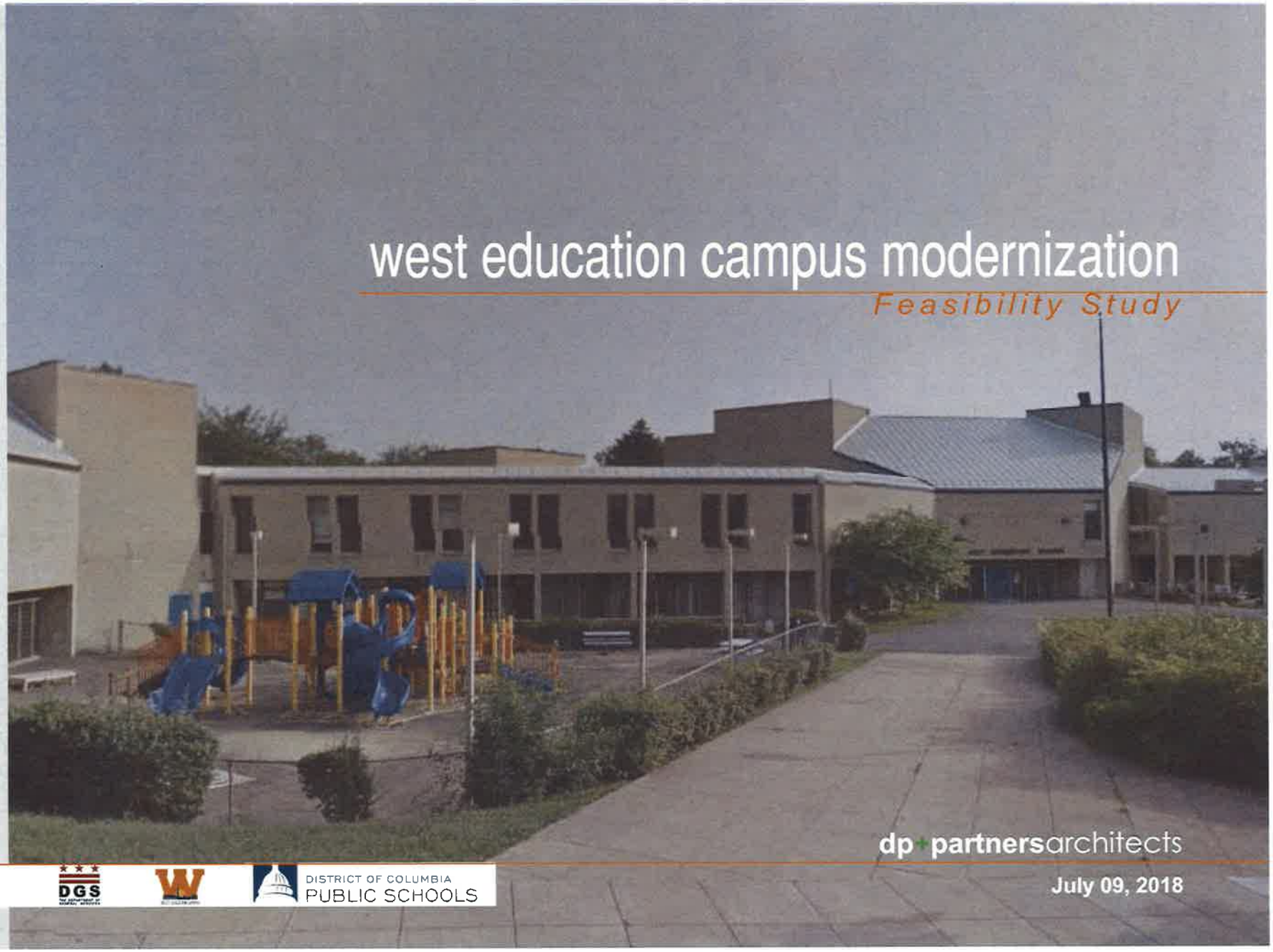
Attachment B - Feasibility Study
Part 1

west education campus modernization

Feasibility Study



dp+partnersarchitects

DGS

DISTRICT OF COLUMBIA PUBLIC SCHOOLS

July 09, 2018

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dp+partners architects, llc has been contracted to evaluate the options available to the DC Department of Public Schools, in terms of rehabilitation of the West Education Elementary School located between Farragut St. NW and Gallatin St. NW just west of 14th St. NW. The school was built in the mid 1970's and is predominantly clad in brick masonry. It is located within a residential neighborhood of single family detached homes. Per DCPS Education Specifications the student population is projected to increase from the current 315 students to 500 - 550 students with graduation occurring upon completion of the 5th grade.

The building's "Open Floor Concept" was initiated based on theories regarding learning environments for early childhood development. In line with this concept the lower floors, Pre-K and Kindergarten classroom spaces provide fenestration and have direct access to exterior play areas, while the upper grades above were provided with skylights in lieu of perimeter fenestration. The existing structure is a steel frame, fireproofed, with concrete floor slabs. There is an approximate twenty-eight foot grade difference from the east end of the site to the west side. There is also a two to four foot grade difference from Gallatin St. NW to Farragut St. NW.

Design Study Philosophy

We have been engaged to look at three development alternatives; all designed to achieve at minimum LEED Gold certification.

1. Renovation /Modernization - To reconfigure the existing building to accommodate the proposed program. Investigation of this option has led us to determine that the existing building cannot accommodate the additional space required. The existing building shape does not lend itself to an efficient reconfiguration. In addition removal of the upper floor masonry cladding and replacement with walls and windows is not cost effective. All interior walls are masonry making interior renovations difficult.

2. Renovation/ Addition - We have developed an alternative which maintains the existing gymnasium wing with mechanical room below and provides a new addition for administration, academic and support spaces for the building. This option keeps all play areas contiguous.
The new entrance will provide a lobby and welcome area and street identity.

3. New Building – To develop a concept for a new school that is welcoming to the students, parents, faculty and community. It will satisfy the program, be energy efficient, have lots of natural light (windows), and provide: easy way finding, ADA accessibility and have open/shared green space.

VIEW TOWARDS MAIN ENTRANCE

SITE

SITE BOUNDARY

West Education Campus is Located at 1335 Farragut Street, N.W. It is bound by Gallatin Street, N.W. to the North, Farragut Street, N.W to the South, 14th Street, N.W. and Public Alley to the West and adjacent Single Family Homes and Public Alley to the East. The Site is approximately 162,948 SF (3.74 acres).
The School is a two-story brick structure averaging about 25' to 30' high pending it's location on the site.

The property slopes up approximately 28 feet from the south/east corner property line on Farragut Street to 14th Street to the west, but only two to four foot difference parallel in grade from Gallatin St. NW to Farragut St NW.

The property is surrounded by single family detached homes, and has direct access to public transportation and Major Circulation Corridors, located on 14th Street and Georgia Ave.

