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A roughly 6,500 SF 2-story addition to the existing elementary school to add a Child Development Center (CDC) which includes Office, Break Room, Infant Classroom and Toddler Classroom, as well as two Pre-K Classrooms on the upper level.

28. Is the Project Report Included?  YES  NO  Please Explain:  

Submissions to NCPC also require a Project Report. The details of the Project Report requirements are available in the Submission Guidelines. In general, the Project Report includes a more detailed project description and an explanation of how the project complies with NCPC’s plans and policies that guide the development of the National Capital Region.
Project Description
EXECUTIVE SUMMARY - PROJECT NARRATIVE

Project: Amidon-Bowen Child Development Center  
2022_0402  
401 I St, SW, Washington, DC 20024

Date: September 1, 2022  
Re: Design Narrative - General

Amidon-Bowen CDC – Concept Design Narrative

The urban 118,200SF Amidon Bowen (AB) ES site supports a 2-story 70,000 SF existing elementary school building. The eastern façade faces 4th Street, SW, the southern façade faces I street, SW. Amidon Field (DPR) bounds the northern face and western face abuts an open lot and a residential development at the NW. Parking and service access the site from 4th Street. The original 1959 building has received a major addition in 1972 and several more recent modernizations.

Multiple schemes were examined including single story schemes that separated program areas and located them around existing classroom nodes. The overwhelming agency and stakeholder goals of leaving the play areas intact influenced the creation of a two-story scheme. Balancing the existing façade with a complementary mass at the west was also a stated DC HPO and CFA preference.

The enclosed scheme, approximately 6,500SF on two floors is to install a Child Development Center as separate program area as part of the AB ES. Direction from DCPS and DGS indicates the desire to retain the recently refurbished existing playground areas and equipment intact if at all possible. Previous meetings with NCPC, CFA and the DC HPO have indicated a preference for a western addition location that balances the I Street major façade. It is assumed that the main entry remains the main public access while the CDC has its own controlled secondary entrance with access directly from I Street.

Typical CDC programs require direct connection to outdoor play areas. The scheme proposes immediate adjacency to existing and new outdoor play areas. As proposed, the two-story scheme should not require a SWM system due to the small footprint proposed. No significant environmental issues will be triggered due to the small footprint on a previously disturbed site. As indicated below, DGS and DCPS have received SWM waivers for similar small footprint projects that precede full school modernization. (A full school modernization is planned within the next four years.) The proposed scheme does not require the relocation of any existing play areas.

Flooding: The site is not in a listed flood plain.

The two story scheme with its mass located at the west offers a façade of compatible height but smaller in length to the existing eastern multi-purpose room front façade. Both levels have a corridor located at the rear (north) which will allow a future addition to easily be established adjacent to north face.

The proposed scheme generally complies with the comments and observations expressed in the joint NCPC/CFA/HPO preliminary concept design review meeting. The elevation proposed features complementary massing, materials, and similar fenestration as the existing I Street façade.

Estimated cost for the project is $5,000,00.00

<table>
<thead>
<tr>
<th>Amidon-Bowen CDC Program Area List:</th>
<th>Qty</th>
<th>Size</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-CDC-1 Infant Room</td>
<td>1</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>E-CDC-1 Toddler Classroom</td>
<td>1</td>
<td>1125</td>
<td>1125</td>
</tr>
<tr>
<td>E-ACA-1A Pre-K Classroom</td>
<td>2</td>
<td>1025</td>
<td>2050</td>
</tr>
<tr>
<td>E-ACA-1B Pre-K Storage</td>
<td>2</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>E-CDC-3 Infant/Toddler/Pre-K Restroom</td>
<td>4</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>E-CDC-4 Food Prep/Workroom</td>
<td>1</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>E-CDC-5 Welcome Center (375-400 SF)</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>E-CDC-6 Director’s Office</td>
<td>1</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>E-CDC-7 Laundry Room</td>
<td>1</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Total Subtotal</td>
<td>12</td>
<td>5155</td>
<td></td>
</tr>
<tr>
<td>RFP Gross-up (Original: ~65%):</td>
<td>3345</td>
<td></td>
<td>8500</td>
</tr>
<tr>
<td>---- Staff Restroom</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>---- Toddler Storage</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Proposed RFP Total:</td>
<td>14</td>
<td>5255</td>
<td></td>
</tr>
</tbody>
</table>

Two-Story, Single Location Scheme Pros and Cons

Pros:
- Reduced impact on existing, newly installed, play equipment
- Reduced likelihood of further archaeology studies being required
- LOD below 5,000 SF with the intent of avoiding SWM requirements
- CDC has dedicated entrance directly from the sidewalk and street
- Pre-K program can utilize existing main entrance
- Places the new Pre-K rooms near other existing Pre-K rooms
- Structural and MEP systems consolidated and stacked for efficiency
- Two-story expression of the south façade balances better with SE corner
- Existing stair tower is in central location for access to the new addition
- Two large, existing special/heritage trees in the courtyard would be left intact
- CDC and Pre-K programs, students, and staff maintain separation
- A green roof could be implemented and tie into existing storm lines
- 2-Story lesser footprint may allow lower overall complexity, cost, and reduce construction time.
- Less space is needed for construction material lay-down
- Location allows low impact on the school activities during school hours.
- Access for construction can be consolidated to the SW corner.
Executive Summary

AMIDON-BOWEN CHILD DEVELOPMENT CENTER - Concept Design Submission

Agency Meetings
The Project team held a joint DC-HPO/NCPC/CFA meeting on June 13, 2022, to discuss project goals and parameters. The minutes of the meeting are included herein. Various actions taken by the team have eliminated the need for several agency meetings. A SWM waiver will be sought for the scheme as it is scheduled to be less than 5,000SF in disturbed area. The AE team sees no building code issues warranting a PDRM with DCRA. There are no projected Public Space actions or permits required for the design phase of the work. A Traffic Control Plan and/or PS Permit for construction staging activity may be required by the GC during the construction phase.

Utility Meetings: The project design currently does not require an electrical or water service heavy-up. Existing gas and water lines will be used in the new addition. A site survey has determined that a new sewer tap may also be avoided after a final scheme location and configuration is selected and more detailed field analysis by the Project Team can be performed.

Zoning Analysis and Building Code Analysis
See enclosed full Zoning and Building Code Analysis attached herein. It has been determined that the project is matter-of-right. No zoning relief will be required. The additional building footprint does not trigger additional bicycle spaces and the existing parking lot, although not currently parked to code, has adequate spaces for the 2 additional spaces required by the project. The project does not exceed the maximum Lot occupancy (40%). Projected Lot occupancy with the addition is 39.5%. GAR Status: DGS/DCPS are proceeding with a waiver to GAR requirements for the project.

Geotechnical Report (Additional Pre-Construction Services)
A Geotechnical Report, including soil borings are scheduled for the beginning of September in preparation for the Schematic Design Phase.

LEED/Sustainable Design
The project will be designed to meet DC Green Building Codes. LEED Certification will not be applied for.

Public Space Issues
The plan and proposed project site design will allow public access to the playground during and after construction is completed.

Consultants Narratives: See Landscape Architecture, MEP, Civil Engineering, Traffic and Structural Analysis Concept Design Narratives attached.

R.McGhee & Associates

Cons:
- Pre-K program placed on second level separate from play areas
- Existing elevator is located at opposite end of the building creating access problems for smaller children
- Will need second means of egress from 2nd floor due to occupancy level

Historic Resources
Our Team also recognizes the historic symbolism of the Amidon-Bowen School with Anthony Bowen as an innovative pioneer in African American educational pedagogy. Initial archeological analysis has been targeted for the Schematic Design Phase after a final site is established for the proposed addition. The DC HPO has determined that the existing building is not a contributing or landmarked historic structure. The Amidon-School is significant in DC history due to the Amidon teaching pedagogy that was practiced there as an early successful teaching methodology for African American students.

