

Existing Facility Attributes

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Interboro¹
School District

Site:

1. Accessible from multiple public streets
2. Flat – Nearly 100% usable land
3. Public utilities
4. Efficient layout
5. Paving, Concrete, Storm Water System and Infrastructure in place

Building:

1. “Good Bones” solid structure w/no apparent deficiencies
2. Efficient layout of existing spaces and circulation
3. Well maintained
4. Some existing systems offer VE opportunities
5. Classroom sizes are appropriate



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HVAC Systems Needs:

1. Trane water cooled chiller (R123) is at the end of its life expectancy.
 - Recommend replacement with two smaller air cooled units for better operation, efficiency and redundancy.
2. Boilers are dual fuel cast iron sectional “porkchop” boilers in fair condition and nearing the end of their useful life.
 - Recommend replacement with high efficiency units.
3. Pump Systems are in good condition and recommended for reuse
4. AHU’s, RTU’s, VAV’s and Terminal Equipment are a combination of old and older units, many original to the building.
 - Recommend replacement of all units in base budget.
 - Some later model units may offer VE opportunities dependent upon final system configuration.
5. Existing Piping and Ductwork is in fair to good condition.
 - Recommending replacement only where needed based on new system configuration and need.
6. ATC system is JCI Metasys and has been cobbled together over several iterations, there are indication that some pneumatic controls are still being used.
 - Recommend full system replacement with new digital controls.



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Electrical Systems Needs:

1. Switchgear and Main Distribution is original to the building and beyond its useful life expectancy
 - Recommend full replacement with new serviceable equipment
2. Secondary Distribution, transformers and panels are in good shape and appear to have been replaced approx. 10 years ago as part of an efficiency project.
 - Recommend reuse where possible based on final design configuration.
3. Interior Lighting is primarily T8 fluorescent with rudimentary occ sensors for control
 - Recommend complete replacement with efficient LED units to improve light levels and new system-wide digital controls.
4. Exterior Lighting heads were replaced recently with LED units, however poles and wiring is original to the building
 - Recommend replacement of poles and wiring, augment existing units with new to bring entire site up to code for safety and security.
5. Low Voltage Systems including: Fire Alarm, Security/CCTV, Clocks/Speakers, Data/Communications are of varying ages and conditions; some are original to the building when constructed.
 - Recommend replacement of all systems with new efficient, updated and flexible equipment.



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Plumbing and Fire Protection Systems Needs:

1. Toilet Rooms: Although many fixtures and valves were replaced as part of a water conservation effort in 2013, toilet room layouts and fixture counts do not meet ADA and need to be renovated.
 - Full Renovation and replacement is recommended as part of the base budget, new toilet rooms may need to be added.
 - Condition of existing equipment may offer VE Opportunities through reuse.
2. Domestic HW Systems: The kitchen system consists of older Laars Gas Fired Boiler with multiple tanks, the kitchen system uses a packaged PVI gas fired water heater these are both in fair to poor condition.
 - Recommend full replacement with high efficiency combustion boilers, new tank system and mixing valves for temp control. New piping should be installed as needed.
3. U/G Storm & Sanitary: Existing sanitary mains run under main corridors starting in the locker room areas and tying into an existing structure under Amosland Road. Storm exits building at various locations and ties into site system.
 - Recommend video investigation of both systems where possible then replacement/repair as needed.
4. Fire Protection System: there is currently no system in the building.
 - Recommend installation of new system throughout based on code requirements and final building configuration.



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Other General Work to support Infrastructure Upgrades:

1. Single ply EPDM Roof is beyond its warranty, ponding and leaking is present in several areas.
 - Recommend full replacement with redundant built up roof.
2. Building Envelope Repairs (including drs & wdws) although a weatherproofing program was conducted in 2013, there are still many deficiencies in the exterior envelope including original masonry and sealant joints.
 - Recommend masonry repairs, full replacement of all building sealant and caulking, full replacement of all exterior windows and doors with high efficiency units.
3. ADA Upgrades: many building features and Equipment no longer meet current codes (IE: Toilet rooms, Fire Ext's, Door Hdwr, Drinking Fountains, Etc.)
 - Upgrades will be required by code throughout.
4. Elevator: is original to the building and beyond its useful life.
 - Recommend replacing with new unit in existing shaft.
5. Finishes: (paint, flooring, ceilings) most finishes are original to the building, they are dated and deteriorating, ceilings will need to be replaced as part of any lighting or HVAC project to allow access.
 - Recommend complete survey of finishes and replacement in all needed areas. Replace ceilings throughout.
 - Along with finish upgrades, new equipment/specialties upgrades (IE: whiteboards, lockers) are recommended.
 - New Casework for classrooms, especially science is recommended.



