

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | |
|---|--|---|----------------------|----------------------|----------------------|----------------------|--|
| | | A1 | B1 | D3 | D4 | | |
| CONCEPTUAL ESTIMATE SUMMARY - REFER TO PACs DOCUMENTS FOR DETAIL | | | | | | | |
| CONCEPTUAL ESTIMATE SUMMARY | Construction Cost Only | School: Construction Cost Subtotal | \$96,061,110 | \$102,180,083 | \$90,456,584 | \$97,498,037 | |
| | | <i>School: Construction Cost per Square Foot</i> | <i>\$645.58</i> | <i>\$613.67</i> | <i>\$726.19</i> | <i>\$778.62</i> | |
| | | Community Spaces: Construction Cost Subtotal | \$376,944 | \$720,153 | \$708,282 | \$982,737 | Includes minimal work required for portions of the facility to remain for potential Town use. |
| | | <i>Community Spaces: Construction Cost per GSF</i> | <i>\$32.59</i> | <i>\$19.36</i> | <i>\$17.50</i> | <i>\$13.86</i> | |
| | | Central Office: Construction Cost Subtotal | \$1,902,003 | \$1,866,566 | \$1,977,610 | \$2,219,798 | Separate cost required for Grant |
| | | <i>Central Office: Construction Cost per GSF</i> | <i>\$612.76</i> | <i>\$551.91</i> | <i>\$602.93</i> | <i>\$672.67</i> | |
| | | TOTAL CONSTRUCTION COST | \$98,340,057 | \$104,766,802 | \$93,142,476 | \$100,700,572 | |
| | <i>Total Construction Cost per GSF</i> | <i>\$601.58</i> | <i>\$612.57</i> | <i>\$564.37</i> | <i>\$504.98</i> | | |
| | Total Project Cost (Construction Cost plus estimated 17% Owner's Soft Costs) | School: Project Cost Subtotal | \$112,391,499 | \$119,550,697 | \$105,834,204 | \$114,072,704 | |
| | | <i>School: Project Cost per GSF</i> | <i>\$755.33</i> | <i>\$717.99</i> | <i>\$849.64</i> | <i>\$910.99</i> | |
| | | Community Spaces: Project Cost Subtotal | \$441,025 | \$842,579 | \$828,690 | \$1,149,803 | Includes minimal work required for portions of the facility to remain for potential Town use. |
| | | <i>Community Spaces: Project Cost per GSF</i> | <i>\$38.12</i> | <i>\$22.65</i> | <i>\$20.47</i> | <i>\$16.22</i> | |
| | | Central Office: Project Cost Subtotal | \$2,225,343 | \$2,183,882 | \$2,313,803 | \$2,597,163 | Separate cost required for Grant |
| | | <i>Central Office: Project Cost per GSF</i> | <i>\$716.93</i> | <i>\$645.74</i> | <i>\$705.43</i> | <i>\$787.02</i> | |
| TOTAL PROJECT COST | | \$115,057,867 | \$122,577,158 | \$108,976,697 | \$117,819,670 | | |
| <i>Total Project Cost per GSF</i> | <i>\$703.85</i> | <i>\$716.71</i> | <i>\$660.32</i> | <i>\$590.82</i> | | | |
| DIVISION I: GENERAL CONDITIONS | | | | | | | |
| I.1 | Building Areas: School Only | School: Renovate-as-New Building Area, Net (NSF) | 134,014 | 80,677 | - | - | |
| | | School: New Building Area, Net (NSF) | - | 45,796 | 120,137 | 120,137 | |
| | | School: Total Building Area, Net (NSF) | 134,014 | 126,473 | 120,137 | 120,137 | Estimates shall all note total NSF for State Grant |
| | | School: Whole-Building Demolition Area, Gross (GSF) | - | 36,055 | 125,277 | 91,574 | Gross areas do not include entrance canopies. Cost estimator may modify gross areas based on takeoffs. |
| | | School: Renovate-as-New Building Area, Gross (GSF) | 148,797 | 82,592 | - | - | |
| | | School: New Building Area, Gross (GSF) | - | 47,860 | 124,563 | 125,219 | |
| | | School: Total Building Area, Gross (GSF) | 148,797 | 130,452 | 124,563 | 125,219 | |
| | Building Areas: Central Office Only | Central Office: Renovate-as-New Building Area, Net (NSF) | 1,830 | 3,091 | - | - | |
| | | Central Office: New Building Area, Net (NSF) | 895 | - | 3,114 | 3,011 | |
| | | Central Office: Total Building Area, Net (NSF) | 2,725 | 3,091 | 3,114 | 3,011 | Estimates shall all note total NSF for State Grant |
| | | Central Office: Renovate-as-New Building Area, Gross (GSF) | 2,106 | 3,382 | - | - | Gross areas do not include entrance canopies. Cost estimator may modify gross areas based on takeoffs. |
| | | Central Office: New Building Area, Gross (GSF) | 998 | - | 3,280 | 3,300 | |
| | Central Office: Total Building Area, Gross (GSF) | 3,104 | 3,382 | 3,280 | 3,300 | | |
| | Area Remaining for Community Use | Pool and other Building Areas schedule to remain for Community Use, Gross (GSF) | 11,568 | 37,194 | 37,194 | 70,897 | Work to these areas is minimal. Refer to Building Demolition item 2.2. |
| | Existing Area | Existing Gross Area for Entire Facility | | | | 162,471 | |

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|------|----------------|--|-------------------|-----|-----|-----|--|
| | | | A1 | B1 | D3 | D4 | |
| 1.2 | Zoning | 40 Beecher Road and all abutting properties are located in Residence A District, "Low Density Residential with a minimum gross lot size of 65,000 sq. ft. This District covers approximately 90% of the Town of Woodbridge. Schools appear to be allowed in District A by Special Exception. While wetlands exist onsite as shown in blue, there are no FEMA flood zones on this property. The front lot line is along Beecher Road, the rear lot line is furthest from the front (near Old Barnabas Road). All other lot lines are considered "side." Bulk requirements include: Maximum Building Coverage: 15% (43.44 acres ~ 1,892,246 sf x 0.15 = 283,837 sf max.) Minimum Front Setback: 75 feet Minimum Side and Rear Setbacks: 25 feet Maximum Height (stories) 2 1/2 | YES | YES | YES | YES | |
| 1.3 | Phasing | Renovate-as-New Option A1 will be performed in phases, both for sitework and for work in the building, in a fully occupied facility. Work will proceed wing by wing. Include accommodation of occupant relocation as required. Multiple enabling phases are also anticipated for utility work and MEP/FP systems. | YES | N/A | N/A | N/A | |
| | | Addition/Renovation Option B1 will be performed in phases, both for sitework and for work in the building, in a fully occupied facility. After initial enabling work, new construction will proceed in areas which do not overlap the existing footprint first. Subsequent phases include renovate-as-new work in sections, and building demolition / new construction at the northwest wings. Include accommodation of occupant relocation as required. Multiple enabling phases are also anticipated for utility work and MEP/FP systems. | N/A | YES | NA | NA | |
| | | New Construction Option D3 places a new building completely outside the footprint of the existing facility. After initial enabling work, construction of the new building will occur in a single phase, during which time the existing building will remain occupied and operational. School occupants will be transferred to the new building once complete, followed by demolition of major portions of the existing building and sitework. | N/A | N/A | YES | N/A | |
| | | New Construction Option D4 partially overlaps the footprint of the existing facility and will be performed in phases, both for sitework and for work in the building, in a fully occupied facility. After initial enabling work, new construction will proceed at the north parking lot and adjacent areas which do not overlap the existing footprint first. Subsequently, demolition / new construction will proceed wing by wing. Include accommodation of occupant relocation as required, including outfitting of southern portions of the building (future community space) as swing space. Multiple enabling phases are also anticipated for utility work and MEP/FP systems. | N/A | N/A | N/A | YES | |
| 1.4 | Sustainability | Connecticut High Performance Building Standards will be followed. | YES | YES | YES | YES | Update for new requirements and in relationship to the strong desire for sustainable infrastructure in the Town of Woodbridge. |

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|------|--|-------------------|-----|-----|-----|--|
| | | AI | BI | D3 | D4 | |
| 1.5 | Security The project will be coordinated with District leadership security goals. The school must also comply with school safety infrastructure criteria as determined by the Connecticut School Building Projects Advisory Council. Per Connecticut General Statutes: § 10-292r. School safety infrastructure criteria. (a) <i>The School Building Projects Advisory Council, established pursuant to section 10-292q, shall periodically review and update, as necessary, school safety infrastructure criteria for school building projects awarded grants pursuant to this chapter and the school security infrastructure competitive grant program, pursuant to section 84 of public act 13-3*. Such school safety infrastructure criteria shall conform to industry standards for school building safety infrastructure and shall address areas including, but not be limited to, (1) entryways to school buildings and classrooms, such as, reinforcement of entryways, ballistic glass, solid core doors, double door access, computer-controlled electronic locks, remote locks on all entrance and exits and buzzer systems, (2) the use of cameras throughout the school building and at all entrances and exits, including the use of closed-circuit television monitoring, (3) penetration resistant vestibules, and (4) other security infrastructure improvements and devices as they become industry standards.</i> | YES | YES | YES | YES | See Division 28 for Video Surveillance and Access Control requirements. |