Archaeology
Under contract to EHT Traceries, Inc. (Traceries), Stantec Consulting Services Inc. (Stantec) will conduct a Phase IA (preliminary) archaeological assessment for the Amidon-Bowen ES site located at 401 I Street, SW in southeast Washington, D.C. if required by HPO.

The archaeological investigations will be conducted in accordance with the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation (Federal Register 1983) and the District of Columbia’s Guidelines for Archaeological Investigations in the District of Columbia (District of Columbia Office of Planning, Historic Preservation Office, and District of Columbia Historic Preservation Review Board 2018).

The Phase IA archaeological assessment consisted of review of background data and historical research, elevation change analysis, geoaarchaeological soil core extraction and analysis, targeted shovel test pit (STP) excavations, and preparation of this management summary document for submittal to Traceries and the District of Columbia Historic Preservation Office (DC HPO) for review and comment. A technical report of the archaeological assessment will be submitted following DC HPO consultation.

HAZMAT Analysis
A partial HAZMAT analysis of the existing western façade localized at the areas where the proposed addition will impact will be undertaken and completed in the next 30 days. The Project Team has delayed commissioning this effort until the locations for the proposed addition where identified.

DCPS CDC ED Spec Program Analysis
The enclosed scheme utilizes a reduced program approach to reduce the total overall size and footprint of the design. The scheme features minor reductions in the sizes of all key educational spaces: Pre-K, Toddle, and Infant rooms. Deeper reductions are shown in circulation, education support and ancillary spaces. The scheme uses the hallway spaces as the location for a security and welcome center desk. This configuration is based on site visits to operational CDCs in the DCPS system.
SCHEMATIC DESIGN LANDSCAPE NARRATIVES

IDescription of Design Option-
The design option leaves all play areas intact. A section path between the 5-12 yr play area is narrowed due to the building footprint encroachment.

6 month – 2 yr old play area can be placed next to the new addition to the west of the building depending on how the SWM facility works.

SCHEMATIC DESIGN STRUCTURAL NARRATIVE

A. Project Description
The project adds a childhood development center to the existing Amidon-Bowen Elementary school. The addition consists of classrooms for infants to pre-K as well as administrative space. Additions will be stand-alone space with no impact or tie to the existing elementary school. Three options for the configuration of the space are discussed below.

B. Structural Concept Design Objectives
The effort during this phase of the design concentrated on evaluating different structural systems and selecting the most appropriate and cost effective one for use in the building. The evaluation of the various structural systems was based on the following considerations:
- Support the live, superimposed, and lateral loads as required by the code and the Owner for the particular use of the building.
- Coordination with the exterior finish and interior space layout as they were developed by the architectural team, that best serves the building functions.
- Compatibility with deflection and vibration limits as defined and appropriate with the proposed building use and architectural cladding and finishes.
- Adaptability of the structural systems to the architectural and mechanical requirements in the different parts of the building.
- Flexibility of the structural framing systems to future modifications in use.
- Impact on construction cost and schedule.

C. Structural Design Criteria

C.1. Applicable Codes
1.a. District of Columbia Construction Codes Supplement 2017 (IBC 2015)
1.d. ACI 318-14 “Building Code Requirements for Structural Concrete”
1.e. AISC 14th Edition "Steel Construction Manual"
1.f. AWS D1.1-2015 “Structural Welding Code – Steel”
1.g. ASTM (Current Edition per Section)
1.h. UL (Current Edition per Assembly)

C.2. Materials
2.a. Reinforced Concrete Design
Concrete Category (Normal Weight) 28 Day Strength
SOG and Footings  f'c=  4000 psi
Column Encasements  f'c=  5000 psi

2.b. Concrete over Composite Metal Deck
Normal Weight  f'c=  4000 psi

2.c. Reinforcing Steel
ASTM A615 Grade 60 Weldable ASTM A706 Grade 60

2.d. Structural Steel
W Shape Sections ASTM A992 Grade 50
Structural Tubes ASTM A500 Grade C
All other Sections ASTM A36
C.3. Design Loads

3.a. Building Classification for Importance Factors
   Risk Category II

3.b. Live Loads
   Slab on Grade 100 psf
   Classrooms and Circulation Space 100 psf
   Roof Load 20 psf
   Non-occupiable Green Roof 20 psf
   Roof top Equipment Actual Equipment Weight

3.c. Superimposed Dead Loads
   Floor Finishes & Ceilings 4 psf
   Typical MEP under floors & roofs 6 psf
   Ceilings above mechanical rooms 30 psf
   Roofing 10 psf
   Green Roof (if required) 40 psf (to be verified)

3.d. Snow Load
   Ground snow load \( p_g = 25 \) PSF
   Snow exposure factor \( C_e = 1.0 \) (Partially Exposed Roof)
   Snow thermal factor \( C_t = 1.0 \)
   Snow importance factor \( I = 1.0 \)
   Flat roof snow min. \( P_f = 17.5 \) PSF

Design Criterion: maximum of
1) 30 psf uniform snow
2) calculated flat roof snow plus drift effects

3.e. Lateral Loads

Wind Loads per ASCE 7-10
   Basic Wind Speed (3 sec gust) 115 mph
   Nominal Wind Speed (for drift) 90 mph (50 year MRI)
   Exposure Category B
   Enclosure Classification Enclosed
   Minimum Wind Pressure 30 psf per DC Code

Seismic Loads per ASCE 7-10
   Earthq. Response Spectral Accel. \( SS = 0.118 \) g; \( SD = 0.051 \) g
   Seismic Importance Factor \( I = 1.0 \)
   Site Class D
   Design Spectral Response Accel. \( SDS = 0.126 \) g; \( SDI = 0.081 \) g
   Seismic Design Category B
   Allowable Story Drift 0.020 hSX
   Basic Structural Lateral System Steel CBF or OMF Not Detailed for Seismic
   Response Characteristics \( R = 3.0 \)

3.f. Earth Pressure Loads
   Earth pressure loading will be determined by the Geotechnical Investigative Report currently under execution.
primarily W18 and W21 sections. The second floor slab will be 6 ½" total depth, with 4 ½" of normal weight reinforced concrete over a 2" deck to provide a 2 hour fire rating between floors. The roof of the structure will be relatively standard 1 ½" steel deck spanning between structural steel beams.

E.2. Proposed Foundation Systems
Foundations will be more defined once the Geotechnical Investigation Report is complete, however, based on the existing school we believe that spread footings will be suitable to support the new addition. Alternative systems will only be considered if they become necessary due to unsuitable soils discovered in the GIR. The use of a spread footing system reinforces the system selection of steel frame over concrete frame, as the lighter self-weight of the structural system will result in smaller foundations.

E.3. Proposed Lateral Force Resisting Systems
Given that framed systems are virtually required due to the window configuration and that we believe a steel frame will be the most economical gravity alternative, the lateral system will need to be either be a braced frame or a moment frame. Based on the architectural layout, there will not be sufficient space to locate braces in concealed locations, so the project will proceed with a moment frame design. The beams along column lines will be provided with moment connections to the columns, and these connections will serve to resist lateral loads. As with the gravity system, the steel moment frame will be designed with sufficient strength to resist both gravity and lateral loads.
General:
Amidon Bowen Elementary School is a two-story public-school building in Washington DC. A new Child Development Center (CDC) for infants and toddlers ages 0 to 3 will be added to the school. The CDC will include (2) infant-toddler classrooms, a welcome center, and a food preparation area. In addition, this project will include (2) Pre-K classrooms. Three options will be considered for this addition. Each option will be a two-story addition ranging from 6030 SF to 6424 SF.

1. Heating, Ventilating and Air Conditioning

1.1. General:
All mechanical work shall be coordinated with the requirements of all other divisions including Architectural, Structural, Plumbing and Electrical.

