

GENERAL REQUIREMENTS

SECURITY & VISUAL ACCESS REQUIREMENTS

6C.3.1 – 14a

SECURITY NARRATIVE

SECURITY & VISUAL
ACCESS REQUIREMENTS

NORTHEAST METROPOLITAN REGIONAL VOCATIONAL HIGH SCHOOL

SECURITY AND VISUAL ACCESS DESIGN

Multiple meetings were held to review and discuss the Security and Visual Access design for the new school building. In attendance were representatives from the Wakefield Police and Fire departments, the School Resource Officer, the School's Security Department, the Building Committee, the Superintendent, and the Owner's Project Manager.

The following security design incorporates the comments and suggestions made by the stakeholders.

Vehicle Control and Routing

The site design includes three separate vehicle areas. Bus drop-off is on the plan south side of the school. Bus pickup is on the north, and the parent drop-off/visitor entrance is on the west at the main entry. Access to the staff parking lots is separate from the bus and parent drop-off drives.

Electronically controlled lift barriers will be located at the entrances and exits of the student parking lot., to restrict vehicle access to the vocational shops on grade at the rear of the building. The use of proximity cards or fobs will activate the entry lift barriers. Exit barriers will be activated when the barrier senses a vehicle approaching. The gates will include siren sensors to automatically activate the lift barriers at the approach of emergency vehicles.

Visual Access

The building design incorporates the placement of windows to provide visibility of entry doors and all approaches to the building.

All entry doors will be storefront glass doors, and delivery doors will have windows to provide visibility of visitors at the doors.

The building design includes "School Guard Glass" products at the main entrance, vestibule, and transaction window. Laminated glass will be utilized at the remaining entries.



Visitor Control and Routing

There are four main entrances to the school, the parent drop-off/visitor entrance at the administration wing, the main entry, a customer entrance for public access to the cosmetology area, restaurant, and the bank, an event entrance at the auditorium/gymnasium wing, a preschool program entrance, and an entrance at the physical education wing for access to and from the playing fields.

The main entry, customer, and preschool program entrances will have audio/video intercoms. The vestibules are designed as sally ports. All visitors at the main entry, customer, and preschool doors will be challenged before being allowed entry into the vestibule and verified while in the sally port before being allowed into the school.

The main entry door will be the one location where school visitors will be allowed to enter the building during school hours. The vestibule and main office transaction window will be glass to provide full visibility of the exterior and vestibule doors. Visitors would interact with School administrative staff at a transaction window. Visitors allowed into the building would be issued a visitor's badge and access the main lobby by entering through the main office or staff releasing the interior vestibule door. The door between the main vestibule and the main office reception area will be electronically controlled.

Administrative office staff would utilize the school's existing Visitor Management system relocated to the new building to ensure a visitor does not have any criminal history before being allowed to enter the school's main lobby. The visitor will be required to present a driver's license photo ID, and the system will check national registries/databases before issuing visitor photo passes.

Delivery doors will have IP-based "door phone intercoms" (hands-free speakerphones) on the exterior wall adjacent to the delivery door, which will be included in the phone system design. Following best practices, the receiving doors will not have remote release capabilities. Deliveries will require physical verification and manual release of the doors. The door phone intercoms will allow for notification of deliveries by being programmed to call a specific phone location. If there is no answer, the call will roll over to other phones in the order programmed until the call is answered.

Electronic Building Security Systems

Building security will include the following electronic security systems.

- Intrusion Detection (perimeter and interior monitoring)
- Access Control
- Video Surveillance
- A Vape Detection system
- A Gunshot Detection system

The Intrusion Detection, Access Control, and Video Surveillance systems shall be integrated to perform in consort with each other. For example, if a door is breached, the Video Surveillance system will display the image from the CCTV camera at the door to the CCTV monitor screens at the SRO desk, and in the main office, a call to first responders



would be initiated, on-premises alarms would be activated, and electronic release of latches at doors with card readers would be disabled. The incident will be linked to and searchable in any of the three security system databases.

All security devices and headend equipment will reside on a secure physical data network. This network will be separate from the school's production data network.

Intrusion Detection System

An addressable IP-based Intrusion Detection system will be installed. The system shall have door contacts on all exterior doors and motion sensors in all on-grade spaces with exterior doors or windows. Motion sensors will be located in stairwells and corridors so that an intruder moving through the building can be tracked in real time.

The Intrusion Detection system will include keypad locations for arming and disarming the entire building or specific portions of the building. The Intrusion Detection system will include an automatic dialer for notification to an alarm monitoring service company,

The system will include interior sirens and strobes and beacon/strobes installed on the building exterior walls at locations affording line of sight from the street.