| 1.6 | Acoustics Per Connecticut State Building Code, for new construction the building must comply with ANSI A117.1 Section 808, "Enhanced Acoustics for Classrooms." Reverberation time will be limited in accordance with this standard, and wall partitions shall have STC ratings as needed to keep classroom ambient sound levels from sources outside the classroom to 35 dBA and 55 dBC. All wall partitions separating spaces shall extend to the deck above. All spaces are considered to have acoustic separation. Acoustical finishes and treatments will be used as needed throughout the school's interior. Courtyard windows will be equipped with laminated glass to reduce noise from courtyard play areas. | YES | YES | YES | YES | |
| 1.7 | Existing Assembly Space (AI ONLY) Completely refurbish stage at existing assembly space. Refinish wood stage, provide new manual stage curtains, lighting and rigging. Provide new sound system, projector and screen. | YES | N/A | N/A | N/A | |
| 1.8 | Stage Platform at Gymnasium All options except AI will include an 8" stage platform at one of the Gym. Platform will be wood to match Gym floor, will include stair and ramp access, lighting, and a sound system. No curtains. | N/A | YES | YES | YES | |
| 1.9 | Work Estimated Separately for Committee Consideration Provide separate totals for the School, the District Central Office, and the area remaining for Community Use. | YES | YES | YES | YES | Does not apply at areas to remain for Community Use, since PV systems can remain operational in these areas. |
| | Sprinker Fire Pump, Generator and Alternate to be provided as an Alternate. | YES | YES | YES | YES | |
| | Rooftop Solar Photovoltaic (PV) Panel System to be provided as an Alternate. | YES | YES | YES | YES | |
| | Consider cost of saving existing PV System for reuse on new roof systems. | YES | YES | YES | YES | |
| | Repaving of South Parking Area (extending south from the driveway loop at the existing Central Office / Pool wing) to be provided as an Alternate. | YES | YES | YES | YES | |
| | | | | | | |

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|--|---|---|----|---------------------------------------|--|---------|-----|-----------------|
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| DIVISION 2: EXISTING ENVIRONMENTAL & DEMOLITION | | | | | | | | |
| 2.1 | Hazardous Materials Abatement | Hazardous material investigation is outside the scope of this study. It is assumed that hazardous materials such as encapsulated asbestos exist within portions of the building constructed prior to 1994. An allowance should be carried for hazardous materials abatement. | | YES | YES | YES | YES | |
| 2.2 | Building Demolition | All options except A1 Renovate-as-new require complete removal of portions of the existing school building. Existing portions of the facility to remain that have been impacted by adjacent demolition will be made whole, with utilities and MEP/FP work as required to maintain independent operation. Voids in exterior shell construction left from adjacent demolition receive new exterior walls similar to new construction, with 15% allocated for windows and egress doors. | | N/A | YES | YES | YES | |
| 2.2 | Selective Demolition & Renovated Spaces | Demolition in renovated areas will strip the building down to structure and masonry or stud walls to remain. All discontinued and abandoned systems, including but not limited to HVAC, plumbing, and all types of high- and low-voltage wiring, shall be completely removed from renovated areas. All holes and previous penetrations shall be sealed. Wall partitions shall be extended to deck if needed for room separation. All areas of staining or indication of previous water damage shall be investigated and repaired. Cutting and patching shall be performed as required to maintain continuity of interior and exterior building elements and finishes. | | YES | YES | N/A | N/A | |
| | | Removal of concrete mechanical deck at east third of 1970s-era triangular wing is required. This is an intermediate mechanical deck below the roof level. See also floor infill to remove ramps in this area. | | YES | YES | N/A | N/A | |
| DIVISION 3: CONCRETE | | | | | | | | |
| 3.1 | Soils | Geotechnical investigation is outside the scope of this study. For the purposes of this narrative, a preliminary soil bearing capacity of 3 ksf has been assumed. Consider potential for encountering ledge. | | YES | YES | YES | YES | MHAI to confirm |
| 3.2 | Foundations | New foundations consist of 16" thick reinforced concrete walls with 8" brick shelves below masonry walls. Apply 2" rigid foundation insulation at perimeter, 2'-0" horizontally & vertically. Foundation walls sit on continuous 3'-0" wide x 1'-0" thick spread wall footings. Use 4,500 psi concrete for foundation walls and footings. Place footings exposed to frost 3'-6" minimum below grade. Assumed wall reinforcing is #5@16"o.c. vertical with matching footing dowels and #4@12"o.c. horizontal with (2)-#5 continuous horizontal bars top and bottom. Longitudinal footing reinforcing shall be (3)-#5 continuous. All wall reinforcing shall have Class "B" laps at splices and corner bars. New exterior columns will be supported on reinforced concrete piers supported on reinforced concrete spread footings. Interior columns will be supported on isolated reinforced concrete piers and isolated reinforced concrete spread footings. | | YES (Central Office addition only) | YES (Consider retaining wall at elevation change near elevator, yet to be designed) | YES | YES | MHAI to confirm |
| | | Provide fully waterproofed elevator pit extending five feet below lowest level. | | N/A | YES | YES | YES | |
| | | Underpinning may be required for work adjacent to the existing building. | | N/A | YES | N/A | N/A | |
| 3.3 | Slabs-on-grade | Interior slabs-on-grade at additions consist of 5-inch-thick normal weight concrete with topically applied penetrating colloidal silica concrete treatment, reinforced with WWF 6x6-WV2.9xWV2.6 supported on continuous steel wire chairs. Set over 20 mil Class A vapor barrier over compacted processed aggregate. Sawcut control joints each direction at approximately 20 feet. | | YES (Central Office addition only) | YES | YES | YES | |
| | | Trenching of existing slabs for new work is anticipated. Assume trenching and replacement of 40% of existing slabs. | | YES | YES | N/A | N/A | |
| | | Provide new 4-foot square radon collection pits below new concrete slabs. Provide quantity as noted for each option. | | SIX | FOUR | TWO | TWO | |

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| 3.4 | Elevated composite slabs on deck | Assume 3.25" lightweight concrete floor slab (3,500 psi) on a 2 inch, 20 gage galvanized composite metal floor deck (total slab depth = 5.25") reinforced with 6x6-W2.9xW2x.9 welded wire fabric supported on continuous steel wire chairs. The concrete for the supported slabs shall also have a moisture vapor reducing admixture. | N/A | YES | YES | YES | Consider use of normal-weight concrete (possibly at greater thickness or psi) depending on lightweight concrete cost and availability. |
| DIVISION 4: MASONRY | | | | | | | |
| 4.1 | CMU | New interior walls in corridors, elevator, cafeteria and service areas shall be 8-inch CMU, painted. | YES | YES | YES | YES | |
| | | Exterior backup walls at new cafeteria, gymnasiums, and service spaces shall be 8-inch reinforced CMU. | YES | YES | YES | YES | |
| 4.2 | Brick veneer cavity wall systems | Refer to Division 7 for general approach to existing exterior walls based on year constructed. Approximately 50% of exterior wall cladding (at new exterior walls and existing walls built prior to 1996) will consist of: Brick veneer w/ lateral reinforcing at 16-inches, horizontally & vertically; air space; 3-inch rigid cavity insulation; fluid-applied air infiltration barrier applied to backup wall construction. Refer to Division 7 for rainscreen cladding assembly at the other 50%. | YES | YES | YES | YES | |