1.2. Codes and Standards
The design of the heating, ventilating, and air conditioning system will be in conformance with the design guidelines of the following and other applicable standards and codes:

A. 2017 DC Construction Codes
B. 2015 International Building Code
C. 2015 International Mechanical Code
E. ANSI/ASHRAE Standard 90.1-2013
F. ANSI/ASHRAE Standard 62.1-2013
H. ASHRAE Standard 34, Number Designation and Safety Classification of Refrigerants
I. National Fire Protection Agency (NFPA)

1.3. Design Criteria
A. Outdoor Air

<table>
<thead>
<tr>
<th>Season</th>
<th>Dry Bulb Deg F</th>
<th>Wet Bulb Deg F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>95</td>
<td>78</td>
</tr>
<tr>
<td>Winter</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

B. Indoor design conditions

<table>
<thead>
<tr>
<th>Area</th>
<th>Summer Dry Bulb Deg. F</th>
<th>Summer Relative Humidity Percent</th>
<th>Winter Dry Bulb Deg. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Areas</td>
<td>75 ± 2</td>
<td>55 ± 5</td>
<td>70</td>
</tr>
<tr>
<td>Storage rooms</td>
<td>90</td>
<td>-</td>
<td>60</td>
</tr>
<tr>
<td>Mechanical/Electrical rooms</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.4. CLIMATE ZONE

The climate zone is determined per 2015 International Energy Conservation Code climate zones, as climate zone 4A. The climate zone 4A is identified as Mixed-Humid with the following thermal criteria:

<table>
<thead>
<tr>
<th>Zone Number</th>
<th>Name</th>
<th>Cooling Degree Days</th>
<th>Heating Degree Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>4A</td>
<td>Warm-Humid</td>
<td>CDD50 °F ≤ 4500</td>
<td>HDD65 °F ≤ 5400</td>
</tr>
</tbody>
</table>

1.5. BUILDING ENVELOPE

The buildings envelop requirements for climate zone 4A under 2015 IECC will be defined by tables C402.4 and C402.1.3.
1.6. Proposed HVAC System

Option A, Variable Air Volume (VAV) system:

The addition will be conditioned with a VAV Roof Top Unit air-conditioning unit with 100% economizer cycle.
The roof top unit will be a self-contained variable air volume roof top heat pump unit. The roof top heat pump unit shall consist of return air fan, heat recovery coil, mixing box section, MERV 8 and MERV 11 filter racks, access section, dual circuit direct expansion cooling coil with frost control, supply air fan with variable frequency drive and heat pump unit. The roof top unit heat pump unit shall have dual circuit refrigeration circuits with multiple scroll compressors for capacity modulation. The roof top unit shall be ducted with medium pressure ductwork capable of holding plus 4 inches positive pressure to fan powered VAV terminals with electric resistance heating coil for each classroom and spaces with separate thermal zone. The fan powered VAV terminals will be ducted by low pressure ductwork rated for holding plus 2 inches of static pressure to ceiling diffusers. Return air ductwork will connect the return air plenum ceiling spaces of the first and second floors to the air handling unit return air connection with low pressure ductwork rated for holding negative two inches of static pressure.

Air Filtration effectiveness can be increased by replacing MERV 11 in VAV roof top units to MERV 13 to filter out 50% of particles in the range of 0.30 to 1.0 micron. Other options would be to modify unit and install UV filters.

Approximate loads for Addition:
VAV roof top with heat recovery, 20 tons.

Ductwork shall be galvanized G-90 sheet metal per SMACNA.

Option A, Multi-Split Heat Pump Units with Dedicated Outside Air System:

Multi-split type heat pump units will be sized to condition each floor. Each space with heating and cooling requirements will be provided with a fan coil unit with a dedicated thermostat. Fan coil units will be piped to roof-mounted multi-split heat pump units on the roof. The fan coil units will be horizontal ceiling-mounted units and will be ducted to ceiling diffusers. MERV 13 filters will be provided in each fan coil unit.

Outside air for the Addition will be provided by a variable air volume 100% outside air roof top units with integral air-cooled condensing unit. The 100% outside air volume roof top unit shall consist of MERV 8 and MERV 13 filter racks, relief air fan, heat recovery heat exchanger, electric resistant heating, access section, dual circuit direct expansion cooling coil, hot gas reheat coil, supply air fan with variable frequency drive and condensing unit. The condensing unit section shall have dual circuit refrigeration circuits with multiple variable capacity scroll compressors for capacity modulation. The 100% outside air roof top unit will be mounted on a roof curb and will be ducted with medium pressure to variable air volume terminals in each space with outside air requirements. The 100% outside air roof top unit shall be ducted with medium pressure ductwork to control air valves for each space with outside air requirements. Carbon dioxide (CO2) sensors
in each classroom and other densely populated spaces will modulate the VAV terminals control air valves to maintain CO2 levels to meet the minimum ventilation requirements. Return air ductwork will extend return air plenum spaces to the roof top unit via low pressure ductwork rated for holding negative two inches of static pressure. The relief air fan will be provided with a variable frequency drive to track the supply air fan to maintain space pressurization. Heat recovery heat exchangers extract energy from return air to increase building performance to reduce energy budget costs.

Ductwork shall be galvanized G-90 sheet metal per SMACNA.

Condensate drain piping shall be type M copper with soldered joints.

1.7. VENTILATION:
Ventilation air will be determined based on space type/application, occupancy type, and floor area per 2015 International Mechanical Code. All bathrooms, food prep area, and dryers will be exhausted to outside.

1.8. AUTOMATIC TEMPERATURE CONTROL SYSTEM:
A direct digital control system will be specified and is recommended to control the equipment. The microprocessor-based direct digital control system will include the required software to meet 2015 IMC and ASHRAE 90.1-2013 requirements. Packaged units will be specified with factory mounted ASHRAE BacNet compatible DDC controllers to communicate with the building DDC system.

1.9. System Testing and Balancing:
System testing and balancing will be performed by an independent contractor approved by the engineer of record.

1.10. System Commissioning:
Building HVAC control systems will be commissioned to ensure the control elements are installed, calibrated and perform according the project requirements per ASHRAE 90.1-2013.

2. Plumbing
The existing 4-inch incoming domestic water line is sufficient to supply cold water for this addition. A 2-inch domestic cold-water line will be extended from the existing 4-inch incoming domestic water line to the new addition.

A new sanitary, vent, and storm systems will be for the new addition. Plumbing work shall be coordinated with the requirements of all other divisions including Architectural, Structural, Mechanical and Electrical.

2.1. Codes and Standards:
The design of the plumbing system will be in conformance with the design guidelines of the following and other applicable standards and codes:
A. 2017 DC Construction Code
B. 2015 International Building Code
C. 2015 International Plumbing Code
E. ANSI/ASHRAE Standard 90.1-2013

F. National Fire Protection Agency (NFPA)

2.2. Plumbing Systems: New plumbing system will be provided per the following:
A. Water Service: Existing domestic water in the mechanical room is a 4-inch line and is sufficient to supply domestic water to the addition. A 2-inch domestic cold-water line will be extended from the mechanical room to the new fixtures in the addition.
B. Water Distribution: Domestic water piping will be sized to limit velocities to 8 feet per second, and to limit friction loss to 5 psi per 100 feet of run. Shutoff valves will be installed at the base of each water supply riser, in branch piping to isolate each group of fixtures, and to individually isolate each hose bibb, hose reel, wall hydrant and major piece of equipment. Service stops will be installed at each plumbing fixture. Water hammer arresters will be installed in the branch piping supplying flush valve fixtures, dishwashers, and hose connections. Backflow preventers for cross connection control will be installed where required by the IPC.

C. Domestic Hot Water: A tank type electric water heater will be sized to supply hot water to the fixtures in the addition.
D. Water closets: Generally, floor mounted, vitreous china water closets with flush valve, elongated bowls, open front seats with covers will be installed in the public bathrooms. Floor outlet, vitreous china water closets with elongated bowls, exposed, manually operated flush valves, and open front seats without covers will be installed in common toilet areas. water closets seats in the classrooms will be approximately 12” above floor level.
E. Lavatories: Wall hung, vitreous china lavatories on concealed arm carriers, fitted with center outlet, vitreous china water closets with elongated bowls, exposed, manually operated flush valves, and open front seats without covers will be installed in common toilet areas. Lavatories in the classrooms will be mounted with the front rim approximately 24” above the floor level.
F. Floor Drains: Sanitary Floor drains will be installed in public bathrooms. Floor drains will be installed by equipment requiring a floor drain. Automatic trap primers will be installed for floor drains that are located in areas where the floor will not be washed down regularly.
G. Sanitary Drainage and Vent System: Plumbing fixtures and fixed grid drains will be installed in common toilet areas. Lavatories in the classrooms will be mounted with the front rim approximately 12” above floor level.

