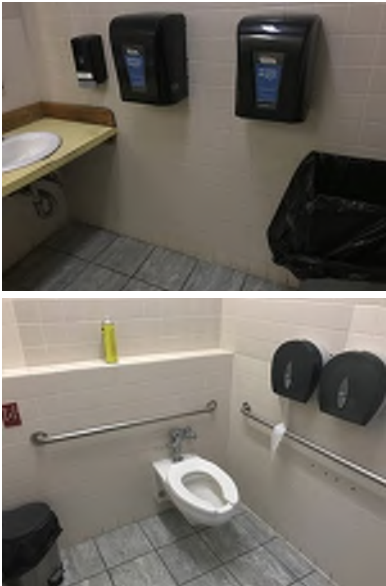
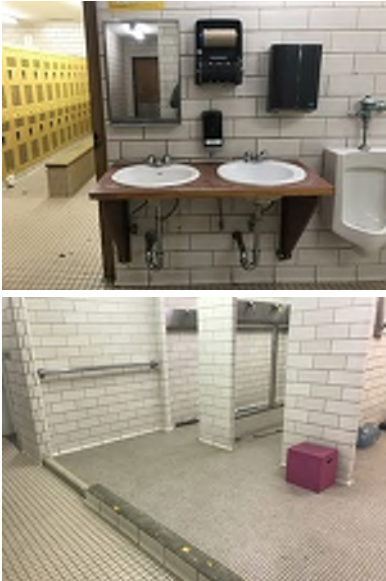
33.	Offices within Shops and Classrooms Many of the offices within shops and classrooms are not located on an accessible route (i.e. Cosmetology, Carpentry Shop, Electrical Shop, etc.).	
34.	Stairs within Shops and Classrooms The handrails are not continuous due to the railing posts. There are no handrails both sides of the stairs. There are no handrail extensions at the top and bottom of the stairs. The handgrip cross section is not rounded or oval. Some headroom under the stairs provides <80" of vertical clearance. Some stairs have open risers.	
35.	Classroom Desks and Tables Many desks and tables lack the required 27" AFF minimum knee clearance, @ 25" AFF, and/or the required 30" minimum width, @ 21". Most classrooms have moveable chairs with desk attachments.	

36.	Classroom Sinks and Dispensers All classroom sinks lack the required knee clearance for a forward approach. Most classroom sinks are >34" AFF, @ 37" AFF. Some classroom sinks lack insulated piping. Most paper towel and soap dispensers are mounted >46" AFF for an obstructed side approach, @ 63" AFF.	
37.	Specialty Sinks Classrooms with specialty sinks (i.e. Auto Body, Metal Fab, and Plumbing Shops) lack an adjacent accessible sink with the required knee clearance for a forward approach.	
38.	Specialty Equipment Many equipment controls are mounted >48" AFF for a forward approach and >54" AFF for a side approach, @ 55.5" AFF or higher, and have controls that require tight grasping, pinching, and/or twisting of the wrist to operate. Most vocational classrooms lack at least one work bench mounted at 34" AFF maximum and providing compliant knee space for a forward approach.	

39.	Emergency Showers The emergency shower pull is mounted >48" AFF, @ up to 65.5" AFF.	
40.	Benches within Shops The benches lack the required clear floor space positioned at the end of the bench seat and parallel to the short axis of the benches and do not provide back support.	
41.	Cafeteria The lunch tables lack the required knee and toe clearance for a forward approach. There is no accessible route to stage. There are no handrail extensions at the bottom of the stairs.	
42.	Gymnasium There is no designated accessible wheelchair seating provided in the bleachers. The bleachers do not provide handrails at the risers when open.	

43.	Child Care The children's toilet rooms lack all accessible elements. The ceiling in the play area provides <80" AFF of vertical clearance, @ 54" AFF.	
44.	IT Office The slope of the ramp is >8.3%, @ 12%. The ramp lacks compliant handrails on both sides. The landing at the bottom of the ramp is <60", @ 27".	
45.	Office Tech Computer Labs The accessible route has running slopes >5% and is not treated as a ramp, @ 5.9%.	
46.	Carpentry Shop There is no accessible route to the Carpentry Shop.	
47.	SPED Resource Room The door lacks the required 48" minimum pull side maneuvering clearance depth for a latch side approach, @ 40".	

48.	Nursing Classroom (Basement) The oven controls are mounted >48" AFF for a forward approach and >54" AFF for a side approach, @ 59" AFF. The cooktop lacks the required knee clearance for a forward approach.	
49.	Pool There is no accessible route to the pool spectator seating area. There is no pool lift provided.	
50.	Nurse's Office The sink lacks the required knee clearance for a forward approach. The sink is >34" AFF, @ 36" AFF. The beds lack an adjacent 30"x48" clear floor space, @ 27.5" wide. The toilet rooms lack all accessible elements.	

51.	Typical Toilet Rooms All toilet rooms for students and most for staff are non-compliant due to the following: • The doors lack the required 32" minimum clear width, @ 25". • The toilet rooms lack all accessible elements.	
52.	Unisex Staff Toilet Room near Cafeteria The bottom of the reflective surface of the mirror is >40" AFF, @ 41.5". The sink pipes are not insulated. The paper towel protrudes >4" into the circulation route, @ 8.5". The toilet centerline is not 16"-18" from the side wall, @ 18.5". The grab bars are not mounted 33"-36" AFF, @ 30". The toilet paper dispenser is mounted <12" above the side grab bar, @ 8". The side grab bar extends <54" from the rear wall, @ 48.5". The toilet flush control is not located on the wide side of the toilet.	
53.	Locker Rooms The doors lack the required 32" minimum clear width, @ 25". There are no accessible toilet stalls provided. All sinks lack insulated pipes, are mounted >34" AFF, @ 36.5" AFF, and/or lack the required knee clearance for a forward approach. Most of the bottom of the reflective surface of the mirrors are >40" AFF, @ 50". Hand dryers protrude >4" into the circulation route, @ 8". Urinals are mounted >17" AFF, @ 20" AFF.	

	All shelves are mounted >48" AFF for a forward approach and >54" AFF for a side approach, @ 68" AFF. All locker rooms lack at least one accessible transfer or roll-in shower. The locker room benches lack the required clear floor space positioned at the end of the bench seat and parallel to the short axis of the benches and do not provide back support.	
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End of Report.