

A. ANALYSIS OF SCHOOL DISTRICT ASSIGNMENT

SCHOOL ASSIGNMENT PRACTICES AND AVAILABLE SPACE:

The Stoneham Public School System consists of five (5) buildings: three (3) elementary schools, one (1) middle school, and one (1) high school. The District has reviewed assignments and concluded that no amount of re-districting within the existing school system can accommodate the students in the Stoneham High School.

B. TUITION AGREEMENTS WITH ADJACENT SCHOOL DISTRICTS

Stoneham Public Schools does not have any tuition agreements with adjacent school districts that can accommodate the students in the Stoneham High School.

C. RENTAL OR ACQUISITION OF EXISTING BUILDINGS FOR SCHOOL USE

There are no suitable empty buildings in the Town of Stoneham that the District can rent or acquire that can accommodate the students in the Stoneham High School. Since a suitable building that can accommodate the students in the Stoneham High School could not be identified, this alternative is not viable.

D. EVALUATION OF ALTERNATIVES

“Based upon the Educational Program, Initial Space Summary, evaluation of existing conditions, and site development requirements, the OPM (SMMA), District, working with its Designer, Stoneham School Building Committee, Faculty, and Staff shall perform a preliminary evaluation of alternatives. To ensure that the Feasibility Study determines the most cost effective and educationally appropriate solution that can be supported by the community and the MSBA Board of Directors, it is imperative that the preliminary evaluation of alternatives is sufficiently comprehensive in scope to initially consider all possible solutions. Each alternative should satisfy significant components of the Educational Program, Standards, Policies and Guidelines of the MSBA to the extent feasible, unless specifically authorized in writing by the MSBA”. (Module 3).

The Preliminary Evaluation of Alternatives should include at least the following alternatives to satisfy the requirements of the PDP/ Module 3:

- **Code Upgrade Opton**
- **Renovation Only**
- **Renovation/Addition**
- **New Construction**

The team developed ten initial alternatives to be presented to the SSBC, Administration, Staff and Community. They are as follows:

- I. Code Upgrade Option**
 - I. Option 1
- II. Renovation Only**
 - I. Option 2: Major Renovation for Code and Educational Compliance
- III. Renovation Addition**
 - I. Option 3A1
 - II. Option 3A2
 - III. Option 3B

IV. New Construction

- I. Option 4A1
- II. Option 4A2
- III. Option 4A
- IV. Option 4B
- V. Option 4C

During the evaluation of alternatives period the Committee reviewed the ideas and sent comments, questions and thoughts about the options relative to the educational program compliance, Site design, phasing impacts, cost, reuse of existing infrastructure, zero net energy (ZNE) achievability, and civic presence to the Design Team. Many of the comments provided were integrated into the design after discussion with the Stoneham Building Committee.

After a detailed review of the site diagrams, phasing diagrams, cost, and pros and cons for each option the SSBC (Stoneham School Building Committee) voted at the September 28, 2020 to reduce the alternatives to six options to move forward. These options include Code Upgrades, Renovation Only (Option 2), Renovation/Addition (Option 3A2), and New Construction (Options 4A3, 4B, 4C) into the PSR Phase. A summary of the key attributes and costs of each of the ten options are summarized in the following pages:

Code Upgrade Only Project Costs: (695 Students): \$115.0 Million

Renovation Only Project Costs:

Option 2 (695 Students): \$173.4 Million

Renovation/ Addition Project Costs:

Option 3A2 (695 Students): \$175.2 Million

New Construction Project Costs:

Option 4A3 (695 Students): \$174.8 Million

Option 4B (695 Students): \$172.9 Million

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D. EVALUATION OF ALTERNATIVES / I. CODE UPGRADE

OPTION 1

Capacity: 695 students (grades 9-12)
GSF: 204,107
Estimated Project Cost: \$115.0 Million

**Project cost - all costs should be considered preliminary based on Order of Magnitude*



The Code Upgrade option retains the existing Stoneham High School building in its current configuration. The facility was originally built in 1968 as a Junior High School and a small addition was added to the facility in 1981 and reopened as a High School. The existing systems have not been upgraded and/or replaced since the building was constructed 58 years ago and added to 39 years ago. The current square footage of the existing Stoneham High School is 208,113 gross square feet close to the proposed educational program for the new facility, however, most of the buildings infrastructure and systems contain original equipment and has reached the end of its useful life. In addition, the Stoneham High School does not have the physical spaces to support the needs of a 21st century educational facility.

The required upgrades in the Code Option include, but are not limited to, interior finishes, replacement of windows, envelope repair, replacement of all MEP systems, life safety, and accessibility upgrades. It should be noted that if any repairs, renovations, additions, or change of occupancy are made to the existing structures, compliance with 780 CMR, Chapter 34 "Existing Building Code" (Massachusetts Amendments to The International Existing Building Code 2015) of the

Massachusetts Amendments to the International Building Code 2015 (IBC 2015) and reference code "International Existing Building Code 2015" (IEBC 2015) is required. The intent of the IEBC (and the related Massachusetts Amendments to IEBC) is to provide alternative approaches to alterations, repairs, additions and/or a change of occupancy or use without requiring full compliance with the code requirements for new construction.

The Evaluation of Existing Conditions report is located in Section 3.1.4. This section includes more detailed lists of the building, systems, and site deficiencies requiring upgrades and/or replacement to meet code requirements for the Code upgrade only, with no educational-related modifications. MSBA would support a code upgrade option if it fulfilled the significant components identified in the SOI and if it was reported to support delivery of the district's educational program, which it does not.

The construction phasing of the Code Repairs Option would require significant moving of students around the existing facility or off site to complete the extensive-phased upgrades and renovations at the Stoneham High School Facility.

PROS

- The school will meet the building code and ADA
- The school will have new HVAC, Plumbing and Electrical systems
- Hazardous materials will be abated

CONS

- The base repair renovations will not meet any capacity requirements.
- The base repair renovations will be a costly option with no educational upgrades.
- A lengthy disruption to the students for only systems upgrades.
- Accessible swing space serving the students needed for construction

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D. EVALUATION OF ALTERNATIVES / II. RENOVATION ONLY

OPTION 2 (Moving Forward to PSR)

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Project Cost: \$173.4 Million



Option 2

*Project cost - all costs should be considered preliminary based on order of magnitude

The existing Stoneham High School has a gross square footage of 208,113 which falls within a gross square foot range of the proposed educational program of 204,107 GSF, however, due to the existing configuration and location of the major program spaces, the condition and age of the existing building systems (ranging from 39 to 58 years), requirements for seismic upgrades, the overall condition of the exterior shell and interior surfaces, the need for extensive ADA compliance, and the necessity to support 21 century learning through space size, configuration, adjacency and location, a gut renovation would be required at a significant cost to the Town of Stoneham. The cost should be weighed against the educational goals and priorities of the Town of Stoneham.

Relationship of Site Organization to Surrounding Context:

The Stoneham High School site has a number of unique spatial and environmental characteristics. Sitting on the threshold between Stoneham's suburban fabric and the regional resource of the Middlesex Fells the high school project has the unique opportunity to define the civic interface between these distinct parts of the town. This edge between the environmental preserve (who's immediate character is one of wooded wetlands) and that of local neighborhoods gives the site distinctly different edge conditions that transition from wetland to rock ledge outcropping to tightly spaced single-family homes and apartments. The School's new educational and athletic spaces have the opportunity to improve connectivity and better define the relationship between the school's context and the academic campus.

Phasing/Existing Utilities

The existing high school building sits at the center of the site near its highest topographic point. Building adjacent to this structure poses distinct phasing challenges that require new site configurations to consider, potential construction logistics, existing utility lines, temporary access configurations, temporary parking as well as the potential relocation of an

existing culverted stream on site. These issues among others were considered as each option was developed.

Daylighting / Solar Orientation

The school district's admirable goal of executing a zero net energy building require that the site planning options begin to consider daylighting strategies and envelope efficiency even at this early phase. Siting, orientation, proportion and skin to volume ratio can affect the energy performance of a building as much as 5-10% and warrant further study in the PSR phase.

Site Scope and Disturbance

The position of a major addition or newly constructed building on the site along with the school's required athletics program can happen in a number of different configurations. These configurations can vary in scope and overall site disturbance. The design team and committee explored a range of options that minimize and maximize that disturbance to help the town define the appropriate recommended project scope.

Civic Presence

The existing school building sits in view of the site's main entry drive at the top of an extended entry drive giving the building a prominent civic presence. A new facility or substantial addition can be placed in view of the Franklin St. Entry or to the existing building's east and west edge (putting it out of view upon campus entry). The options developed consider the effect of building position on the potential civic expression of the town's largest and most active facility.

Learning Environment / Landscape Relationship

Direct, immediate access to the outdoors is of particular importance as we consider the effects of indoor air quality on classroom learning and infection control. The new school has the potential to thoughtfully consider the relationship of learning landscapes to indoor classroom clusters making transitions to outdoor learning and instruction user friendly

and readily accessible.

Traffic Mitigation / Site Circulation

The Franklin St. corridor and surrounding cross streets see considerable traffic during peak times, some of which overlap with the school drop-off schedule. This makes traffic mitigation an important factor in initial site design as the length of drive aisles, clarity of internal circulation and potential for improved bike and pedestrian routes can all ameliorate traffic challenges.

PROS

- Least disruption to site (still substantial)
- Adequate square footage
- Re-use existing structure

CONS

- Lengthy Occupied phased construction (longer construction duration)
- Difficult to meet ZNE goal
- Highly disruptive to building users during construction
- Requires Modular Classrooms for swing space
- Hazardous abatement in occupied building
- High Cost for the return on educational goals outlined

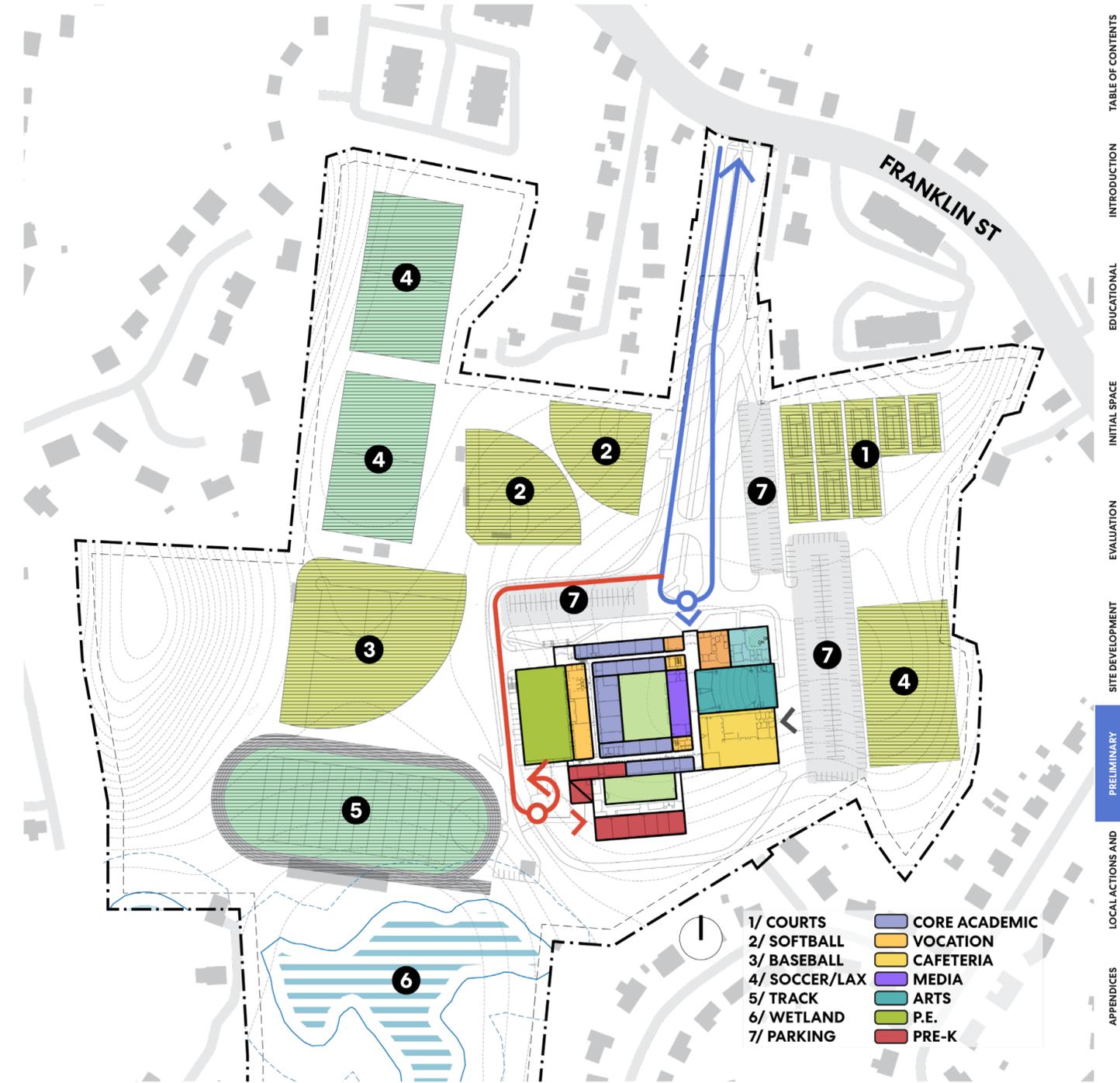


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D. EVALUATION OF ALTERNATIVES RENOVATION/ADDITION SUMMARY

A full assessment of the existing Stoneham High School was undertaken to determine which part of the facility could be best salvaged to meet the future educational needs. It was determined that the west portion of the facility that houses the gymnasium, locker rooms, and weight room on the main level floor would be most beneficial due to the size of the existing gymnasium at 16,000 net square feet. The athletic facilities are mostly located on the first floor (main entry level), with a few spaces at the partial lower level housing the athletic coaches' offices, team rooms, equipment rooms and associated storage areas. The lowest level is only a portion of the footprint of the upper levels due to the change in site grading. In addition to the Athletic spaces, the partial lower level also houses the maintenance facility, garage, Veteran's storage space, and shop. The second floor of the existing facility houses special education, art, classroom, and district office space.

While the area of the facility deemed for renovation may be able to accommodate the square footage of athletics on the main level the location of the lower level and second floor proposed programs completely dissociates significant hands on spaces from the neighborhoods. The renovation/addition option locates the Engineering lab and Computer Science on the lower level and Art, Music and Video Production on the second floor above the gymnasium. It was determined in the educational visioning and subsequent programming sessions that the project based/ hands on spaces supporting teaching and learning such as the maker spaces, robotics, and engineering would be directly connected to the classrooms to support an interdisciplinary learning environment. The idea that the hands-on spaces should be integrated into the classroom environment to promote collaboration, critical thinking and creativity would not be realized. Placing these programs to the back of house would return Stoneham to traditional 20th century models of teaching and learning.

Due to the overall condition and age of the facility, the lack of supportive educational adjacencies and the sub-standard performing art spaces, undersized science, and adjacencies that support Stoneham's educational vision it was determined not to salvage the portion of the existing building to the east of the gymnasium. The proposed Renovation/Addition Options make every effort to support a vision around the need for students to adapt to an ever-changing workplace, economy and technologies. The existing building design

around double loaded corridors without the opportunity to team, accommodate different learning styles, break out work, and integrate special education programs directly in the teaching and learning environment. Furthermore, the ability to reimagine the relationship of the facility to its site will be critical to accomplishing many of the themes that arose from Stoneham's visioning sessions including goals of encouraging outdoor learning for the purposes of pandemic resilience.

A number of critical programmatic relationships will drive the new portion of the building's siting and internal organization. The fundamental building block of the newly constructed addition will be project focused neighborhoods that integrate a clustering of more universally flexible classrooms spaces with separate places for integrated project-based learning, hands-on vocational spaces and special education classrooms. These neighborhoods will be organized around, along or in a chain with a modern media center and café/commons that from the heart of school life. Other areas that will connect to this vibrant heart will be an arts cluster that supports theater and music performances with flexible back-of-house classrooms. The building needs to be zoned and positioned on the site to allow for ease of use and security during times of community access while sometimes simultaneously providing privacy and a sensitive scale for the town's pre-k program. Figure xx.xxxx illustrates an abstraction of the ideal relationships identified during programing between each of the building's areas.

The following design criteria describe the salient site related issues that are critical to the Stoneham High School community. The initial Renovation/Addition Options were developed in response to these site pressures and opportunities:

Relationship of Site Organization to Surrounding Context:

The Stoneham High School site has a number of unique spatial and environmental characteristics. Sitting on the threshold between Stoneham's suburban fabric and the regional resource of the Middlesex Fells the high school project has the unique opportunity to define the civic interface between these distinct parts of the town. This edge between the environmental preserve (who's immediate character is one of wooded wetlands) and that of local neighborhoods gives the site distinctly different edge conditions that transition from wetland to rock ledge outcropping to tightly spaced single-

family homes and apartments. The School's new educational and athletic spaces have the opportunity to improve connectivity and better define the relationship between the school's context and the academic campus.

Phasing/Existing Utilities

The existing high school building sits at the center of the site near its highest topographic point. Building adjacent to this structure poses distinct phasing challenges that require new site configurations to consider, potential construction logistics, existing utility lines, temporary access configurations, temporary parking as well as the potential relocation of an existing culverted stream on site. These issues among others were considered as each option was developed.

Daylighting / Solar Orientation

The school district's admirable goal of executing a zero net energy building require that the site planning options begin to consider daylighting strategies and envelope efficiency even at this early phase. Siting, orientation, proportion and skin to volume ratio can affect the energy performance of a building as much as 5-10% and warrant further study in the PSR phase.

Site Scope and Disturbance

The position of a major addition or newly constructed building on the site along with the school's required athletics program can happen in a number of different configurations. These configurations can vary in scope and overall site disturbance. The design team and committee explored a range of options that minimize and maximize that disturbance to help the town define the appropriate recommended project scope.

Civic Presence

The existing school building sits in view of the site's main entry drive at the top of an extended entry drive giving the building a prominent civic presence. A new facility or substantial addition can be placed in view of the Franklin St. Entry or to the existing building's east and west edge (putting it out of view upon campus entry). The options developed consider the effect of building position on the potential civic expression of the town's largest and most active facility.

Learning Environment / Landscape Relationship

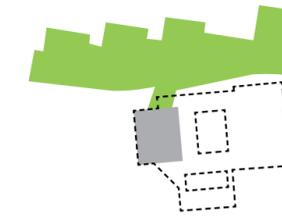
Direct, immediate access to the outdoors is of particular importance as we consider the effects of indoor air quality on classroom learning and infection control. The new school has the potential to thoughtfully consider the relationship of learning landscapes to indoor classroom clusters making transitions to outdoor learning and instruction user friendly and readily accessible.

Traffic Mitigation / Site Circulation

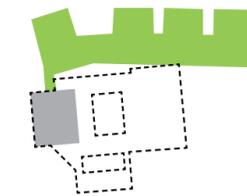
The Franklin St. corridor and surrounding cross streets see considerable traffic during peak times, some of which overlap with the school drop-off schedule. This makes traffic mitigation an important factor in initial site design as the length of drive aisles, clarity of internal circulation and potential for improved bike and pedestrian routes can all ameliorate traffic challenges.

RENOVATION ADDITION OPTIONS

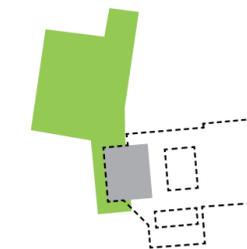
 Options voted by SSBC to move forward to PSR phase.