EXISTING SITE

VIEW TOWARD MAIN ENTRANCE

AERIAL VIEW LOOKING SOUTH

VIEW OF PLAY AREA FROM FARRAGUT STREET

AERIAL VIEW LOOKING NORTH

MAIN ENTRANCE ON GALLATIN STREET

AERIAL VIEW LOOKING WEST

SITE PHOTOGRAPHS

PRE - K & KINDERGARTEN

COMMONS ASSEMBLY

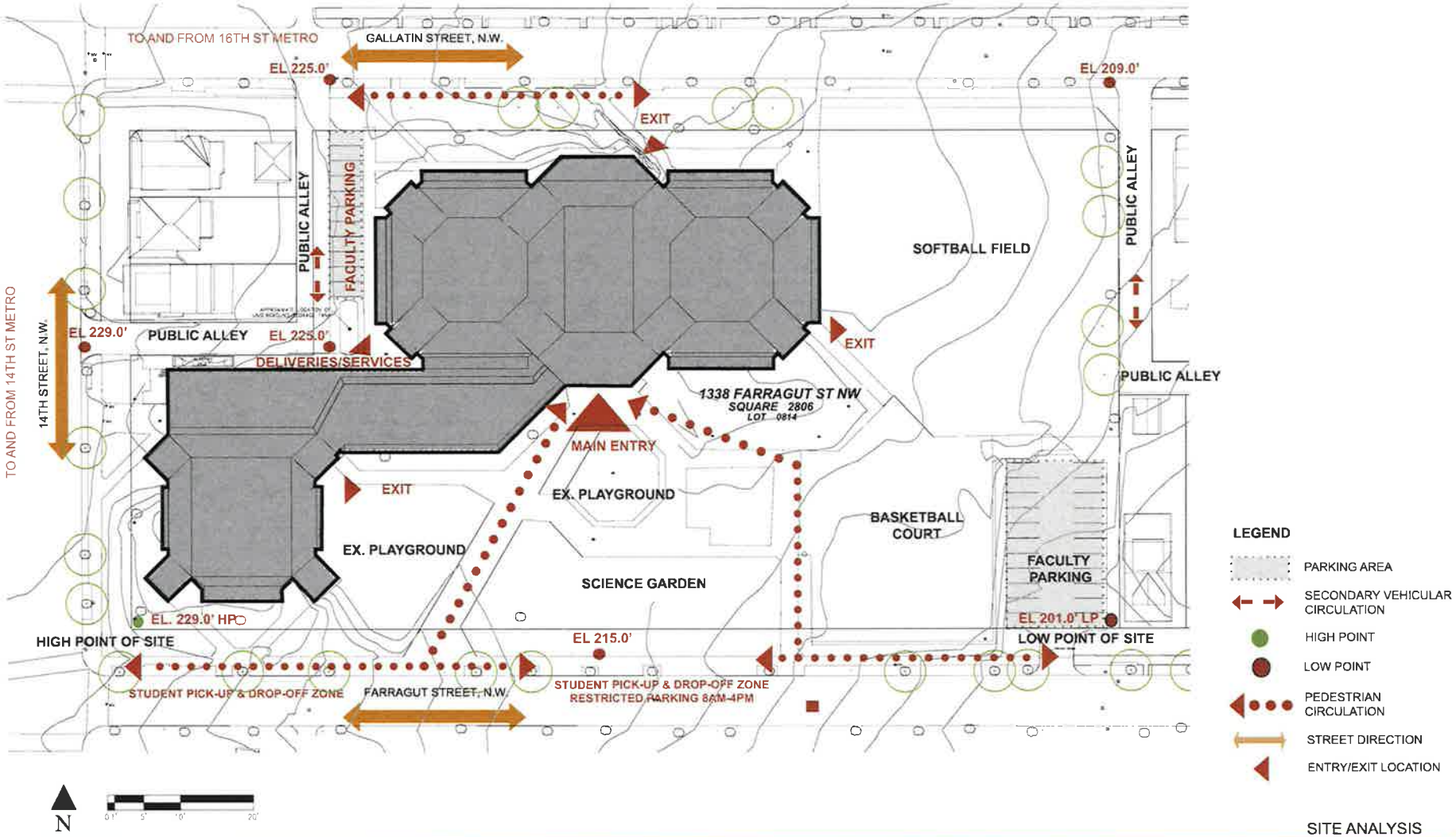
DAYCARE

GYMNASIUM

PRE - K & KINDERGARTEN

PRE - K & KINDERGARTEN

INTERIOR PHOTOGRAPHS



SITE ANALYSIS

ZONING / SITE ANALYSIS

Square	2806
Lot	0814
Zoning	R-1-B
Site Area	3.74 Acres (162,914.4 SF)
Current Building SF	92,000
Current Building Foot Print	50,503 SF Avg. (2 Stories & Mezzanine)
Current Lot Occupied	31%
Current Impervious Space	75% of GFA
Maximum Building Height	40' – *Institutional 90'

Institutional buildings or structures may be erected to a height not exceeding 90 ft., not including the penthouse, provided that the building or structure shall be removed from all lot lines of its lot a distance of not less than 1 ft. for each foot of height in excess of that authorized in the zone in which it is located.

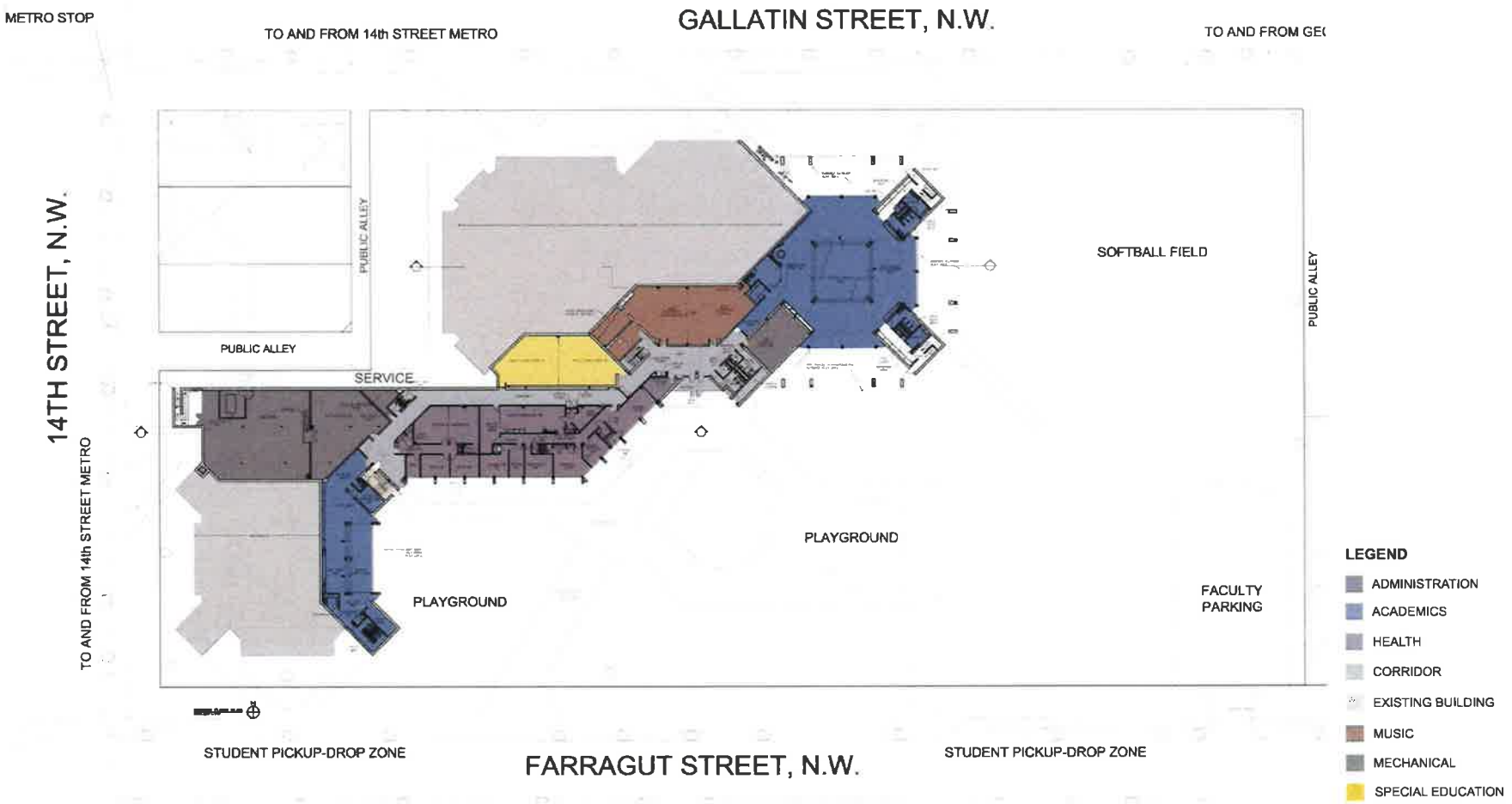
Maximum Stories	3 Stories
Rear Yard Setback	25'
Side Yard Setback	8'
Existing Parking Spaces	34
Zoning Reguation Reference	Subtitle D, Chapter 3