| DIVISION 5: METALS | | | | | | | |
| 5.1 | Structural Steel | Structural steel frame and bracing at new construction: Assume structure tonnage of 11 lbs/square foot. Lateral loads to be addressed via concentric steel braced frames and intermediate reinforced masonry shear walls. See Division 3 for supported floor slabs. | YES (Central Office addition only) | YES | YES | YES | |
| 5.2 | Metal Deck | Typical roof decks at new construction: 20 gage, 1.5 inch galvanized metal roof deck. Provide acoustical deck at Gymnasium spaces. Refer to Division 3 for elevated composite slabs on deck. Roof decks at new construction will pitch at 1/4-inch per foot where feasible for roof slopes. | YES (Central Office addition only) | YES | YES | YES | |
| 5.3 | CFMF | Provide cold-formed metal framing (CFMF) at exterior backup walls not noted to be CMU. | YES (Central Office addition & new infill only) | YES | YES | YES | |
| 5.4 | Loose Lintels | Galvanized steel lintels shall be provided at new exterior wall openings. | YES | YES | YES | YES | |
| 5.5 | Metal Pan Stairs, Railings and Guards | New interior stairways shall consist of miscellaneous steel channels, angles and tubular steel 2-inch concrete filled metal pans and risers; 1-1/2-inch square posts/top & bottom rails; 3/4-inch square pickets or 1-inch heavy-gauge steel mesh; 1-1/2-inch round steel handrails, both sides. Paint exposed steel. | N/A | YES | YES | YES | |
| | | Provide painted railings for all ramps. | YES | YES | N/A | N/A | |
| | | Provide color-galvanized railing systems for exterior ramps and stairs. | YES | YES | YES | YES | |
| DIVISION 6: WOOD & PLASTIC | | | | | | | |
| 6.1 | Rough Carpentry | Rooftop equipment bases and support curbs; pressure-treated and fire-retardant. | YES | YES | YES | YES | |
| | | Wood blocking, cants and nailers. Pressure-treated and fire-retardant when used outside building envelope. | YES | YES | YES | YES | |
| | | Plywood backing panels for electrical. | YES | YES | YES | YES | |
| 6.2 | Interior Millwork | Provide custom casework at Main Office front desk, Nurse Suite front desk, and at Media Center circulation desk. Consider solid surfacing countertops, caps and accents. Consider wood veneer casework. | YES | YES | YES | YES | |
| 6.3 | Window Sills | Provide solid surfacing sill and apron at all window openings. | YES | YES | YES | YES | |

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| | | A1 | B1 | D3 | D4 | | |
| DIVISION 7: BUILDING ENVELOPE | | | | | | | |
| 7.1 | Exterior Walls: New Construction | New construction: Backup shall be 6" CFMF with 5/8" exterior gypsum sheathing. Provide 4 inches closed-cell sprayfoam inside cavity. Note 8" CMU backup locations defined in Division 4. Fluid-applied air and vapor barrier to be applied to outside face of sheathing or CMU, followed by 3 inches of rigid insulation. 50% of wall area shall be faced with brick veneer over air space as described in Division 4. Provide rainscreen assembly at remaining 50%: Consider pre-engineered thermally broken subgirt system by Knight Wall Systems using MOVEKLIP and PANELRAIL components. Depending on cost and availability consider one of the following for rainscreen cladding: Ultra High Performance Concrete (UHPC) rainscreen panel system by Envel or similar, Format Series, textures as selected from manufacturer's stock mold types. Terracotta rainscreen panel system by Telling North America or similar, Argeton, Tampa profile (smooth). Assume parapets at typical construction. For overhangs and parapets above curtainwall, consider insulated metal panel soffits and fascia, Kingspan or similar, QuadCore KS Series Profile, smooth, non-embossed finish, 3 inches thick. Window openings are shown diagrammatically on most plans; assume 6-ft square punched window openings, typical. Consider curtainwall at major spaces such as the front entrance, media center, and cafeteria. Together, window openings comprise around 15% of new construction wall areas. | YES (Central Office addition & new infill only) | YES | YES | YES | |
| 7.2 | Exterior Walls: 1997 Wing | 1997 Wing: Existing facades are in relatively good condition, with split-faced CMU cladding. Masonry cladding will be cleaned; assume 15% repointing. Assume replacement of upper soffit/parapet to accommodate higher roof elevation (caused by new insulation thickness at roof) using insulated metal panels as described for new construction. All windows will be replaced per Division 8. Provide for enlargement of clerestory windows; assume new sills will be 3'-4" lower than existing. | YES | YES | N/A | N/A | |
| 7.3 | Exterior Walls: 1970 & 1994 Wings | 1970 & 1994 Wings: Exterior facades are CMU cladding, in fair condition; existing window and door openings will require rework for new layouts. Provide new window and door openings equal to 15% of façade, assuming typical classroom windows at 6 feet square. Existing exterior block walls shall be structurally repaired as needed, cleaned, prepared and used as the backup for a new cladding assembly as described above for new construction. Existing soffits/parapets are in poor condition and will be replaced using insulated metal panels as described for new construction. | YES | YES | N/A | N/A | |
| 7.4 | Exterior Walls: 1960 & 1964 Wings | 1960 & 1964 Wings - Exterior Walls: Long walls of these wings consist of a recently refurbished metal panel and window/door assembly set between fieldstone piers. The shorter end walls of these wings are exposed painted concrete masonry. The metal panel assembly shall be replaced to address removal of door openings at each classroom and new HVAC. Preserve stonework piers and construct new 3'-4" high CFMF infill stem walls (match new construction with rainscreen panels) below new window assembly. End walls are in similar condition to 1970 facades; exterior block walls shall be structurally repaired as needed, cleaned, prepared and used as the backup for a new cladding assembly as described above for new construction. End walls do not require new window openings. Existing soffits/parapets are in poor condition and will be replaced using insulated metal panels as described for new construction. | YES | YES (Courtyard wall) | N/A | N/A | |
| 7.5 | Waterproofing | Provide blind-side and post-applied sheet waterproofing system at elevator pit and at spaces with foundation walls (Option B1 split-level area). | N/A | YES | YES | YES | |

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| 7.6 | Metal Equipment Screens | Provide perforated metal-panel roof screens on galvanized steel posts at 2 to 3 sides of all major rooftop equipment locations. Consider Epic Metals Corporation, EST Profile, pre-finished ribbed and perforated system. | YES | YES | YES | YES | |
| 7.7 | Roof Systems | All roofing assemblies shall be new. Assemblies at existing construction shall be removed down to deck. New assembly shall consist of 1/2-inch substrate board, minimum 6-inches of polyisocyanurate insulation with tapered insulation as needed to obtain roof slopes of at least 1/4-inch per foot, 1/2" cover board, and fully adhered, 60-mil black EPDM. Provide flashings as required. Provide fascia/coping compatible with insulated metal panel soffits/parapets. | YES | YES | YES | YES | |
| 7.8 | Fire Walls | Maintain 2-hour fire walls at existing construction or as needed between new and existing construction. | YES | YES | N/A | N/A | At Option BI we anticipate a combination of fireproofing in new and heavily renovated areas, combined with fire walls in key areas, to meet Code requirements for Construction Types IIA and IIB. |
| 7.9 | Spray Fireproofing | Spray fireproofing of structure to achieve 2-hour fire rating | N/A | YES | YES | YES | |
| DIVISION 8: OPENINGS | | | | | | | |
| 8.1 | General | Refer to Division 7 Exterior Wall descriptions for window areas expressed as a percentage of the wall. | YES | YES | YES | YES | |
| | | All doors and windows will be replaced in renovation options. | YES | YES | N/A | N/A | |
| | | Exterior doors from classrooms will be eliminated and replaced with new window assemblies. | YES | YES | N/A | N/A | |
| | | Courtyard windows will be equipped with laminated glass to reduce noise from courtyard play areas. | YES | YES | YES | YES | |