OPTION 3A1



 OPTION 3A2



OPTION 3B

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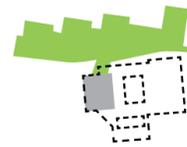
OPTION 3A1

Capacity: 695 students (grades 9-12)

GSF: 204,107

Estimated Construction Cost: \$69,714,440

Estimated Project Cost: \$175.7 MILLION



Option 3A1

*Project cost - all costs should be considered preliminary based on order of magnitude

Relationship of Site Organization to Surrounding Context:

Option 3A1 sets up a clear front and back to the site creating a clear distinction between the two. On the north side of the site hardscaped exterior program elements such as tennis, basketball and parking connect to the suburban neighborhood edge. On the south side playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires two major building phases and a site phase allowing student to stay largely in the existing building during construction. Site construction access is possible from the north west corner at Benjamine Terrace and existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the building is oriented east-west allowing for optimal daylighting for classrooms and minimal negative afternoon heat gain. North facing classrooms receive even diffused light while south phasing glare can be controlled through simple horizontal sun shades.

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the east and west of the building as well as the site of the new portion of the building. A 36" existing culverted stream will need to be relocated around the new portion of the building.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new portion of the building in front of the existing facility and aligning the drive aisle with the school's new civic entry.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is maximized by stretching the building east-west along the fields. These spaces face south and thus can extend their calendar further into the school year.

Traffic Mitigation / Site Circulation

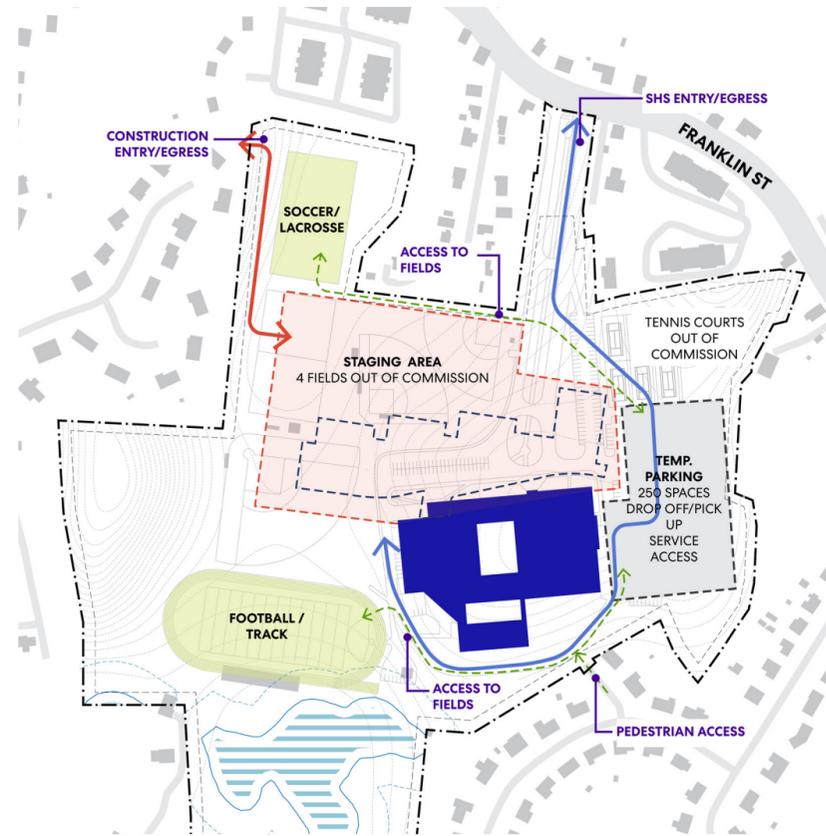
Optimal site circulation is achieved by bringing the drop-off loop along the north edge of the site lengthening the queuing line and keeping pedestrian circulation to the main entry separate from vehicular traffic.

PROS

- Maximizes visibility of new building and its entry from Franklin St
- Contiguous fields for long-term athletic flexibility
- Retains existing field house size (bigger than MSBA template)
- Optimized building orientation for daylighting/ZNE

CONS

- Upgrades and repairs required to fieldhouse
- Parking distant from stadium
- Loss of fields during construction
- Utilities relocation required to keep existing in operation during construction



Construction phasing diagram

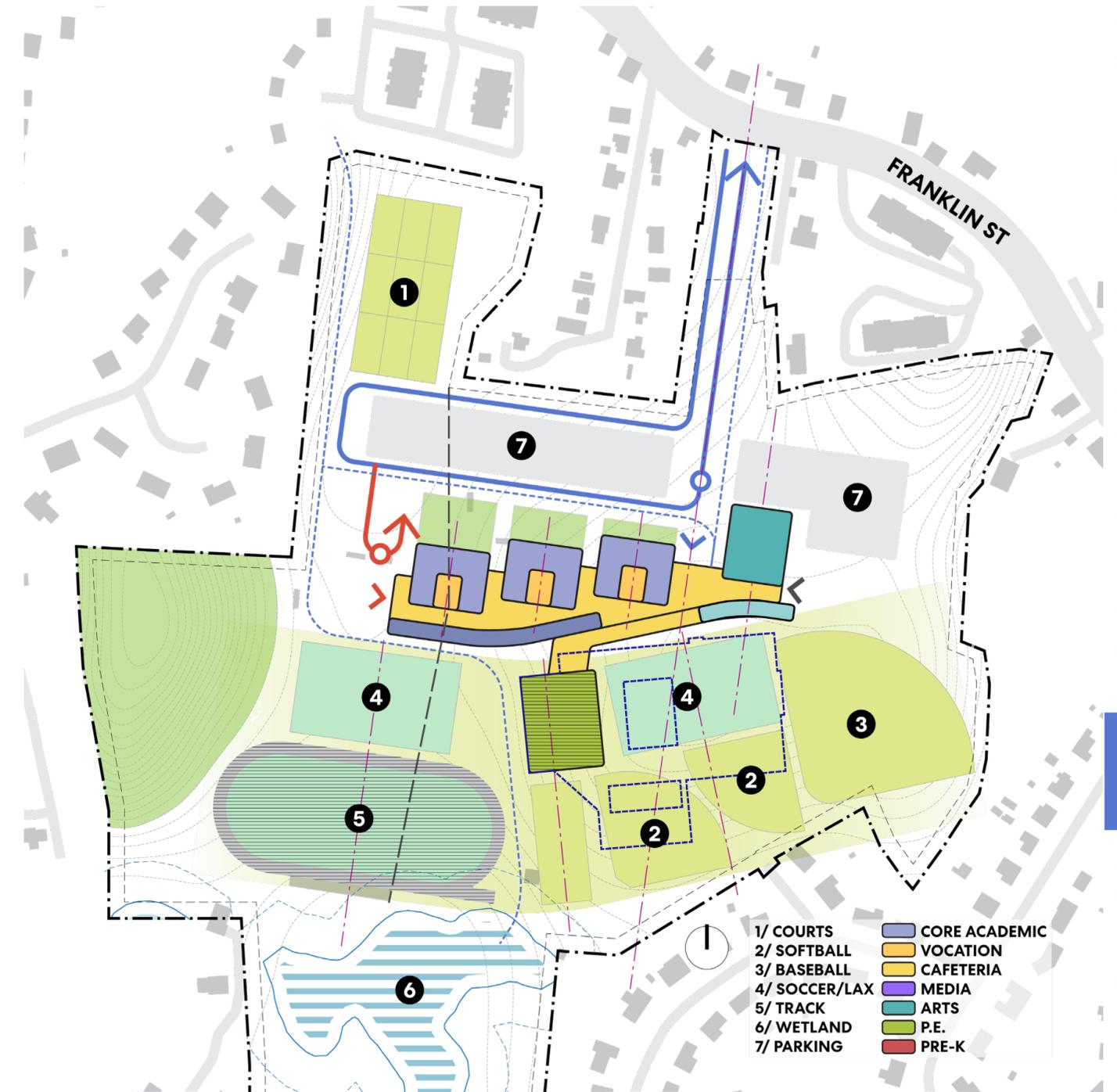


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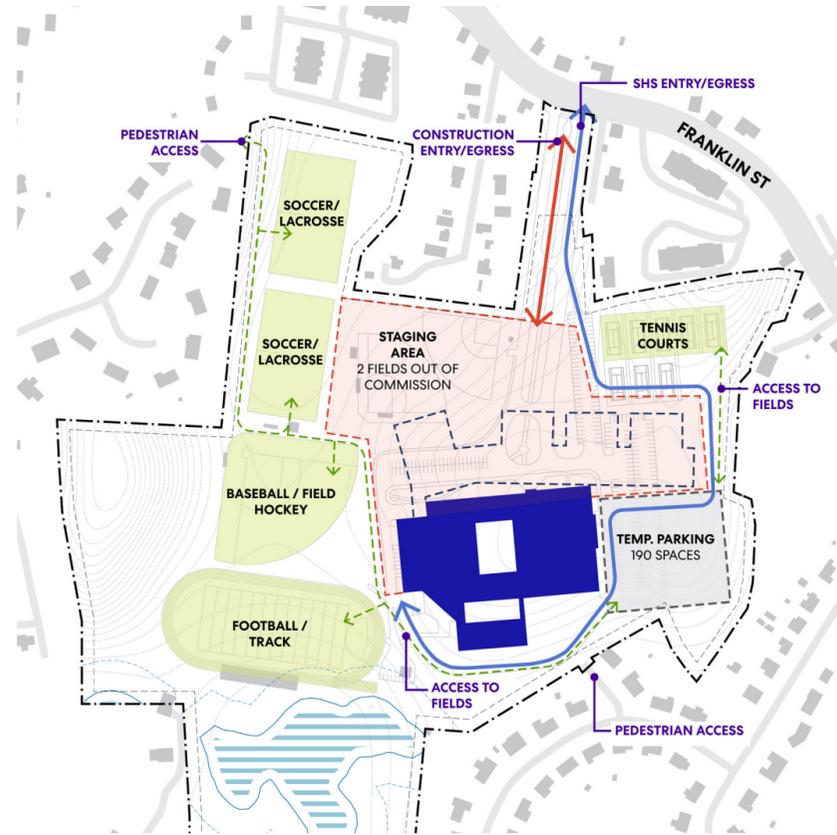
OPTION 3A2 (Moving forward to PSR)

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$175.2 MILLION

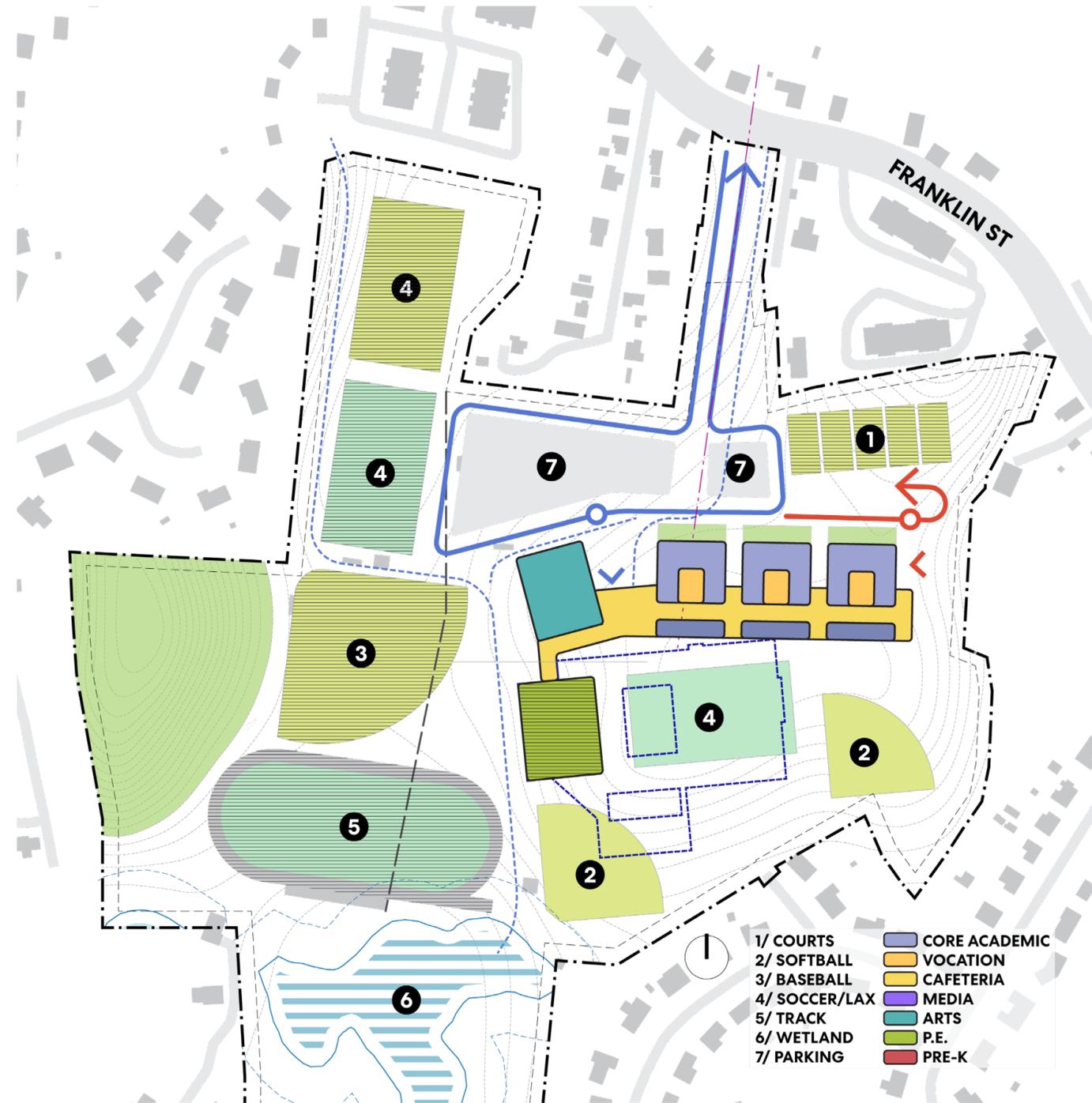
**Project cost - all costs should be considered preliminary based on order of magnitude*



Option 3A2



Construction phasing diagram



Relationship of Site Organization to Surrounding Context:

Option 3A2 also sets up a clear front and back to the site creating a clear distinction between the two. This option seeks to preserve more of the athletics program in place keeping tennis and the north-west multifunction fields in their current location. On the south side of the new facility playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires two major building phases and a site phase allowing student to stay largely in the existing building during construction. Site construction access is possible from the north west corner at Benjamine Terrace and existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the building is oriented east-west allowing for optimal daylighting for classrooms and minimal negative afternoon heat gain. North facing classrooms receive even diffused light while south phasing glare can be controlled through simple horizontal sun shades.

Site Scope and Disturbance

PROS

- Maximizes visibility of new building and its entry from Franklin St
- Minimal change to existing athletic fields
- Single community entry

- Central turf field as commons
- Optimized building orientation for daylighting/ZNE

Less of the site is disturbed in this scheme as fields to the west of the proposed building and Tennis courts to the north-east might remain in place. The existing culverted stream can remain in its current configuration.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new portion of the building in front of the existing facility. The main civic entry is shifted to the west making it less prominent and the constraints of existing fields will make parking and drop off more compressed.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is maximized by stretching the building east-west along the fields. These spaces face south and thus can extend their calendar further into the school year.

Traffic Mitigation / Site Circulation

Optimal site circulation is achieved by bringing the drop-off loop along the north edge of the site lengthening the queuing line however, pedestrian circulation will likely need to cross vehicular traffic from Franklin street on the site.

CONS

- Pedestrian path from Franklin Street crossing vehicular path
- Exist. fields don't meet regulation size
- Utilities relocation required to keep existing in operation during construction

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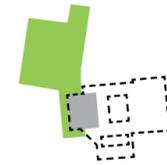
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D. EVALUATION OF ALTERNATIVES / III. RENOVATION ADDITION

OPTION 3B

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$174.6 MILLION



Option 3B

*Project cost - all costs should be considered preliminary based on order of magnitude

Relationship of Site Organization to Surrounding Context:

Option 3B creates a landscape focused gateway to the rear of the site and the Middlesex Fells Reservation. It does this by locating a series of flexible athletic fields and green infrastructure at the center of the site and places the new portion of the building to the west of the exist facility and renovated gymnasium. The mass of the new portion of the building is kept distant from the surrounding neighborhood facilities.

Phasing/Existing Utilities

This option requires two major building phases and a site phase allowing student to stay largely in the existing building during construction. Site construction access is possible from the north west corner at Benjamine Terrace and existing utilities to the current school building may remain in place during construction of the new building and renovation of the existing gym.

Daylighting / Solar Orientation

The mass of the building is oriented north south making daylighting for classrooms and negative heat gain more challenging. Glare control will be necessary in many of the classrooms after noon.

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the east and west of the building as well as the site of the new portion of the building. A substantial portion of a 36" existing culverted stream will need to be relocated around the new portion of the building.

Civic Presence

This option presents a weaker civic presence to Franklin Street by placing the new portion of the building deeper into the site and to the west of the entry drive. The main civic gesture will require a strong landscape presence upon site entry.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is available to the west of the building making afternoon outdoor connections more viable. Due to the elevated tree line west of the site and considerable grade change these spaces will receive less daylight and thus will be usable for less of the academic year.

Traffic Mitigation / Site Circulation

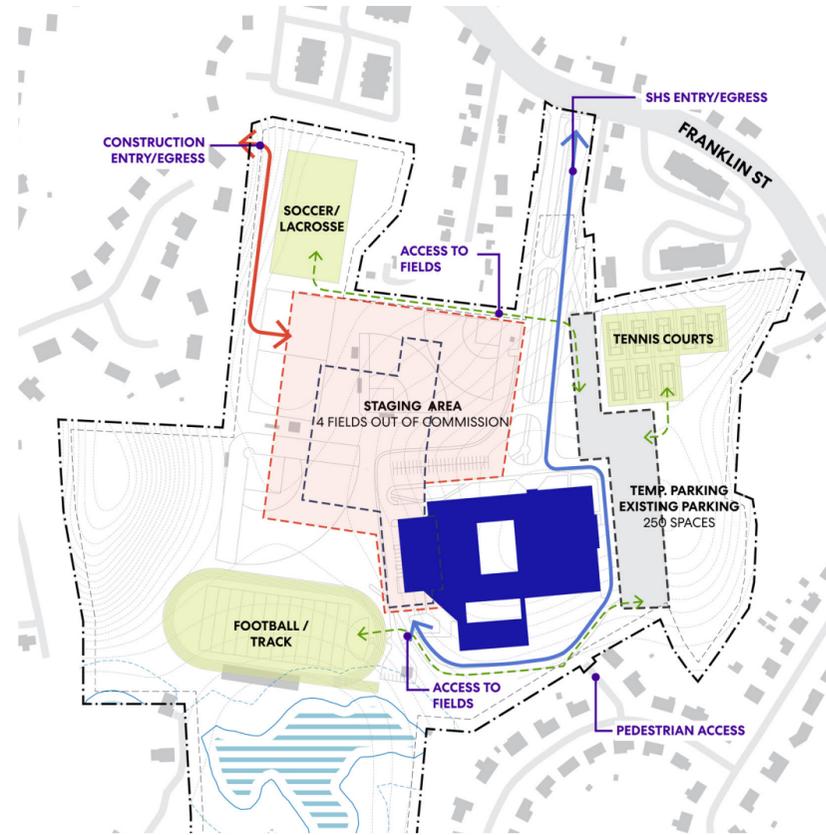
Optimal site circulation is achieved by bringing the drop-off deep into the site lengthening the queuing line however, pedestrian circulation will likely need to cross vehicular traffic from Franklin street on the site.