ZONING ANALYSIS - PROPOSED NEW CONSTRUCTION

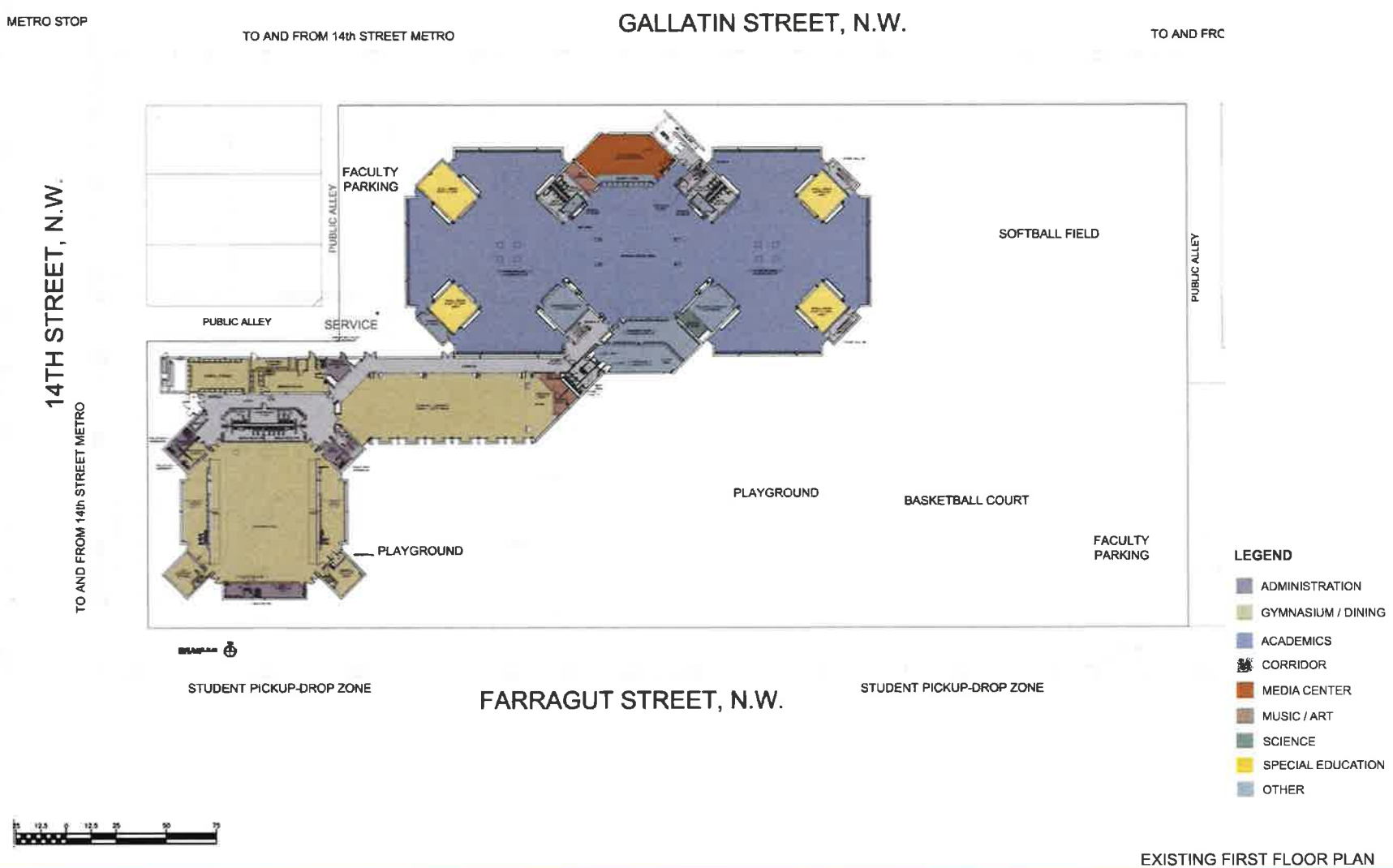
Site Area	162,914.4 SF
Proposed Building SF	88,000 SF
Proposed Building Footprint	49,250 SF
Proposed Lot Occupancy	30.23%
Pervious Surface	50% - 83,969 SF
Open (Green) Area	102,953 SF (2.36 Acres)
Open Area as % of Total	61%
Proposed Building Height	30'
Proposed Stories	2 Stories
Proposed Front Setback*	Refer to Zoning Analysis plan

* A front setback shall be provided within the range of existing front setbacks of all structures with an R-1-B zone on the same side of the street in the block where the building is proposed.

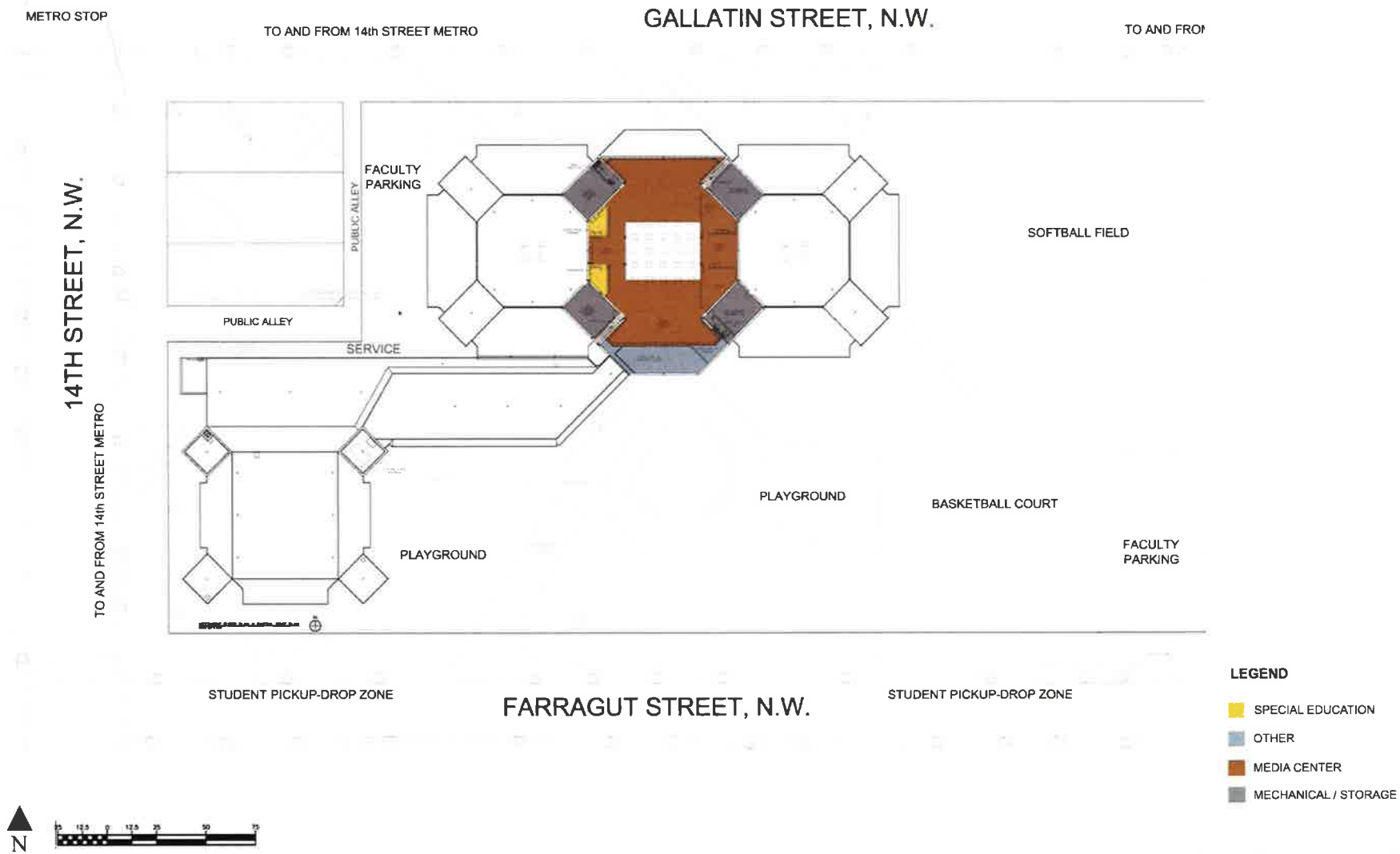
Education Calculation	0.25 Spaces/ per 1,000 S.F. of GFA 88,000 SF = Min. 22 Parking Spaces
Minimum spaces required by Ed Spec	18 - 20



EXISTING GROUND FLOOR PLAN



EXISTING FIRST FLOOR PLAN



EXISTING MEZZANINE PLAN

Existing Conditions Assessment:

General: West Elementary School located at 1338 Farragut Street NW, Washington DC is approximately 92,000 SF and was built in 1978. The school is comprised of two floors and a partial basement housing mechanical and electrical equipment.