| | | Windows within 8 ft of ground shall be entry resistant (School Guard Glass SG4 or equivalent). | YES | YES | YES | YES | |
| 8.2 | Exterior Punched Openings | 6 ft x 6 ft - Fixed, thermally broken aluminum frame storefront assemblies with 1-inch insulating glass, Solarban 70. EFCO Corporation 2" x 4-1/2" Series 403 T, Thermal Storefront Framing system. | YES | YES | YES | YES | |
| 8.3 | Exterior Storefront and Entrances | Thermally broken aluminum storefront with 1" security glazing - EFCO Corporation 2" x 6 1/2" Series 406 T, Thermal Storefront Framing system. Bottom 6 ft of glazing at main entry vestibule shall be break resistant (School Guard Glass SG5 or equivalent) at interior and exterior portions of vestibule. | YES | YES | YES (Also - provide clerestory at north side of cafeteria) | YES | |
| 8.4 | Curtainwall | Consider EFCO Corporation; 5600 series, 2-1/2-inch aluminum frame curtain wall, 8-inch depth, 1-inch insulated glass. | N/A | YES (Stairways) | YES (Stairways, Media Center) | YES (Stairways, corridors at courtyard) | |
| 8.5 | Exterior Doors (FRP) | FRP doors in aluminum frames, typical at all exterior doors except main entrance vestibules and CW or storefront assemblies. | YES | YES | YES | YES | |
| 8.6 | Overhead | Provide 12 ft. x 10 ft. insulated metal coiling overhead door with manual chain and motorized operation at Receiving. | YES | YES | YES | YES | |
| 8.7 | Interior Storefront | Consider at Main Office, Gym Offices, and within Media Center: EFCO Corporation 1-3/4" x 4-1/2" Series 402 NT, Non-Thermal Storefront Framing system, tempered glass (SG4 at Main Office and Front Vestibule). Consider sidelites and flush wood doors. | YES | YES | YES | YES | |
| 8.8 | Interior Doors and Frames | Flush wood door in HM frame with 3" x 33" sidelite and "Shelter Shutter" (consider at \$70 each). Provide 1-hour rated doors at Stairways. | YES | YES | YES | YES | |

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| 8.9 | Hardware | Provide card readers at entrances, elevator, main office, corridor access, and other major spaces. Assume magnetic hold-opens releasing on lockdown for assembly spaces including Assembly, Gymnasiums and Cafeteria. Mortise locks typical at most classrooms and smaller-sized rooms. Panic devices typical for all larger spaces, corridors, and corridor/stair exits. Provide automatic door operators at main entrance inner and outer vestibule door. | YES | YES | YES | YES | |
| DIVISION 9: FINISHES | | | | | | | |
| 9.1 | General | Assume new finishes throughout renovated areas. Masonry walls in good condition scheduled to remain will be repainted. Existing framed walls will receive new drywall. Provide new ceilings and flooring throughout. | YES | YES | YES | YES | |
| 9.2 | Non-structural framing and drywall | Typical wall partitions (not including masonry corridor and service area walls described in Division 4) will be framed drywall (5/8" Type X and as noted). Use abuse-resistant drywall in exposed areas within 8 feet of finished floor. Partitions separating spaces shall typically be 3 5/8" metal stud with acoustic batt insulation, extending to deck with penetrations acoustically sealed, and shall have (2) layers of drywall on one side and (1) layer on the other for acoustics. Toilet room wet walls will receive floor-to-ceiling ceramic tile; use tile backer. | YES | YES | YES | YES | |
| 9.3 | Ceilings | Typical ceiling system: 2'-0" x 2'-0" tegular pads, 15/16" grid. Allow 5% for gyp. bd. soffits. Consider Armstrong Ultima High NRC in typical locations; Ultima Health Zone at kitchen areas. | YES | YES | YES | YES | |
| | | Provide allowance for specialty accent ceilings at 50% of cafeteria dining area, media center, and main lobby. Consider Armstrong Wood Grille Ceiling Panels. | YES | YES | YES | YES | |
| 9.4 | Flooring | Gymnasium and Auxiliary Gymnasium: Sprung maple athletic flooring assemblies; include specialty line markings and stain; 4" vented rubber base. | YES | YES | YES | YES | Assume stage platform in one of the Gyms for all options except AI, which has a separate assembly space with stage. |
| | | Toilet Rooms and Main Lobby: Large format (12" x 24") porcelain tile. | YES | YES | YES | YES | |
| | | Typical flooring at classrooms and most learning spaces: Luxury vinyl tile, Tarkett or similar, multiple colors/patterns. 4" rubber base. | YES | YES | YES | YES | |
| | | Corridor flooring: Patcraft or equal, Commercial Homogenous Sheet, Dryback, Glue Down, with manufacturer's "ExoGuard" finish layer. Multiple colors, cut-in patterns. | YES | YES | YES | YES | |
| | | Stairways: Rubber treads with contrasting nosing strips; Toli Takiron Pathways slip-resistant flooring at landings. | YES | YES | YES | YES | |
| | | Music Rooms: Resilient acoustical sheet flooring; Johnsonite Optima Acoustiflor or similar; multiple colors. | YES | YES | YES | YES | |
| | | Kitchen: Resinous epoxy flooring, cementitious urethane type, Dur-A-Flex Poly-Crete MD. | YES | YES | YES | YES | |
| | | Art Rooms and Art Storage, Kiln: Epoxy Flooring, Sherwin Williams Resurflor with metallic topcoat. | YES | YES | YES | YES | |
| | | Back-of-House: Everclear by Euclid Chemical acrylic cure & seal with one packet of pigment per bucket. | YES | YES | YES | YES | |
| Main office, conference rooms, offices and Media Center: Carpet tile; multiple colors and patterns. | YES | YES | YES | YES | | | |
| 9.5 | Wallcoverings | Provide allowance for custom wallcovering accents. Assume 1000 sf total throughout the entire project. | YES | YES | YES | YES | |
| 9.6 | Acoustic Panels | Provide PET acoustical panels at 10% of walls at Gymnasium and Auxiliary Gymnasium. Provide fabric-wrapped acoustical wall panels at 10% of walls in Music Rooms. Provide allowance for specialty acoustical panels at ceilings and walls of Cafeteria Dining and Media Center (assume 10% of walls and 5% of ceilings). | YES | YES | YES | YES | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | | | |
|---------------------------------|----------------------------------|--|----|-----|-----|---------|-----|---|--|
| | | AI | BI | D3 | D4 | | | | |
| 9.7 | Painting | Paint all exposed drywall, exposed ceilings, structure, etc. Assume epoxy paint at Kitchen, toilet rooms, and service spaces. | | YES | YES | YES | YES | | |
| DIVISION 10: SPECIALTIES | | | | | | | | | |
| 10.1 | Visual Display Surfaces | Typical Classrooms, including Specials: (2) 4'h x 6'l marker boards in anodized frames with tray; (4) 4'h x 6'l tack boards with color impregnated cork and anodized aluminum frame. Smaller teaching spaces to receive two of each. Offices to receive one of each. | | YES | YES | YES | YES | | |
| | | Typical Classrooms to receive 20LF tack strips and map rail. Smaller classrooms to receive 10LF of same. Provide tack strips at 30% of corridor walls. | | YES | YES | YES | YES | | |
| | | Consider (10) recessed display cases in lobby and corridor locations: 390 Series Large Door Display Cases by Claridge. | | YES | YES | YES | YES | | |
| 10.2 | Signage | Assume typical panel signage throughout. Provide for dimensional character signage: 12" stainless steel BEECHER ROAD SCHOOL identification in two exterior locations; assume 6" stainless steel characters at interior (consider 100 characters for pricing). Provide 30" x 48" cast bronze dedication plaque. | | YES | YES | YES | YES | | |
| 10.3 | Toilet Partitions & Accessories | At all multi-stall toilet rooms: Graffiti resistant HDPE toilet partions, floor mounted, overhead braced. Grab bars for ADA toilet. Mirrors, TP Dispensers, Soap Dispensers. | | YES | YES | YES | YES | | |
| | | At single toilet rooms: Grab bars for ADA toilet. Mirror, TP Dispenser, Soap Dispenser. | | YES | YES | YES | YES | | |
| 10.4 | Cubicle Curtains | Provide cubicle curtains and track for two beds at Nurse Suite. | | YES | YES | YES | YES | | |
| 10.5 | Fire Protection, AEDs, First Aid | Provide fire extinguishers and fire blankets in recessed cabinets at 10 locations. | | YES | YES | YES | YES | | |
| | | Provide AEDs and First Aid Kits in surface mounted cabinets at 6 locations. | | YES | YES | YES | YES | | |
| 10.6 | Lockers | Provide staff lockers: Fully welded vented metal lockers and base, 12" x 12", double-tier, lockable, sloped top. Provide for: 8 units (16 lockers) at Receiving 8 units (16 lockers) at Kitchen 16 units (32 lockers) at Staff Dining | | YES | YES | YES | YES | | |