PROS

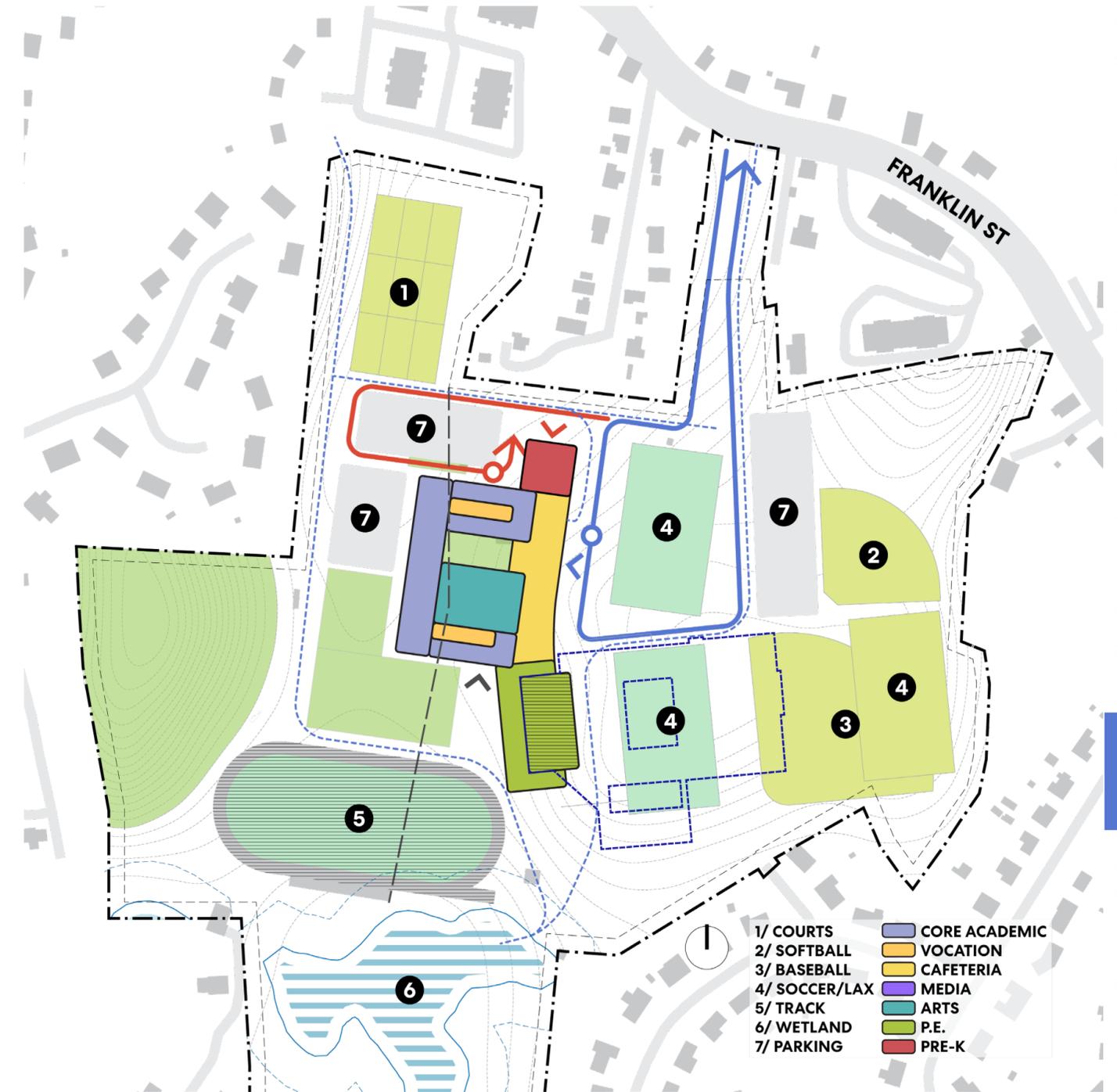
- Strong Pedestrian connection from community to expeditionary trail
- Ease of access to fields
- Retains existing field house size (bigger than MSBA template)
- May not disturb existing utilities during construction

CONS

- Field surrounded by driveway
- Parking remote from stadium
- Poor visibility from Franklin St.
- Suboptimal building orientation for ZNE goal/Daylighting



Construction phasing diagram



- 1/ COURTS
- 2/ SOFTBALL
- 3/ BASEBALL
- 4/ SOCCER/LAX
- 5/ TRACK
- 6/ WETLAND
- 7/ PARKING
- CORE ACADEMIC
- VOCATION
- CAFETERIA
- MEDIA
- ARTS
- P.E.
- PRE-K

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D. EVALUATION OF ALTERNATIVES /NEW CONSTRUCTION SUMMARY

A number of critical programmatic relationships will drive new building siting and internal organization. The fundamental building block of a new building will be project focused neighborhoods that integrate a clustering of more universally flexible classrooms spaces with separate places for integrated project-based learning, hands-on vocational spaces and special education classrooms. These neighborhoods will be organized around, along or in a chain with a modern media center and café/commons that from the heart of school life. Other areas that will connect to this vibrant heart will be an arts cluster that supports theater and music performances with flexible back-of-house classrooms. The building needs to be zoned and positioned on the site to allow for ease of use and security during times of community access while sometimes simultaneously providing privacy and a sensitive scale for the town's pre-k program. Figure xx.xxxx illustrates an abstraction of the ideal relationships identified during programing between each of the building's areas.

The following design criteria (present also in the renovation addition options) describe the salient site related issues that are critical to the Stoneham High School community. The New Construction Options, like the renovation/addition options, were developed in response to these site pressures and opportunities:

Relationship of Site Organization to Surrounding Context:

The Stoneham High School site has a number of unique spatial and environmental characteristics. Sitting on the threshold between Stoneham's suburban fabric and the regional resource of the Middlesex Fells the high school project has the unique opportunity to define the civic interface between these distinct parts of the town. This edge between the environmental preserve (who's immediate character is one of wooded wetlands) and that of local neighborhoods gives the site distinctly different edge conditions that transition from wetland to rock ledge outcropping to tightly spaced single-family homes and apartments. The School's new educational and athletic spaces have the opportunity to improve connectivity and better define the relationship between the school's context and the academic campus.

Phasing/Existing Utilities

The existing high school building sits at the center of the site near its highest topographic point. Building adjacent to this structure poses distinct phasing challenges that require new site configurations to consider, potential construction logistics, existing utility lines, temporary access configurations, temporary parking as well as the potential relocation of an existing culverted stream on site. These issues among others were considered as each option was developed.

Daylighting / Solar Orientation

The school district's admirable goal of executing a zero net energy building require that the site planning options begin to consider daylighting strategies and envelope efficiency even at this early phase. Siting, orientation, proportion and skin to volume ratio can affect the energy performance of a building as much as 5-10% and warrant further study in the PSR phase.

Site Scope and Disturbance

The position of a major addition or newly constructed building on the site along with the school's required athletics program can happen in a number of different configurations. These configurations can vary in scope and overall site disturbance. The design team and committee explored a range of options that minimize and maximize that disturbance to help the town define the appropriate recommended project scope.

Civic Presence

The existing school building sits in view of the site's main entry drive at the top of an extended entry drive giving the building a prominent civic presence. A new facility or substantial addition can be placed in view of the Franklin St. Entry or to the existing building's east and west edge (putting it out of view upon campus entry). The options developed consider the effect of building position on the potential civic expression of the town's largest and most active facility.

Learning Environment / Landscape Relationship

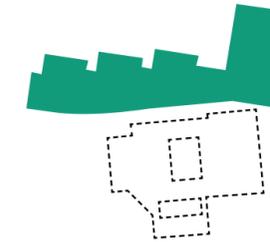
Direct, immediate access to the outdoors is of particular importance as we consider the effects of indoor air quality on classroom learning and infection control. The new school has the potential to thoughtfully consider the relationship of learning landscapes to indoor classroom clusters making transitions to outdoor learning and instruction user friendly and readily accessible.

Traffic Mitigation / Site Circulation

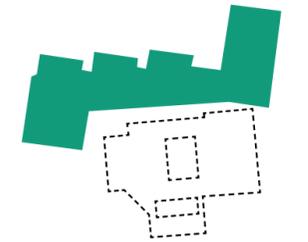
The Franklin St. corridor and surrounding cross streets see considerable traffic during peak times, some of which overlap with the school drop-off schedule. This makes traffic mitigation an important factor in initial site design as the length of drive aisles, clarity of internal circulation and potential for improved bike and pedestrian routes can all ameliorate traffic challenges.

NEW CONSTRUCTION OPTIONS

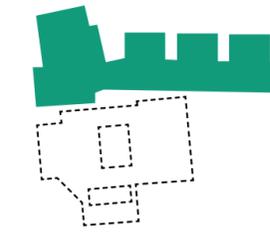
 Options voted by SSBC to move forward to PSR phase.



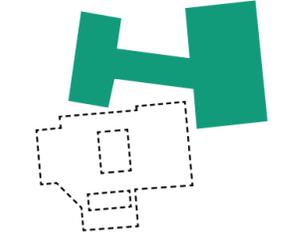
OPTION 4A1



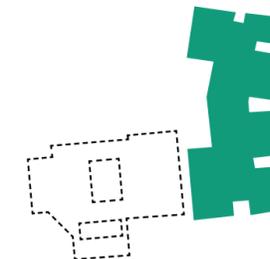
OPTION 4A2



 OPTION 4A3



 OPTION 4B



OPTION 4C

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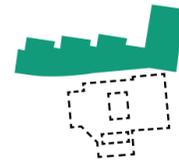
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D. EVALUATION OF ALTERNATIVES / IV. NEW CONSTRUCTION

OPTION 4A1

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$177.7 MILLION



Option 4A1

*Project cost - all costs should be considered preliminary based on order of magnitude

Relationship of Site Organization to Surrounding Context:

Option 4A1 sets up a clear front and back to the site creating a clear distinction between the two. On the north side of the site landscaped exterior program elements such as tennis, basketball and parking connect to the suburban neighborhood edge. On the south side playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires one major building phase without renovation of the existing gymnasium and a site phase allowing student to stay fully in the existing building during construction. Site construction access is possible from the north west corner at Benjamine Terrace and existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the building is oriented east-west allowing for optimal daylighting for classrooms and minimal negative afternoon heat gain. North facing classrooms receive even diffused light while south phasing glare can be controlled through simple horizontal sun shades.

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the east and west of the building as well as the site of the new portion of the building. A 36" existing culverted stream will need to be relocated around the new portion of the building.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new building in front of the existing facility and aligning the drive aisle with the school's new civic entry.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is maximized by stretching the building east-west along the fields. These spaces face south and thus can extend their calendar further into the school year.

Traffic Mitigation / Site Circulation

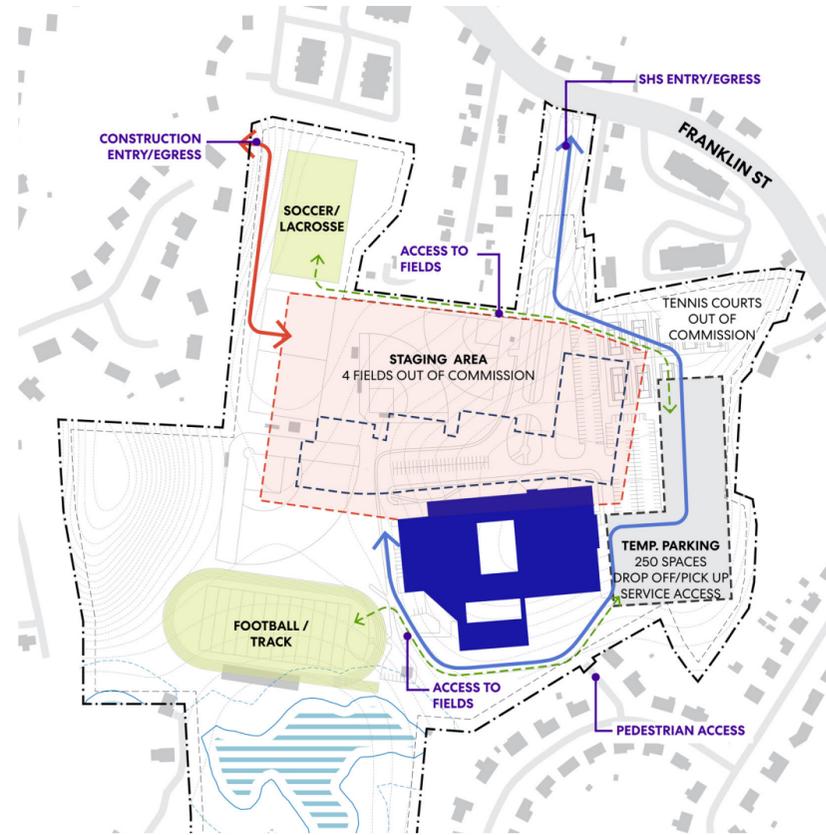
Optimal site circulation is achieved by bringing the drop-off loop along the north edge of the site lengthening the queuing line and keeping pedestrian circulation to the main entry separate from vehicular traffic.

PROS

- Maximizes visibility of new building and its entry from Franklin St
- Separate community entries
- Optimized orientation of stadium
- Parking near main entry and stadium
- Optimized building orientation for daylighting/ZNE

CONS

- Cost and abutter proximity of relocated stadium
- Significant grade changes between fields
- Utilities relocation required to keep existing in operation during construction



Construction phasing diagram



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D. EVALUATION OF ALTERNATIVES / IV. NEW CONSTRUCTION

OPTION 4A2

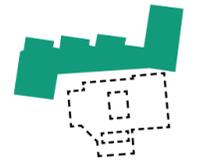
Capacity: 695 students (grades 9-12)

GSF: 204,107

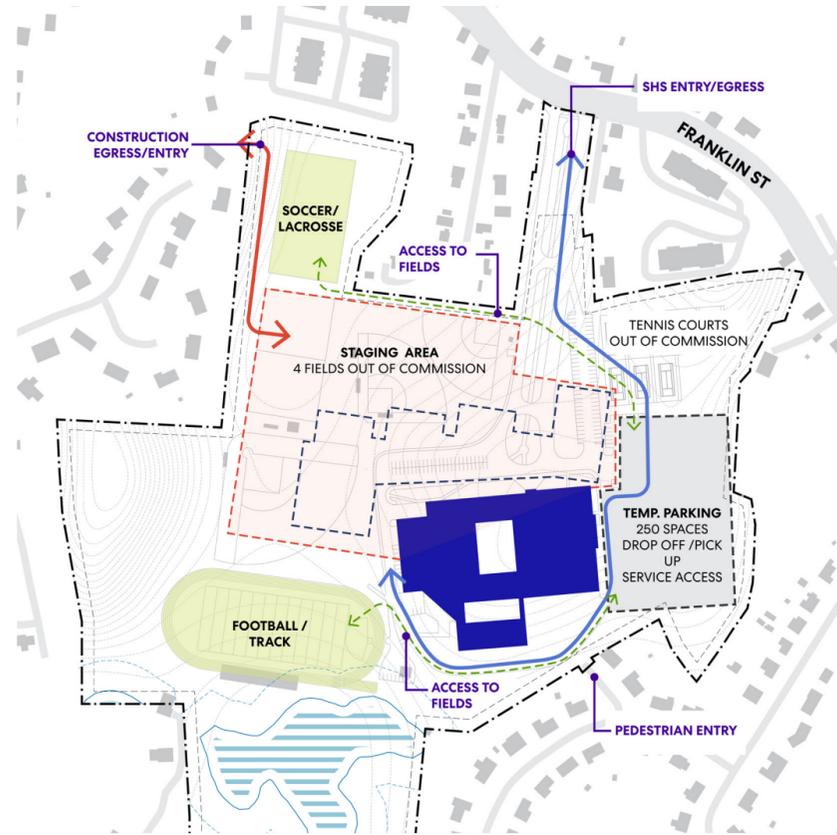
Estimated Construction Cost: \$69,714,440

Estimated Project Cost: \$180.6 MILLION

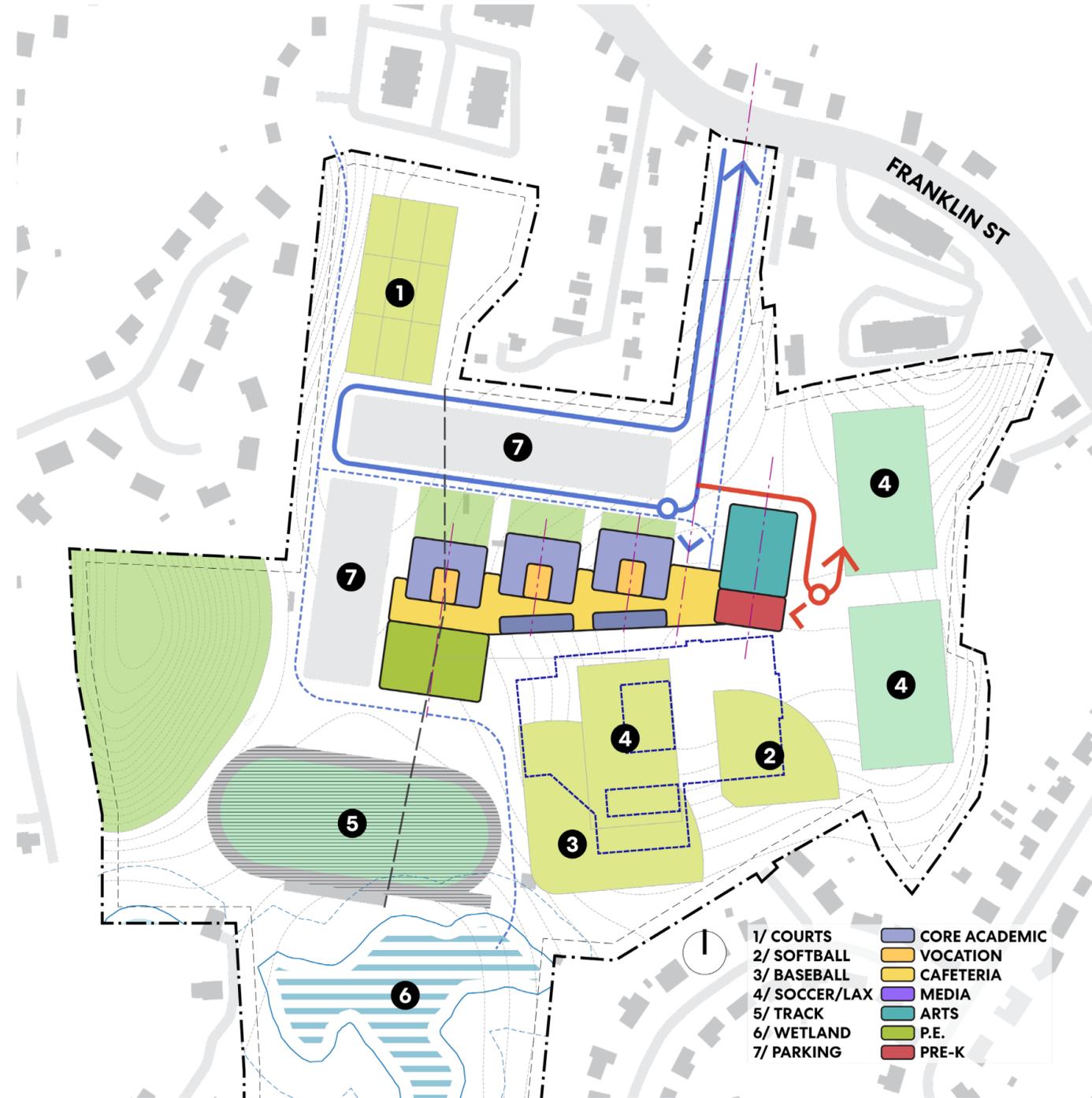
*Project cost - all costs should be considered preliminary based on order of magnitude



Option 4A2



Construction phasing diagram



Relationship of Site Organization to Surrounding Context:

Option 4A2 also sets up a clear front and back to the site creating a clear distinction between the two. This option seeks to preserve more of the athletics program in place keeping tennis and the north-west multifunction fields in their current location. On the south side of the new facility playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires one major building phase without renovation of the existing gymnasium and a site phase allowing student to stay fully in the existing building during construction. Site construction access is possible from the north west corner at Benamine Terrace and existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the building is oriented east-west allowing for optimal daylighting for classrooms and minimal negative afternoon heat gain. North facing classrooms receive even diffused light while south phasing glare can be controlled through simple horizontal sun shades.