Traffic

The site is bounded by Farragut St. and Gallatin St. to the north and south which are both narrow two way streets which get congested during morning drop off and afternoon pick up. Students that come by bus are dropped off at the corner of 14th St. NW and Gallatin St. and walk on sidewalk to front entrance on Gallatin St. Staff parking is located off of Gallatin St. at the southeast corner of the site. .

Civil

Background and Description

The project is located within the 16th Street Heights neighborhood in NW Washington, DC between Gallatin Street NW, 14th Street NW and Farragut Street NW and a public alley. The project involves either renovation of existing school, renovation with addition to the new school or construction of a new school. As a result, within all three option, site work will include utility installation, stormwater management, and general site improvements.

Existing Site Conditions

The existing site is within lot 0814 of square 2806. The existing site is about 3.74 acres with a two-story school building, with a lower level, that occupies about 31% of the lot. The existing site has two parking spaces, one at the northwestern public alley entrance and the second at the southeastern section of the property. The existing site is about 75% impervious with playgrounds, concrete stairs, basketball courts, sidewalk, soccer field and landscaped areas around with most slopes less than 10%. Sunken concrete and cracks occur in many instances around the site and in many cases affect drainage. The existing drainage is through downspouts, inlets and overland flow to Farragut street NW.

Existing Utilities: Water & Sanitary / Storm Sewer

Water:

There is currently an existing domestic 4" water service line to the building that was presumably installed September 1980, from an 8" water main installed in April 1910, at the western part of the site on 14th street NW. There is also an 8" water main along Gallatin street NW and Farragut street NW, both installed in April 1910. There were previous service connections of fire and domestic on Farragut street NW that were abandoned as a result of the construction of the school. In public space there are three hydrants surrounding the school, all within greater than 400 feet of the other. There are also several yard hydrants located within the play areas on southern part of the site. DC Water has no information concerning lead on either public or private side of service line, however, neighboring lots within the same square contain lead on both the private and public side of the service line.

Sanitary / Storm Sewer:

This project is within CSS (Combined Sewer System), which means that both storm and the sanitary is collected into the same main and is then treated at the Blue Plans Sewage Treatment Facility. The existing sanitary connects, via 6" wye connection, to the 12" line on Farragut street NW. The storm is collected from the entire site and connects to 15" main via a 15"x15"x15" wye connection, upstream of the sanitary deposit. There is also a 12" sewer main adjacent to the property along Gallatin Street NW and 12" line along 14th street NW, that may be undersized considering upstream flow.
The sanitary line exists at the southeast portion of the building and with an about 0.86% slope connecting to the collection main on Farragut street NW. Stormwater is collected via inlets, downspouts (as shown in roof plan), water fountains, and around the building into a 15" storm collection pipe system. There are no apparent stormwater management facilities on site.

SOUTHWEST CORNER STORM INLET

WESTSIDE STORM INLET

NORTHWEST CORNER STORM INLET

Existing Utilities: Electric, Gas & Telecommunications

Electric:

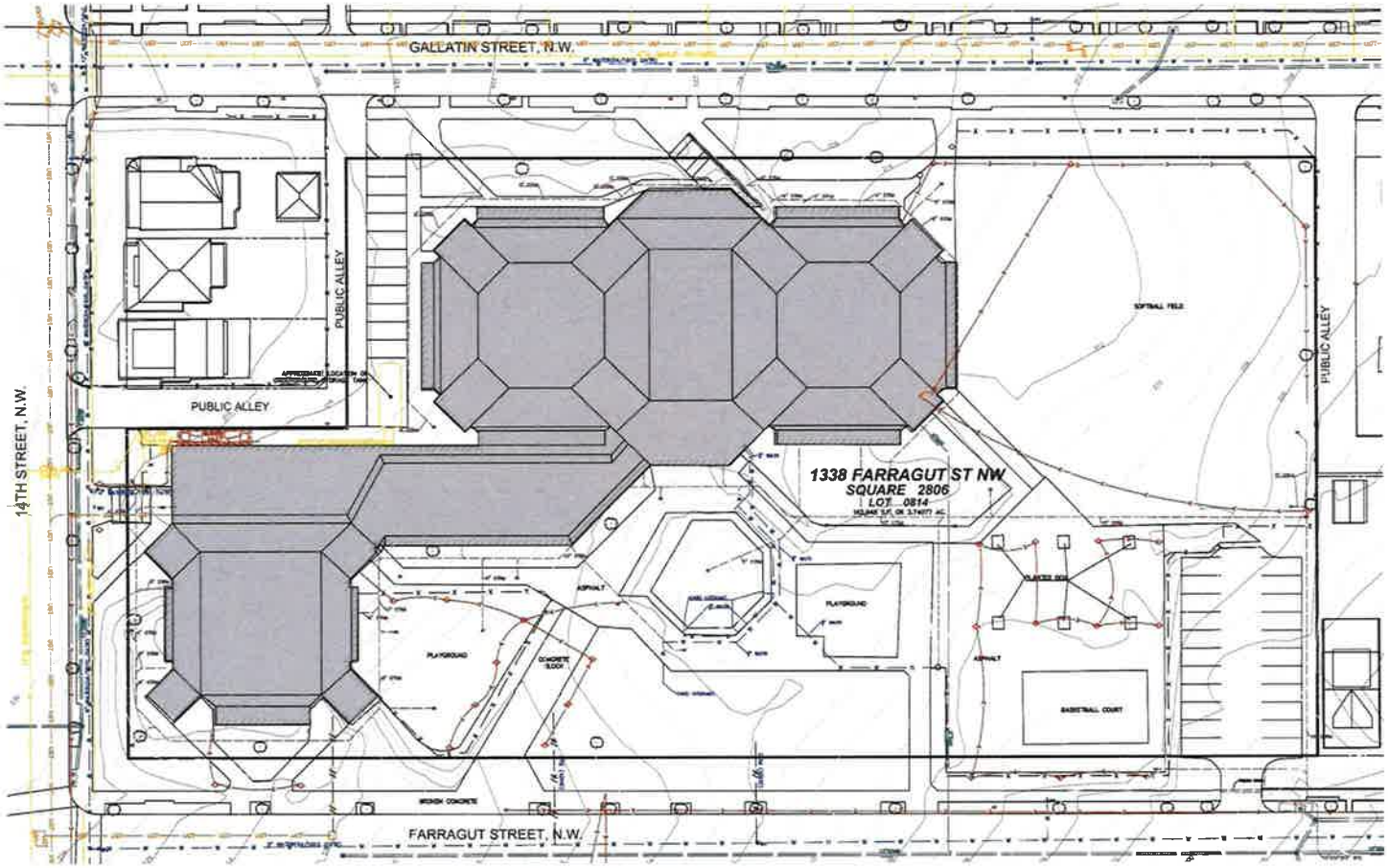
Throughout the site, there are several electrical conduits connecting the lighting system. The site has an electric underground transformer at the west portion of the site and it is believed that the electric input come off of 14th street NW, where there is an electric main along the property. There is also an electric line along Farragut street NW, but this line seems to be primarily for the streetlights, which are all located along square 2806.

Gas:

The site has an existing 3" gas service, it is assumed that this line was presumably installed in 2002, based on records provided by Washington Gas. The existing 3" gas service connects to a 6" low pressure main in 14th street NW that was installed in 1910. 6" low pressure gas mains were also installed along Gallatin Street NW and Farragut Street NW in 1911 and 1910, respectively. However the 6" gas main along Farragut Street is located on the southern section, behind the sidewalk. The site also has an underground fuel oil storage tank, at the northwestern portion, along the alley. No information has been found regarding the specific use of the tank, per records use is still active.

Telecommunications:

The telecommunication line enters the building from the west along 14th street from a 2-4" connection by DDOT. The incoming telecommunication service is 2-4" conduit encased in 3" concrete, per records it is 24" below finished grade. The underground telecommunication line along Farragut street ends at manhole were previous telecommunication line is now abandoned. There is also an underground telecommunication service alone Gallatin street NW, adjacent to the property.