| | | At Pre-K through 3rd Grade classrooms: Provide 12" x 12" open metal cubbies, fully welded with rounded corners, and base, inside each classroom (consider 24 lockers in each classroom - 648 total). Provide with plastic laminate tops (by Millworker). | | YES | YES | YES | YES | | |
| | | At corridors near 4th-6th Grade classrooms, provide 12" x 12" fully welded vented metal lockers and base, single-tier, lockable, sloped top. Consider 24 lockers for each classroom - 480 total. | | YES | YES | YES | YES | | |
| DIVISION 11: EQUIPMENT | | | | | | | | | |
| 11.1 | Appliances | Provide refrigerator (bottom freezer type) and microwave at Main Office and Staff Dining. | | YES | YES | YES | YES | | |
| 11.2 | Food Service Equipment | New food service equipment shall be provided in the Kitchen and servery to allow for preparation and cooking of meals, including a double servery line, cooking equipment under an NFPA-compliant commercial hood, a dishwashing line, preparation and food storage spaces. | | YES | YES | YES | YES | | |
| 11.3 | Projection Screens | Projector and projector screens will be provided at the cafeteria dining area and at the stage platform. | | YES | YES | YES | YES | At Option AI, stage platform refers to the existing stage in the assembly area. At all other options this refers to the stage platform to be located in on of the Gyms. | |

| ITEM | | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS |
|---|---------------------------------|--|-------------------|---------------------------------------|--|--|---------|
| | | | A1 | B1 | D3 | D4 | |
| 11.4 | Gymnasium Equipment | Acoustical hard-side motorized folding partition separating Main Gymnasium from Auxiliary Gymnasium | N/A | N/A | YES | YES | |
| | | Motorized roll-down divider curtain at Main Gymnasium | YES | YES | YES | YES | |
| | | Manual retractable spectator seating, metal framed, plastic seats, 100-person capacity, for Main Gymnasium. | YES | YES | YES | YES | |
| | | Scoreboard at Main Gymnasium, multi-sport type. | YES | YES | YES | YES | |
| | | Lateral climbing wall, 30 LF. | YES | YES | YES | YES | |
| | | Volleyball standards and kit at Main Gymnasium | YES | YES | YES | YES | |
| | | Ceiling-mounted basketball goals, forward fold, adjustable goal height: Consider (2) at Main Gymnasium. | YES | YES | YES | YES | |
| | | Wall-mounted basketball goals, adjustable goal height: Consider (4) at Main Gymnasium and (4) at Auxiliary Gymnasium. | YES | YES | YES | YES | |
| DIVISION 12: FURNISHINGS (FIXED) | | | | | | | |
| 12.1 | General | This Division pertains to fixed furnishing provided as part of construction. It is anticipated that loose furniture will be provided throughout, carried under the project's soft costs. Refer to site section (31-32) for exterior furnishings. | YES | YES | YES | YES | |
| 12.2 | Casework | Plastic laminate casework with solid surfacing tops shall be provided along one full wall in typical classrooms and as noted in program requirements for individual spaces. Most rooms receive casework on at least one wall. Assume kitchenettes in Main Office and Staff Dining. | YES | YES | YES | YES | |
| 12.3 | Window Treatments | New roller shades shall be provided at all openings except high clerestory windows. Shades shall typically be manual; motorized shades will only be used at large openings in assembly spaces. Provide 3% fire-retardant shade cloth, typical. | YES | YES | YES | YES | |
| 12.4 | Entrance Flooring Systems | 1/4" surface-mounted foot grilles with no recess required: Floor formations by Construction Specialties. Provide at all entrance vestibules, at stairways near door to exterior, and at other major points of entry. | YES | YES | YES | YES | |
| DIVISION 14: ELEVATOR | | | | | | | |
| 14.1 | New Elevator | Provide new 3500 lb. capacity MRL electric traction elevator, stretcher-compliant, serving levels indicated. | N/A | YES (two-sided, serving three levels) | YES (single-sided, serving two levels) | YES (single-sided, serving two levels) | |
| 14.2 | Existing Elevator Refurbishment | Existing elevator serving the main level and the basement dates to 1997. Provide allowance for elevator refurbishment. Elevator is fully functional but may require updates to ensure serviceability over the 20-year lifespan required by the State for renovate-as-new. | YES | YES | N/A | N/A | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | |
|--|------------------------|---|---|---|---|---|--|
| | | A1 | B1 | D3 | D4 | | |
| DIVISION 21: FIRE PROTECTION (SPRINKLERS) | | | | | | | |
| 21.1 | Sprinklers & Fire Pump | The building will be equipped throughout with a sprinkler system in conformance with NFPA 13, 20 & 24. A fire pump with generator backup will be provided if existing water pressure is insufficient. A new 8-inch water service for fire suppression is required to be brought in from the street. | YES, existing service pipe from street to remain. New piping, equipment, devices and sprinklers throughout. | YES, existing service pipe from street to remain. New piping, equipment, devices and sprinklers throughout. | YES, new 8" fire service from street. New piping, equipment, devices and sprinklers throughout. | YES, new 8" fire service from street. New piping, equipment, devices and sprinklers throughout. | CES: Confirm size of water service and requirement for new service at Options A1 and B1. |
| 21.2 | General | Sprinklers shall be concealed, fully recessed in finished areas with ceilings. Sidewall, standard and extended coverage sprinklers shall be installed where appropriate. Upright sprinklers with protective baskets shall be installed within spaces where sprinklers are subject to damage. Quick response sprinkler heads shall be used in light hazard locations. Sprinklers, unless noted otherwise, shall have a 1/2" orifice and a 165°F temperature rating. Intermediate temperature classification sprinklers shall be installed within the mechanical room, skylights and other areas, as required by NFPA 13. | YES | YES | YES | YES | |
| | | Inspector's test connections and drains shall be provided at remote areas of the building. Drains shall terminate at the building exterior at a splash block. | YES | YES | YES | YES | |
| | | Wet alarm check valve riser assemblies shall be installed to properly zone the buildings sprinkler system. Each alarm check riser shall be limited to serving a maximum of 52,000 sf. | YES | YES | YES | YES | |
| | | Floor control valve assemblies shall be installed at each floor level in accordance with NFPA 13. Floor control valve assemblies shall consist of a control valve with tamper switch, flow switch, pressure gauge, and test/drain valve. | YES | YES | YES | YES | |
| | | Piping for the sprinkler system shall be steel pipe, ASTM A-53; Schedule 40 carbon steel. Schedule 10 pipe shall be allowed for pipe sizes larger than 1-1/4" diameter when roll grooved mechanical couplings are used. Sprinkler piping shall be installed above ceilings and concealed within chases where applicable. | YES | YES | YES | YES | |
| | | Fittings shall be grooved mechanical fittings: ANSI A21.10 ductile iron; ASTM A47 grade malleable iron. Couplings shall be ASTM A 536 ductile iron or malleable iron housing, EPDM gasket with nuts, bolts, locking pin, locking toggle or lugs to secure roll grooved pipe and fittings. | YES | YES | YES | YES | |
| DIVISION 22: PLUMBING | | | | | | | |
| 22.1 | General | Provide new plumbing system. Plumbing fixtures shall be low flow, energy efficient, and ADA compliant. Each drinking fountain location will include at least one bottle filler. All floor drains shall be self-priming. | YES | YES | YES | YES | |
| 22.2 | Grease Waste | Grease waste from the kitchen shall be piped to a direct-buried grease interceptor outside the building. Waste leaving the grease interceptor shall be tied back into the sanitary pipe leaving the building. | N/A | N/A | YES | YES | |
| | | Confirm functionality and capacity of existing grease waste interceptor. System may remain if functional exterior direct-buried type. Provide new grease waste pathways from the kitchen as required. | YES | YES | N/A | N/A | |
| 22.3 | Natural Gas | Provide new natural gas meter and feed. | YES | YES | YES | YES | |
| | | Existing domestic water service from street to building to remain. | YES | YES | N/A | N/A | |
| | | Provide new domestic water service from street to building. | N/A | N/A | YES | YES | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS |
|--------------------------|--------------------------|--|----|----|----|---------|
| | | AI | BI | D3 | D4 | |