PROS

- Maximizes visibility of new building and its entry from Franklin St
- Optimized building orientation for daylighting/ZNE
- Parking near main stadium

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the east and west of the building as well as the site of the new portion of the building. A 36" existing culverted stream will need to be relocated around the new portion of the building.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new building in front of the existing facility and aligning the drive aisle with the school's new civic entry. A separate civic entry focused on athletic events might be accomplished on the west side of the building.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is maximized by stretching the building east-west along the fields. These spaces face south and thus can extend their calendar further into the school year.

Traffic Mitigation / Site Circulation

Optimal site circulation is achieved by bringing the drop-off loop along the north edge of the site lengthening the queuing line and keeping pedestrian circulation to the main entry separate from vehicular traffic.

CONS

- Significant grade changes between fields
- Utilities relocation required to keep existing in operation during construction
- Multiple community entries

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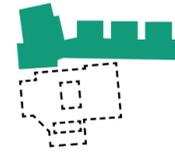
LOCAL ACTIONS AND APPROVALS 3.1.7

APPENDICES

D. EVALUATION OF ALTERNATIVES / IV. NEW CONSTRUCTION

OPTION 4A3 (Moving Forward to PSR)

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$174.8 MILLION



Option 4A3

*Project cost - all costs should be considered preliminary based on order of magnitude

Relationship of Site Organization to Surrounding Context:

Option 4A3 sets up a clear front and back to the site creating a clear distinction between the two. This option seeks to preserve more of the athletics program in place keeping tennis and the north-west multifunction fields in their current location. On the south side of the new facility playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires one major building phase without renovation of the existing gymnasium and a site phase allowing student to stay fully in the existing building during construction. Site construction access is possible from the north west corner at Benjamine Terrace and existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the building is oriented east-west allowing for optimal daylighting for classrooms and minimal negative afternoon heat gain. North facing classrooms receive even diffused light while south phasing glare can be controlled through simple horizontal sun shades.

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the east and west of the building as well as the site of the new portion of the building. A 36" existing culverted stream will not need to be relocated with this building position.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new building in front of the existing facility. While it doesn't align the drive aisle with the school's new civic entry a landscape plaza could ease the transition upon entry. In this option arts and athletics interior events can efficiently share a pre function lobby.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is maximized by stretching the building east-west along the fields. These spaces face south and thus can extend their calendar further into the school year.

Traffic Mitigation / Site Circulation

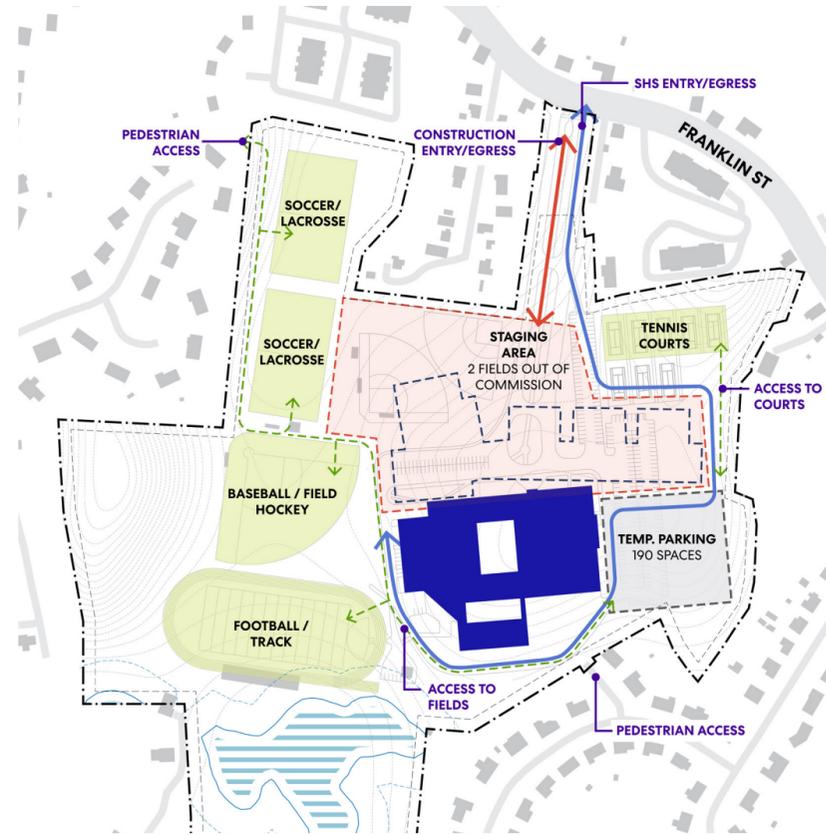
Optimal site circulation is achieved by bringing the drop-off deep into the site lengthening the queuing line however, pedestrian circulation will likely need to cross vehicular traffic from Franklin street on the site.

PROS

- Maximizes visibility of new building and its entry from Franklin St
- Single community entry
- Minimal change to existing athletic fields (softball fields out of commission during construction)
- Optimized building orientation for daylighting/ZNE

CONS

- Pedestrian path from Franklin Street crossing vehicular path
- Exist. fields don't meet size requirements
- Constrained space for parking
- Utilities relocation required to keep existing building in operation during construction



Construction phasing diagram

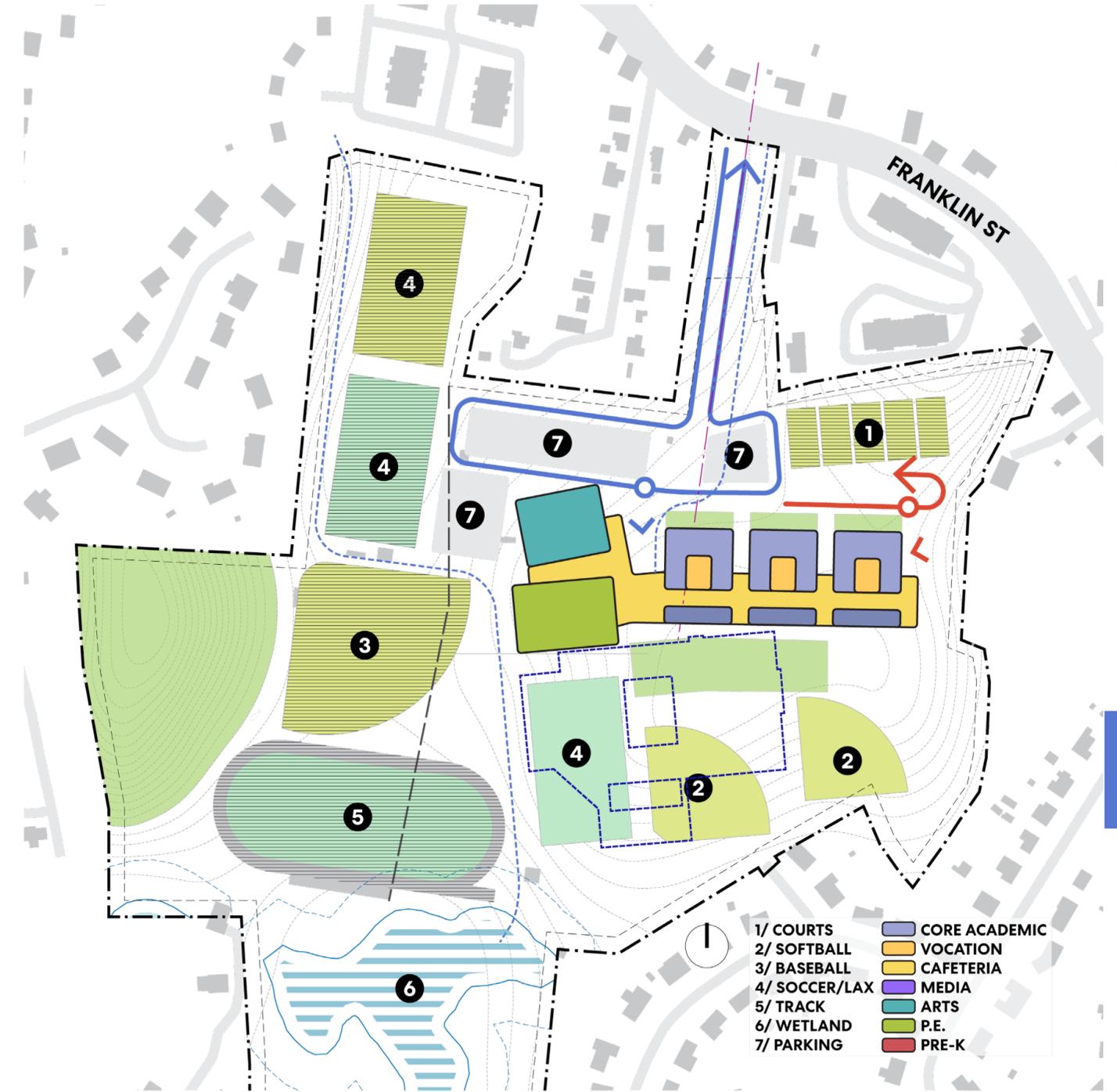


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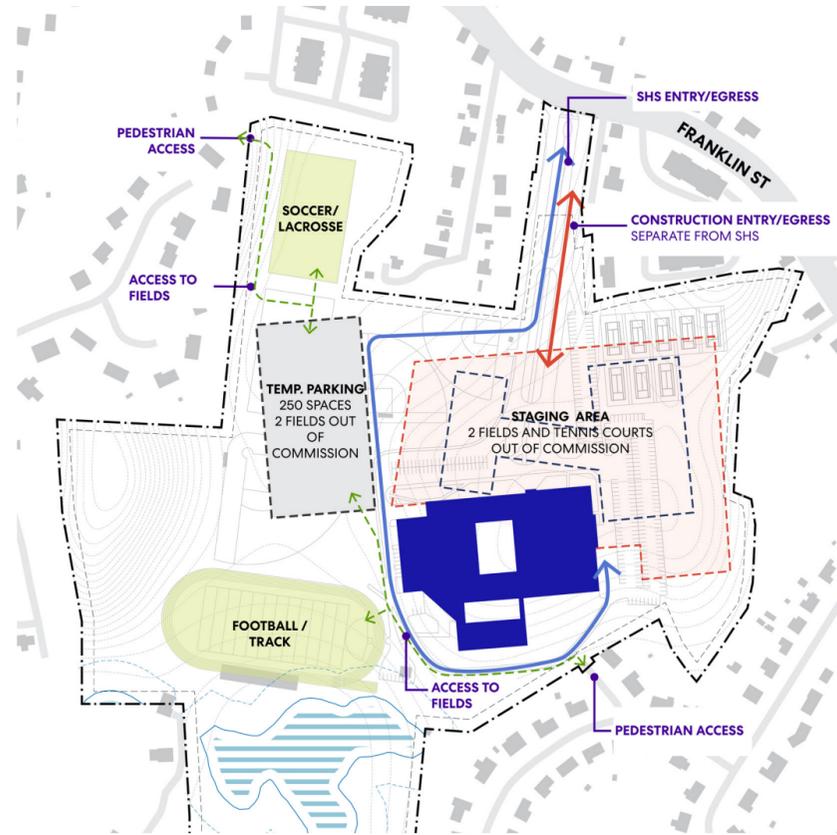
OPTION 4B (Moving Forward to PSR)

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$172.9 MILLION

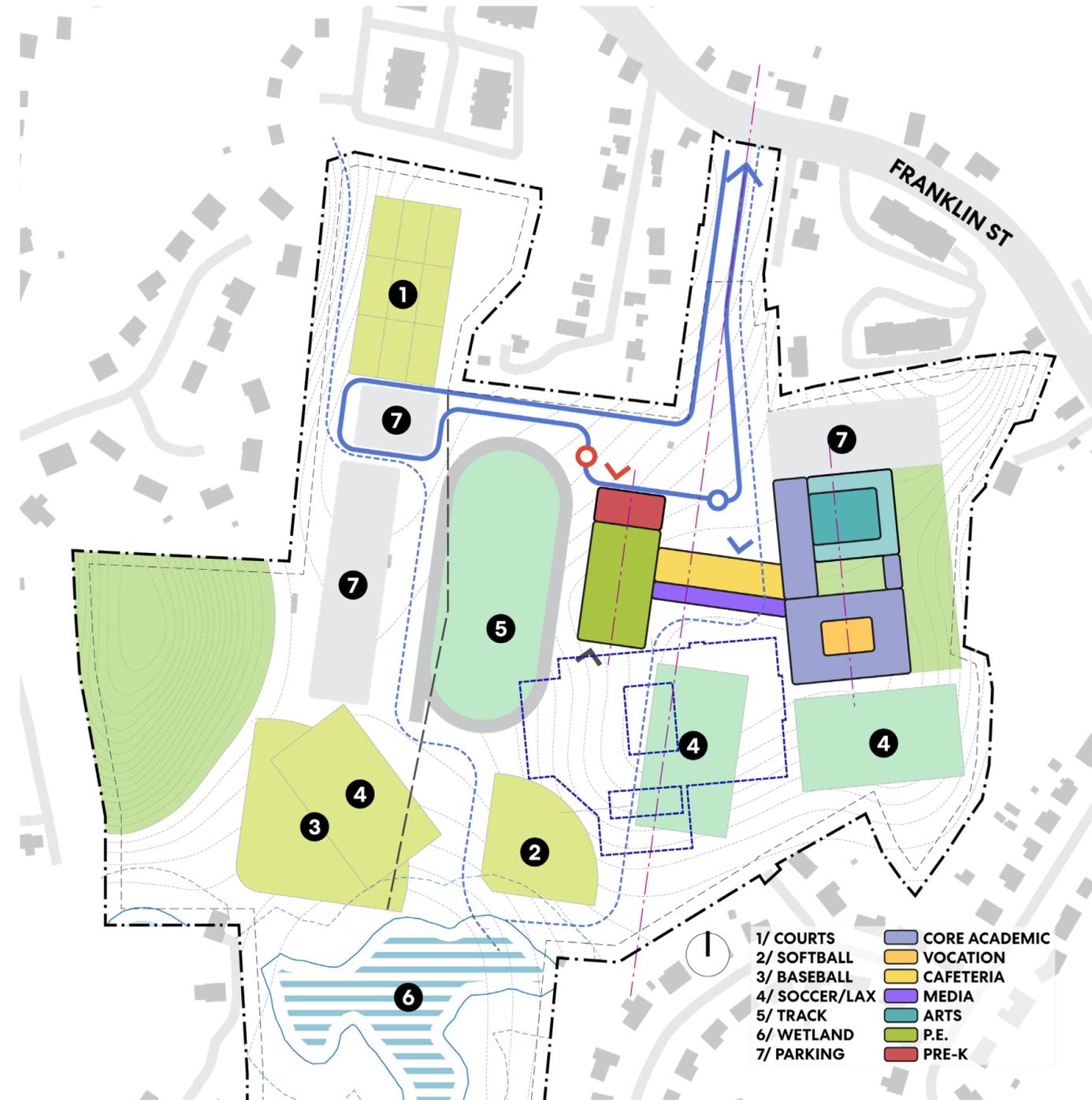
*Project cost - all costs should be considered preliminary based on order of magnitude



Option 4B



Construction phasing diagram



Relationship of Site Organization to Surrounding Context:

Option 4AB sets up the new school to be the physical gateway to the southern landscape of the site. The building sits on the axis of the entry road and puts the most public interior functions of the school within site of Franklin St.. This option seeks to preserve more of the athletics program on the western edge of the site in place.. On the south side of the new facility playing fields, outdoor dining, outdoor civic pre function and outdoor learning environments connect strongly to the wooded edge of the Middlesex Fells Reservation.

Phasing/Existing Utilities

This option requires one major building phase without renovation of the existing gymnasium and a site phase allowing student to stay fully in the existing building during construction. Site construction access would likely need to happen in parallel to the school's single student/service drive making construction site logistics critical. Existing utilities to the current school building must be rerouted in an enabling phase.

Daylighting / Solar Orientation

The mass of the academic portion of the building is oriented north-south making daylighting for classrooms and negative heat gain more challenging. Glare control will be necessary in many of the classrooms in the morning and afternoon.

PROS

- Optimized orientation of ALL athletic facilities
- Parking near main entry and stadium
- Pedestrian connection from community to expeditionary trail
- Optimized building orientation for daylighting/ZNE

Site Scope and Disturbance

A large area of the site is disturbed during construction including playing fields to the north and west of the building as well as the site of the new portion of the building. A 36" existing culverted stream will not need to be relocated with this building position.

Civic Presence

This option presents a strong civic presence to Franklin Street by placing the new building in front of the existing facility and aligning the drive aisle with the school's new civic entry.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is available to the east of the building making morning outdoor connections more viable. Space on the east side of the building mass will however be limited due to steep grades and the necessity of access to emergency vehicles.

Traffic Mitigation / Site Circulation

Optimal site circulation is achieved by bringing the drop-off loop along the north edge of the site lengthening the queuing line and keeping pedestrian circulation to the main entry separate from vehicular traffic.

CONS

- Cost of relocated stadium
- Building encroaches on areas of known ledge
- Sub-optimal orientation for classroom daylighting
- Utilities relocation required to keep existing building in operation during construction

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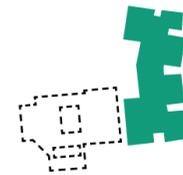
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D. EVALUATION OF ALTERNATIVES / IV. NEW CONSTRUCTION

OPTION 4C

Capacity: 695 students (grades 9-12)
 GSF: 204,107
 Estimated Construction Cost: \$69,714,440
 Estimated Project Cost: \$173.7 MILLION



Option 4C

*Project cost - all costs should be considered preliminary based on order of magnitude

Relationship of Site Organization to Surrounding Context:

Option 4A3 positions the new building on the eastern most edge of the site allowing for the most landscape flexibility. This option seeks to preserve more of the athletics program on the western edge of the site in place. The building in this position is in close proximity to and at a higher elevation than the adjacent residential properties making the scale of the building a challenge.

Phasing/Existing Utilities

This option requires one major building phase without renovation of the existing gymnasium and a site phase allowing student to stay fully in the existing building during construction. Site construction access would likely need to happen in parallel to the school's single student/service drive making construction site logistics critical. Existing utilities to the current school building may remain in place during construction of the new building.

Daylighting / Solar Orientation

The mass of the academic portion of the building is oriented north-south making daylighting for classrooms and negative heat gain more challenging. Glare control will be necessary in many of the classrooms in the morning and afternoon.

Site Scope and Disturbance

This scheme creates the smallest amount of disturbance to existing fields during construction. A 36" existing culverted stream will likely not need to be relocated with this building position.