CIVIL: EXISTING CONDITIONS PLAN

LEGEND:

- TREE
- UNKNOWN MANHOLE
- UTILITY POLE
- FIRE HYDRANT
- FENCE
- PROPERTY LINE
- FF — FINISH FLOOR ELEVATION
- BUILDING
- WATER LINE
- STORM
- SANITARY SEWER MANHOLE
- WV — WATER VALVE
- FH — FIRE HYDRANT

NOTES:

1. HORIZONTAL DATUM: BASED ON DC GIS INFORMATION
2. VERTICAL DATUM: BASED ON DC GIS INFORMATION
3. PROPERTY IS ZONED: LOT 0814 (R-1-B)
4. BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM RECORDS AND VERIFIED USING PHOTOS AND GOOGLE MAPS. PROPERTY LINE DIMENSIONS FROM OFFICIAL CITY RECORDS MAY NOT NECESSARILY AGREE WITH ACTUAL MEASURED DIMENSIONS. ALL PROPERTY LINES IN THE DISTRICT OF COLUMBIA ARE SUBJECT TO CHANGE BY THE OFFICE OF THE SURVEYOR, D.C. THIS SURVEY DOES NOT REFLECT A "SURVEY TO MARK". THE PROPERTY LINE REFLECTED ON THIS SURVEY IS NOT TO BE USED FOR ANY CONSTRUCTION STAKEOUT PURPOSES. A "SURVEY TO MARK" MUST BE APPROVED BY THE OFFICE OF THE SURVEYOR PRIOR TO BEGINNING ANY BUILDING DEMOLITION OR CONSTRUCTION OPERATIONS.
5. CONTOUR INTERVAL IS TWO (2) FOOT.
6. PROPERTY INFORMATION LOT 814 SQUARE 2806

EXISTING CONDITIONS PLAN NARRATIVE

THE SITE CONSISTS OF LOT 0814 OF SQUARE 2806. THE EXISTING SITE CONTAINS ONE 2 STORY SCHOOL BUILDING, WITH LOWER LEVEL, THAT OCCUPIES ABOUT 31% OF THE LOT. THE SITE IS ABOUT 75% IMPERVIOUS WITH LOW RELIEF AND MOST SLOPES < 10%. EXISTING DRAINAGE IS THROUGH DOWNSPOUTS, INLETS OVERLAND FLOW. THE ANACOSTIA RIVER IS ABOUT 2 MILES AWAY FROM THE SITE. NO WATER BODIES ARE ON OR DIRECTLY ADJACENT TO THIS PROPERTY

EXISTING CONDITIONS PLAN NOTES

1. THIS EXISTING CONDITIONS PLAN IS A COMPILATION OF A DC ATLAS AND DC GIS INFORMATION RETRIEVED FEBRUARY 2016 BY DMA.
2. EXISTING CONDITIONS LEGEND APPLIES TO THIS SHEET ONLY. EXISTING CONDITIONS MAY BE DEPICTED DIFFERENTLY OR NOT FULLY DEPICTED ON OTHER PLAN SHEETS
3. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND BASED UPON AVAILABLE RECORDS. CONTRACTOR SHALL LOCATE AND CONFIRM ALL UTILITIES PRIOR TO UNDERTAKING ANY DEMOLITION OR EXCAVATION.

N

GRAPHIC SCALE

Structural

Existing Conditions

Three overlapping octagonal structures form the learning center and a fourth octagonal structure contains the gymnasium. A connecting building, containing the administration, commons, assembly, kitchen, dining, and audio-visual functions, joins the gymnasium and learning center. Below the connecting building is a relatively deep basement with boiler and air handling rooms. Various portions of the structure are "terraced" to follow site topography which rises from the east end of the campus to the west. There are 1 to 3 levels at or above grade, depending on location. Exterior walls are brick with CMU back-up and serve as bearing walls. Elevated slabs are either precast concrete planks with topping or cast-in-place concrete supported by steel column and beam framing. Roof structure is either precast concrete planks or steel joists with metal roof deck. Columns are supported on isolated spread footings. Walls are supported on continuous footings or grade beams spanning between spread footings.

Demolition

Each option requires structural demolition ranging from somewhat minor for the renovation scheme to complete razing of the building for the replacement scheme. Option 2 leaves the gymnasium, the below-grade mechanical area, and a portion of the connection building in place. Option 3 requires complete demolition of the existing structures, both above and below grade.
During the process of demolition and construction, portions of the structure to remain must be protected and the integrity of those portions of the building to be modified must be maintained. Consideration must be given to mitigating disturbance to residences at the northwest corner of the site as well as those along streets adjacent to the site and in the surrounding neighborhood. Demolition must also be in accordance with DPOR guidelines.
The complete-demolition scheme, Option 3, requires that the void left by the mechanical basement be filled with structural fill to achieve the elevations of the proposed replacement structures. This area will need to be prepared to receive new foundations.

CONCRETE PLANKS ON STEEL COLUMNS & BEAMS

Mechanical

The building is heated with two gas fired hot water boilers. The boilers appear to be the original boilers but in working condition. Hot water pumps circulate hot water to air handling units, heating coils and radiators.

A 250 ton water cooled chiller provides chilled water to chilled water coils in air handling units and fan coil units. The chiller was replaced about 8 years ago. Chilled water pumps are the original pumps and appear to be in good condition. The chilled water system was not working during our visit. The cooling tower was observed to be drained and in process of repair. We found existing wires at the cooling tower that were not connected. We also found a temperature sensor that appeared to be damaged.

Various air handling units throughout the building supply conditioned air to various thermal zones. Each zone is provided with local variable volume control boxes maintaining space temperature. The existing air handling units are original. We found air handling units missing damper linkages and rusted casings. Heating and ventilating units in the Gym area were missing belt covers. Belt covers must be provided to avoid accidents.

The automatic control system appears to be the original pneumatic control system. The control system is not working due to pneumatic lines leaking or disconnected and needing replacement.
Toilets are exhausted by vertical duct risers to roof and terminated to a roof mounted exhaust fan. We found toilet exhaust fans not working during our visit.


BOILER


BURNER TAG


CHILLER


PUMPS


COOLING TOWER


COOLING TOWER CONTROL PANEL


AIR HANDLING UNIT


UNINSULATED PIPING AT AHU


RUSTED CASING AT AHU

Plumbing

A 4" cold water line supplies the school with domestic cold water. A gas fired hot water heater with 1400 gallons storage tank provides domestic hot water to the building. A circulating line maintains domestic hot water in the system. The domestic hot water was in working condition.

The sewage sump cover in the mechanical room was open and one of the pumps was disconnected. Covers should be installed and pumps reinstalled.

Floor mounted and wall mounted water closets with flus tanks are provided throughout the facility. Lavatories are mostly wall mounted units. The water closets and lavatories appeared to be in working condition.

Sprinkler System:

The school is not protected with a sprinkler system

Natural Gas System:

The school is provided with a natural gas service supplied by Washington gas. Gas piping is piped to boilers, domestic hot water heaters and emergency generator

INCOMING COLD WATER

DOMESTIC HOT WATER BOILER

SUMP & SWITCH PUMP

GYNASIUM BATHROOM

GAS METER

Electrical:

The existing incoming utility service to West Education Campus is fed from the utility pole near Gallatin Street, NW and enters the building via underground duct bank encased concrete and underground transformers. The vault contains utility transformers for reducing to nominal voltage 480Y/277V, 3Phase, 4Wire system to supply power to the building.

The main electrical room is located on the mezzanine level of the mechanical room. It has only one exit to the room and does not meet the latest NEC code requiring two means of exit. The entry door should swing outward to comply with code. Also, this room has limited space for future expansion or additional electrical equipment.

The room consist of main switchboard "SWBD", automatic transfer switch "ATS-1" (Green Color) for backing up emergency power from the generator, high (480Y/277V) and low (208Y/120V) voltage panel-boards, wall mounted transformer, a few fusible disconnect switches and a fire alarm control panel. The strip fluorescent fixture without wire guard with magnetic ballast and (2) F40 T12 bulbs burned out. It needs to be repaired so that maintenance personnel have adequate light level to do the work. Many of the panels were missing covers to protect against accidental sparks.
The SWBD is rated 1600A, 480Y/277V, 3Phase, 4Wire system with 1200A ground fault main circuit breaker. It supplies power to chiller, boilers, panelboards, lighting fixtures, receptacle outlets and other miscellaneous loads. This SWBD has no available space or spare breakers for additional new breakers The remote utility meter is located on the wall behind the existing switchboard "SWBD".
The gas fired emergency generator is located in the boiler room, 60kW/75kVA, 0.8PF, 480Y/277V, 3Phase, 4Wire system. The generator is in good condition and well maintained. This generator supplies power to all emergency and standby loads in the building. The floor mounted 75kVA dry-type transformer is located in the harsh environment near water dripping from pipes above. The steel enclosure of the transformer is rusty but still working, however this location does not meet working clearance per NEC code. The requirement for working clearance in front of electrical equipment shall be 3'-6" or more for safety and protection of maintenance personnel.