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Program Improvements

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New Additions & Reconfiguration Options to accommodate 21st Century Learning Educational Needs and address current space needs:

1. General Reconfigurations: Triangular classrooms and some program locations restrict best practices relative to layouts and natural lighting
 - Solution: reconfiguration of triangular classrooms and swapping of art and music spaces to provide natural lighting and outdoor access for art classes.
2. Cafeteria: Current space is interior to building with no natural light and is a security issue.
 - Solution: construct new kitchen cafeteria addition with direct access to outdoors and natural light. Convert existing cafeteria to support Educational Needs with Life Skills, PAES Lab and LGI's
3. Auditorium Expansion: - Current space is small for existing program and seating is limited to less than half of the student population (approx. 450 seats currently)
 - Solution: renovation of space to include balcony addition and expansion of main level to add stadium seating. Provide new rigging, lighting, seating and stage configuration, provide ADA access to stage. Increase capacity to 600+ seats.
4. New Science Labs (alternate): Current spaces are older and in need of renovations and increased space to provide modern program.
 - Construct new labs above Cafeteria.
5. Admin Area: Current space is undersized for existing needs and adjacencies.
 - Solution: construct addition to improve available space, security and provide inviting recognizable building entry.
6. Gymnasium: Desire for additional program spaces such as: weight training cardio training, wrestling area, etc.
 - Solution: construct new competition or auxiliary gym space then reallocate and renovate existing spaces.



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Program Improvements

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Decision Making

1. Base project needs to resolve current Infrastructure Needs first and foremost to provide a safe and healthy learning environment for the next 20 years.
2. Several of the Program Improvement Options such as the Administration, Gym, and 2nd Floor Labs, can be designed as “Alternates” to be added or subtracted from the project through the design and bidding process.
3. This decision on Alternatives can then be made based on actual bids, contingency funds available, PDE reimbursement, Grant Funds and other District decision points.
4. Overall Scope and Cost can be tailored to the match district’s educational and program needs and based on board approved funding.



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Project Budget (Infrastructure) w/Alternates and Additions for Program