Civic Presence

This option presents a weaker civic presence to Franklin Street by placing the new building out of view upon site entry. It also places parking in front of the entry façade making vehicle access a large part of the school's welcome gesture.

Learning Environment / Landscape Relationship

The opportunity to directly connect classroom clusters to outdoor learning environments is likely not possible due to the constraints of the eastern edge of the site. The need for retaining walls and emergency access will make the classroom to landscape relationship considerably challenged.

Traffic Mitigation / Site Circulation

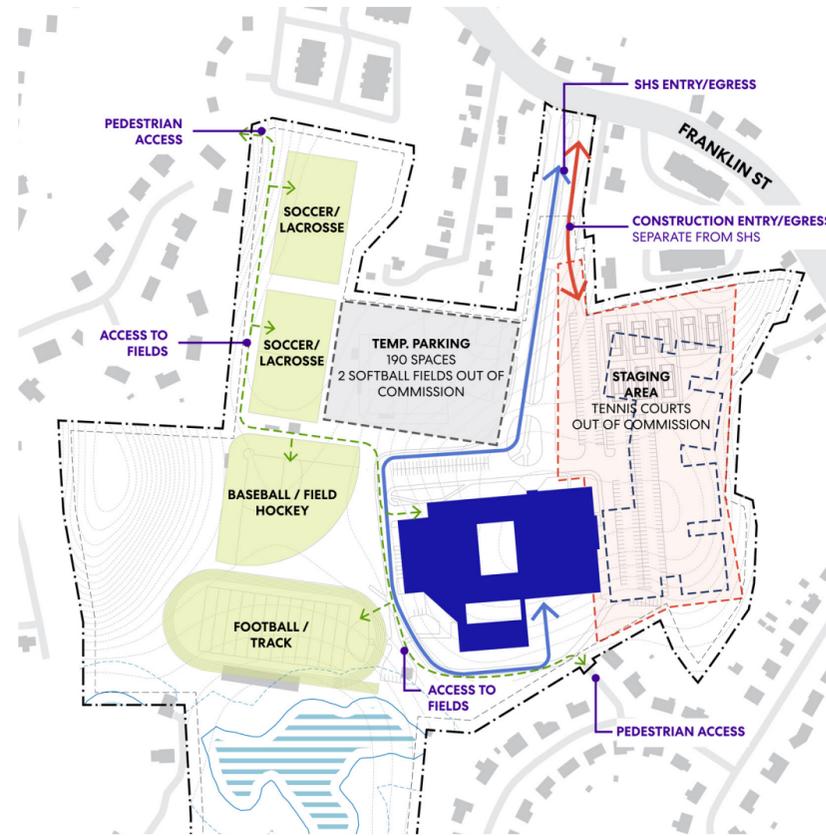
Optimal site circulation is achieved by bringing the drop-off deep into the site lengthening the queuing line however, pedestrian circulation will likely not need to cross vehicular traffic from Franklin street on the site.

PROS

- Minimal change to existing athletic fields
- Pedestrian connection from community to expeditionary trail
- May not disturb existing utilities during construction

CONS

- Parking away from stadium
- No visibility of new building from Franklin
- Parked cars present poor image of school
- Sub-optimal orientation for classroom daylighting
- Exist. fields don't meet size requirements
- Building is on top of ridge and close to adjacent homes (scale)



Construction phasing diagram

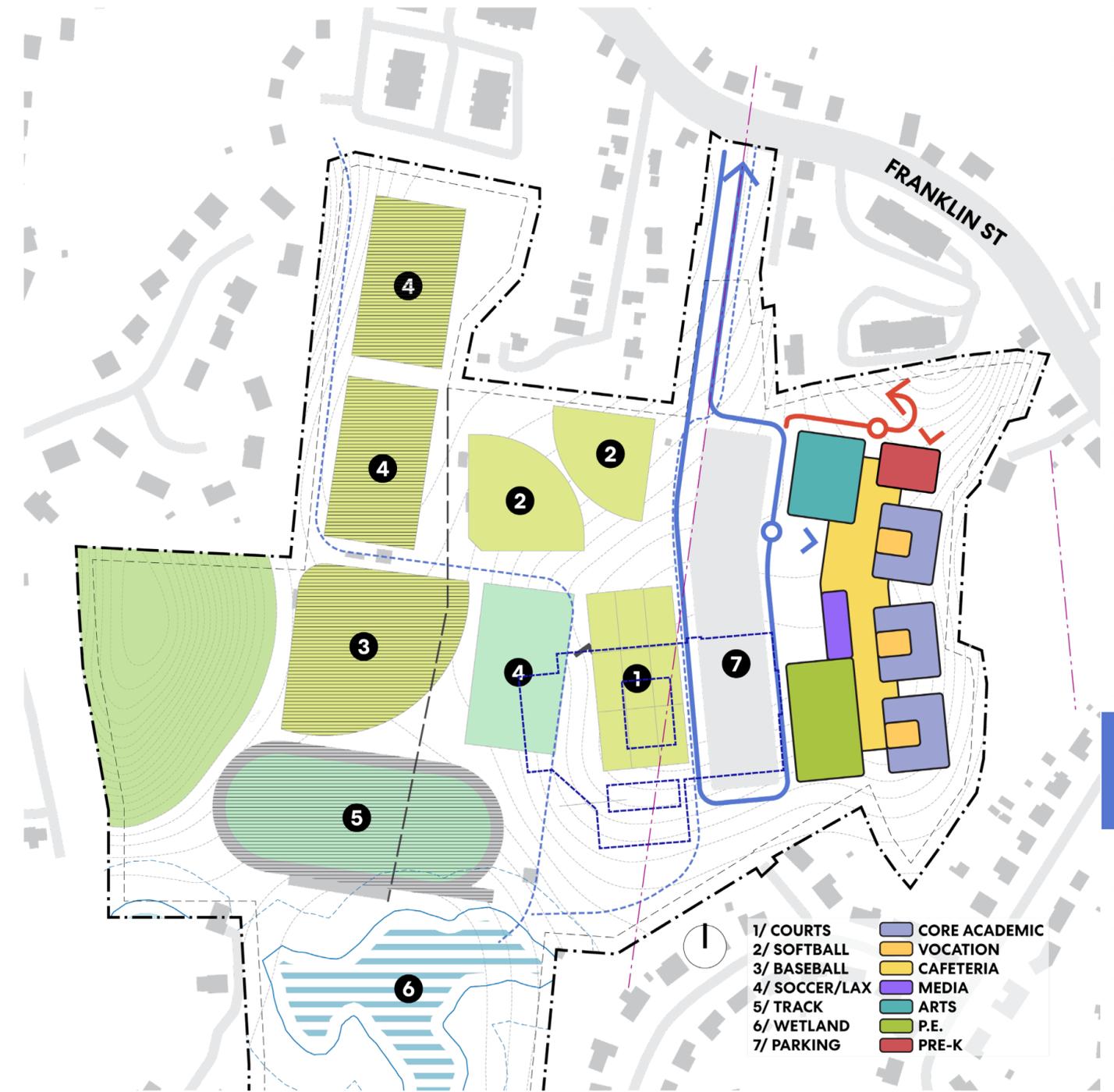


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E. NEW CONSTRUCTION ON ALTERNATIVE SITE

The Town of Stoneham reviewed all possible alternative sites that could house the proposed project for the High School and determine that there was no alternative site available and that the feasibility study should focus on the existing Stoneham High School Site for the future SHS project.

F. OPTION COMPARISON COST ESTIMATES

A summary of project costs provided by the OPM based on the hard cost estimate provided by PM&C for the PDP portion of the Feasibility Study for all Alternatives is provided below. All the alternatives, except the Code Option, serve a population of 695 students. The PM&C detailed cost estimate is based on the appropriate level of information documented by the team for this phase of the project. The preliminary estimated project cost ranges from approximately \$114 million to \$180 million depending on the final preferred alternative chosen. The local share of debt service is planned to be funded via a debt exclusion supported by the tax levy of the Town. Detailed estimates are found in this Section 3.1.6 for each of the alternatives studied.

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PM&C Estimate
Dated 9/25/20

SF	Option	Project Costs	Project Cost/SF	
208,113	Repairs Only Option 1	Construction Cost	\$88,047,467	
		Building Cost	\$78,183,395	
		Site Cost	\$3,795,310	
		Concession/Locker Room Building	\$0	
		Demo/HazMat Cost	\$6,068,762	
		Temporary Classroom Modulares	\$5,600,000	
		Fees,Testing, Utilities, and Expenses	\$15,156,408	
		FFE/Technology	\$0	
		Contingencies	\$6,163,323	
		total	\$114,967,198	\$552
208,113	Renovation Only Option 2	Construction Cost	\$134,079,253	
		Building Cost	\$101,123,150	
		Site Cost	\$24,824,019	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$5,882,084	
		Temporary Classroom Modulares	\$5,600,000	
		Fees,Testing, Utilities, and Expenses	\$22,036,949	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,228,048	
		total	\$173,446,250	\$833
204,107	Renovation/Addition Option 3A1	Construction Cost	\$140,595,661	
		Building Cost	\$103,219,553	
		Site Cost	\$28,283,536	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$6,842,572	
		Fees,Testing, Utilities, and Expenses	\$22,916,664	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,684,196	
		total	\$175,698,521	\$861
		204,107	Renovation/Addition Option 3A2	Construction Cost
Building Cost	\$102,795,319			
Site Cost	\$28,287,704			
Concession/Locker Room Building	\$2,250,000			
Demo/HazMat Cost	\$6,843,580			
Fees,Testing, Utilities, and Expenses	\$22,860,091			
FFE/Technology	\$2,502,000			
Contingencies	\$9,654,862			
total	\$175,193,556			\$858
204,107	Renovation/Addition Option 3B			Construction Cost
		Building Cost	\$102,630,964	
		Site Cost	\$27,935,196	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$6,844,830	
		Fees,Testing, Utilities, and Expenses	\$22,790,484	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,618,769	
		total	\$174,572,243	\$855

PM&C Estimate
Dated 9/25/20

SF	Option	Project Costs	Project Cost/SF	
204,107	New Construction Option 4A1	Construction Cost	\$142,240,068	
		Building Cost	\$105,226,285	
		Site Cost	\$28,032,410	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$6,731,373	
		Fees,Testing, Utilities, and Expenses	\$23,138,659	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,799,305	
		total	\$177,680,032	\$871
		204,107	New Construction Option 4A2	Construction Cost
Building Cost	\$107,694,886			
Site Cost	\$28,013,560			
Concession/Locker Room Building	\$2,250,000			
Demo/HazMat Cost	\$6,726,847			
Fees,Testing, Utilities, and Expenses	\$23,468,765			
FFE/Technology	\$2,502,000			
Contingencies	\$9,970,471			
total	\$180,626,529			\$885
204,107	New Construction Option 4A3			Construction Cost
		Building Cost	\$102,795,502	
		Site Cost	\$28,051,645	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$6,735,992	
		Fees,Testing, Utilities, and Expenses	\$22,813,724	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,630,820	
		total	\$174,779,683	\$856
		204,107	New Construction Option 4B	Construction Cost
Building Cost	\$101,572,664			
Site Cost	\$27,709,717			
Concession/Locker Room Building	\$2,250,000			
Demo/HazMat Cost	\$6,739,080			
Fees,Testing, Utilities, and Expenses	\$22,602,897			
FFE/Technology	\$2,502,000			
Contingencies	\$9,521,502			
total	\$172,897,860			\$847
204,107	New Construction Option 4C			Construction Cost
		Building Cost	\$102,273,315	
		Site Cost	\$27,704,040	
		Concession/Locker Room Building	\$2,250,000	
		Demo/HazMat Cost	\$6,737,700	
		Fees,Testing, Utilities, and Expenses	\$22,696,532	
		FFE/Technology	\$2,502,000	
		Contingencies	\$9,570,054	
		total	\$173,733,641	\$851

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PM&C LLC
 20 Downer Ave, Suite 5
 Hingham, MA 02043
 (T) 781-740-8007
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PDP Estimate

**Stoneham High School
 Design Options**

Stoneham, MA

Prepared for:

Perkins & Will

September 25, 2020



Stoneham High School
 Design Options
 Stoneham, MA

25-Sep-20

PDP Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
RENOVATION HIGH SCHOOL CODE UPGRADES - OPTION 1				
	Sep-22			
RENOVATIONS TO EXISTING SCHOOL		208,113	\$241.90	\$50,343,462
REMOVE HAZARDOUS MATERIALS				\$4,025,000
PHASING COSTS				\$1,510,304
SYNTHETIC TWO SOCCER/LACROSS FIELDS				NR
SYNTHETIC FOOTBALL FIELD				NR
SPORTS LIGHTING - Three Fields				NR
STADIUM RENOVATION - New Track + Bleachers				ETR
NEW TRAFFIC SIGNAL WORK (Two Locations)				NR
SITework - ALLOWANCE				\$2,517,173
SUB-TOTAL		208,113	\$280.60	\$58,395,939
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$3,503,756
DESIGN AND PRICING CONTINGENCY	15%			\$9,284,954
SUB-TOTAL		208,113	\$342.05	\$71,184,649
GENERAL CONDITIONS		48 MTHS	\$160,000	\$7,680,000
GENERAL REQUIREMENTS	5.00%			\$3,559,232
BONDS	1.00%			\$711,846
INSURANCE	1.40%			\$996,585
PERMIT				Waived
TEMPORARY CLASSROOMS		28 ROOMS	\$200,000	\$5,600,000
CM FEE	2.5%			\$1,779,616
CM/GMP CONTINGENCY	3%			\$2,135,539
TOTAL OF ALL CONSTRUCTION		208,113	\$449.98	\$93,647,467
TICKET BOOTH/PRESS		5,000	\$450.00	\$2,250,000
BOX/MENS/STORAGE/WOMENS/CONCESSIONS				
PV PANELS				
			ADD	TBD

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MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
FULL RENOVATION OPTION 2				
	Sep-22			
RENOVATIONS TO EXISTING SCHOOL		208,113	\$322.81	\$67,181,243
REMOVE HAZARDOUS MATERIALS				\$4,025,000
PHASING COSTS				\$2,015,437
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC FOOTBALL FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
SITework				\$7,445,661
SUB-TOTAL		208,113	\$433.46	\$90,208,292
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,412,498
DESIGN AND PRICING CONTINGENCY	15%			\$14,343,119
SUB-TOTAL		208,113	\$528.39	\$109,963,909
GENERAL CONDITIONS	48	MTHS	\$160,000	\$7,680,000
GENERAL REQUIREMENTS	5.00%			\$5,498,195
BONDS	1.00%			\$1,099,639
INSURANCE	1.40%			\$1,539,495
PERMIT				Waived
TEMPORARY CLASSROOMS	28	ROOMS	\$200,000	\$5,600,000
CM FEE	2.5%			\$2,749,098
CM/GMP CONTINGENCY	3%			\$3,298,917
TOTAL OF ALL CONSTRUCTION		208,113	\$660.36	\$137,429,253
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS		5,000	\$450.00	\$2,250,000
PV PANELS		ADD		TBD



Stoneham High School
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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
RENOVATION + ADDITION OPTION 3A1				
	Sep-22			
RENOVATIONS TO EXISTING SCHOOL		47,580	\$272.39	\$12,960,177
ADDITIONS		156,527	\$375.08	\$58,709,996
DEMOLISH EXISTING SCHOOL - PARTIAL (phased)		160,533	\$8.00	\$1,284,264
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				\$500,000
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC FOOTBALL FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$473.92	\$96,730,028
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,803,802
DESIGN AND PRICING CONTINGENCY	15%			\$15,380,075
SUB-TOTAL		204,107	\$577.71	\$117,913,905
GENERAL CONDITIONS	40	MTHS	\$160,000	\$6,400,000
GENERAL REQUIREMENTS	4.00%			\$4,716,556
BONDS	1.00%			\$1,179,139
INSURANCE	1.40%			\$1,650,795
PERMIT				Waived
CM FEE	2.5%			\$2,947,848
CM/GMP CONTINGENCY	3%			\$3,537,417
TOTAL OF ALL CONSTRUCTION		204,107	\$677.81	\$138,345,660
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS		5,000	\$450.00	\$2,250,000
PV PANELS		ADD		TBD

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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
RENOVATION + ADDITION OPTION 3A2				
	Sep-22			
RENOVATIONS TO EXISTING SCHOOL		47,580	\$272.39	\$12,960,177
ADDITIONS		156,527	\$373.12	\$58,402,784
DEMOLISH EXISTING SCHOOL - PARTIAL (phased)		160,533	\$8.00	\$1,284,264
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				\$500,000
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$472.41	\$96,422,816
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,785,369
DESIGN AND PRICING CONTINGENCY	15%			\$15,331,228
SUB-TOTAL		204,107	\$575.87	\$117,539,413
GENERAL CONDITIONS	40	MTHS	\$160,000	\$6,400,000
GENERAL REQUIREMENTS	4.00%			\$4,701,577
BONDS	1.00%			\$1,175,394
INSURANCE	1.40%			\$1,645,552
PERMIT				Waived
CM FEE	2.5%			\$2,938,485
CM/GMP CONTINGENCY	3%			\$3,526,182
TOTAL OF ALL CONSTRUCTION		204,107	\$675.76	\$137,926,603
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
		ADD		TBD



Stoneham High School
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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
RENOVATION + ADDITION OPTION 3B				
	Sep-22			
RENOVATIONS TO EXISTING SCHOOL		47,580	\$272.39	\$12,960,177
ADDITIONS		156,527	\$372.30	\$58,274,786
DEMOLISH EXISTING SCHOOL - PARTIAL (phased)		160,533	\$8.00	\$1,284,264
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				\$500,000
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$470.56	\$96,044,818
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,762,689
DESIGN AND PRICING CONTINGENCY	15%			\$15,271,126
SUB-TOTAL		204,107	\$573.61	\$117,078,633
GENERAL CONDITIONS	40	MTHS	\$160,000	\$6,400,000
GENERAL REQUIREMENTS	4.00%			\$4,683,145
BONDS	1.00%			\$1,170,786
INSURANCE	1.40%			\$1,639,101
PERMIT				Waived
CM FEE	2.5%			\$2,926,966
CM/GMP CONTINGENCY	3%			\$3,512,359
TOTAL OF ALL CONSTRUCTION		204,107	\$673.23	\$137,410,990
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
		ADD		TBD

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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW HIGH SCHOOL ONLY OPTION 4A1				
	Sep-22			
NEW SCHOOL		204,107	\$363.69	\$74,232,362
DEMOLISH EXISTING SCHOOL		208,113	\$6.00	\$1,248,678
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				NR
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$483.85	\$98,756,631
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,925,398
DESIGN AND PRICING CONTINGENCY	15%			\$15,702,304
SUB-TOTAL		204,107	\$589.81	\$120,384,333
GENERAL CONDITIONS		33 MTHS	\$160,000	\$5,280,000
GENERAL REQUIREMENTS	4.00%			\$4,815,373
BONDS	1.00%			\$1,203,843
INSURANCE	1.40%			\$1,685,381
PERMIT				Waived
CM FEE	2.5%			\$3,009,608
CM/GMP CONTINGENCY	3%			\$3,611,530
TOTAL OF ALL CONSTRUCTION		204,107	\$685.87	\$139,990,068
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
			ADD	TBD