Access Control System

All doors shall be locked during school hours. Building entry will be limited to designated doors. Student entry at arrival time will be via the entrances close to bus and parent drop-off locations. General school visitor entry will be limited to one door at the main entry.

An addressable IP-based door audio/video call station will be installed at the exterior visitor entry door. Master stations for remote door release after visitors are challenged will be located at the main office reception counter. Master stations will also be installed in designated offices, such as the school resource officer's desk, secretary areas, and the principal's office, to provide the ability to release the visitor door after school hours remotely.

Customers entering the cosmetology shop, restaurant, or bank shall be limited to the customer entry door. Door release shall be controlled by Master stations located in each area. Interior doors in the restaurant and cosmetology that allow entry to the school building corridors will have card readers on both sides, limiting visitors to specific areas. School personnel with proper credentials will be able to pass into and out of the areas.

An addressable IP-based door audio/video call station will be installed at the preschool exterior entry door and the interior entrance to the preschool area. The preschool instructors shall control public access to the daycare program.

The main administrative office shall control the gates (if provided) for public access to deliver and pick up vehicles at the automotive shops.

Proximity/Card Readers will be installed at designated doors, including the main entry, custodial entry doors, and staff entry doors, including the vocational shop exterior personnel doors.

Proximity/Card Readers will be installed at sally port vestibule interior doors allowing authorized staff card holders to pass directly through into the school.



Proximity / Card readers will be located at doors used for re-entry from the playing fields.

The Access Control system will notify administrators if any door is propped open.

Proximity / Card readers will also be located at technology closet doors for tracking access to sensitive technology and electronic security equipment.

An IP-based door phone intercom (hands-free speakerphone) will be installed at the Culinary and general receiving doors. Delivery persons will press the “call” button, and the system will call the first phone programmed. The call will roll over to other phones in the order programmed if there is no answer. According to best practices, school personnel will not be able to release the receiving door lock/latch remotely but will be required to verify the delivery before manually opening the door physically

The school’s existing Visitor Management system will be installed at the transaction window counter in the main office reception area. Visitors will be issued photo ID passes which will automatically expire after four to six hours. The visitor management system will provide the ability to scan a visitor’s photo ID, check the visitor’s identity against national registries, and print a pass with a photo. The system will allow visitors to check out electronically, automatically updating the Visitor Management system’s database.

CCTV Video Surveillance System

Multi-sensor 360-degree High-Resolution IP Video Surveillance cameras will be installed on various site lighting poles to provide coverage of parking lots, vehicle approaches, driveway entrances and exits, walkways, and playing fields. License Plate Recognition (LPR) CCTV cameras will be installed at driveway entrances.

High-Resolution IP Video Surveillance cameras will be located on the building’s exterior and interior. Cameras will be placed at strategic exterior wall locations to monitor all entry/exit doors, bus drop-off, and loading areas. Cameras will provide coverage of all corridors and potential problem areas, such as the gymnasium, cafeteria, stairwells, and gang toilet entrances.

Live feed from all CCTV cameras will be viewable at large screen monitors installed in designated offices and at authorized computer stations. Live feed from all CCTV cameras will also be viewable by the police department.

Recorded images shall be assessable via the system console and from authorized computer stations.

The system’s Network Video Recorder shall provide a minimum of thirty days of image retention.

Vape Detection System

The current school building has an existing IP-based Power over Ethernet Vape detection system. Vape detectors are installed in vocational shop locker rooms, toilets, and gang toilets. The existing detection devices will be relocated to the new building, and additional detectors shall be installed to provide coverage in all locker rooms and gang toilets, including those in the new Locker building.



Gunshot Detection System

The new school building will have an IP-based Power over Ethernet Gunshot Detection system. Gunshot sensors will also be installed in the new locker building.

Duress Alert System

The school will have a Duress Alert system to comply with Alyssa's Law regulation. The Duress Alert system will provide notification to the school population of a duress situation via overhead PA announcements and emergency all-call video messaging to all classrooms and digital signage monitors. Pulsing prism beacons will be installed in vocational shops and common-use areas. The system will interface with the electronic security systems, including the Access Control, Fire Alarm, and the school's handheld radio systems. The system will send an alert to the first responder command center in less than half a second. During an alert, the system will provide two-way communication between first responders and the school.

Additional Security-Related Items

Exterior Building Identifiers

First Responders requested the ability to identify physical building information from the exterior of the building. The following identifiers will be installed.

- Each wing shall have large Identifiers on the exterior, such as A, B, C, D, etc.
- All doors, including exit-only doors, will have identifying number decals on their exterior and interior sides.
- All classrooms and vocational shops will have identifying room number decals installed on windows.

Knox Boxes

- The building design includes Knox Boxes for door keys and high-priority proximity cards/fobs for first responder agencies.