H. Storm Drainage System: Roof drains and overflow drains will be extended to outside at locations determined by civil drawings. It is anticipated a 6-inch storm drain will be needed for the addition.

AMIDON-BOWEN CHILD DEVELOPMENT CENTER - Concept Design Submission
3. Electrical

3.1 Codes and Standards
The design of the electrical system will be in conformance with the design guidelines of the following and other applicable standards and codes:

A. 2017 DC Building Code
B. 2015 International Building Code
C. 2014 National Electrical code
E. ANSI/ASHRAE Standard 90.1-2013
F. National Fire Alarm code NFPA 72 - 2013
G. National Electrical Safety Code, ANSI C2
H. National Electrical Manufacturer’s Association (NEMA)
I. Illumination Engineers Society (IES)
J. Telecommunications Distribution Methods Manual (TDMM)- “BICSI”
K. Telecommunications Standards EIA/TIA
L. Underwriter’s Laboratories (UL)
M. All electrical work shall be coordinated with the requirements of all other divisions including Architectural, Structural, Plumbing and Electrical.

3.2 Electrical Power Distribution
The new addition is estimated to require a 600 Amps, 208Y/120 V, 3 Phase, 4 wire system. This estimate is based on the square feet of the addition and will be updated as the plans are developed. This service will be connected to the recently installed switchboard SWBD rated at 3,000A, 208Y/120V, 3Phase, with a 3,000A main breaker in the Main Electrical Room of the school. A new 600A molded case breaker will be installed in available space of the existing switchboard. Two sets of feeders in two conduits will be extended to the new addition. An 800-amp panelboard with 600-amp main breaker and multiple branch circuit breakers for lighting fixtures, receptacle loads, HVAC heating/cooling loads, and domestic hot water loads.

3.3 Emergency Power Distribution
Emergency power circuits will be extended from the emergency panel in the main electrical room.

3.4 Lighting System
Lighting fixtures will be selected and specified by the architect to create the best work space environment and energy efficiency. Lighting loads density must meet energy COMCHECK calculation. General lighting design levels for various spaces will be in accordance with the IESNA guidelines.

Dimming systems shall be incorporated to improve energy performance with the use of day lighting sensors.

Lighting foot candle calculations will be performed for typical classrooms, and other special use areas to assure lighting levels are within the recommended levels of IESNA.

3.5 Wiring And Device
Receptacle will be provided with duplex 20A, 120V, NEMA 5-20R for general purposes, computers, and miscellaneous equipment. Special receptacle will be provided per specific equipment based on the manufacturer’s requirement.

3.6 Feeder and Cabling
The heavy-duty service feeders will be rated for 600 volts and consist of types THHN/THWN insulation, utilizing copper conductors. Cabling larger than American Wire Gauge (AWG) size #10 shall be stranded type and #10 and smaller will be solid conductor type.

All conductors will be installed in minimum 3/4” EMT conduit. A minimum 4’-0” flexible liquid tight conduit shall be used for connection to electric motors or any vibration equipment.

3.7 Grounding
All feeders and branch wirings will be installed with ground conductor in the same conduit.

3.8 Telecom System
Telecom system will be designed by others. Data/voice outlets will be provided throughout offices, classrooms etc. 4x4 steel gang box with 3/4” EMT conduit up to 6’ above accessible ceiling.

3.9 Fire Alarm System
Existing fire alarm system will be extended to connect to fire alarm devices in the addition. Smoke detectors, audio, and visual devices, combination audio/visual devices and pull station will be provided as required. The main fire alarm control panel and fire alarm annunciator will be modified to include the addition.

Lighting will be controlled via dual technology occupancy sensors to reduce energy consumption.

In areas where day lighting may supplement space lighting needs, interior photo sensors shall be provided to switch off lighting when foot-candle levels within a space are adequate.

All exterior security flood lighting fixtures will be provided with LED fixtures and high output for better illuminations. They will connect to photocell and astronomical time clock and contactors.

Lighting Controls:
Classroom will be provided with two switches near the door. One switch will control a row of fixtures above wall mounted blackboard and another switch will control the rest of the fixtures in the classroom. Ceiling-mounted occupancy sensor and a daylight sensor will be provided to automatically turn off light when the room is unoccupied and dimmed fixtures when daylight through windows.

Corridor will be provided with ceiling mounted occupancy sensor and no light switch at the wall.

Emergency and Egress Light:
Emergency light fixtures will be provided with average 1.0 Ft-Candle minimum throughout the building. Also, the exit signs will be provided throughout the building where egress paths and egress doors lead to outside of building.

In areas where day lighting may supplement space lighting needs, interior photo sensors shall be provided to switch off lighting when foot-candle levels within a space are adequate.

All exterior security flood lighting fixtures will be provided with LED fixtures and high output for better illuminations. They will connect to photocell and astronomical time clock and contactors.

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Corridor will be provided with ceiling mounted occupancy sensor and no light switch at the wall.

Emergency and Egress Light:
Emergency light fixtures will be provided with average 1.0 Ft-Candle minimum throughout the building. Also, the exit signs will be provided throughout the building where egress paths and egress doors lead to outside of building.
3.10 Special systems
Security system and other special systems will be designed and specified by others. Empty raceway system and pull wires will be provided as required per security consultants. Power will be provided as requested.

3.11 System Commissioning
Building energy systems will be commissioned to verify energy-related system are installed, calibrated and perform according the project requirements.

SCHEMATIC DESIGN CIVIL NARRATIVES

Existing Condition Introduction:
The project site is located at 401 I St., SW, Washington DC between 4th St., SW and 6th St., SW which is within the Anacostia Waterfront Development Zone (AWDZ). If an Option has disturbance area greater or equal to 5000 square feet and considered as major land-disturbing activity. Therefore 90th percentile precipitation event (1.2”) will be considered as requirement in stormwater retention volume computation and additional 0.5” precipitation will be required as water quality treatment volume.

Utility:
Existing water and sewer utility are a 4” water and 6” sanitary sewer from 4th St. SW. Exiting utility will keep functioning to supply the existing building. No additional water services will be proposed for this project. The addition proposed in the west of the site area requires domestic water service extended from the existing building. No fire protection water service proposed. A new 4” sanitary sewer will be proposed for the new building and connect to existing sanitary sewer manhole on I St. SW.
Stormwater Management Narrative

Existing Condition Introduction:

The project site is located at 401 I St., SW, Washington DC between 4th St., SW and 6th St., SW which is within the Anacostia Waterfront Development Zone (AWDZ). One of 3 Options (OPT-2b) has disturbance area greater or equal to 5000 square feet and considered as major land-disturbing activity. Therefore 90th percentile precipitation event (1.2") will be considered as requirement in stormwater retention volume computation and additional 0.5" precipitation will be required as water quality treatment volume.

Utility:
Existing water and sewer utility are a 4" water and 6" sanitary sewer from 4th St. SW. Exiting utility will keep functioning to supply the existing building. No additional water services will be proposed for this project.