Stoneham High School
Design Options 25-Sep-20
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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW HIGH SCHOOL ONLY OPTION 4A2				
	Sep-22			
NEW SCHOOL		204,107	\$372.48	\$76,024,968
DEMOLISH EXISTING SCHOOL		208,113	\$6.00	\$1,248,678
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				NR
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$492.63	\$100,549,237
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$6,032,954
DESIGN AND PRICING CONTINGENCY	15%			\$15,987,329
SUB-TOTAL		204,107	\$600.52	\$122,569,520
GENERAL CONDITIONS		33 MTHS	\$160,000	\$5,280,000
GENERAL REQUIREMENTS	4.00%			\$4,902,781
BONDS	1.00%			\$1,225,695
INSURANCE	1.40%			\$1,715,973
PERMIT				Waived
CM FEE	2.5%			\$3,064,238
CM/GMP CONTINGENCY	3%			\$3,677,086
TOTAL OF ALL CONSTRUCTION		204,107	\$697.85	\$142,435,293
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
			ADD	TBD

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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW HIGH SCHOOL ONLY OPTION 4A3				
	Sep-22			
NEW SCHOOL		204,107	\$353.16	\$72,081,433
DEMOLISH EXISTING SCHOOL		208,113	\$6.00	\$1,248,678
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				NR
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$472.08	\$96,355,702
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,781,342
DESIGN AND PRICING CONTINGENCY	15%			\$15,320,557
SUB-TOTAL		204,107	\$575.47	\$117,457,601
GENERAL CONDITIONS	33	MTHS	\$160,000	\$5,280,000
GENERAL REQUIREMENTS	4.00%			\$4,698,304
BONDS	1.00%			\$1,174,576
INSURANCE	1.40%			\$1,644,406
PERMIT				Waived
CM FEE	2.5%			\$2,936,440
CM/GMP CONTINGENCY	3%			\$3,523,728
TOTAL OF ALL CONSTRUCTION		204,107	\$669.82	\$136,715,055
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
			ADD	TBD



Stoneham High School
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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW HIGH SCHOOL ONLY OPTION 4B				
	Sep-22			
NEW SCHOOL		204,107	\$350.66	\$71,572,955
DEMOLISH EXISTING SCHOOL		208,113	\$6.00	\$1,248,678
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				NR
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,734,640
SUB-TOTAL		204,107	\$469.59	\$95,847,224
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,750,833
DESIGN AND PRICING CONTINGENCY	15%			\$15,239,709
SUB-TOTAL		204,107	\$572.43	\$116,837,766
GENERAL CONDITIONS	33	MTHS	\$160,000	\$5,280,000
GENERAL REQUIREMENTS	4.00%			\$4,673,511
BONDS	1.00%			\$1,168,378
INSURANCE	1.40%			\$1,635,729
PERMIT				Waived
CM FEE	2.5%			\$2,920,944
CM/GMP CONTINGENCY	3%			\$3,505,133
TOTAL OF ALL CONSTRUCTION		204,107	\$666.42	\$136,021,461
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS PV PANELS		5,000	\$450.00	\$2,250,000
			ADD	TBD

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	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW HIGH SCHOOL ONLY OPTION 4C				
	Sep-22			
NEW SCHOOL		204,107	\$355.05	\$72,467,829
DEMOLISH EXISTING SCHOOL		208,113	\$6.00	\$1,248,678
REMOVE HAZARDOUS MATERIALS				\$3,500,000
PHASING COSTS				NR
SYNTHETIC TWO SOCCER/LACROSS FIELDS				\$1,944,000
SYNTHETIC STADIUM FIELD				\$1,080,180
SPORTS LIGHTING - Three Fields				\$1,440,000
STADIUM RENOVATION - New Track + Bleachers				\$2,076,771
NEW TRAFFIC SIGNAL WORK (Two Locations)				\$3,000,000
TEMPORARY UTILITIES				\$250,000
SITework				\$9,984,640
SUB-TOTAL		204,107	\$475.20	\$96,992,098
ESCALATION TO MID-POINT - (assumed 3% PA)	6%			\$5,819,526
DESIGN AND PRICING CONTINGENCY	15%			\$15,421,744
SUB-TOTAL		204,107	\$579.27	\$118,233,368
GENERAL CONDITIONS		33	MTHS	\$5,280,000
GENERAL REQUIREMENTS	4.00%			\$4,729,335
BONDS	1.00%			\$1,182,334
INSURANCE	1.40%			\$1,655,267
PERMIT				Waived
CM FEE	2.5%			\$2,955,834
CM/GMP CONTINGENCY	3%			\$3,547,001
TOTAL OF ALL CONSTRUCTION		204,107	\$674.07	\$137,583,139
TICKET BOOTH/PRESS BOX/MENS/STORAGE/WOMENS/CONCESSIONS		5,000	\$450.00	\$2,250,000
PV PANELS			ADD	TBD



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PDP Estimate

The costs presented in this report are ONLY for the comparison between the various options. These costs should not be represented as the final construction costs as the information they are based on is extremely preliminary and final construction costs may vary significantly from the PDP costs once the final design has been completed.

This PDP cost estimate was produced from drawings, narratives and other documentation prepared by Perkins & Will as well as prior reports prepared by HMFH Architects Inc. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, construction manager's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency (GMP Contingency is included)
- Contaminated soils removal

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PDP Estimate GFA 208,113

CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
HIGH SCHOOL CODE UPGRADES OPTION 1					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$95,000			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$478,250	\$573,250	\$2.75	1.1%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$470,247			
B1020	Roof Construction	\$819,275	\$1,289,522	\$6.20	2.6%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$899,500			
B2020	Windows/Curtainwall	\$2,290,970			
B2030	Exterior Doors	\$210,552	\$3,401,022	\$16.34	6.8%
B30 ROOFING					
B3010	Roof Coverings	\$2,799,544			
B3020	Roof Openings	\$27,000	\$2,826,544	\$13.58	5.6%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$821,100			
C1020	Interior Doors	\$1,248,678			
C1030	Specialties/Millwork	\$1,757,179	\$3,826,957	\$18.39	7.6%
C20 STAIRCASES					
C2010	Stair Construction	\$180,000			
C2020	Stair Finishes	\$42,000	\$222,000	\$1.07	0.4%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$2,915,469			
C3020	Floor Finishes	\$2,174,283			
C3030	Ceiling Finishes	\$2,128,234	\$7,217,986	\$34.68	14.3%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$220,000	\$220,000	\$1.06	0.4%
D20 PLUMBING					
D20	Plumbing	\$3,347,726	\$3,347,726	\$16.09	6.6%
D30 HVAC					
D30	HVAC	\$11,446,215	\$11,446,215	\$55.00	22.7%
D40 FIRE PROTECTION					
D40	Fire Protection	\$1,248,678	\$1,248,678	\$6.00	2.5%
D50 ELECTRICAL					
D5010	Electrical Systems	\$8,589,892	\$8,589,892	\$41.28	17.1%



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
HIGH SCHOOL CODE UPGRADES OPTION 1					
E10 EQUIPMENT					
E10	Equipment	\$1,453,600	\$1,453,600	\$6.98	2.9%
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$2,602,634			
E2020	Movable Furnishings NIC		\$2,602,634	\$12.51	5.2%
F10 SPECIAL CONSTRUCTION					
F10	Special Construction	\$0	\$0	\$0.00	0.0%
F20 SELECTIVE BUILDING DEMOLITION					
F2010	Building Elements Demolition	\$2,077,436			
F2020	Hazardous Components Abatement	\$0	\$2,077,436	\$9.98	4.1%
TOTAL DIRECT COST (Trade Costs)			\$50,343,462	\$241.90	100.0%

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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1						
GROSS FLOOR AREA CALCULATION						
LEVEL 2				52,713		
LEVEL 1				127,252		
LEVEL 0				28,148		
TOTAL GROSS FLOOR AREA (GFA)				208,113 sf		
A10 FOUNDATIONS						
A1010 STANDARD FOUNDATIONS						
Repair cracks and resurface exposed concrete foundations	1	ls	25,000	25,000		
Repair at site retaining wall	1	ls	30,000	30,000		
Allowance for spalled concrete	500	sf	80.00	40,000		
SUBTOTAL					95,000	
A1020 SPECIAL FOUNDATIONS						
No work in this section						
SUBTOTAL						
A1030 LOWEST FLOOR CONSTRUCTION						
Cutting and patching for MEP	1	ls	25,000.00	25,000		
New slab at bathrms and kitchen	7,030	sf	25.00	175,750		
Replace loading dock	1	ls	30,000.00	30,000		
Upgrade auditorium slopes for ADA compliance	7,500	sf	25.00	187,500		
Equipment pads	1	ls	15,000.00	15,000		
New elevator pit	1	ls	45,000.00	45,000		
SUBTOTAL					478,250	
TOTAL - FOUNDATIONS						\$573,250
B10 SUPERSTRUCTURE						
B1010 FLOOR CONSTRUCTION						
Openings in structure for MEP systems	208,113	gsf	0.50	104,057		
Structural modifications to facilitate science classroom relocations	1	ls	100,000.00	100,000		
Infill existing stair openings	1,760	sf	45.00	79,200		
New stage floor structure	1,914	sf	35.00	66,990		
New code compliant ramp	2	loc	35,000.00	70,000		
Fire stopping floors	1	ls	50,000.00	50,000		
SUBTOTAL					470,247	
B1020 ROOF CONSTRUCTION						
<u>Roof Structure - Steel:</u>						
New reinforcing to low roofs for snow loading; 1 bay only against building	11,653	sf	15.00	174,795		
New structural steel at new stage and fly loft	37.5	tns	6,500.00	243,750		
New deck at rebuilt stage and fly loft	1,914	sf	18.00	34,452		
Allowance to reinforce roof diaphragms	52,713	sf	6.00	316,278		
Support framing for new MEP systems	1	ls	50,000.00	50,000		
SUBTOTAL					819,275	
TOTAL - SUPERSTRUCTURE						\$1,289,522



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1						
B20 EXTERIOR CLOSURE						
B2010 EXTERIOR WALLS						
Reclad and Insulate exterior walls to meet code	75,360	sf				
Anchor the top of perimeter masonry partitions to the underside of the floor or structure above	75,360	sf	95.00	NR		
Mechanical screen; includes backup structure	949	loc	500.00	474,500		
SUBTOTAL				5,000	85.00	425,000
					899,500	
B2020 WINDOWS/CURTAINWALL						
Replace existing windows; double glazed	15,072	sf	100.00	1,507,200		
Replace existing curtainwall; double glazed	6,029	sf	130.00	783,770		
SUBTOTAL						2,290,970
B2030 EXTERIOR DOORS						
Replace exterior glazed door, double	15	pr	9,000.00	135,000		
Replace exterior glazed door, single	2	ea	4,000.00	8,000		
Replace exterior single door	10	ea	2,100.00	21,000		
Replace garage doors	4	ea	10,000.00	40,000		
Backer rod & double sealant	504	lf	10.00	5,040		
Wood blocking at openings	504	lf	3.00	1,512		
SUBTOTAL						210,552
TOTAL - EXTERIOR CLOSURE						\$3,401,022
B30 ROOFING						
B3010 ROOF COVERINGS						
Replace existing roofing systems	127,252	sf	22.00	2,799,544		
SUBTOTAL						2,799,544
B3020 ROOF OPENINGS						
New stage smoke hatches	3	ea	8,000.00	24,000		
Replace roof ladders/hatches etc.	1	ls	3,000.00	3,000		
SUBTOTAL						27,000
TOTAL - ROOFING						\$2,826,544
C10 INTERIOR CONSTRUCTION						
C1010 PARTITIONS						
Anchor the top of all masonry partitions to the underside of the floor or structure above	1,970	loc	350.00	689,500		
New walls for new layouts	208,113	sf	22.00	NR		
Replace auditorium operable wall	68	lf	1,200.00	81,600		
Repair/Fill cracks in CMU walls	1	ls	50,000.00	50,000		
SUBTOTAL						821,100
C1020 INTERIOR DOORS						
Replace al interior doors, frames + hardware	208,113	sf	6.00	1,248,678		
SUBTOTAL						1,248,678
C1030 SPECIALTIES / MILLWORK						
Toilet Partitions and accessories	208,113	gsf	1.00	208,113		
New stage proscenium	1	ls	100,000	100,000		

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	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1							
57	New markerboards/tackboards	208,113	gsf	1.25	260,141		
57	Upgrade athletic locker rooms specifically reconfigure showers to provide accessible shower stalls	2	ea	30,000.00	60,000		
58	Lockers, full height	710	ea	350.00	248,500		
58	New catwalk	1	ls	100,000.00	100,000		
59	055000 MISCELLANEOUS METALS						
60	Miscellaneous metals throughout building	208,113	sf	1.25	260,141		
61	061000 ROUGH CARPENTRY						
61	Rough blocking	208,113	sf	0.50	104,057		
62	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
63	Miscellaneous sealants throughout building	208,113	sf	1.50	312,170		
64	101400 SIGNAGE						
65	Code compliant signage	208,113	sf	0.50	104,057		
65	SUBTOTAL					1,757,179	
66	TOTAL - INTERIOR CONSTRUCTION						\$3,826,957
67	C20 STAIRCASES						
69	C2010 STAIR CONSTRUCTION						
69	Upgrade existing stairs for code	2	flt	10,000.00	20,000		
70	New stairs	4	flt	40,000.00	160,000		
70	SUBTOTAL					180,000	
71	C2020 STAIR FINISHES						
72	New stair finishes; rubber treads/risers/landing and painting	6	flt	7,000.00	42,000		
72	SUBTOTAL					42,000	
73	TOTAL - STAIRCASES						\$222,000
74	C30 INTERIOR FINISHES						
76	C3010 WALL FINISHES						
76	Painting	208,113	gsf	3.00	624,339		
77	Replace wood paneling at auditorium	1	ls	150,000.00	150,000		
77	Replace acoustic panels at gym	1	ls	60,000.00	60,000		
78	Other finishes	208,113	sf	10.00	2,081,130		
78	SUBTOTAL					2,915,469	
79	C3020 FLOOR FINISHES						
80	New linoleum flooring throughout including floor prep	157,294	sf	8.00	1,258,352		
81	New shock-absorbing wood gym floor	16,000	sf	20.00	320,000		
81	Bathroom renovations	5,000	sf	100.00	500,000		
82	New flooring at the stage	1,914	sf	24.00	45,936		
82	New carpet	1,111	sy	45.00	49,995		
83	SUBTOTAL					2,174,283	
84	C3030 CEILING FINISHES						



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	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1							
84	Replace ceiling at auditorium, provide new clouds	1	ls	350,000	350,000		
85	Replace existing ACT/Ceilings/Soffits	157,294	sf	11.00	1,730,234		
85	Paint gym exposed ceiling	16,000	sf	3.00	48,000		
86	SUBTOTAL					2,128,234	
87	TOTAL - INTERIOR FINISHES						\$7,217,986
88	D10 CONVEYING SYSTEMS						
89	Remove existing elevator	1	ls	40,000.00	40,000		
90	Remove existing elevator and install new elevator	1	ls	135,000.00	135,000		
90	New lift	1	ls	45,000.00	45,000		
91	SUBTOTAL					220,000	
92	TOTAL - CONVEYING SYSTEMS						\$220,000
93	D20 PLUMBING						
94	D20 PLUMBING, GENERALLY						
95	<u>Equipment</u>						
95	Gas fired domestic HW heater; 400,000 BTUH	2	ea	28,000.00	56,000		
96	HW storage tank	2	ea	5,000.00	10,000		
96	Plumbing equipment	208,113	sf	4.00	832,452		
97	<u>Plumbing Fixtures & Specialties</u>						
97	Miscellaneous plumbing fixtures	208,113	sf	1.00	208,113		
98	<u>Domestic Water Type L Copper Pipe</u>						
98	Domestic water pipe with fittings & hangers	208,113	sf	2.50	520,283		
99	Domestic water pipe insulation	208,113	sf	1.50	312,170		
99	<u>Sanitary Waste And Vent Pipe w/ Hangers</u>						
100	Sanitary waste pipe with fittings & hangers	208,113	sf	2.50	520,283		
100	Kitchen waste pipe with fittings & hangers	208,113	sf	0.30	62,434		
101	<u>Acid Waste And Vent Pipe w/ Hangers</u>						
101	Acid waste & vent pipe with fittings & hangers	208,113	sf	0.75	156,085		
102	<u>Storm Drainage, Hubless Cast Iron Pipe</u>						
102	Storm water pipe with fittings & hangers	208,113	sf	1.50	312,170		
103	Pipe insulation on horizontal runs	208,113	sf	0.20	41,623		
103	<u>Gas And Fuel Distribution Pipe</u>						
104	Gas pipe with fittings & hangers	208,113	sf	1.00	208,113		
104	<u>Miscellaneous</u>						
105	Coordination & BIM	1	ls	50,000.00	50,000		
105	Coring, sleeves & firestopping	1	ls	7,000.00	7,000		
106	Commissioning support	1	ls	20,000.00	20,000		
106	Testing and sterilization	1	ls	6,000.00	6,000		
107	Fees & permits	1	ls	25,000.00	25,000		
107	SUBTOTAL					3,347,726	
108	TOTAL - PLUMBING						\$3,347,726
110	D30 HVAC						
111	D30 HVAC, GENERALLY						
111	<u>HVAC Equipment</u>						
112	New HVAC system; VRF	208,113	gsf	55.00	11,446,215		

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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1						
SUBTOTAL					11,446,215	
TOTAL - HVAC						\$11,446,215
D40 FIRE PROTECTION						
D40 FIRE PROTECTION, GENERALLY						
New sprinkler system	208,113	gsf	6.00	1,248,678		
SUBTOTAL					1,248,678	
TOTAL - FIRE PROTECTION						\$1,248,678
D50 ELECTRICAL						
D5010 SERVICE & DISTRIBUTION						
Gear & Distribution						
Normal power distribution switchgear & feeders	208,113	sf	5.00	1,040,565		
Emergency power						
Emergency power distribution switchgear & feeders	208,113	sf	3.00	624,339		
Equipment Wiring						
Equipment wiring	208,113	sf	2.50	520,283		
SUBTOTAL					2,185,187	
D5020 LIGHTING & POWER						
Lighting & Branch Power						
Lighting fixtures with installation labor	208,113	sf	6.00	1,248,678		
Lighting control system						
Lighting controls including interface with DDC	208,113	sf	1.75	364,198		
Branch devices						
Branch devices	208,113	sf	0.50	104,057		
Lighting and branch circuitry						
Lighting & branch circuitry	208,113	sf	5.00	1,040,565		
SUBTOTAL					2,757,498	
D5030 COMMUNICATION & SECURITY SYSTEMS						
Fire Alarm						
Fire alarm system	208,113	sf	3.50	728,396		
Bi-Directional System						
BDA system	208,113	sf	0.50	104,057		
Security System						
Security System	208,113	sf	2.50	520,283		
Telephone/Data/CATV						
Network switches, PBX, IP, VP, CCTV (By owner) By Owner						
Telecommunications rough in	208,113	sf	1.50	312,170		
Telecommunications devices and cabling	208,113	sf	2.00	416,226		
Public Address/Clock System						
PA/Master Clock system	208,113	sf	1.25	260,141		
Audio Visual (rough-in and power only)						
AV equipment By Owner						
Rough-In conduit and backboxes only	208,113	sf	1.00	208,113		
Auditorium						
Rigging system equipment & installation See equipment						
Power to rigging equipment	1	ls	12,000.00	12,000		
Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
Installation, rough-in & 120V power to dimming equipment						
1	ls	70,000.00	70,000			