Building Zoning

- The addressable Intrusion Detection system shall provide building zoning so that specific areas can be unarmed while others are armed, allowing the school to have public events during off-school hours.
- The building design includes security doors to separate building areas for flexible after-hours use. The security doors would normally be held open by magnetic hold-open devices. Individual security doors can be closed and locked electronically to isolate specific sections of the building.
- In case of an active shooter or duress situation, all security doors can be closed and locked automatically.



Classroom Security

- All classroom doors will have locks with intruder-prevention features. The door locks will be keyed on the outside and the inside. The doors can be locked from the outside with a key to lock the outside trim. The inside keyway will also lock the outside trim from the inside allowing the doors to be secured without someone having to go outside the safety of the classroom. The doors will always allow for free egress out.
- Classroom doors will have laminated glass sidelights for visibility from corridors yet allow students and staff to shelter in a corner and not be visible from the corridors.
- The sidelights will have pull shades inside to block all visibility into the classroom from the corridor.
- The sidelight frame will be divided into three sections by two horizontal bars, making it difficult for an intruder to enter a classroom through a sidelight if the laminated glass is broken out.

Vocational Shop Security

- Overhead doors in on-grade vocational shops will be equipped with security grates/gates, allowing overhead doors to remain open for airflow but preventing an intruder from entering.
- Door chimes will be installed on the heavy vocational shop corridor doors to notify instructors when someone enters the shop during class.

6C.3.1 – 14b

FIRE DEPART. MEETING NOTES

SECURITY & VISUAL
ACCESS REQUIREMENTS

MEMO

To: Vladimir Lyubetsky/ DRA Architects

From: Richard Rivera/Zachary Barrett

Date: 05/12/2023

RE: Northeast Metropolitan Regional Technical High School
Fire Department Meeting Notes

Project #: 60-20-409

As requested, this office has met with the Wakefield Fire Prevention Department to review the design for the building fire protection and fire alarm systems for the proposed high school.

The attached meeting notes are a representation of the items discussed during this meeting. It was also noted that future meeting(s) will be planned as the systems design gets developed further.

cc: SPS; RDR; ZMB; DDB; GC - Bala

MEETING MINUTES

PROJECT: Northeast Metro Tech High School PROJECT NO.: 60-20-409

MEETING NO.: 03 MEETING DATE: April 21, 2023

LOCATION: Teams

ATTENDEES:

Deputy Chief Tom Purcell	-	Wakefield Fire Department
Paige Blanchard	-	Nitsch Engineering
Vladimir Lyubetsky	-	DRA Architects
Sarah Carda	-	DRA Architects
David Warner	-	Warner Larson
Zachary Barrett	-	Bala Consulting Engineers
Richard Rivera	-	Bala Consulting Engineers
Gilbert Castera	-	Bala Consulting Engineers

DISTRIBUTION:

All Attendees		
David Conway	-	Nitsch Engineering
Sean Sullivan	-	Bala Consulting Engineers
Dino D. Buro	-	Bala Consulting Engineers
Chief Michael Sullivan	-	Wakefield Fire Department

PURPOSE: Review of Proposed FP and FA Systems and Code Analysis

DATE ISSUED: April 28, 2023

The purpose of today's meeting was to coordinate Construction Document design items regarding Site/Civil, Fire Protection, and Fire Alarm with the Wakefield FD. Fire Protection and Fire Alarm minutes of the meeting are as follows:

New Business:

1. Confirmed location of exterior fire department connection with Wakefield FD and Nitsch. Fire hydrant located within 100 feet of fire department connection location.
2. Wakefield FD confirmed that fire department connection type shall be a 4" Storz connection with cap and chain.
3. Wakefield FD provided Bala with their official list of system requirements. Bala to comply with this list for the project Construction Documents. Any objection or question to any items on the list shall be raised with Wakefield FD.
4. Wakefield FD deferred to the Wakefield building department regarding omitting sprinklers in the main electric room. Bala to schedule a meeting with the building department prior to issuance of the Construction Documents.
5. Wakefield FD noted that each fire hose valve connection shall have iron pipe threads.
6. Wakefield FD confirmed the fire alarm design intent of remote buildings (maintenance building,

concession building) to be equipped with radio boxes so that required signals are wirelessly transmitted offsite.

We believe these minutes accurately represent what transpired at the meeting. If you take exception to any items, have any concern, or would like to add to the record, notify the writer within ten (10) calendar days of the date of these minutes. If no changes are requested, these minutes will then stand as the final record of this meeting.

Respectfully submitted,

BALA CONSULTING ENGINEERS, INC.



Richard Rivera
Plumbing & Fire Protection Engineer