| 22.4 | Domestic Water | Provide new water service assembly at building entrance consisting of shut-off valves, meter, backflow preventer. Provide all new distribution piping throughout the building. Domestic cold water, domestic hot water, and domestic hot water recirculation piping shall be Type L copper conforming to ASTM B 88. Domestic water piping shall be insulated with rigid molded, noncombustible glass fiber insulation conforming to ASTM C335. Domestic water piping throughout the building shall be installed above ceilings and concealed within walls. PVC jacketing shall be provided on piping in exposed areas. | | | | |
| 22.5 | Domestic Hot Water Plant | Provide two (2) new gas-fired storage type water heaters to supply domestic hot water to building plumbing fixtures. | | | | |
| | | Provide new central digital thermostatic mixing valve to limit domestic hot water distribution temperature. | | | | |
| | | Hot water recirculation systems shall be installed to maintain the appropriate temperatures in the domestic hot water system throughout the building. The pump shall be controlled by the BMS system to minimize energy consumption. Hot water recirculation piping shall be installed at the most remote fixture locations to provide adequate hot water within 15 seconds of faucet activation. Balancing valves shall be provided to ensure proper system flow. | | | | |
| 22.6 | Sanitary Drainage | Existing below slab underground sanitary mains to remain in place where functional. Provide new below slab sanitary piping as required to serve new plumbing fixtures. | | | | |
| | | Provide all new below slab sanitary piping. | | | | |
| | | Provide all new above slab sanitary waste and vent piping. | | | | |
| | | New below slab sanitary piping shall be Hub & Spigot service weight cast iron. New above slab sanitary and vent piping shall be Hubless service weight cast iron. | | | | |
| 22.7 | Storm Drainage | Existing below slab underground storm mains to remain in place where functional. Provide new below slab storm piping as required to accommodate roof drains and new architectural layout. | | | | |
| | | Provide all new below slab storm piping. | | | | |
| | | Provide all new above slab storm and secondary storm piping. | | | | |
| | | New below slab storm piping shall be Hub & Spigot service weight cast iron. New above slab storm and secondary storm piping shall be Hubless service weight cast iron. All above ground storm and secondary storm piping shall be insulated with minimum 1/2" insulation to prevent condensation. | | | | |
| DIVISION 23: HVAC | | | | | | |
| 23.1 | High-Performance | Connecticut High-Performance Building Standards, similar to LEED, will be followed. The design of the building envelope, HVAC, and lighting systems shall be reviewed with UI during design to allow the project to take advantage of potential rebates related to energy efficiency. | | | | |
| 23.2 | BMS | A Building Management System (BMS) shall be installed to control the mechanical and selected electrical systems. BMS shall be by the Temperature Control vendor approved by the Owner. The system shall provide temperature control and monitoring for all HVAC systems in the building, shall be programmable for occupied and unoccupied periods, and shall use carbon dioxide sensing to control outside air volume. The BMS shall communicate directly to the district's central system, with off-site alarming capability | | | | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | |
|-------|---------------------|---|---|---|---|---|--|
| | | A1 | B1 | D3 | D4 | | |
| 23.3 | Ventilation | Rooftop DOAS units, DX Cooling, Energy Wheel, Hot Gas Reheat | YES (gas fired heaters) DOAS-1=2500 cfm, DOAS-2=4500 cfm, DOAS-3=3500 cfm, DOAS-4=3000 cfm, DOAS-5=3300 cfm, DOAS-6=9000 cfm, DOAS-7=3200 cfm, DOAS-8=900 cfm | YES (gas fired heaters) DOAS-1=2350 cfm, DOAS-2=4200 cfm, DOAS-3=3200 cfm, DOAS-4=2800 cfm, DOAS-5=3100 cfm, DOAS-6=8400 cfm, DOAS-7=3000 cfm, DOAS-8=850 cfm | YES (gas fired heaters) DOAS-1=2200 cfm, DOAS-2=4000 cfm, DOAS-3=3000 cfm, DOAS-4=2700 cfm, DOAS-5=3000 cfm, DOAS-6=8100 cfm, DOAS-7=2900 cfm, DOAS-8=800 cfm | YES (gas fired heaters) DOAS-1=2200 cfm, DOAS-2=4000 cfm, DOAS-3=3000 cfm, DOAS-4=2700 cfm, DOAS-5=3000 cfm, DOAS-6=8100 cfm, DOAS-7=2900 cfm, DOAS-8=800 cfm | |
| 23.4 | VRF | Variable refrigerant flow system, ceiling cassette based in most locations. | YES (6 CU's at 20 Tons, 1 CU at 25 Tons, 1 CU at 12 Tons) | YES (6 CU's at 20 Tons, 1 CU at 12 Tons) | YES (5 CU's at 20 Tons, 1 CU at 10 Tons, 1 CU at 12 Tons) | YES (5 CU's at 20 Tons, 1 CU at 10 Tons, 1 CU at 12 Tons) | |
| 23.5 | Boilers/Hot Water | For perimeter heating systems | YES | YES | N/A | N/A | |
| 23.6 | Gym/Cafe | Packaged Rooftop Heating, Cooling and Ventilation Unit, DX Cooling, Energy Wheel, Hot Gas Reheat | YES (Gym=15 Tons, Aux Gym=9 Tons, Cafe=16 Tons) gas fired heaters | YES (Gym=16 Tons, Aux Gym=8 Tons, Cafe=16 Tons) gas fired heaters | YES (Gym=15 Tons, Aux Gym=10 Tons, Cafe=16 Tons) Heat Pump heating with electric coil | YES (Gym=18 Tons, Aux Gym=10 Tons, Cafe=16 Tons) Heat pump heating with electric coil | |
| 23.7 | Assembly/Stage | Packaged Rooftop Heating, Cooling and Ventilation Unit, DX Cooling, Energy Wheel, Hot Gas Reheat | Yes (10 Ton Unit) | N/A | N/A | N/A | |
| 23.8 | Kitchen | Kitchen exhaust hood with rooftop exhaust fan. Dishwater rooftop exhaust fan. Welded grease duct. | YES | YES | YES | YES | |
| 23.9 | Tel/Data Rooms | Ductless split units, indoor evaporator paired with rooftop condensing unit. | YES | YES | YES | YES | |
| 23.1 | Media Center | Packaged Rooftop Heating, Cooling and Ventilation Unit, DX Cooling, Energy Wheel, Hot Gas Reheat | YES (12 Ton, gas fired heat) | YES (12 Ton, gas fired heat) | YES (10 Ton, heat pump with electric coil) | YES (7.5 Ton, heat pump with electric coil) | |
| 23.11 | Corridors/Entrances | Cabinet Unit Heaters | YES | YES | YES | YES | |
| 23.12 | Central Offices | ERV, VRF Units, Roof mounted Condensing Unit | YES (7 Ton VRF, ERV=250 CFM) | YES (8 Ton VRF, ERV=300 CFM) | YES (8 Ton VRF, ERV=300 CFM) | YES (8 Ton VRF, ERV=300 CFM) | |
| | | | | | | | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | |
|--------------------------------|---|--|---|---|---|---|--|
| | | A1 | B1 | D3 | D4 | | |
| DIVISION 26: ELECTRICAL | | | | | | | |
| 26.1 | General | Provide new electrical service capable of meeting the needs of the building and site. Provide a backup generator if a fire pump is required. If a backup generator is not required nor provided, battery backup will be provided for emergency systems via inverters. If a generator is provided, include an automatic transfer switch to allow key systems, such as heating for freeze protection, to function during an extended power outage with the use of a temporary generator. The generator shall also backup IT/security loads, fire alarm, and kitchen freezer/coolers. | YES (2500A 480 V Service, Alternate for 250KW Natural Gas Generator) | YES (2500A 480 V Service, Alternate for 250KW Natural Gas Generator) | YES (3000A 480 V Service, Alternate for 350KW Natural Gas Generator) | YES (3000A 480 V Service, Alternate for 350KW Natural Gas Generator) | |
| 26.2 | Electrical Service | A new Utility Pad-Mounted Transformer shall be installed at grade in the project site to support the electrical service. This transformer will step down the voltage to 277/480V, 3 phase. (2) 4" underground schedule 40 PVC conduits with pull lines will be installed from a utility service primary manhole located at the project site. <i>Where conduits cross roadways, driveways, parking lots, the conduits shall be concrete encased. Wiring within the conduits and final connections for primary electrical service will be provided by the Utility.</i> | YES | YES | YES | YES | |
| | | A second new Utility Pad-Mounted Transformer shall be provided to support the electrical service for Electric Vehicle Chargers (600Amp). This transformer will step down the voltage to 120/208V, 3-phase. | YES | YES | YES | YES | |
| 26.3 | Electrical Distribution Equipment | Provide electrical distribution equipment including step down transformers for complete support of building loads. <i>Building loads are to be independently monitored by Energy Use Category (as per the latest applicable version of the IECC Table C405.12.2).</i> | YES | YES | YES | YES | |