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL CODE UPGRADES OPTION 1						
SUBTOTAL					11,446,215	
TOTAL - HVAC						\$11,446,215
D40 FIRE PROTECTION						
D40 FIRE PROTECTION, GENERALLY						
New sprinkler system	208,113	gsf	6.00	1,248,678		
SUBTOTAL					1,248,678	
TOTAL - FIRE PROTECTION						\$1,248,678
D50 ELECTRICAL						
D5010 SERVICE & DISTRIBUTION						
Gear & Distribution						
Normal power distribution switchgear & feeders	208,113	sf	5.00	1,040,565		
Emergency power						
Emergency power distribution switchgear & feeders	208,113	sf	3.00	624,339		
Equipment Wiring						
Equipment wiring	208,113	sf	2.50	520,283		
SUBTOTAL					2,185,187	
D5020 LIGHTING & POWER						
Lighting & Branch Power						
Lighting fixtures with installation labor	208,113	sf	6.00	1,248,678		
Lighting control system						
Lighting controls including interface with DDC	208,113	sf	1.75	364,198		
Branch devices						
Branch devices	208,113	sf	0.50	104,057		
Lighting and branch circuitry						
Lighting & branch circuitry	208,113	sf	5.00	1,040,565		
SUBTOTAL					2,757,498	
D5030 COMMUNICATION & SECURITY SYSTEMS						
Fire Alarm						
Fire alarm system	208,113	sf	3.50	728,396		
Bi-Directional System						
BDA system	208,113	sf	0.50	104,057		
Security System						
Security System	208,113	sf	2.50	520,283		
Telephone/Data/CATV						
Network switches, PBX, IP, VP, CCTV (By owner) By Owner						
Telecommunications rough in	208,113	sf	1.50	312,170		
Telecommunications devices and cabling	208,113	sf	2.00	416,226		
Public Address/Clock System						
PA/Master Clock system	208,113	sf	1.25	260,141		
Audio Visual (rough-in and power only)						
AV equipment By Owner						
Rough-In conduit and backboxes only	208,113	sf	1.00	208,113		
Auditorium						
Rigging system equipment & installation See equipment						
Power to rigging equipment	1	ls	12,000.00	12,000		
Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
Installation, rough-in & 120V power to dimming equipment						
1	ls	70,000.00	70,000			
D5040 OTHER ELECTRICAL SYSTEMS						
Miscellaneous						
Demolition & make safe	1	ls	30,000.00	30,000		
Temp power and lights	208,113	sf	1.00	208,113		
Seismic restraints	1	ls	15,000.00	15,000		
Lightning Protection System, UL Master label	208,113	sf	0.45	93,651		
Fees & Permits	208,113	sf	0.50	104,057		
SUBTOTAL					450,821	
TOTAL - ELECTRICAL						\$8,589,892
E10 EQUIPMENT						
E10 EQUIPMENT, GENERALLY						
Gym wall pads	1	ls	20,000.00	20,000		
Basketball backstops; swing up; electric operated	12	loc	10,500.00	126,000		
Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
Volleyball net and standards	1	ls	5,000.00	5,000		
Telescoping bleachers	900	seats	240.00	216,000		
Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
Theatrical AV allowance	1	ls	200,000.00	200,000		
Kitchen equipment	2,030	sf	220.00	446,600		
SUBTOTAL					1,453,600	
TOTAL - EQUIPMENT						\$1,453,600
E20 FURNISHINGS						
E2010 FIXED FURNISHINGS						
Window shades	15,072	sf	7.00	105,504		
Entrance mats	1	ls	20,000.00	20,000		
Replace auditorium seats	1,100	seat	360.00	396,000		
CASEWORK						
Sinks, counters and casework allowance	208,113	sf	10.00	2,081,130		
SUBTOTAL					2,602,634	
E2020 MOVABLE FURNISHINGS						
All movable furnishings to be provided and installed by owner						
SUBTOTAL						NIC
TOTAL - FURNISHINGS						\$2,602,634

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CONSTRUCTION COST SUMMARY				
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%

FULL RENOVATION - OPTION 2

A10 FOUNDATIONS				
A1010 Standard Foundations	\$95,000			
A1020 Special Foundations	\$0			
A1030 Lowest Floor Construction	\$478,250	\$573,250	\$2.75	0.9%
B10 SUPERSTRUCTURE				
B1010 Upper Floor Construction	\$1,220,247			
B1020 Roof Construction	\$819,275	\$2,039,522	\$9.80	3.0%
B20 EXTERIOR CLOSURE				
B2010 Exterior Walls	\$8,058,700			
B2020 Windows/Curtainwall	\$2,848,640			
B2030 Exterior Doors	\$210,552	\$11,117,892	\$53.42	16.5%
B30 ROOFING				
B3010 Roof Coverings	\$3,054,048			
B3020 Roof Openings	\$27,000	\$3,081,048	\$14.80	4.6%
C10 INTERIOR CONSTRUCTION				
C1010 Partitions	\$5,399,586			
C1020 Interior Doors	\$1,248,678			
C1030 Specialties/Millwork	\$1,757,179	\$8,405,443	\$40.39	12.5%
C20 STAIRCASES				
C2010 Stair Construction	\$180,000			
C2020 Stair Finishes	\$42,000	\$222,000	\$1.07	0.3%
C30 INTERIOR FINISHES				
C3010 Wall Finishes	\$2,915,469			
C3020 Floor Finishes	\$2,174,283			
C3030 Ceiling Finishes	\$2,128,234	\$7,217,986	\$34.68	10.7%
D10 CONVEYING SYSTEMS				
D1010 Elevator	\$220,000	\$220,000	\$1.06	0.3%
D20 PLUMBING				
D20 Plumbing	\$3,347,726	\$3,347,726	\$16.09	5.0%
D30 HVAC				
D30 HVAC	\$14,567,910	\$14,567,910	\$70.00	21.7%
D40 FIRE PROTECTION				
D40 Fire Protection	\$1,248,678	\$1,248,678	\$6.00	1.9%
D50 ELECTRICAL				
D5010 Electrical Systems	\$8,589,892	\$8,589,892	\$41.28	12.8%



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HIGH SCHOOL CODE UPGRADES OPTION 1

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F10 SPECIAL CONSTRUCTION						
F10 SPECIAL CONSTRUCTION						
SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION						
F20 SELECTIVE BUILDING DEMOLITION						
F2010 BUILDING ELEMENTS DEMOLITION						
Remove exterior glazing	15,072	sf	7.00	105,504		
Remove exterior brick façade	75,360	sf	10.00	753,600		
Remove roofing	127,252	sf	2.00	In HazMat		
Demolish existing stage	1,914	sf	15.00	28,710		
Shoring	1	ls	25,000.00	25,000		
Remove existing stairs	4	flts	5,000.00	20,000		
Interior demolition	208,113	gsf	4.00	832,452		
Temporary enclosures/protection	208,113	sf	1.50	312,170		
SUBTOTAL					2,077,436	
F2020 HAZARDOUS COMPONENTS ABATEMENT						
See summary						
SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION						\$2,077,436

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
FULL RENOVATION - OPTION 2					
E10 EQUIPMENT					
E10 Equipment	\$1,453,600	\$1,453,600	\$6.98	2.2%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,602,634				
E2020 Movable Furnishings	NIC	\$2,602,634	\$12.51	3.9%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 SELECTIVE BUILDING DEMOLITION					
F2010 Building Elements Demolition	\$2,493,662				
F2020 Hazardous Components Abatement	\$0	\$2,493,662	\$11.98	3.7%	
TOTAL DIRECT COST (Trade Costs)		\$67,181,243	\$322.81	100.0%	



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
FULL RENOVATION - OPTION 2						
GROSS FLOOR AREA CALCULATION						
LEVEL 2				52,713		
LEVEL 1				127,252		
LEVEL 0				28,148		
TOTAL GROSS FLOOR AREA (GFA)				208,113	sf	
A10 FOUNDATIONS						
A1010 STANDARD FOUNDATIONS						
Repair cracks and resurface exposed concrete foundations	1	ls	25,000	25,000		
Repair at site retaining wall	1	ls	30,000	30,000		
Allowance for spalled concrete	500	sf	80.00	40,000		
SUBTOTAL					95,000	
A1020 SPECIAL FOUNDATIONS						
No work in this section						
SUBTOTAL						
A1030 LOWEST FLOOR CONSTRUCTION						
Cutting and patching for MEP	1	ls	25,000.00	25,000		
New slab at bathrms and kitchen	7,030	sf	25.00	175,750		
Replace loading dock	1	ls	30,000.00	30,000		
Upgrade auditorium slopes for ADA compliance	7,500	sf	25.00	187,500		
Equipment pads	1	ls	15,000.00	15,000		
New elevator pit	1	ls	45,000.00	45,000		
SUBTOTAL					478,250	
TOTAL - FOUNDATIONS						\$573,250
B10 SUPERSTRUCTURE						
B1010 FLOOR CONSTRUCTION						
Openings in structure for MEP systems	208,113	gsf	0.50	104,057		
Structural modifications to facilitate science classroom relocations	1	ls	100,000.00	100,000		
Infill existing stair openings	1,760	sf	45.00	79,200		
New stage floor structure	1,914	sf	35.00	66,990		
New code compliant ramp	2	loc	35,000.00	70,000		
New suspended track	1	ls	750,000.00	750,000		
Fire stopping floors	1	ls	50,000.00	50,000		
SUBTOTAL					1,220,247	
B1020 ROOF CONSTRUCTION						
Roof Structure - Steel:						
New reinforcing to low roofs for snow loading; 1 bay only against building	11,653	sf	15.00	174,795		
New structural steel at new stage and fly loft	37.5	tns	6,500.00	243,750		
New deck at rebuilt stage and fly loft	1,914	sf	18.00	34,452		
Allowance to reinforce roof diaphragms	52,713	sf	6.00	316,278		
Support framing for new MEP systems	1	ls	50,000.00	50,000		
SUBTOTAL					819,275	
TOTAL - SUPERSTRUCTURE						\$2,039,522

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FULL RENOVATION - OPTION 2

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Reclad and Insulate exterior walls to meet code	75,360	sf				
Anchor the top of perimeter masonry partitions to the underside of the floor or structure above	949	loc	500.00	474,500		
Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
SUBTOTAL					8,058,700	

B2020 WINDOWS/CURTAINWALL

Replace existing windows; triple glazed	15,072	sf	125.00	1,884,000		
Replace existing curtainwall; triple glazed	6,029	sf	160.00	964,640		
SUBTOTAL					2,848,640	

B2030 EXTERIOR DOORS

Replace exterior glazed door, double	15	pr	9,000.00	135,000		
Replace exterior glazed door, single	2	ea	4,000.00	8,000		
Replace exterior single door	10	ea	2,100.00	21,000		
Replace garage doors	4	ea	10,000.00	40,000		
Backer rod & double sealant	504	lf	10.00	5,040		
Wood blocking at openings	504	lf	3.00	1,512		
SUBTOTAL					210,552	

TOTAL - EXTERIOR CLOSURE						\$11,117,892
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B30 ROOFING

B3010 ROOF COVERINGS

Replace existing roofing systems	127,252	sf	24.00	3,054,048		
SUBTOTAL					3,054,048	

B3020 ROOF OPENINGS

New stage smoke hatches	3	ea	8,000.00	24,000		
Replace roof ladders/hatches etc.	1	ls	3,000.00	3,000		
SUBTOTAL					27,000	

TOTAL - ROOFING						\$3,081,048
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Anchor the top of all masonry partitions to the underside of the floor or structure above	1,970	loc	350.00	689,500		
New walls for new layouts	208,113	sf	22.00	4,578,486		
Replace auditorium operable wall	68	lf	1,200.00	81,600		
Repair/Fill cracks in CMU walls	1	ls	50,000.00	50,000		
SUBTOTAL					5,399,586	

C1020 INTERIOR DOORS

Replace al interior doors, frames + hardware	208,113	sf	6.00	1,248,678		
SUBTOTAL					1,248,678	

C1030 SPECIALTIES / MILLWORK

Toilet Partitions and accessories	208,113	gsf	1.00	208,113		
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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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FULL RENOVATION - OPTION 2

New stage proscenium	1	ls	100,000	100,000		
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New markerboards/tackboards	208,113	gsf	1.25	260,141		
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Upgrade athletic locker rooms specifically reconfigure showers to provide accessible shower stalls	2	ea	30,000.00	60,000		
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Lockers, full height	710	ea	350.00	248,500		
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New catwalk	1	ls	100,000.00	100,000		
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055000 MISCELLANEOUS METALS

Miscellaneous metals throughout building	208,113	sf	1.25	260,141		
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061000 ROUGH CARPENTRY

Rough blocking	208,113	sf	0.50	104,057		
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070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Miscellaneous sealants throughout building	208,113	sf	1.50	312,170		
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101400 SIGNAGE

Code compliant signage	208,113	sf	0.50	104,057		
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SUBTOTAL					1,757,179	
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TOTAL - INTERIOR CONSTRUCTION						\$8,405,443
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C20 STAIRCASES

C2010 STAIR CONSTRUCTION

Upgrade existing stairs for code	2	flt	10,000.00	20,000		
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New stairs	4	flt	40,000.00	160,000		
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SUBTOTAL					180,000	
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C2020 STAIR FINISHES

New stair finishes; rubber treads/risers/landing and painting	6	flt	7,000.00	42,000		
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SUBTOTAL					42,000	
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TOTAL - STAIRCASES						\$222,000
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Painting	208,113	gsf	3.00	624,339		
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Replace wood paneling at auditorium	1	ls	150,000.00	150,000		
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Replace acoustic panels at gym	1	ls	60,000.00	60,000		
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Other finishes	208,113	sf	10.00	2,081,130		
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SUBTOTAL					2,915,469	
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C3020 FLOOR FINISHES

New linoleum flooring throughout including floor prep	157,294	sf	8.00	1,258,352		
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New shock-absorbing wood gym floor	16,000	sf	20.00	320,000		
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Bathroom renovations	5,000	sf	100.00	500,000		
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New flooring at the stage	1,914	sf	24.00	45,936		
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New carpet	1,111	sy	45.00	49,995		
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SUBTOTAL					2,174,283	
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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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FULL RENOVATION - OPTION 2

C3030 CEILING FINISHES						
Replace ceiling at auditorium, provide new clouds	1	ls	350,000	350,000		
Replace existing ACT/Ceilings/Soffits	157,294	sf	11.00	1,730,234		
Paint gym exposed ceiling	16,000	sf	3.00	48,000		
SUBTOTAL					2,128,234	
TOTAL - INTERIOR FINISHES						\$7,217,986

D10 CONVEYING SYSTEMS						
Remove existing elevator	1	ls	40,000.00	40,000		
Remove existing elevator and install new elevator	1	ls	135,000.00	135,000		
New lift	1	ls	45,000.00	45,000		
SUBTOTAL					220,000	
TOTAL - CONVEYING SYSTEMS						\$220,000

D20 PLUMBING						
D20 PLUMBING, GENERALLY						
<u>Equipment</u>						
Gas fired domestic HW heater; 400,000 BTUH	2	ea	28,000.00	56,000		
HW storage tank	2	ea	5,000.00	10,000		
Plumbing equipment	208,113	sf	4.00	832,452		
<u>Plumbing Fixtures & Specialties</u>						
Miscellaneous plumbing fixtures	208,113	sf	1.00	208,113		
<u>Domestic Water Type L Copper Pipe</u>						
Domestic water pipe with fittings & hangers	208,113	sf	2.50	520,283		
Domestic water pipe insulation	208,113	sf	1.50	312,170		
<u>Sanitary Waste And Vent Pipe w/ Hangers</u>						
Sanitary waste pipe with fittings & hangers	208,113	sf	2.50	520,283		
Kitchen waste pipe with fittings & hangers	208,113	sf	0.30	62,434		
<u>Acid Waste And Vent Pipe w/ Hangers</u>						
Acid waste & vent pipe with fittings & hangers	208,113	sf	0.75	156,085		
<u>Storm Drainage, Hubless Cast Iron Pipe</u>						
Storm water pipe with fittings & hangers	208,113	sf	1.50	312,170		
Pipe insulation on horizontal runs	208,113	sf	0.20	41,623		
<u>Gas And Fuel Distribution Pipe</u>						
Gas pipe with fittings & hangers	208,113	sf	1.00	208,113		
<u>Miscellaneous</u>						
Coordination & BIM	1	ls	50,000.00	50,000		
Coring, sleeves & firestopping	1	ls	7,000.00	7,000		
Commissioning support	1	ls	20,000.00	20,000		
Testing and sterilization	1	ls	6,000.00	6,000		
Fees & permits	1	ls	25,000.00	25,000		
SUBTOTAL					3,347,726	
TOTAL - PLUMBING						\$3,347,726

D30 HVAC						
D30 HVAC, GENERALLY						
<u>HVAC Equipment</u>						



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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FULL RENOVATION - OPTION 2

New HVAC system; Geoeexchange	208,113	gsf	70.00	14,567,910		
SUBTOTAL					14,567,910	
TOTAL - HVAC						\$14,567,910

D40 FIRE PROTECTION						
D40 FIRE PROTECTION, GENERALLY						
New sprinkler system	208,113	gsf	6.00	1,248,678		
SUBTOTAL					1,248,678	
TOTAL - FIRE PROTECTION						\$1,248,678

D50 ELECTRICAL						
D5010 SERVICE & DISTRIBUTION						
Gear & Distribution						
Normal power distribution switchgear & feeders	208,113	sf	5.00	1,040,565		
<u>Emergency power</u>						
Emergency power distribution switchgear & feeders	208,113	sf	3.00	624,339		
<u>Equipment Wiring</u>						
Equipment wiring	208,113	sf	2.50	520,283		
SUBTOTAL					2,185,187	
D5020 LIGHTING & POWER						
<u>Lighting & Branch Power</u>						
Lighting fixtures with installation labor	208,113	sf	6.00	1,248,678		
<u>Lighting control system</u>						
Lighting controls including interface with DDC	208,113	sf	1.75	364,198		
<u>Branch devices</u>						
Branch devices	208,113	sf	0.50	104,057		
<u>Lighting and branch circuitry</u>						
Lighting & branch circuitry	208,113	sf	5.00	1,040,565		
SUBTOTAL					2,757,498	

D5030 COMMUNICATION & SECURITY SYSTEMS						
<u>Fire Alarm</u>						
Fire alarm system	208,113	sf	3.50	728,396		
<u>Bi-Directional System</u>						
BDA system	208,113	sf	0.50	104,057		
<u>Security System</u>						
Security System	208,113	sf	2.50	520,283		
<u>Telephone/Data/CATV</u>						
Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
Telecommunications rough in	208,113	sf	1.50	312,170		
Telecommunications devices and cabling	208,113	sf	2.00	416,226		
<u>Public Address/Clock System</u>						
PA/Master Clock system	208,113	sf	1.25	260,141		
<u>Audio Visual (rough-in and power only)</u>						
AV equipment					By Owner	
Rough-In conduit and backboxes only	208,113	sf	1.00	208,113		
<u>Auditorium</u>						
Rigging system equipment & installation					See equipment	
Power to rigging equipment	1	ls	12,000.00	12,000		
Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		