STAIRS TO ELECTRICAL ROOM


ELECTRICAL PANEL MISSING COVER


FIRE ALARM & GENERATOR PANEL


MAIN ELECTRICAL DISCONNECT


SWITCHBOARD BREAKER


EMERGENCY GENERATOR


ELECTRICAL METER


INADEQUATE DISTANCE AT TRANSFORMER

Electrical:

Typical wall mounted stair lighting fixtures are 4'-0" long fluorescent (2) F40 T12 with magnetic ballast and prismatic lens. One of the fixtures is missing a cover lens as shown.

The lobby near the gymnasium and multipurpose room consists of 6" open downlight with PAR 75W incandescent bulb. This type of bulb will be eliminated or no longer available because they do not meet the latest Energy Saving code. Also, it produces a lot of heat into the space and the lamp has a very short life. They need to be replaced more frequently compared to compact fluorescent or LED bulbs.
The corridor near gymnasium consists of 6" wall washer and a continuous linear perimeter fluorescent (1) F40 T12 with magnetic ballast. These fixtures do not meet the latest Energy Saving code.
The gymnasium consists of recessed LED fixtures, see picture.


TYPICAL STAIRWELL LIGHTING 1


TYPICAL STAIRWELL LIGHTING 2


TYPICAL DOWNLIGHTING 1


TYPICAL DOWNLIGHTING 2


CORRIDOR LIGHTING


GYMNASIUM LIGHTING


MULTIPURPOSE ROOM LIGHTING

Fire Alarm System:

The fire alarm control panel and battery cabinets are located in main electrical room on the mezzanine level in the boiler room on the basement. This panel is old and outdated. It needs to be upgraded with an addressable system with spare capacity for future expansions.
The fire alarm panel is currently connected to all manual pull stations, ceiling mounted fire alarm speakers, heat detectors and bells through-out the building. The visual strobe devices were not installed.
Typical fire alarm devices at egress doors with manual pull station (red) and bell (gray).
No visual strobe device was found.

EXIT SIGN (TYPICAL)

FIRE ALARM PULL STATION

On October 16, 2017 DCPS hosted a Project Kick-Off Community Meeting. In addition to informing participants of the porcess and goals of the project, DCPS engaged community members to provide feedback on the school comunity, their hopes and fears of the modernization and what they currently like about their school.

COMMUNITY MEETING 10 / 16 / 17

SCHOOL COMMUNITY

Diverse Community in many ways

History of community support - needs to be revitalized - inout needs to be welcomed.

Hands on education - Great history of input from people who love West Ed - parents & community

Engagement - Neighborhood should be excited, even if they do not have kids.

Rapidly growing popoulation of school-aged children

CURRENT BUILDING LIKES

The open space for scholl wide meetings

Size and openness

Great for meetings

Big outdoor space

HOPES

Keep our full size gym

Environmentally friendly

Bright spaces

Outdoor spaces to: play, climb, run, garden, and learn

Spaces for "Specials" - Art, Music, tech, STEM, Library

Collaborative spaces (spaces for clases to work together)

Outdoor garden

Technology integrated into design while leaving room/space for creative physical play

New construction conducive to learning

Natural light - Windows

Incorporate student input

LEED Platinum

State of the art facility w/technology

Elevator

West opens as a community hub with funding for after-hours community use

FEARS

Not enough space to grow

Construction runus behind

The building isn't ready on time

A building that tries to do too much and does nothing well

Timeline slippage

lack of clear design/school priorities focus

Small Pre-K classrooms - Little Kids need BIG SPACES

Short-changed due to past DCPS / DGS performance issues

Building something that becomes out dated

Where will the swing space be?

Delays

New school will run way over budget

Playground and field will be constructed over the surface parking

No planning for cars / parking or curb pick-up / drop-off

Feedback was provided by DCPS from the Community Meeting held on October 16, 2017

Questions/Answers

Q: When will we be able to see the three options?
A: The architect will work on concepts based on the parameters given (education specifications, site restrictions, etc.) and present these concepts, once vetted by DCPS, at the next SIT. There might not be three concepts, as the proposed program is potentially larger than the current building meaning just a renovation is not plausible. The role of the SIT is to advise and weigh in on different schemes, but DCPS will have the final decision.

Q: When will the next SIT be?
A: The next SIT will be at the end of March or beginning of April, depending on schedule availability and project updates.

Q: Will we get a chance to review and make edits to the Education Specifications?
A: Education Specifications are developed by DCPS based on best learned practices, and ensure schools across the distract are equitable. The generic specifications can be found on the website here. The program for number of spaces/size is based on future projections of West (grades PK3-5, capacity of 557). The SIT will not be able to modify the essence of the Education Specifications, but will have input on adjacencies and programmatic elements with school admin.

Q: How are potentially hazardous building materials currently in the infrastructure vetted? Will lead pipes or asbestos be abated if we don't get a totally new building?
A: Buildings have evolved throughout time, and the materials that have potentially hazardous composition are thought of differently today. Today, building materials are far more regulated. Any hazardous materials found will be evaluated for the appropriate abatement method.

Q: Will the future space have the ability to put on performances? Can we get an auditorium?
A: We do plan to have a stage area. The architect is looking into options, understanding the current stage is not deep enough. The primary goal of the future space is to optimize spaces for the kids, not necessarily for the community; but they may be able to utilize the space if what we build for students also suits their needs. Elementary schools do not typically get auditoriums. Stage areas are rolled into other areas and become multipurpose rooms, such as cafeterias (cafetorium) or gyms (gymatorium) rather than having a separate auditorium to optimize square footage, and ensure there are no dead spaces for long periods of time during the day. Multi-use spaces come with specific challenges and maintenance concerns. These will be reviewed during the design phase."

Q: Can we ensure there is more access to natural light throughout the classroom spaces?
A: Yes! Natural light is very important to learning environments and it's a DCPS priority to ensure kids have access to natural light in their learning spaces.

Q: Will the modernized school have a cooking kitchen?
A: Yes. DCPS is moving away from 'heat and serve' (warm kitchen) to cooking kitchens. All modernized buildings will have cooking kitchens.

Q: What life-cycle do the newly modernized buildings have?
A: DCPS plans and designs schools to have a 50 year life-cycle, understanding that the building will receive some small capital maintenance before the next full modernization.

Q: Does DCPS have a standard for security, such as being able to lock-down?
A: DCPS has a robust security division that devises school-specific security plans. Appropriate hardware is issued for schools, with all doors being lockable. DCPS is currently looking into a more robust locking mechanism across all future schools that is designed for ease of lock-down. Since West EC is three years out, we're confident this, or a different option, will be vetted and standard by delivery.

Q: Can we visit the future swing space at Sharpe Health?
A: We are currently arranging a trip for Principal Vroman and interested school staff to visit Sharpe Health first, and then we will investigate how many other people can come for a later visit. At the very least we'll have more pictures to share so the SIT can get a better idea of how Sharpe Health is currently being used by Bancroft ES.

Q: Does Bancroft, currently located at Sharpe Health, use the pool?
A: No, not to our knowledge.

Q: What is the timeline of the feasibility study?
A: Right now, the architect is working on getting as-built drawings together and assessing site conditions. Over the next few weeks, they'll take into consideration the program, education specifications, and community input from today's meeting to develop massing/adjacency concepts. They'll present the concepts at the next SIT. Based on feedback and final direction from DCPS and DGS, they'll move forward with one of the schemes, flushing it out with more detail. By the end of May/early June, we'll have a SIT meeting to present the approved scheme. DGS, with this concept, will procure the architect for the design of the facility in Fall 2018.

Q: Will any of the building materials get reused?
A: This will largely depend on the designer and build team hired in the Fall and how they handle re-use. DCPS does go through each building prior to demolition to take all useful materials to get reused in other buildings, as needed. This includes hardware, doors, plumbing, furniture, technology, etc. As far as actual building materials, such as bricks, this is the discretion of the designer and contractor hired in the Fall. We cannot speak on their behalf at this time.