| 26.4a | Electrical Distribution Equipment: Main Electrical Room | Main Electrical Room shall contain: <ul style="list-style-type: none"> • 3,000A, 480/277V main switchboard. Metering will be provided separately for lighting loads, receptacle loads, kitchen loads, and HVAC loads. Switchboard shall include TVSS device and ground fault. • One distribution panel (Lighting) shall be 480/277V, 3PH, 4W, 30-pole, 300amp main circuit breaker type. • One distribution panel (General Receptacle) shall be 208/120V, 3PH, 4W, 30-pole, 1,200amp main circuit breaker type. • One distribution panel (Mechanical Equipment) shall be 480/277V, 3PH, 4W, 30-pole, 1,200amp main circuit breaker type. • One distribution panel (Standby Load) shall be 480/277V, 3PH, 4W, 30-pole, 600amp main circuit breaker type. • One general purpose panelboard (Lighting) shall be 480/277V, 3PH, 4W 42-pole, 100 amp main circuit breaker type. • One general purpose panelboard (Exterior Lighting) shall be 480/277V, 3PH, 4W 42-pole, 100 amp main circuit breaker type. • One general purpose panelboard (Emergency Lighting) shall be 480/277V, 3PH, 4W 30-pole, Fusible Branch with 50Amp main switch (Bussman Quik- spec) type. • One general purpose panelboard (General Receptacle) shall be 208/120V, 3PH, 4W 84-pole, 225 amp main circuit breaker type. • One Transformer shall be 500 KVA dry-type 480/277V to 208/120V, 3-phase, 4-wire step down transformer with harmonic filters. Provide a #6 ground from the transformer to the building steel as required by code. • ATS #2 400Amp, 480Y/277Volt, 3phase- Standby Power load distribution. | YES | YES | YES | YES | |

| ITEM | | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS |
|-------|---|---|-------------------|-----|-----|-----|---------|
| | | | AI | BI | D3 | D4 | |
| 26.4b | Electrical Distribution Equipment: Emergency Electrical Room | Emergency Electrical Room shall contain: <ul style="list-style-type: none"> • ATS #1 150Amp, 480Y/277Volt, 3phase- Life Safety / Emergency Lighting distribution. • One Life Safety distribution panel (Emergency Lighting) shall be 480/277V, 3PH, 4W, 42-pole, Bussman Quik-spec fusible type with 100Amp main switch. | YES | YES | YES | YES | |
| 26.4c | Electrical Distribution Equipment: Main Mechanical Room | Main Mechanical Room shall contain: <ul style="list-style-type: none"> • One general purpose panelboard (Equipment) shall be 208/120V, 3PH, 4W 30-pole, 200Amp main circuit breaker type. • One general purpose panelboard (Standby Equipment) shall be 208/120V, 3PH, 4W 30-pole, 125 amp main circuit breaker type. • One general purpose panelboard (Equipment) shall be 480/277V, 3PH, 4W 42-pole, 400 amp main circuit breaker type. • One general purpose panelboard (Standby Equipment) shall be 480/277V, 3PH, 4W 42-pole, 200 amp main circuit breaker type. • One Transformers shall be 45 KVA dry-type 480/277V to 208/120V, 3-phase, 4-wire step down transformer. Provide a #6 ground from the transformers to the building steel as required by code. • One Transformers shall be 75 KVA dry-type 480/277V to 208/120V, 3-phase, 4-wire step down transformer. Provide a #6 ground from the transformers to the building steel as required by code. | YES | YES | YES | YES | |
| 26.4d | Electrical Distribution Equipment: Kitchen / Cafeteria | Kitchen / Cafeteria shall contain: <ul style="list-style-type: none"> • One general purpose panelboard shall be 480/277V, 3PH, 4W 30-pole, 250amp main circuit breaker type. • One general purpose panelboard (Kitchen Equipment/Receptacle) shall be 208/120V, 3PH, 4W 84-pole, 400amp main circuit breaker type. • One Transformer shall be 150 KVA dry-type 480/277V to 208/120V, 3-phase, 4-wire step down transformer with harmonic filters. Provide a #6 ground from the transformer to the building steel as required by code. | YES | YES | YES | YES | |
| 26.4e | Electrical Distribution Equipment: Remote Electrical Room | Remote Electrical Room (typical): <ul style="list-style-type: none"> • One general purpose panelboard (Lighting) shall be 480/277V, 3PH, 4W 42-pole, 100 amp main circuit breaker type. • One general purpose panelboard (Emergency Lighting) shall be 480/277V, 3PH, 4W 30-pole, Fusible Branch with 50Amp main switch (Bussman Quik- spec) type. • One general purpose panelboard (General Receptacle) shall be 208/120V, 3PH, 4W 84-pole, 225 amp main circuit breaker type with integral transient voltage surge suppression. • One general purpose panelboard (Standby Equipment/Receptacle) shall be 208/120V, 3PH, 4W 42-pole, 125 amp main circuit breaker type. • One general purpose panelboard (Standby Equipment) shall be 480/277V, 3PH, 4W 42-pole, 125 amp main circuit breaker type. • One Transformer shall be 45 KVA dry-type 480/277V to 208/120V, 3-phase, 4-wire step down transformer with harmonic filters. Provide a #6 ground from the transformer to the building steel as required by code. • One general purpose panelboard (Equipment) shall be 208/120V, 3PH, 4W 30-pole, 100Amp main circuit breaker type. | YES | YES | YES | YES | |
| 26.4f | Electrical Distribution Equipment: Gymnasium | Gymnasium: <ul style="list-style-type: none"> • One general purpose panelboard (Gymnasium receptacles and equipment) shall be 208/120V, 3PH, 4W 24-pole, 100 amp main circuit breaker type with integral transient voltage surge suppression. | YES | YES | YES | YES | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | | |
|------------------------------------|---|---|----|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| | | A1 | B1 | D3 | D4 | | | |
| 26.4g | Electrical Distribution Equipment: IT Rooms | IT Rooms (Typical): • One general purpose panelboard (MDF power) shall be 208/120V, 3PH, 4W 42-pole, 60 amp main circuit breaker type. | | YES | YES | YES | YES | |
| 26.5 | Alternate Power | <ul style="list-style-type: none"> o One 150Amp 3pole for ATS #1- Life safety/ Emergency lighting requirements. o One 800Amp 3pole for ATS #2 - Standby load requirements. o One 100Amp 3pole for ATS #3 - Electric driven fire pump. | | YES (If fire pump is provided) | |
| 26.6 | Lighting | Provide new high-efficiency LED lighting throughout, designed to promote an optimal learning environment, with ample low-glare illumination. Lighting shall use motion sensors and automatic dimming for daylight harvesting. Exterior lighting shall be full-cutoff type. | | YES | YES | YES | YES | |
| 26.7 | Plug load control | Provide plug load control in required areas as required by the applicable version of the International Energy Conservation Code (IECC). <i>Power receptacles shall be plug load control type as required by the applicable 2021 version of the International Energy Conservation Code IECC, article C405.11 Automatic receptacle control.</i> | | YES | YES | YES | YES | |
| 26.8 | Lightning Protection | The building appears to have an existing lightning protection system which should be expanded to cover the entire building. | | YES | YES | N/A | N/A | |
| | | Provide new lightning protection system covering the entire building. | | N/A | N/A | YES | YES | |
| 26.9 | Rooftop PV System | Provide new rooftop photovoltaic (PV) solar panel system throughout. Provide as an alternate to allow District to consider PPA delivery. | | YES | YES | YES | YES | |
| | | Note that existing building is equipped with an extensive photovoltaic (PV) solar panel system. Analyze relative cost to remove and re-use. | | YES | YES | YES | YES | |
| 26.10 | EV Charging | Provide electric vehicle charging stations (EVCS) in conformance with CT State Law. Confirm percentage of parking spaces to be served (20%). EV charging infrastructure shall consist of service entrance equipment sized at 600A, 120/208V, 3-phase. Equipment shall be located outside and shall include NEMA 3R rated cabinet equipment. EVCS equipment shall be a single pedestal - dual connector, open charge point protocol (OCPP), with cellular connectivity and capabilities to interface with third party payment services. | | YES | YES | YES | YES | |
| 26.11 | Call for Aid System | In each single occupancy toilet room, an emergency call-for-aid system will be provided. This will consist of a pull string located near the toilet and a combination buzzer/strobe located above the exterior of the door. | | YES | YES | YES | YES | |
| DIVISION 27: COMMUNICATIONS | | | | | | | | |