The addition proposed in the west of the site area requires domestic water service extended from the existing building. No fire protection water service proposed. A new 4" sanitary sewer will be proposed for the new building and connect to existing sanitary...
Stormwater management:

For options disturbance area exceed 5000 ft², stormwater management is required as follow:

\[ SWR = P \times [(RvI \times I) + (RvC \times C) + (RvN \times N)] \times 7.48/12 \]

where:

- \( SWR \) = volume required to be retained (gal)
- \( P \) = variable percentile rainfall event for the District dependent on regulatory trigger:
  - 90th percentile (1.2 inches) for major land-disturbing activity,
- \( RvI = 0.95 \) (runoff coefficient for impervious cover and BMP cover)
- \( I \) = impervious cover surface area (ft²)
- \( RvC = 0.25 \) (runoff coefficient for compacted cover)
- \( C \) = compacted cover surface area (ft²)
- \( RvN = 0.00 \) (runoff coefficient for natural cover)
- \( N \) = natural cover surface area (ft²)
- 7.48 = conversion factor, converting cubic feet to gallons
- 12 = conversion factor, converting inches to feet

For options which disturbance area smaller than 5000 ft² will be exempt from stormwater management design.

For WQTv (volume required to be retained or treated beyond the SWRv (gal))

\[ WQTv = P \times [(RvI \times I) + (RvC \times C) + (RvN \times N)] \times 7.48/12 - SWRv \]

where:

- WQT = volume required to be retained or treated beyond the SWRv (gal)
- \( P \) = variable percentile rainfall event for the District (1.7 inches)
- \( RvI \) = 0.95 (runoff coefficient for impervious cover and BMP cover)
- \( I \) = impervious cover surface area (ft²)
- \( RvC = 0.25 \) (runoff coefficient for compacted cover)
- \( C \) = compacted cover surface area (ft²)
- \( RvN = 0.00 \) (runoff coefficient for natural cover)
- \( N \) = natural cover surface area (ft²)
- 7.48 = conversion factor, converting cubic feet to gallons
- 12 = conversion factor, converting inches to feet

Permeable Pavement Storage Volume

\[ Sv = A_p \times [(d_p \times \eta_p) + (K_{sat} \times t_f)] \]

where:

- \( Sv \) = storage volume (ft³)
- \( A_p \) = permeable pavement surface area (ft²)
- \( d_p \) = depth of the reservoir layer (ft)
- \( \eta_p = 0.4 \) (effective porosity for the reservoir layer)
- \( K_{sat} = \) field-verified saturated hydraulic conductivity for the subgrade soils (ft/day)
- \( t_f \) = time to fill the reservoir layer (days)

Permeable Pavement Sump Storage Volume

\[ Sv_{sump} = A_p \times [(d_s \times \eta_s) + (K_{sat} \times t_f)] \]

where:

- \( Sv_{sump} \) = storage volume (ft³)
- \( d_s \) = depth of the sump layer (ft)
- \( \eta_s = 0.4 \) (effective porosity for the sump layer)
- \( A_p \) = permeable pavement surface area (ft²)
- \( K_{sat} = \) field-verified saturated hydraulic conductivity for the subgrade soils (ft/day)
- \( t_f \) = time to fill the sump layer (days) (assume 2 hours or 0.083 days)

Drawdown Time

\[ t_d = \frac{d_p \times \eta_p}{K_{sat}} \]

where:

- \( t_d \) = drawdown time (days)

Retention Value

Enhanced permeable pavement designs retain 100% of their storage volume, therefore:

\[ RV = Sv \]

where:

- \( RV \) = retention value (ft³)

Underdrained Enhanced permeable pavement designs retain 100% of their storage volume below the sump depth, and, above their sump invert, they retain storage at a rate of 5.0 cubic feet per 100 square feet of permeable pavement, therefore:

\[ RV = Sv_{sump} + \frac{5.0 \times f^2 \times A_p}{100 \ f^2} \]

Standard permeable pavement designs retain storage volume at a rate of 5.0 cubic feet per 100 square feet of permeable pavement, therefore:

\[ RV = \frac{5.0 \times f^2 \times A_p}{100 \ f^2} \]
OPT-02a GREEN ROOF

Design Types
Non-Irrigated. Green roof designs that do not incorporate permanent irrigation.
Irrigated. Green roof designs that incorporate permanent irrigation and require soil moisture monitoring.

Green Roof Storage Volume

\[ Sv = \frac{SA \times [(d \times \eta_1) + (DL \times \eta_2)]}{12} \]

where:
- \( Sv \) = green roof storage volume (ft³)
- \( SA \) = green roof area (ft²)
- \( d \) = media depth (in)
- \( \eta_1 \) = verified media maximum water retention
- \( DL \) = drainage layer depth (in)
- \( \eta_2 \) = verified drainage layer maximum water retention

Retention Value
Non-irrigated green roofs retain 100% of their storage volume, therefore:

\[ Rv = Sv \]

where:
- \( Rv \) = retention value (ft³), \( Sv \) = green roof storage volume (ft³)

Irrigated green roofs retain 50% of their storage volume, therefore:

\[ Rv = 0.5 \times Sv \]

<table>
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<th>Value</th>
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<th>Notes on use</th>
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<tr>
<td>SA</td>
<td>3,250.00</td>
<td>ft²</td>
<td>Total green roof area</td>
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<tr>
<td>d</td>
<td>6.00</td>
<td>in</td>
<td>Minimum of 3 inches</td>
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<tr>
<td>( \eta_1 )</td>
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<td>If unknown, enter 0.10 as a baseline default.</td>
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<tr>
<td>( \eta_2 )</td>
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<td>unitless</td>
<td>If drainage and media layers are combined, enter 0.</td>
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<td>Select irrigation type from drop down list.</td>
</tr>
<tr>
<td>( Sv )</td>
<td>325.00</td>
<td>ft³</td>
<td>Calculated based on irrigation type selected.</td>
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<tr>
<td>( Rv )</td>
<td>325.00</td>
<td>ft³</td>
<td>Converted from cubic feet.</td>
</tr>
<tr>
<td>( Rv )</td>
<td>2,431.00</td>
<td>gallons</td>
<td></td>
</tr>
</tbody>
</table>

OPT-03d contains one new two-story building. The LOD is approximately 3300 SF.

Stormwater Management Analysis:
No stormwater management will be required.
Outreach and Coordination
AGENDA - E. AGENCY (CFA, NCPC, HPO) MEETING MINUTES

Project: Amidon-Bowen Child Development Center
2022_0402
401 I St, SW, Washington, DC 20024

Meeting Date/Time: June 13, 2022 – 3:30pm-4:30pm

Meeting Location: Virtual – Microsoft Teams

Agenda Topic: Agency Review of Concept Designs

Attendees:
- Janice Szymanski (JS) DGS janice.szymanski1@dc.gov
- Miguel Garcia (MG) DGS miguel.garcia1@dc.gov
- Christopher-Evan Jenkins (CJ) DCPS Christopher-Evan.Jenkins@k12.dc.gov
- Renee Pean (RP) DCPS renee.pean@k12.dc.gov
- Carlton Hart (CH) NCPC carlton.hart@ncpc.gov
- Dan Fox (DF) CFA dfox@cfa.gov
- Sarah Batcheler (SB) CFA sbatcheler@cfa.gov
- Andrew Lewis (AL) HPO andrew.lewis@dc.gov
- Blane Smith (BS) CCC bsmith@cc-builder.com
- Bruno Delle Fratte (BF) CCC bdfratte@cc-builder.com
- Ronnie McGhee (RM) RMc rmcghee@rmc-architects.com
- Randall Moreland (RSM) RMc rmoreland@rmc-architects.com

The purpose of this meeting is to review the conceptual plans presented by RMc for feedback from NCPC, CFA, and HPO agencies.