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Feedback was provided by DCPS from the SIT Meeting held on Febuary 20, 2018

Community Feedback

Community members provided feedback for each possible scheme presented. Below are the comments per scheme.

General Feedback:

- Like all green space integration (green roof, etc.)
- Like existence of some green space along both Farragut and Gallatin
- Like an idea of promoting traffic management (such as incorporating a curb cut)
- Strongly believe neighbors would appreciate having the large green space on the east-side, closer to houses.
- Concerned about traffic and drop off – strongly prefer options where there are entrances from both Farragut and Gallatin
- Concerned about security needs of having two access points.

General Questions:

- Do all of the different layouts involve the same total square footage for the building?
  - *Yes and no. DCPS provided the feasibility study architects with square footages per space and general gross-up space amounts. Depending on how it's laid out will affect total square footage numbers. Also, the current gymnasium is larger than the education specification by about 400 square feet. Keeping this gymnasium will allow the larger square footage to remain. The architect will refine space layout and ensure all spaces are reflected accurately in the feasibility study as the narrow in on layout/adjacencies.*
- Do we lose the multipurpose space in all of the proposed layouts except renovation?
  - *No, either the dining or gymnasium space will serve as multi-purpose space.*
- Can two entrances designed to be at the same level, with the same level of security?
  - *DCPS has new designs that have a main entrance, but ability drop-off and pick up location in a different area. Arrival and dismissal will be coordinated with school administration.*
- Will the brutalism style will be utilized again?
  - *No, we strive for modern facilities that meet community needs.*
- When can we see the Ed Specs?
  - *The educational specifications given to dp+partners is at a high level to address the capacity needs and understand massing for layout on the site. They are 90% complete, but they will get refined with more detail when the design architect comes on board. Once the design architect is on board DCPS will share the West Ed Specs.*

Addition Scheme (Scheme 2 in presentation)

Likes:

- Gardens connected to the science room.
- Arts on display via windows facing the community
- Liked the discussion about lay-by lanes to help traffic flow\
- Keeping the larger gym
- -keeps our great, big gym.
- -L-shape may maximize sunlight

Dislikes:

- Pick-up and drop off remain the same (This is an opportunity to building a better system for drop off in the a.m.)
- Entry way for students and main entrance. The ally way does not seem feasible or safe.
- Concerned keeping the gym will not allow replacement of lead pipes underneath it.
- Parking lot in front beside main entrance (bad for aesthetics and concentrates traffic). Could we switch the parking to the back and plaza to the front?
- Lots of wasted space behind school in NW corner. I like that currently we have a beautiful garden in front of school, but if we added a garden (or the proposed plaza) in some of that empty unused space in back, no one would see or use it since it's behind the school.
- Missing the opportunity to build more parking.
- Can we figure out whether kids would use two entrances given security requirements; if not, the area behind the alternate entrance becomes less useful and appealing. If kids only have one entrance, I'd propose moving the parking lot back to the empty space behind the school and plaza in front of green space.

All New Construction Scheme A (Scheme 3 in presentation)

Likes:

- Discovery area to display student work.
- Great green space.
- Idea of "all new".
- Getting all amenities that West deserves.
- Community access.
- Increase of green space
- Art and music in area with windows
- New construction facilitates digging up lead pipes.
- Parking in back (best for aesthetics and minimizing traffic by main entrance)

Dislikes:

- Walk is far for kids coming from 14th Street
- Don't like play area on 14th street.
- The fields will be at the parts with the steepest grades; thus, I'm concerned that much of the playground and field space won't actually be usable since they'll be sitting on a steep hill. It looks like the kids will have more outdoor space than they really will.
- The kids will be outside next to busy 14th St with its diesel bus fumes and car exhaust. Also, more exposed and less protected than other plans that orient outdoor space not directly on 14th St.
- Current plan has front of building right up on Farragut St without even a tiny setback. Little to no room for lane cut and gathering space in front of entrance.

Feedback was provided by DCPS from the SIT Meeting held on April 3, 2018

SIT MEETING #2 - 04 / 03 / 18

All New Construction Scheme B (Scheme 4 in presentation)

Likes:

- Gym on 14th St corner so still easily accessible to public for voting (and any community events).
- Kids' outdoor space not on busy 14th St (with diesel fumes and car exhaust); and safer on a side street.
- New construction facilitates digging up lead pipes.

Dislikes:

- Parking lot in front rather than behind the building (bad for aesthetics and concentrates traffic).
- Entrance is the furthest west toward 14th street of all the options. Concerned this will result in more traffic and bottlenecks on Farragut as cars will both wait in line to turn onto 14th street while other cars are also congregated in the same area closer to corner, stopping to backup and parallel park or double parked waiting for a child to come outside to car.

All New Construction Scheme C (Scheme 5 in presentation)

Likes:

- An entrance from both Farragut and Gallatin
- Green space for both blocks of the community.
- Play area not in a busy street .
- Like existence of some green space along both Farragut and Gallatin.
- Ability to separate after hour activities.
- Good usage for community.
- Parking is in back rather than in front; good for aesthetics and good for minimizing traffic so not on same side street where pickup and drop off happen.
- Playground space is not on 14th St (with its diesel bus and car exhaust); and safer on a side street.
- Gym on 14th St corner so still easily accessible to public for voting (and any other community events).
- L-shape seems to maximize daylight.
- Though small, the setback in front of the main entrance allows space for the inevitable gathering and socializing that happens at the main entrance and potentially space for a tiny plaza.
- Two exits onto green space from classrooms may facilitate more outdoor time.
- New construction facilitates digging up lead pipes

Dislikes:

- Library next to dining – dining is normally pretty loud, so having it further from the library would be good.
- Safety concerns of front entrance so close to the street. Could we have a tiny plaza towards the southeast corner of parking lot if students will be able to enter and exit from that door? And may help with safety so cars not driving next to a door.

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Feedback was provided by DCPS from the SIT Meeting held on April 3, 2018

CIVIL

Option1: Renovation - Modernization

As mentioned previously, the site has two dedicated parking areas, one at the north next to an ADA accessible ramp and the other at the south end of the property. Parking will need to be updated to comply with current DCRA regulations and undergo mill and overlay to smooth out cracks in surfaces. Parking at north will need to be at least 5' offset from alley and parking at north, the entrance will need to be reduced to maximum 24', per DDOT requirement. It is recommended that the parking lot to be restriped to meet ADA compliance following the resurfacing and add several landscape islands in order to meet GAE's potential landscape requirement for parking. Finally, the overall site will need to be resurfaced due to cracked concrete that leads to potential drainage issues.

Option 2: Renovation - Addition

All issues of the renovations will also need to be met for site redevelopment in this scenario.

Option 3: New Construction

All issues of the renovations and the addition will also need to be met for development in this scenario. Grading, landscaping, building access via stairs and ramps, fencing, new parking, ADA compliance and best management practices should be discussed in proposed stormwater management.

Proposed Stormwater Management

The District of Columbia's Department of Energy and Environment (DOEE) requires that all development and redevelopment projects that disturb more than 5,000 square feet of land in the District provide a system to manage the quality and quantity control of stormwater runoff from the sites. All stormwater facilities and conveyance systems must be designed using the 15-year design frequency. DOEE requires that the post–development peak discharge for a 24-hour, 15-year frequency storm event be maintained at a level that is equal to or less than the 24-hour, 15-year pre-development peak discharge rate.
DC Water typically allows storm drain lines on private property to be PVC; however, beyond the property line, storm drain lines must be reinforced concrete pipe with rubber gaskets (Class III or higher). The minimum size for storm sewers in a public space is 15 inches. All connections must be made perpendicular from the sewer main to the property line with a minimum of 5.5 feet of cover.

With minor site improvements, total disturbance area of the site is expected to be less than 5,000 sq. ft., therefore, stormwater management should be not required. However, the stormwater drainage system on site shall be redesigned and reconstructed in the next phase to meet updated DOEE requirements. It is recommended that a new stormwater drainage pipe system including a roof water drain be constructed for the site per current DOEE and DDOT requirements.