| 27.1 | Technology (General) | Since technology systems evolve rapidly, systems installed as part of the technology component will be replaced after the main building to ensure access to the latest products. All technology will be reviewed with the Office of the Superintendent Cabinet level staff to determine if new should be provided or existing retained, depending on remaining useful life. Interactive displays will be provided as described in the programmatic requirements for individual spaces. A wide-area network (WAN) will be installed, and the building will be networked to the network policy server (NPS). Wireless Access Points (WAPs) will be installed throughout the entire school. The new School may serve as a WAP for the community. Ethernet shall be CAT6 or better, providing 1 GB to desktop and 10GB trunks to all interconnections to all the data closets. Drops in the ceiling for wireless APs should be installed for support of the wireless infrastructure. All assembly areas shall have a minimum of three ceiling/wall mounted drops or wireless APs. | | YES | YES | YES | YES | |

| ITEM | | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS |
|--|---|--|-------------------|-----|-----|-----|---------|
| | | | AI | BI | D3 | D4 | |
| 27.2 | Public Address System | All options include a new, comprehensive, public address system. The PA system will incorporate internal building communications as well as external communications. | YES | YES | YES | YES | |
| 27.3 | Phone System | Provide new VOIP phone system, coordinated with District requirements. Handsets shall be located within all administration areas, conference rooms, mechanical and data rooms, large storage rooms, work areas and within the teaching classrooms mounted at the teacher's desks. All handsets shall be capable to send and receive outside phone calls. The voice system shall interface with the Public Address (PA) system to allow for secured access to the controls of the PA system via any handset. | YES | YES | YES | YES | |
| 27.4 | Clocks | Provide new wireless battery-operated clock system and head end, with clocks to be placed in all instructional and support systems. | YES | YES | YES | YES | |
| 27.5 | Digital Signage | A digital signage system will be provided throughout the building. | YES | YES | YES | YES | |
| 27.6 | Audio Visual | Classroom audiovisual systems shall consist of wall mounted interactive displays, local sound, and assistive listening integration as required by ADA. | YES | YES | YES | YES | |
| | | Conference room(s) audiovisual systems shall consist of wall mounted interactive displays, local sound, microphone(s) and video cameras to allow for video conferencing. | YES | YES | YES | YES | |
| | | Selective offices shall be provided with wall mounted displays with HDMI connectors for screen mirroring/presentation use. | YES | YES | YES | YES | |
| | | Large areas of assembly shall be provided with laser projector equipment, and specialized sound system equipment housed in a dedicated AV rack. Faceplate connections for external media devices using HD-BaseT technology and microphones shall be provided. | YES | YES | YES | YES | |
| DIVISION 28: ELECTRONIC SAFETY & SECURITY | | | | | | | |
| 28.1 | Security: Video Surveillance and Access Control | All options include a comprehensive electronic security system including IP based camera surveillance and storage, intrusion detection, and access control. | YES | YES | YES | YES | |
| 28.2 | Fire Detection and Alarm | All options include an addressable, speaker-type fire alarm system in compliance with code requirements and ADA regulations. Voice evacuation shall be provided throughout the building. The system shall be provided with a fire alarm control panel to contact the local fire department. Manual pull stations shall be installed in the egress paths at exterior doors and at entrances to stairwells. Audible and visual signaling devices shall be installed in classrooms, corridors, toilets, cafeteria, gymnasium, etc. Visual-only signaling devices shall be installed in all conference rooms, work rooms, etc. | YES | YES | YES | YES | |
| 28.3 | Two-Way Communication System | Provide new emergency two-way communication system on the second floor. | N/A | YES | YES | YES | |
| 28.4 | Emergency Responder Radio Coverage System | Provide a an Emergency Responder Radio Coverage System (BDA) capable of enhancing and boosting the emergency responder portable radio frequencies within the building. | N/A | N/A | YES | YES | |

| ITEM | DESCRIPTION | APPLIES TO OPTION | | | | REMARKS | |
|------------------------------|--|---|-----|-----|-----|---------|--|
| | | A1 | B1 | D3 | D4 | | |
| DIVISIONS 31-33: SITE | | | | | | | |
| 31.1 | Earthwork, General | Phase I Environmental is outside the scope of this Study. Based on the multiple levels and ramps at the existing facility, we believe there is a strong possibility that ledge exists close to grade in some locations; consider incorporating a robust rock removal allowance. | YES | YES | YES | YES | |
| 31.2 | Grading | Grading will be required for all options. Assume some grading for ADA compliance and driveway improvements at Option A1. More grading will be required for Option B new construction, including for a retaining wall at the split level near the elevator. New construction options require the most. | YES | YES | YES | YES | |
| 32.1 | Paving in Existing Areas | Existing bituminous paving areas shall be re-paved unless noted otherwise (see alternate for south parking). Additionally, new paving shall be provided where paving is impacted by grading or trenching, where driveways are widened, at drainage detention areas, etc. | YES | YES | YES | YES | |
| 32.2 | Sidewalks | Assume new concrete sidewalks within 50 feet of School and Central Office, and also at parking areas serving these facilities. Existing sidewalks include many ramps with non-compliant handrails steep pitches, and non-compliant length. Assume most will be regraded to eliminate the need for handrails; at the most challenging locations (consider 30% of existing ramps) handrails will be required. Sidewalks at new construction options will not include any ramps. | YES | YES | YES | YES | |
| 32.3 | Paving, General | Paving, general: Provide new 4" bituminous paving on 10" stone at access roads. Provide 3" bituminous paving on 8' stone at parking areas with no bus or truck traffic. Provide precast curbs at parking areas and associated driveways. | YES | YES | YES | YES | |
| 32.4 | Existing Fields / Tennis | Refurbish existing baseball/softball field at west portion of site, and resurface tennis courts unless new are shown. Softball field shall include option for soccer field overlaid in backfield. Refurbish gravel walking path at west end of site. | YES | YES | N/A | YES | |
| 32.5 | New Fields / Tennis | Provide new baseball/softball field with soccer field overlay and tennis courts as shown. | N/A | N/A | YES | N/A | |
| 32.6 | Playgrounds | Provide three new playgrounds with poured rubber surfacing and new play equipment. Assume one for ages 2-5, approximately 3000 sf, and two for ages 5-12, approximately 5000 sf each. | YES | YES | YES | YES | |
| 32.7 | Site Lighting | Provide new, full-cutoff site lighting throughout the parking lots and along pedestrian ways around and into the buildings. | YES | YES | YES | YES | |
| 32.8 | Site Furnishings | Provide allowance for site furnishings, including new benches, waste receptacles and bicycle racks at multiple points around facility and site amenities. | YES | YES | YES | YES | |
| 32.9 | Landscaping | Provide landscape enhancements through out site. An allowance should be provided for accent planting around the building and school campus. | YES | YES | YES | YES | |
| 33.1 | Utilities and associated trenching/restoration | Trenching and restoration will be required to bring utilities to the building, in most cases from the street. Existing utility entrance points exist at the north corner of the south wing (area accessed by a driveway off the driveway loop) and at the east corner of the north wing (this is the basement area shown on A1 served by the loading access drive). New water, gas and electrical services required from street. Tie-in to existing sanitary lines will be investigated at renovation options; assume new from street at new construction options. Tie-in to existing storm lines will be considered for all options. | YES | YES | YES | YES | |
| 32.2 | Drainage | Stormwater drainage improvements required for all options; new drainage required at new construction areas. Assume drainage retention basins will be installed under parking areas. Consider Stormtech MC-4500, two locations, 50 chambers each. | YES | YES | YES | YES | |
| | | | | | | | |