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| Infrastructure Needs & Upgrades | | | |
|---------------------------------|---|---------|----------------------|
| HVAC Systems | | | |
| | New Boilers & Chillers | | \$ 8,902,000 |
| | Pumps - Reuse | | \$ 1,200,000 |
| | Piping&Insulation - Replace 50% | | \$ 1,200,000 |
| | New AHU's/RTU's | | \$ 2,500,000 |
| | Ductwork - Replace 70% | | \$ 1,000,000 |
| | New VAVs & other terminal equip. | | \$ 1,500,000 |
| | New ATC System | | \$ 1,502,000 |
| Electrical Systems | | | |
| | New Switchgear, Xfmrs and Primary Dist. | | \$ 5,917,075 |
| | Panels & Secondary Dist - replace 40% | | \$ 450,000 |
| | New Lighting & Lighting Controls | 187,550 | \$12.00 \$ 2,250,600 |
| | Ext Lighting (Reno w/new poles & augment) | | \$ 575,000 |
| | New Fire Alarm | 187,550 | \$4.00 \$ 750,200 |
| | New Security/CCTV | 187,550 | \$2.95 \$ 553,273 |
| | New Clocks/Speakers | 187,550 | \$1.50 \$ 281,577 |
| | New IP Phone & Data systems wiring | 187,550 | \$3.50 \$ 656,425 |
| Plumbing Systems | | | |
| | Toilet room work (New Fixtures & Piping) | 187,550 | \$7.00 \$ 1,312,850 |
| | New Dom HW System & Piping | 187,550 | \$4.00 \$ 375,000 |
| | U/G Sanitary (Test and repair) - Allowance | | \$ 300,000 |
| | New Fire Protection system | 187,550 | \$6.00 \$ 1,125,300 |
| | New Storm/Rainwater - Allowance | | \$ 250,000 |
| General Construction | | | |
| | Gen'l Reqmnts - Temp Fac, Protections, etc. | 187,550 | \$8.00 \$ 1,360,000 |
| | Bldg Env - Roof Replacement | 112,000 | \$32.00 \$ 3,584,000 |
| | Bldg Env - Repairs (masonry, moist & therm Prot) | | \$ 950,000 |
| | Bldg Env - New Ext Door & Wdws | | \$ 774,000 |
| | Int ADA Upgrades, Drs & Hdwr, etc. | | \$ 826,550 |
| | Replace ceilings | 162,000 | \$6.00 \$ 972,000 |
| | Other finishes - Flooring Paint Etc. | 187,550 | \$27.00 \$ 5,063,850 |
| | Casework, whiteboards, lkrs, etc. | 187,550 | \$12.00 \$ 2,250,600 |
| | New Elevator in exist'g shaft | | \$ 100,000 |
| Sitework Allowance | | | |
| | Phasing, Modulars, Moving, Abatement, Etc | | \$ 1,000,000 |
| | | | \$ 3,360,000 |
| | Subtotal Infrastructure & Upgrades | | \$ 38,423,225 |
| | Prorated share of Soft Costs | | \$ 6,185,153 |
| | Prorated share of Contingencies | | \$ 5,259,484 |
| | Total Infrastructure Needs and Upgrades Cost | | \$ 49,867,861 |

| Program Improvements to be combined with Infrastructure Upgrades | | | |
|--|---|--------|-----------------------|
| 1 Add'l Work for Program Imp & Clrm Reconfig | | | |
| | Reconfigure Clrms and Program locations | | \$ 1,600,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 522,240 |
| | Subtotal | | \$ 2,122,240 |
| 2 Cafeteria/Kitchen Addition | | | |
| | New Construction | 24,450 | \$300.00 \$ 7,335,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 2,426,784 |
| | Subtotal | | \$ 9,761,784 |
| 3 Auditorium Expansion | | | |
| | Demo and struct reno cost to expand | | \$ 1,004,800 |
| | New Stage Rigging/Lighting (allowance) | | \$ 302,400 |
| | Seating and finishes for expansion (allowance) | | \$ 300,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 524,590 |
| | Subtotal | | \$ 2,131,790 |
| 4 New Science Labs-2nd fl (Alternate) | | | |
| | New Const - Add 2nd Fl Sci Labs | 11,800 | \$285.00 \$ 3,363,000 |
| | New Elevator | | \$ 100,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 1,097,683 |
| | Subtotal | | \$ 4,560,683 |
| 5 Admin Area | | | |
| | New Construction | 3,875 | \$350.00 \$ 1,356,250 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 442,680 |
| | Subtotal | | \$ 1,798,930 |
| 6 Gym Addition (New Competition) | | | |
| | New Construction | 15,600 | \$300.00 \$ 4,680,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 1,527,551 |
| | Subtotal | | \$ 6,207,551 |
| 6a Auxiliary Gym in lieu of Competition Gym Addition | | | |
| | New Construction | 10,000 | \$300.00 \$ 3,000,000 |
| | Prorated Share Of Soft Costs and Contingencies | | \$ 893,700 |
| | Subtotal | | \$ 3,893,700 |
| | Sitework Allowance - see note 3 (Inc. share of Soft Costs and Contingencie | | \$ 1,989,600 |

| Soft Costs | |
|--------------------------------------|---------------------|
| A/E Design Fee & Expenses (6%) | \$ 3,396,280 |
| Civil Eng/LD | \$ 150,000 |
| CM Fees (3.3%) | \$ 1,867,954 |
| HazMat Consultant Fees | \$ 50,000 |
| Utility Location Services | \$ 30,000 |
| Soil Infiltration Testing/Geotech | \$ 25,000 |
| Land Survey | \$ 20,000 |
| County Cons Dist | \$ 20,000 |
| Permits & Inspections | \$ 250,000 |
| Other Approvals (Land Dev) | \$ 50,000 |
| Construction Testing | \$ 100,000 |
| Testing, Adjusting & Balancing (TAB) | \$ 125,000 |
| FFE | \$ 1,500,000 |
| Tech Equip | \$ 400,000 |
| Financing Costs (1.5%) | \$ 849,070 |
| Legal | \$ 50,000 |
| Builder's Risk Insurance (1.5%) | \$ 849,070 |
| Other Misc | \$ 250,000 |
| Total Soft Costs | \$ 9,982,374 |