I. Introduction and background on the project

A. School associated with historic “Amidon Plan” teaching method
   1. Original physical school design not influenced by this method
   2. Typical 1960s school, preservation criterion A (significant history)
   3. HPO has been lenient on additions to buildings of this type and nature

B. Team indicated that this is an early pre-concept design discussion to help guide next steps

C. Separate entrance to CDC required, DCPS wishes to separate CDC program and age groups from main school

D. 2 sites were considered for this project in the RFP response, positives, and negatives for each
   1. Scheme 1 – dual-location separates the CDC from new PreK programs
   2. Scheme 2 – full program in single location
   3. Note: Both schemes predicated on ground floor access to play areas

E. RFP contained directive of AE Teams to avoid impacting newly installed, existing playground equipment

II. Agency Design Feedback

A. Preference between Dual-Location (Scheme 01) vs. Consolidated (Scheme 02)
   1. Other options available?
      a. Comment to consider 2-story scheme
         i. CCC indicates minimal cost impact for 2-story vs. larger 1 story scheme

III. Agency Design Feedback

A. Agency Review of Concept Designs

1. Both schemes single story, allow original building primary
   a. Maintain the language of existing – horizontality of windows and expressed structural members, brick, and mosaics
   b. Maintain limestone expression of corner stair tower, either interior or exterior
   c. HPO: Glassy enclosure at new/old intersection preferred to “lantern”
   d. Mirror the Cafeteria double-height expression from SE corner to new SW corner
   e. Proposed size and scale, materiality compatible with existing
   f. AE/DGS/DCPS Team indicated flexibility (1-2 stories and location of addition) in approach to concept design

B. Massing

   i. Potential to reduce footprint below 5,000 SF LOD for SWM
   ii. Smaller footprint may allow additional play space to be installed
   iii. In past projects DCPS indicated preferences to install PreK and under to be at grade level
   iv. Team indicated future SIT/DCPS/Stakeholder input will affect/direct this decision

b. Agency comments ask Team to consider locating addition in existing parking lot.
Comments from team and attendees include the following:
   i. AE Team did not consider this viable during RFP stage.
   ii. Parking lot not currently the best presentation for the school
   iii. Parking lot expresses as back-of-house

c. Agencies/Team: Open Space at a premium

2. DCPS indicated that AE Team consider forthcoming (future) full modernization and its potential impact on the design

3. NCPC: Better understanding of pick-up, drop-off logistics, timing required for separate programs is required before addition location and its logistics are finalized

4. CFA: Consideration for landscape character
   a. Existing landscape along I St frontage (existing Duck Pond), across street at park
   b. Playground between CDC program and adjacent PUD property should be reconsidered RMc: Formal access to this area possible? DPR input needed here?

C. Exterior Expression

   i. Amidon-Bowen pedagogy impact on façade design - limited
   ii. Horizontal window configurations as precedent – maintain for compatibility
   iii. Proposed facades consider warmer, natural materials – consider stone
   iv. PCPC: Better understanding of pick-up, drop-off logistics, timing required for separate programs is required before addition location and its logistics are finalized
   v. CFA: Consideration for landscape character

   a. Existing landscape along I St frontage (existing Duck Pond), across street at park
   b. Playground between CDC program and adjacent PUD property should be reconsidered RMc: Formal access to this area possible? DPR input needed here?

Agency Review and Concept Phase Schedule

A. NCPC: Filing Deadline July 29, 2022 Meeting Date: Sept. 1, 2022
B. CFA: Filing Deadline July 7, 2022 Meeting Date: July 21, 2022
   (Alt.) Filing Deadline Sept. 1, 2022 Meeting Date: Sept. 15, 2022
C. HPRB: Filing Deadline June 17, 2022 Meeting Date: July 22, 2022
   (Alt.) Filing Deadline Aug. 19, 2022 Meeting Date: Sept. 22, 2022
D. Archaeology Phase 1A Archaeological Assessment - Ongoing
E. Concept Phase Deliverable to DGS: max. 12 weeks from NTP: Aug. 18, 2022

R.McGhee & Associates
The following is a summary of the meeting:

### Attendees:
- Rowan Alkaysi, DGS rowan.alkaysi@dc.gov
- Melifan Parandoush, DOEE Melifan.parandoush@dc.gov
- Andrea Krug, DOEE andrea.krug@dc.gov
- Regan Wilhelm, DOEE regan.wilhelm@dc.gov
- Abdi Musee, DOEE abdi.musee@dc.gov
- Walter Duan, DHA wduan@delonhampton.com
- Baozhu Wei, DHA wduan@delonhampton.com
- Lanshing Hwang, SL lanshingh@symbiosis-la.com
- Randall Moreland, RMC rmoreland@rmc-architects.com
- Blane Smith CC-BUILDER bsmith@cc-builder.com
- Melifan Parandoush, DOEE Melifan.parandoush@dc.gov

### Project: Amidon-Bowen Child Development Center

### Meeting Date/Time: August 23, 2022 – 10:30pm-11:30pm

### Meeting Location: Virtual – Microsoft Teams

### Agenda Topic: DOEE PDRM

### Notice: These minutes are not intended to be a transcript of the meeting, but a summary of the events and conversations and a record of the decisions reached. Anyone in attendance taking exception to the information contained in these minutes should notify the author within five (5) business days after receipt.

### Issue Date: August 24, 2022

### Recorded By: Walter Duan, DHA

### Distribution: Attendees, File

The following is a summary of the meeting:

- DHA confirmed that the project is within AWDZ, and 1.2” SWRv and 0.5” WQv are required per DOEE SWM manual. DHA presented two site options:
  a. building addition (approximately 3165 sf) with playground that will have limit of disturbance (LOD) more than 5k sf and SWM will be required;
  b. addition without playground that may have LOD less than 5k sf and SWM will not be required.
- DGS confirmed that the playground will be open to public. DOEE will confirm if the playground could be excluded from LOD if it is open to public.
- DGS confirmed that no renovation on existing buildings.
- Proposed sewer connection to be confirmed with DC Water. Existing CSS system is going to be connected to. LOD for utility trenches could be excluded from LOD for SWM.
- Andrea confirms GAR is not required since the zoning of project site is R-3. New zoning category need to be confirmed with DC Office of Zoning.
- Critical root zone issue needs to be discussed with DDOT arborist to confirm limit of disturbance near the trees in public space. Tree protection measures to be added for ESC plan.
- Additional ESC notes and details provided by Melifan to be added on ESC plans if LOD<5000 SF.

### Action Items:

1. DOEE provides answers to the above questions.
2. DHA confirms SWRv and WQv volumes if SWM is required.
3. DGS confirms SRCs available for this project.
4. If a regular concrete base is used for the playground and open to public, could it still be excluded from LOD?
5. If using the regular concrete base of the playground as stock piling and staging area, could it be excluded from LOD?
6. If the playground is open to public, could it be excluded from LOD?
7. Please provide a detail of PIR over gravel base that can be accepted as permeable surfacing for SWM.
8. If 50% of SWRv is met on site, the owner can purchase SRC to meet SWRv and WQv.
9. DGS confirmed that DGS has some SRCs from other DGS projects and could be used for this project, but DGS/DCPS prefers not to purchase the SRCs. DGS will reach out to Regan Wilhelm to confirm the SRCs.
10. If SWM is required, non-irrigated green roof will be used.

### Questions to be answered by DOEE:

- If the playground is open to public, could it be excluded from LOD?
- Please provide a detail of PIR over gravel base that can be accepted as permeable surfacing for SWM.
- Could a thick gravel layer under the playground used as SWM facility? See attached detail.
- If a regular concrete base is used for the playground and open to public, could it still be excluded from LOD?
- If using the regular concrete base of the playground as stock piling and staging area, could it be excluded from LOD?