Option 1: Renovation - Modernization

Per DOEE requirements, the site will need to undergo stormwater management based on the area disturbed and must retain the first 0.8-inches of a rain event for renovation of the building, as a major substantial improvement (MSI); since the building is over 5,000 sf and it will increase in value by over 50%. Since portions of the roof is pitched, a green roof may not be a solution for stormwater management and instead stormwater would need to be taken care of with either a cistern inside the building or the limits of disturbance of the work would need to be increased (and the additional disturbance would need to be retain the first 1.2" and detain the full 15-year event) in order to add a stormwater management facility on site. If land disturbance becomes over one acre, then a Notice of Intent (NOI) would need to be filed with the US EPA

Option 2: Renovation - Addition

Per DOEE requirements, the site would need to undergo stormwater management based on area disturbed. As a result, the limits of the existing building would need to retain the first 0.8" of a rain event, but the limits of the addition would need to retain the first 1.2" of a rain event as a result as a result of land and soil disturbance. The renovation to the building would be considered MSI while the addition, would be considered a major land disturbing activity, MLDA and be treated as such. The addition may be able to treated with green roof, pending the type of roof, however the remainder of the disturbance would need to be treated either with a cistern within the renovation and addition or the limits of disturbance would again need to be increased to include a best management system on site, this increase would be treated as a MLDA and required to retain the first 1.2" of a rainfall event. If land disturbance becomes over once acre, this would include MLDA

Option 3 New Construction

Per DOEE requirements, all land disturbing activities over 5,000 sf require stormwater management and as a result are required to retain the first 1.2" of rainfall as a MLDA. Considering this is a new build, the possibilities to resolve stormwater management include green roof, rainwater harvesting, permeable pavement, bioretention, infiltration systems, open channel system and tree planting. The optimum use of permeable pavement, bioretention, infiltration systems and open channel would result pending that the site has satisfactory infiltration rates per DOEE standards. The current area of the site about 3.7 acres, as a result the total of the site will likely be over one area, and if this happened then the NOI would need to be filed with the US EPA.

Proposed Site Utilities

Water:

Current DC Water regulations require double taps for fire and domestic water service lines for new buildings, and separate metering for fire and domestic lines. DC Water also requires that each fire and domestic service tap be metered separately, and backflow preventers installed on each line. The existing 4" water line was constructed in September 1980, and should be replaced with a new water line. The project will require the construction of a new 4" domestic water line and a 6" fire service line, which will be further verified in later design phases. All connections must be made perpendicular from the water main to the property line with a minimum 4' of cover. The proposed water lines is recommended to be connected to the 8" line on 14th Street, NW since this is the highest elevation. The existing 8" water main is over 100 years old. Per DC Water requirement, it should be replaced with new 8" DIP or larger.
Fire hydrant flow tests must be conducted for buildings that will have 3" or larger fire service lines. Flow tests are typically valid for one (1) year from the date of testing. The test should be requested to DC Water, and at the time of the next concept design phase.

Sanitary Sewer:

DC Water requires separate storm and sanitary sewer connections and all sewer connections must have a clean-out or a clean-out manhole at the property line. Sewer connections larger than 8" require a manhole. No connections are permitted within the drip line of trees. All connections must be made perpendicular from the sewer main to the property line.
Since the building is over 50 years old, it is recommended that the existing sanitary lateral line should be replaced with a new line. It is recommended that a new 6" sanitary lateral connection for the school building, and then tied into the combined sewer system downstream of storm connection, either on Gallatin street NW or Farragut street NW, at the lowest elevation of building. The current cost etimate provided does take into account providing new utilities throughout.

Other Utilities

Gas services in the District of Columbia are usually provided to the meter by the gas company (Washington Gas). The MEP shall provide load letters to the gas company. Electrical service capacity will be determined by the electrical engineer in conjunction with PEPCO. The fiber optic connection is also provided by communication companies.

Civil Permits and Applications

The District of Columbia requires a Building Permit for construction of the project. There are various signatories to the Building Permit application. Listed below are the standard signatories related to

DDOT:

- Maintenance of Traffic – approval of a traffic safety and traffic flow management plan during construction activity.
- Work in Public Space – approval of construction activity within the public right-of-way. A bonding amount must be paid for the full replacement cost for all sidewalks, curbing, driveways and other items surrounding the site.

DC Water:

- Fire Hydrant Flow Tests – required for buildings that will have a fire service line 3" and larger.
- Connection/Tap Fees – for new domestic water and fire service taps for each new building on the project site.
- Water Meter Stamp – approval of water line and appurtenance layout and connections.
- Water/Sewer Availability Slip – certification of existing municipal facilities within 250 ft of a lot line.
- Backflow Prevention Certification – certification of an approved device and its location to protect the municipal water supply from backwash contamination once water has left the public side of a water meter.

DOEE:

- Approval of a Stormwater Management plan satisfying the DOEE storm water runoff, containment and treatment requirements (for projects with site disturbance exceeding 5,000 SF, or improvement value more than 50% of property value, which may not apply to this project).
- Approval of a Green Area Ratio (GAR) plan satisfying the DOEE stormwater runoff, containment, and treatment requirements (for projects with site disturbance exceeding 5,000 SF that maybe not apply to this project). Note that this plan is certified by an ap proved Certified Landscape Expert as defined by DCMR.
- Approval of an Erosion and Sediment Control plan satisfying the DOEE requirements for sediment and silt runoff containment measures during construction activity (for projects disturbing 50 SF or more).

Recommendations:

Based on the above analysis, it is recommended that the following items be included in the civil site improvement for the project:

- Options 1 & 2: Restriping the parking lots around the building, about 7,940sf
- Options 1 & 2: Adding landscaping islands, approximately 1,000 SF
- Options 1 & 2: Replacing existing stormwater drainage system including approximately 12 inlets, 2 manholes, 15"-18" RCP 500 LF, and 6" PVC pipe 800 LF for roof drains; Adding 6" PVC for perimeter of building
- Options 3: Separate storm connection upstream of sanitary and must connect on either Farragut street NW or Gallatin street NW.
- Options 1 & 2: Replacing existing sanitary sewer system including approximately 210 LF 6" lateral connection and add cleanout at property line and at face of building
- Option 3: Separate storm connection downstream of storm connection and must connect on either Farragut Street or Gallatin NW since this is a gravity lateral
- Options 1- 3: replace existing water service with 4" domestic lateral and 6" fire service (about 45 LF for option 1 & 2), valve can be reused for 4" water meter will need to be placed outside of building if possible for domestic and new valve for fire lateral
- Replacing other utilities including electrical, gas, communication, etc.;
- Providing additional funding for various permits, and LEED certification;
- If Limit of Disturbance exceeds 5,000 SF or improvement cost exceeds 50% of the existing property value, stormwater management will be required; providing additional funding for stormwater management.
- Option 3 will require significant grading of the site in order to create a level playing field. Borrow material will be required , in addition retaining wall at the low or high side of the existing site will be required

STRUCTURAL

New Structural Systems

New design should be based on gravity, lateral, and other loading developed in accordance with the International Building Code (IBC) as supplemented by the District of Columbia Municipal Regulations (DCMR) building code supplement.
In selecting the new structural systems, consider the total facility, as structural components must integrate with architectural, HVAC, lighting, and utility requirements. Construction materials typically used in recent District of Columbia public school design will be acceptable, as applicable to the new work. Pay particular attention to design life of the facility and maintenance costs over this period. Speed of construction is often a factor in selecting materials. LEED requirements may also influence the specification of some materials.
It is expected that a foundation system similar to that used for the original building can be used for the new construction, however the new foundation design must be based on a geotechnical study prepared specifically for the project. Consideration must be given to structural fill needed for replacement Schemes 3.
For renovation Schemes 1 and 2, evaluate the need for upgrading those portions of the structure to remain in accordance with the International Existing Building Code (IEBC). Upgrading any remaining structure to comply with current building codes should be considered even if not required by the IEBC.

References

IBC (2012). International Building Code. International Code Council.
IEBC (2012). International Existing Building Code. International Code Council.
DCMR (2013). District of Columbia Municipal Regulations, Title 12,

Construction Codes Supplement of 2013. Office of Documents and Administrative Issuances, Washington, DC, 2013.
References are applicable at the time of this narrative. For design, use editions of references in effect at the time of design.

Option 1: Renovation - Modernization
Option 2: Renovation - Addition
Option 3: New Construction