| Contingencies | |
|-------------------------------|---------------------|
| Design Contingency (5%) | \$ 2,830,234 |
| Construction Contingency (5%) | \$ 2,830,234 |
| **Inflation Contingency (5%) | \$ 2,830,234 |
| Total Contingencies | \$ 8,490,702 |

** Inflation factor added to account for 2021 price increases due to market volatility and labor and material shortages.

- NOTES:**
1. Highlighted items can be designed as Alternates and decided upon after receiving bids.
 2. Budget does not assume any reimbursements or grant funds which should be applied for.
 3. Program Improvements items #1-6a may be combined individually or in combination with each other in addition to infrastructure improvements.
 4. Any new addition option will require additional sitework costs to facilitate construction.



Project Budget (Infrastructure) and Limited Reno for Program

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| Infrastructure Needs & Upgrades | | | |
|---|--|-----------------|----------------------|
| HVAC Systems | | | \$ 8,902,000 |
| | New Boilers & Chillers | | \$ 1,200,000 |
| | Pumps - Reuse | | |
| | Piping&Insulation - Replace 50% | | \$ 1,200,000 |
| | New AHU's/RTU's | | \$ 2,500,000 |
| | Ductwork - Replace 70% | | \$ 1,000,000 |
| | New VAVs & other terminal equip. | | \$ 1,500,000 |
| | New ATC System | | \$ 1,502,000 |
| Electrical Systems | | | \$ 5,917,075 |
| | New Switchgear, Xfmrs and Primary Dist. | | \$ 450,000 |
| | Panels & Secondary Dist - replace 40% | | \$ 400,000 |
| | New Lighting & Lighting Controls | 187,550 \$12.00 | \$ 2,250,600 |
| | Ext Lighting (Reno w/new poles & augment) | | \$ 575,000 |
| | New Fire Alarm | 187,550 \$4.00 | \$ 750,200 |
| | New Security/CCTV | 187,550 \$2.95 | \$ 553,273 |
| | New Clocks/Speakers | 187,550 \$1.50 | \$ 281,577 |
| | New IP Phone & Data systems wiring | 187,550 \$3.50 | \$ 656,425 |
| Plumbing Systems | | | \$ 3,363,150 |
| | Toilet room work (New Fixtures & Piping) | 187,550 \$7.00 | \$ 1,312,850 |
| | New Dom HW System & Piping | 187,550 \$4.00 | \$ 375,000 |
| | U/G Sanitary (Test and repair) - Allowance | | \$ 300,000 |
| | New Fire Protection system | 187,550 \$6.00 | \$ 1,125,300 |
| | New Storm/Rainwater - Allowance | | \$ 250,000 |
| General Construction | | | \$ 15,881,000 |
| | Gen'l Reqmnts - Temp Fac, Protections, etc. | 187,550 \$8.00 | \$ 1,360,000 |
| | Bldg Env - Roof Replacement | 112,000 \$32.00 | \$ 3,584,000 |
| | Bldg Env - Repairs (masonry, moist & therm Prot) | | \$ 950,000 |
| | Bldg Env - New Ext Door & Wdws | | \$ 774,000 |
| | Int ADA Upgrades, Drs & Hdwr, etc. | | \$ 826,550 |
| | Replace ceilings | 162,000 \$6.00 | \$ 972,000 |
| | Other finishes - Flooring Paint Etc. | 187,550 \$27.00 | \$ 5,063,850 |
| | Casework, whiteboards, lkrs, etc. | 187,550 \$12.00 | \$ 2,250,600 |
| | New Elevator in exist'g shaft | | \$ 100,000 |
| Sitework Allowance | | | \$ 1,000,000 |
| Phasing, Modulars, Moving, Abatement, Etc | | | \$ 3,860,000 |
| Subtotal Infrastructure & Upgrades | | | \$ 38,923,225 |
| Prorated share of Soft Costs | | | \$ 5,935,152 |
| Prorated share of Contingencies | | | \$ 5,009,484 |
| Total Infrastructure Needs and Upgrades Cost | | | \$ 49,867,861 |