### End of the Meeting Minutes.
Baseline Project Schedule
### Activity Details

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<td>INSTALL DROPS &amp; DIFFUSERS - L2</td>
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<td>INSTALL LIGHTING - L2</td>
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### Milestones

- Baseline Schedule
- 00 ALL ACTIVITIES
- AMIDON-BOWEN CHILD CENTER - UPDATE #1
- 4280-01-R0
Project Information and Concept Design

- Existing Conditions
- Site Plan
- Floor Plans
- Elevations
- Renderings
- Education Specifications
- Zoning & Building Code Analysis
AMIDON-BOWEN CHILD DEVELOPMENT CENTER  - Concept Design Submission

R. McGhee & Associates, PLLC

Building Systems Assessment for Amidon-Bowen ES | Childhood Development Center

Reference Site Photography

AMIDON-BOWEN ELEMENTARY SCHOOL

Existing Facility Images

Existing Facility Images
AMIDON-BOWEN CHILD DEVELOPMENT CENTER - Concept Design Submission

Existing Conditions
EXISTING SITE PLAN

- Artificial Grass Field
- Existing 2-5 Playground
- Proposed New Building
- Concrete Bike Track
- Existing Artificial Grass Play Field
- Existing Asphalt Basketball Field
- Existing 5-12 Playground
- Proposed New Building
- Proposed New Walkway
- Proposed New Playground

Existing Conditions - Site Plan

R. McGHEE & ASSOCIATES
Amidon-Bowen CDC
Washington, DC
8/30/2022
Existing Conditions - Elevations

SOUTH WING - SOUTH ELEVATION - WEST

SOUTH WING - SOUTH ELEVATION - EAST

SOUTH WING - EAST ELEVATION

KEYPLAN

1. The work includes removal and replacement of the existing metal framed windows.
2. The building interior was removed in accordance with the approved interior finishes and equipment. Some items may be relocated at any time.
3. The existing window shades were removed. All windows shall be covered by new shades at all times.
4. Prior to beginning work, the contractor shall provide photos of damaged areas and provide photos at all times.
5. The contractor shall measure and verify the window frames and provide a copy of the metal framing data.
6. Provide obscured translucent glazing at windows indicated.
7. See sheets for window types and details.
2ND LEVEL PLAN

R. McGHEE & ASSOCIATES

Amidon-Bowen CDC
Washington, DC
8/30/2022
WEST ELEVATION

NORTH ELEVATION

SOUTH ELEVATION

R. McGHEE & ASSOCIATES

Amidon-Bowen CDC

Washington, DC

9/01/2022
## SD COMPARISON AREA SCHEDULE

<table>
<thead>
<tr>
<th>Name</th>
<th>Programmed Area</th>
<th>Concept Area</th>
<th>SD Area</th>
<th>SD Delta from Programmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 1ST LEVEL PLAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAFF RESTROOM</td>
<td>CDC-03 0 SF</td>
<td>45 SF</td>
<td>38 SF</td>
<td></td>
</tr>
<tr>
<td>DIRECTOR'S OFFICE</td>
<td>CDC-04 200 SF</td>
<td>168 SF</td>
<td>170 SF</td>
<td>-1.9%</td>
</tr>
<tr>
<td>LAUNDRY</td>
<td>CDC-08 80 SF</td>
<td>48 SF</td>
<td>30 SF</td>
<td>-62.9%</td>
</tr>
<tr>
<td>CDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFANT ROOM</td>
<td>CDC-09 600 SF</td>
<td>596 SF</td>
<td>584 SF</td>
<td>-2.7%</td>
</tr>
<tr>
<td>STORAGE</td>
<td>CDC-10 0 SF</td>
<td>50 SF</td>
<td>52 SF</td>
<td></td>
</tr>
<tr>
<td>RESTROOM</td>
<td>CDC-11 50 SF</td>
<td>50 SF</td>
<td>54 SF</td>
<td>8.2%</td>
</tr>
<tr>
<td>TODDLER/CLASSROOM</td>
<td>CDC-12 1125 SF</td>
<td>1011 SF</td>
<td>952 SF</td>
<td>-15.3%</td>
</tr>
<tr>
<td>RESTROOM</td>
<td>CDC-13 50 SF</td>
<td>50 SF</td>
<td>54 SF</td>
<td>8.2%</td>
</tr>
<tr>
<td>STORAGE</td>
<td>CDC-14 0 SF</td>
<td>50 SF</td>
<td>53 SF</td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENTRY VESTIBULE</td>
<td>CDC-01 0 SF</td>
<td>0 SF</td>
<td>135 SF</td>
<td></td>
</tr>
<tr>
<td>LOBBY/ WELCOME CENTER</td>
<td>CDC-02 400 SF</td>
<td>0 SF</td>
<td>239 SF</td>
<td>-40.3%</td>
</tr>
<tr>
<td>CORRIDOR</td>
<td>CDC-05 0 SF</td>
<td>559 SF</td>
<td>145 SF</td>
<td></td>
</tr>
<tr>
<td>Dining/Food Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOOD PREP/ WORKROOM/</td>
<td>CDC-06 300 SF</td>
<td>157 SF</td>
<td>245 SF</td>
<td>-18.5%</td>
</tr>
<tr>
<td>STORAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02 2ND LEVEL PLAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORRIDOR</td>
<td>PK-01 559 SF</td>
<td>508 SF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre -K/K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRE-K CLASSROOM</td>
<td>PK-02 1025 SF</td>
<td>1033 SF</td>
<td>1036 SF</td>
<td>1.1%</td>
</tr>
<tr>
<td>STORAGE</td>
<td>PK-03 100 SF</td>
<td>100 SF</td>
<td>70 SF</td>
<td>-30.4%</td>
</tr>
<tr>
<td>RESTROOM</td>
<td>PK-04 50 SF</td>
<td>54 SF</td>
<td>54 SF</td>
<td>8.6%</td>
</tr>
<tr>
<td>PRE-K CLASSROOM</td>
<td>PK-05 1025 SF</td>
<td>1033 SF</td>
<td>1035 SF</td>
<td>0.9%</td>
</tr>
<tr>
<td>STORAGE</td>
<td>PK-06 100 SF</td>
<td>100 SF</td>
<td>70 SF</td>
<td>-30.2%</td>
</tr>
<tr>
<td>RESTROOM</td>
<td>PK-07 50 SF</td>
<td>54 SF</td>
<td>54 SF</td>
<td>7.9%</td>
</tr>
<tr>
<td>Grand total:</td>
<td>20 5155 SF</td>
<td>5177 SF</td>
<td>5577 SF</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL CIRCULATION/ GROSS UP:** 3345 SF (*1118 SF) (**788 SF)
**TOTAL GROSS AREA:** 8500 SF 6402 SF 6440 SF 75.8%

*INDICATES LOBBY/ WELCOME CENTER INCLUDED IN CIRCULATION TOTAL
**INDICATES LOBBY/ WELCOME CENTER NOT INCLUDED IN CIRCULATION/ GROSS UP TOTAL
Aerial View from Southwest
Pedestrian View from Across I-St Looking Northwest
View of New Addition from Rear – Northwest
View from I-St looking Northeast
View from I-St
APPENDIX A

DC Code Framework and List of Applicable Codes and References

DISTRICT OF COLUMBIA CODE FRAMEWORK AND LIST OF APPLICABLE CODES AND REFERENCES

This Property Condition Report evaluates the facilities against the following versions of codes and regulations applicable to building design and construction in the District of Columbia generally, and relevant to these facilities. Integrated DC Codes - To assist the public, three of the District of Columbia Construction Codes may also be viewed in an integrated version, published by the ICC, which consolidates the respective ICC codes, ANSI/ASHRAE/IES 90.1-2013 and the District of Columbia amendments.

The three integrated codes include

- 2017 District of Columbia Building Code
- 2017 District of Columbia Green Construction Code

The integrated codes are provided as a public reference tool, but they do not show amendments to the 2017 Construction Codes Supplement that were adopted after May 29, 2020. Title 12 DCMR should be used to confirm the official text of the 2017 District of Columbia Construction Codes.

2017 DC Construction Codes - The 2017 DC Construction Codes consist of the 2015 International Code Council (ICC) family of model codes, the 2014 National Electrical Code, and 2013 ASHRAE 90.1, as amended by the District of Columbia Municipal Regulations (DCMR) Title 12, Sections A through M. The 2017 DC Construction Code took effect on May 29, 2020. Applicability and provisions for the prior editions of the code, (for Permits issued, Applications Filed, Tenant Layouts and Permit Revisions) will be governed by the Transitory Provision stipulated in section 123.

DC Construction Codes, effective May 29, 2020, include the following, as amended by DCMR Title 12 (Construction), Sections A through M plus Amendments:


Additional Code References

- DCMR Title 11 (Zoning)
- Americans with Disabilities Act (ADA) of 1990
- 2010 ADA Standards for Accessible Design
- 2009 ICC / ANSI A117
802.3 Notwithstanding Subtitle C §§ 802.1 and 802.2, no property shall be required to provide more than one hundred (100) short-term bicycle parking spaces. All properties with a long-term bicycle parking requirement shall provide at least two (2) long-term spaces, and all properties with a short-term requirement shall provide at least two (2) short-term spaces. The bicycle parking standards of this chapter shall be met when a new building is constructed.

802.4 When a property changes use categories or adds a use category, the property shall add any bicycle parking spaces necessary to meet the requirements for the new use. However, historic resources shall not be required to provide additional bicycle parking spaces for a change in use when the gross floor area of the building is not expanded.

802.5 An addition to an existing building, or the expansion of a use within a building, triggers additional bicycle parking requirements only when the gross floor area of the building or use is expanded or enlarged by twenty-five percent (25%) or more beyond the gross floor area on the effective date of this title, or in the case of a new building, the gross floor area used to calculate the initial parking requirement. The additional minimum parking required shall be calculated based upon the entire gross floor area added.

802.6 Additions to historic resources shall be required to provide additional bicycle parking spaces only for the addition’s gross floor area and only when the addition results in at least a fifty percent (50%) increase in gross floor area beyond the gross floor area existing on the effective date of this title.
Construction Management Plan
2.2.1.5 Construction Management Plan

Construction Administration

The success of a construction project lies in the clear communication between the Owner, Construction Manager, Design Team, and trade contractors. Our construction management plan is structured to provide clear lines of communication.

Due to the aggressive construction schedule, we propose meeting once a week during the design and construction phases. These meetings will be held between CCC’s Project Management Team, DGS’ Project Manager, and Design Team to review any open items. The intent of these meetings will be to review project status and resolve all matters for discussions between DGS, CCC, and the Design Team. This will foster a partnering approach to identify concerns on design, procurement, and construction issues. This will allow the team to reach solutions before problems arise that would otherwise effect quality, cost, and schedule. CCC will also hold weekly subcontractor meetings to keep an open line of communication between all trades to effectively coordinate work and resolve issues.

By keeping open lines of communication, the decision process between DGS, Design Team, and CCC will remain streamlined thereby reducing any chance for miscommunication between the parties. CCC will publish monthly reports that provide a complete update of all aspects of the project and include:

- Progress Summary – Brief narrative describing the status of procurement and construction progress of the project.
- Schedule Update – Primavera generated update schedule showing the actual progress status of all procurement and construction activities.
- Cost Updates / Contract Revisions – Report indicates current contract amount, approved change orders, and pending change orders.
- Critical Issues List – List of all critical project information requirements, responsibilities and deadlines for resolving critical items associated with project completion.
- Safety Reports – Report outlines status of any safety violations or concerns and actions taken to assure a safe working environment.
- Quality Assurance Reports – Report outlines status of any safety violations or concerns and actions taken to assure a safe working environment.
- Progress Photographs – Provide visual representation of progress status and existing conditions.

Management and Control Systems

The CCC Project Management and Control System is a fully integrated tool we use to facilitate electronic exchange of information and overall management of the project. Procore Project Management software enables us to effectively plan and manage procurement, RFI’s, submittals, quality control, change management, construction activities, and provide up-to-date reporting to each member of the team.

Quality Control

Quality control in construction typically involves insuring compliance with standards of materials and workmanship in order to ensure the performance of the facility according to the design.

Our approach to quality control is expressed in all parts of our organization and involves many elements. Design reviews to ensure safe, effective, and proven construction procedures in which the local trade contractor market can deliver a quality product. Other elements include extensive training for our associates, shifting responsibility for detecting defects to our associates as a team approach which creates ownership. CCC has internal management meetings in which Project Managers, Foremen, and Superintendents meet and discuss quality control, means and methods, procedures, and lessons learned from both current and past projects.

Submittal / RFI Process

CCC has implemented a paperless submittal process to reduce shop drawing, RFI, and other submittal turnaround times and to improve project quality and coordination amongst the project team. CCC will create a detailed submittal log/schedule that will also be part of the schedule. This will ensure that documents are submitted, reviewed, and approved in a timely manner that will not delay the project schedule.

All RFI, Submittals, and Shop Drawings will be reviewed by the CCC Project Management Team prior to submitting to the design team. Once the submittal is reviewed by CCC it will be shared with the Design Team and DGS Project Manager for review, approval and response. CCC will return any submittals that do not adhere to the contract documents, so the design team’s time is not wasted. A required response date that will be mutually agreed upon prior will be entered on the transmittal sheet. Critical path items will be earmarked so they can be focused on by the design team before reviewing other less critical submissions.

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2.2.1.5 Construction Management Plan
Parking Control

CCC will install traffic barriers directly in front of the site for maintain a clear entrance for the project. CCC will submit a traffic control plan and will coordinate with DDOT for a public space occupancy permit for the parking lane.

Trash & Debris Removal

Trash removal will occur on an “as-needed” basis. However, we plan to have a 20 CY dumpster onsite for all trash created by the general trades. Dumpsters will likely we changed every 2-3 days but can be changed on a daily basis if the project requires it.

Erosion & Sediment Control

Erosion controls will be shown on the Erosion & Sediment Control Plans. However, CCC may take the liberty to change the approved plans if needed to facilitate the overall project goals. CCC will coordinate all ESC measures with DOEE before installation and will submit any changes for review and approval.

Vibration Monitoring

This project consists of PIP concrete foundations and does not require vibration monitoring. Vibration monitoring is typically only required when installing rammed-aggregate piers, steel piles, or projects that require heavy compaction equipment.

Existing & Adjacent Building Survey Plan

CCC will take preconstruction photos of the existing building and any surrounding properties that could be affected by the project. We will make note of any existing damage to adjacent properties and keep for our record.

Temporary Fire Protection Measures

The project will require temporary fire protection measures at all stages of construction. CCC will have fire extinguishers onsite at all times. Each fire extinguisher will be routinely inspected and dated to ensure they are functional. All subcontractors that will be welding, grinding, cutting metal, soldering, or creating sparks/open flames will be required to obtain a “Hot Work Permit” from CCC on a daily basis.

Project Signage

CCC will install a covered signage board that will include all signage per DC code, including but not limited to the DC Labor Law, Davis Bacon Wage, Minimum Wage Act, OSHA Regulations, Emergency Procedures, & Project Contact Information. We will also install standard project signage for marketing purposes on the site fencing.

Pest Control

We do not anticipate any pest controls measures will be needed for the new addition. There will not be any sources of food for pests, and in our experience, this is not required.
Site Logistics & Material Staging Plan

Material Storage/Laydown

- Sea Container / Equipment Storage
- CDC-08 30 SF
- CDC-03 38 SF
- Dumpster
- Storage
- Carpet
- Carpet +0" Corridor
- CDC-05 145 SF
- Lobby / Welcome Center
- CDC-02 239 SF
- Entry Vestibule
- CDC-01 135 SF
- Existing Fence to Remain, Repair as Needed
- Field Office
- CDC-10 52 SF
- Infant Room
- New CDC Addition
- CDC-09 584 SF
- Lawn 4 SF
- Food Prep / Workroom / Storage
- Existing Storage Shed to Remain (TBD)
- Portable Toilets
- Wash Rack
- Construction Fence w/ Privacy Screen & Silt Fence
- Traffic Flow
- Tree Protection (TYP.)
- Construction Entrance Concrete Sidewalk (Open to Pedestrians)
- Traffic Barriers
- Project Signage Board

Interior Partitions Will Be Constructed to Control Dust & Noise During Construction

EXISTING RAMP AND HANDRAILS TO REMAIN

Entrance Closed During Construction

EXISTING GATE AND FENCE TO REMAIN, REPAIR AS NEEDED

"NO DOGS" SIGN MOUNTED ON FENCE

AREA DRAIN, SEE CIVIL ENGINEER'S PLANS

Tree Protection (TYP.)

Construction Entrance

Traffic Flow

Traffic Flow

Traffic Flow