| Add'l cost required to to get full benefit of renovating existing areas. | | | |
|--|---|--------|------------------------------|
| 1 | Add'l Work for Program Imp & Clrm Reconfig | | |
| | Reconfigure Clrms and Program locations | 40,000 | \$40.00 \$ 1,600,000 |
| | | | Subtotal \$ 1,600,000 |
| 2 | Reuse of Existing Cafeteria Kitchen Areas | | |
| | Additional space renovation costs | 11,400 | \$50.00 \$ 570,000 |
| | New Food Service Equipment | | \$ 600,000 |
| | | | Subtotal \$ 1,170,000 |
| 3 | Reuse of Existing Auditorium | | |
| | Additional space renovation costs | 9,000 | \$50.00 \$ 450,000 |
| | New Acoust Clouds and Interior Sound Cntrls | | \$ 200,000 |
| | Seating and ADA access ramp to stage | | \$ 300,000 |
| | Chair lift for steep floor | | \$ 75,000 |
| | | | Subtotal \$ 1,025,000 |
| 4 | Reuse of Existing Science Labs-2nd fl | | |
| | Additional space renovation costs | 8,600 | \$70.00 \$ 602,000 |
| | New Casework & Equipment | | \$ 150,000 |
| | | | Subtotal \$ 752,000 |
| 5 | Reuse Admin Areas | | |
| | Additional space renovation costs | 5,000 | \$60.00 \$ 300,000 |
| | New Casework & Equipment | | \$ 75,000 |
| | | | Subtotal \$ 375,000 |
| 6 | Renovate Gymnasium Areas | | |
| | Additional space renovation costs | 15,600 | \$50.00 \$ 780,000 |
| | Bleacher renovation/ADA upgrades | | \$ 125,000 |
| | New/Renovated Equipment Allowance | | \$ 300,000 |
| | | | Subtotal \$ 1,205,000 |
| Subtotal All Add'l Construction Costs | | | \$ 6,127,000 |
| Remaining share of Soft Costs | | | \$ 1,915,331 |
| Remaining share of Contingencies | | | \$ 881,350 |
| Total Add'l Costs | | | \$ 8,923,681 |
| Total Project Cost - Renovation Only | | | \$ 58,791,541 |
| NOTES: Budget does not assume any reimbursments or grant funds which should be applied for. | | | |

| Soft Costs | |
|--|---------------------|
| A/E Design Fee & Expenses (6%) | \$ 2,356,333 |
| Civil Eng/LD | \$ 150,000 |
| CM Fees (3.3%) | \$ 1,295,983 |
| HazMat Consultant Fees | \$ 50,000 |
| Utility Location Services | \$ 30,000 |
| Soil Infiltration Testing/Geotech | \$ 25,000 |
| Land Survey | \$ 20,000 |
| County Cons Dist | \$ 20,000 |
| Permits & Inspections | \$ 250,000 |
| Other Approvals (Land Dev) | \$ 50,000 |
| Construction Testing | \$ 100,000 |
| Testing, Adjusting & Balancing (TAB) | \$ 125,000 |
| FFE | \$ 1,500,000 |
| Tech Equip | \$ 400,000 |
| Financing Costs (1.5%) | \$ 589,083 |
| Legal | \$ 50,000 |
| Builder's Risk Insurance (1.5%) | \$ 589,083 |
| Other Misc | \$ 250,000 |
| Total Soft Costs | \$ 7,850,483 |
| Contingencies | |
| Design Contingency (5%) | \$ 1,963,611 |
| Construction Contingency (5%) | \$ 1,963,611 |
| **Inflation Contingency (5%) | \$ 1,963,611 |
| Total Contingencies | \$ 5,890,834 |
| ** Inflation factor added to account for 2021 price increases due to market volatility and labor and material shortages. | |