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	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
FULL RENOVATION - OPTION 2							
141	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
142	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
142	<u>Gymnasium</u>						
143	Sound system	1	ls	50,000.00	50,000		
143	Scoreboard/ shot clocks with feed and connection	1	ea	15,000.00	15,000		
144	Misc. gym equipment feed and connections	1	ls	15,000.00	15,000		
144	SUBTOTAL					3,196,386	
D5040 OTHER ELECTRICAL SYSTEMS							
<u>Miscellaneous</u>							
146	Demolition & make safe	1	ls	30,000.00	30,000		
147	Temp power and lights	208,113	sf	1.00	208,113		
147	Seismic restraints	1	ls	15,000.00	15,000		
148	Lightning Protection System, UL Master label	208,113	sf	0.45	93,651		
148	Fees & Permits	208,113	sf	0.50	104,057		
149	SUBTOTAL					450,821	
TOTAL - ELECTRICAL							\$8,589,892
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
153	Gym wall pads	1	ls	20,000.00	20,000		
153	Basketball backstops; swing up; electric operated	12	loc	10,500.00	126,000		
154	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
154	Volleyball net and standards	1	ls	5,000.00	5,000		
155	Telescoping bleachers	900	seats	240.00	216,000		
155	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
156	Theatrical AV allowance	1	ls	200,000.00	200,000		
156	Kitchen equipment	2,030	sf	220.00	446,600		
157	SUBTOTAL					1,453,600	
TOTAL - EQUIPMENT							\$1,453,600
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
161	Window shades	15,072	sf	7.00	105,504		
161	Entrance mats	1	ls	20,000.00	20,000		
162	Replace auditorium seats	1,100	seat	360.00	396,000		
123553 CASEWORK							
163	Sinks, counters and casework allowance	208,113	sf	10.00	2,081,130		
164	SUBTOTAL					2,602,634	
E2020 MOVABLE FURNISHINGS							
All movable furnishings to be provided and installed by owner							
166	SUBTOTAL					NIC	
TOTAL - FURNISHINGS							\$2,602,634



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	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
FULL RENOVATION - OPTION 2							
F10 SPECIAL CONSTRUCTION							
F10 SPECIAL CONSTRUCTION							
SUBTOTAL							
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
F2010 BUILDING ELEMENTS DEMOLITION							
174	Remove exterior glazing	15,072	sf	7.00	105,504		
174	Remove exterior brick façade	75,360	sf	10.00	753,600		
174	Remove roofing	127,252	sf	2.00	In HazMat		
175	Demolish existing stage	1,914	sf	15.00	28,710		
175	Shoring	1	ls	25,000.00	25,000		
176	Remove existing stairs	4	flts	5,000.00	20,000		
176	Interior demolition	208,113	gsf	6.00	1,248,678		
177	Temporary enclosures/protection	208,113	sf	1.50	312,170		
177	SUBTOTAL					2,493,662	
F2020 HAZARDOUS COMPONENTS ABATEMENT							
See summary							
SUBTOTAL							
TOTAL - SELECTIVE BUILDING DEMOLITION							\$2,493,662

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK RENOVATE HIGH SCHOOL OPTION 2							
G SITEWORK							
G10	SITE PREPARATION & DEMOLITION						
	Site construction fence/barricades	3,400	lf	18.00	61,200		
	Site construction fence gates	1	ea	10,000.00	10,000		
	Stabilized construction entrance	1	ls	15,000.00	15,000		
	Miscellaneous demolition	1	ls	150,000.00	150,000		
	Temporary parking	250	spc	2,000.00	500,000		
	Blasting for temporary parking	1	ls	150,000.00	150,000		
	<u>Site Earthwork</u>						
	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368		
	Fine grading	200,000	sf	0.20	40,000		
	Silt fence/erosion control, wash bays, stock piles	3,400	lf	12.00	40,800		
	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000		
	<u>Hazardous Waste Remediation</u>						
	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000		
	Dispose/treat contaminated soils	1	ls	20,000.00	20,000		
	SUBTOTAL					1,127,368	
G20	SITE IMPROVEMENTS						
	<u>Asphalt Paving; parking lot and roadway; mill and pave only</u>	242,276	sf				
	gravel base; 12" thick	8,973	cy	35.00	ETR		
	asphalt; mill and pave	26,920	sy	20.00	538,400		
	VGC	7,231	lf	34.00	ETR		
	Single solid lines, 4" thick	1	ls	10,000.00	10,000		
	Crosswalk Hatching	4	loc	900.00	3,600		
	Other road markings	1	ls	7,500.00	7,500		
	HC curb cuts	8	loc	350.00	2,800		
	Signage	1	ls	20,000.00	20,000		
	<u>Pedestrian Paving</u>						
	Concrete paving						
	gravel base; 8" thick	372	cy	35.00	13,020		
	4" concrete paving	15,000	sf	10.00	150,000		
	<u>Site Athletics</u>						
	Baseball/Field Hockey	1	ea	240,000.00	240,000		
	Natural grass soccer field	1	ea	350,000.00	350,000		
	Softball field	1	ea	200,000.00	200,000		
	Tennis courts - Six Courts	1	ea	480,000.00	480,000		
	<u>Site Improvements</u>						
	Flag pole 50' high	1	ea	6,500.00	6,500		
	Concrete retaining walls				Assumed not required		
	Repair to stairs	1	ls	50,000.00	50,000		
	Pre-K playground and equipment	1	ls	150,000.00	150,000		
	Other site improvements; walls, fences etc.	1	ls	250,000.00	250,000		
	SUBTOTAL					2,471,820	
	<u>Landscaping</u>						
	Topsoil - Import new topsoil; minimum 6"	3,148	cy	65.00	204,620		
	Lawn - loam & seed	170,000	sf	0.25	42,500		
	Allowance for courtyard upgrades	2	loc	75,000.00	150,000		
	Planting allowance	1	ls	200,000.00	200,000		
	SUBTOTAL					597,120	
G30	CIVIL MECHANICAL UTILITIES						
	<u>Utilities - Enabling</u>						
	Allowance for temporary utilities etc.	1	ls	50,000.00	50,000		
	<u>Water supply; Pricing includes E&B and bedding</u>						
	New DI piping; 8"	557	lf	100.00	ETR		
	New DI piping; 8" Fire loop	2,000	lf	120.00	240,000		
	Connect to existing	1	loc	100,000.00	100,000		
	FD connection	1	ea	2,000.00	2,000		



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PDP Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK RENOVATE HIGH SCHOOL OPTION 2							
58	Gate valves	8	ea	750.00	6,000		
59	Fire hydrant	3	ea	5,000.00	15,000		
60	<u>Sanitary; Pricing includes E&B and bedding</u>						
61	Manholes	2	ea	4,500.00	9,000		
62	Grease trap	1	ea	15,000.00	15,000		
63	8" PVC	1,000	lf	70.00	70,000		
64	Connect to existing drain	1	ea	3,000.00	3,000		
65	<u>Storm water; Pricing includes E&B and bedding</u>						
66	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828		
67	Infiltration systems; culcet chambers	137,500	cf	8.00	1,100,000		
68	Rock excavation	1	ls	250,000.00	250,000		
69	Catch basins	12	ea	3,800.00	45,600		
70	Manholes	10	ea	4,500.00	45,000		
71	WQ structures	3	ea	16,000.00	48,000		
72	Area drains	4	ea	1,500.00	6,000		
73	<u>Gas service</u>						
74	E&B trench for new gas pipe - install by plumbing	557	lf	25.00	13,925		
75	SUBTOTAL						2,745,353
76							
77	G40 ELECTRICAL UTILITIES						
78							
79	<u>Power</u>						
80	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.		
81	Connections at existing manhole				Utility co.		
82	Manhole	1	ls	8,500.00	8,500		
83	Connections in manhole	1	ls	3,500.00	3,500		
84	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000		
85	Transformer by utility company				By Utility Co.		
86	Transformer pad	1	ea	2,500.00	2,500		
87	Secondary service	60	lf	1,100.00	66,000		
88	<u>Communications</u>						
89	Connection at riser pole, allow	1	ea	1,500.00	1,500		
90	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000		
91	<u>Site Lighting</u>						
92	Site Parking lighting (allow)	1	ls	150,000.00	150,000		
93	SUBTOTAL						504,000
94							
95	TOTAL - SITE DEVELOPMENT						\$7,445,661

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F. OPTION COMPARISON COST ESTIMATES



Stoneham High School
Design Options
Stoneham, MA

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PDP Estimate GFA 47,580

CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
HIGH SCHOOL RENOVATION - OPTION 3A1					
A10 FOUNDATIONS					
A1010	Standard Foundations	\$42,500			
A1020	Special Foundations	\$0			
A1030	Lowest Floor Construction	\$63,750	\$106,250	\$2.23	0.8%
B10 SUPERSTRUCTURE					
B1010	Upper Floor Construction	\$28,790			
B1020	Roof Construction	\$157,740	\$186,530	\$3.92	1.4%
B20 EXTERIOR CLOSURE					
B2010	Exterior Walls	\$695,582			
B2020	Windows/Curtainwall	\$708,750			
B2030	Exterior Doors	\$49,284	\$1,453,616	\$30.55	11.2%
B30 ROOFING					
B3010	Roof Coverings	\$570,960			
B3020	Roof Openings	\$5,000	\$575,960	\$12.11	4.4%
C10 INTERIOR CONSTRUCTION					
C1010	Partitions	\$713,700			
C1020	Interior Doors	\$285,480			
C1030	Specialties/Millwork	\$345,480	\$1,344,660	\$28.26	10.4%
C20 STAIRCASES					
C2010	Stair Construction	\$10,000			
C2020	Stair Finishes	\$7,000	\$17,000	\$0.36	0.1%
C30 INTERIOR FINISHES					
C3010	Wall Finishes	\$678,540			
C3020	Floor Finishes	\$604,208			
C3030	Ceiling Finishes	\$248,557	\$1,531,305	\$32.18	11.8%
D10 CONVEYING SYSTEMS					
D1010	Elevator	\$40,000	\$40,000	\$0.84	0.3%
D20 PLUMBING					
D20	Plumbing	\$761,280	\$761,280	\$16.00	5.9%
D30 HVAC					
D30	HVAC	\$3,330,600	\$3,330,600	\$70.00	25.7%
D40 FIRE PROTECTION					
D40	Fire Protection	\$285,480	\$285,480	\$6.00	2.2%
D50 ELECTRICAL					
D5010	Electrical Systems	\$1,884,976	\$1,884,976	\$39.62	14.5%
E10 EQUIPMENT					
E10	Equipment	\$451,000	\$451,000	\$9.48	3.5%



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM		SUB-TOTAL	TOTAL	\$/SF	%
HIGH SCHOOL RENOVATION - OPTION 3A1					
E20 FURNISHINGS					
E2010	Fixed Furnishings	\$507,050			
E2020	Movable Furnishings NIC		\$507,050	\$10.66	3.9%
F10 SPECIAL CONSTRUCTION					
F10	Special Construction	\$0	\$0	\$0.00	0.0%
F20 SELECTIVE BUILDING DEMOLITION					
F2010	Building Elements Demolition	\$484,470			
F2020	Hazardous Components Abatement	\$0	\$484,470	\$10.18	3.7%
TOTAL DIRECT COST (Trade Costs)			\$12,960,177	\$272.39	100.0%

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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL RENOVATION - OPTION 3A1						
GROSS FLOOR AREA CALCULATION						
Level 2				23,790		
Level 1				23,790		
TOTAL GROSS FLOOR AREA (GFA)				47,580	sf	
A10 FOUNDATIONS						
A1010 STANDARD FOUNDATIONS						
Repair cracks and resurface exposed concrete foundations	1	ls	10,000	10,000		
Allowance for spalled concrete	500	sf	65.00	32,500		
SUBTOTAL					42,500	
A1020 SPECIAL FOUNDATIONS						
No work in this section						
SUBTOTAL						
A1030 LOWEST FLOOR CONSTRUCTION						
Cutting and patching for MEP	1	ls	10,000.00	10,000		
New slab at bathrooms and kitchen	550	sf	25.00	13,750		
Replace loading dock	1	ls	30,000.00	30,000		
Equipment pads	1	ls	10,000.00	10,000		
SUBTOTAL					63,750	
TOTAL - FOUNDATIONS						\$106,250
B10 SUPERSTRUCTURE						
B1010 FLOOR CONSTRUCTION						
Openings in structure for MEP systems	47,580	gsf	0.50	23,790		
Fire stopping floors	1	ls	5,000.00	5,000		
SUBTOTAL					28,790	
B1020 ROOF CONSTRUCTION						
<u>Roof Structure - Steel:</u>						
Allowance to reinforce roof diaphragms	23,790	sf	6.00	142,740		
Support framing for new MEP systems	1	ls	15,000.00	15,000		
SUBTOTAL					157,740	
TOTAL - SUPERSTRUCTURE						\$186,530
B20 EXTERIOR CLOSURE						
B2010 EXTERIOR WALLS						
Repair and repoint exterior walls; assume 5%	18,750	sf				
	938	sf	38.00	35,644		
Clean all exterior walls; includes staging	18,750	sf	10.00	187,500		
Repairs to existing chimney including new liner	1	ls	35,000.00	35,000		
Insulate exterior walls to meet code; blow in insulation	18,750	sf	5.25	98,438		
Repair spalling to concrete walls	1	ls	25,000.00	25,000		
New masonry at exterior wall once demolition of existing occurs	2,940	sf	65.00	191,100		
Clean existing lintels	280	lf	30.00	8,400		
Anchor the top of perimeter masonry partitions to the underside of the floor or structure above	229	loc	500.00	114,500		
SUBTOTAL					695,582	
B2020 WINDOWS/CURTAINWALL						
Replace existing windows; Triple Glazed	3,750	sf	125.00	468,750		



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL RENOVATION - OPTION 3A1						
Replace existing curtainwall; Triple glazed	1,500	sf	160.00	240,000		
SUBTOTAL					708,750	
B2030 EXTERIOR DOORS						
Replace exterior single door	4	ea	2,100.00	8,400		
Replace garage doors	4	ea	10,000.00	40,000		
Backer rod & double sealant	68	lf	10.00	680		
Wood blocking at openings	68	lf	3.00	204		
SUBTOTAL					49,284	
TOTAL - EXTERIOR CLOSURE						\$1,453,616
B30 ROOFING						
B3010 ROOF COVERINGS						
Replace existing roofing systems	23,790	sf	24.00	570,960		
SUBTOTAL					570,960	
B3020 ROOF OPENINGS						
Replace roof ladders/hatches etc.	1	ls	5,000.00	5,000		
SUBTOTAL					5,000	
TOTAL - ROOFING						\$575,960
C10 INTERIOR CONSTRUCTION						
C1010 PARTITIONS						
Partition allowance	47,580	sf	15.00	713,700		
SUBTOTAL					713,700	
C1020 INTERIOR DOORS						
Replace al interior doors, frames + hardware	47,580	sf	6.00	285,480		
SUBTOTAL					285,480	
C1030 SPECIALTIES / MILLWORK						
Toilet Partitions and accessories	47,580	gsf	1.00	47,580		
New markerboards/tackboards	47,580	gsf	1.25	59,475		
Upgrade athletic locker rooms specifically reconfigure showers to provide accessible shower stalls	2	ea	30,000.00	60,000		
TOTAL - INTERIOR CONSTRUCTION						\$1,344,660
C20 STAIRCASES						

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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL RENOVATION - OPTION 3A1						
C2010 STAIR CONSTRUCTION						
Upgrade existing stairs for code	1	flt	10,000.00	10,000		
SUBTOTAL					10,000	
C2020 STAIR FINISHES						
New stair finishes; rubber treads/risers/landing and painting	1	flt	7,000.00	7,000		
SUBTOTAL						7,000
TOTAL - STAIRCASES						\$17,000
C30 INTERIOR FINISHES						
C3010 WALL FINISHES						
Painting	47,580	gsf	3.00	142,740		
Replace acoustic panels at gym	1	ls	60,000.00	60,000		
Other finishes	47,580	sf	10.00	475,800		
SUBTOTAL						678,540
C3020 FLOOR FINISHES						
New linoleum flooring throughout including floor prep	28,651	sf	8.00	229,208		
New shock-absorbing wood gym floor	16,000	sf	20.00	320,000		
Bathroom renovations	550	sf	100.00	55,000		
SUBTOTAL						604,208
C3030 CEILING FINISHES						
Replace existing ACT	28,651	sf	7.00	200,557		
Paint gym exposed ceiling	16,000	sf	3.00	48,000		
SUBTOTAL						248,557
TOTAL - INTERIOR FINISHES						\$1,531,305
D10 CONVEYING SYSTEMS						
Remove existing elevator	1	ls	40,000.00	40,000		
SUBTOTAL						40,000
TOTAL - CONVEYING SYSTEMS						\$40,000
D20 PLUMBING						
D20 PLUMBING, GENERALLY						
Plumbing allowance	47,580	gsf	16.00	761,280		
SUBTOTAL						761,280
TOTAL - PLUMBING						\$761,280
D30 HVAC						
D30 HVAC, GENERALLY						
HVAC Equipment						
New HVAC system; Geoexchange	47,580	gsf	70.00	3,330,600		
SUBTOTAL						3,330,600
TOTAL - HVAC						\$3,330,600
D40 FIRE PROTECTION						



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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL RENOVATION - OPTION 3A1						
D40 FIRE PROTECTION, GENERALLY						
New sprinkler system	47,580	gsf	6.00	285,480		
SUBTOTAL						285,480
TOTAL - FIRE PROTECTION						\$285,480
D50 ELECTRICAL						
D5010 SERVICE & DISTRIBUTION						
Gear & Distribution						
Normal power distribution switchgear & feeders	47,580	sf	5.00	237,900		
Emergency power						
Emergency power distribution switchgear & feeders	47,580	sf	3.00	142,740		
Equipment Wiring						
Equipment wiring	47,580	sf	2.25	107,055		
SUBTOTAL						487,695
D5020 LIGHTING & POWER						
Lighting & Branch Power						
Lighting fixtures with installation labor	47,580	sf	6.00	285,480		
Lighting control system						
Lighting controls including interface with DDC	47,580	sf	1.75	83,265		
Branch devices						
Branch devices	47,580	sf	0.50	23,790		
Lighting and branch circuitry						
Lighting & branch circuitry	47,580	sf	5.00	237,900		
SUBTOTAL						630,435
D5030 COMMUNICATION & SECURITY SYSTEMS						
Fire Alarm						
Fire alarm system	47,580	sf	3.00	142,740		
Bi-Directional System						
BDA system	47,580	sf	0.50	23,790		
Security System						
Security System	47,580	sf	2.50	118,950		
Telephone/Data/CATV						
Network switches, PBX, IP, VP, CCTV (By owner)						By Owner
Telecommunications rough in	47,580	sf	1.50	71,370		
Telecommunications devices and cabling	47,580	sf	2.00	95,160		
Public Address/Clock System						
PA/Master Clock system	47,580	sf	1.25	59,475		
Audio Visual (rough-in and power only)						
AV equipment						By Owner
Rough-In conduit and backboxes only	47,580	sf	1.00	47,580		
Gymnasium						
Sound system	1	ls	50,000.00	50,000		
Scoreboard/ shot clocks with feed and connection	1	ea	15,000.00	15,000		
Misc. gym equipment feed and connections	1	ls	15,000.00	15,000		
SUBTOTAL						639,065
D5040 OTHER ELECTRICAL SYSTEMS						
Miscellaneous						
Demolition & make safe	1	ls	30,000.00	30,000		
Temp power and lights	47,580	sf	1.00	47,580		
Seismic restraints	1	ls	5,000.00	5,000		
Lightning Protection System, UL Master label	47,580	sf	0.45	21,411		
Fees & Permits	47,580	sf	0.50	23,790		
SUBTOTAL						127,781

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DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
HIGH SCHOOL RENOVATION - OPTION 3A1						
TOTAL - ELECTRICAL						\$1,884,976
E10 EQUIPMENT						
E10 EQUIPMENT, GENERALLY						
Gym wall pads	1	ls	20,000.00	20,000		
Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000		
Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
Volleyball net and standards	1	ls	5,000.00	5,000		
Telescoping bleachers	900	seats	240.00	216,000		
SUBTOTAL					451,000	
TOTAL - EQUIPMENT						\$451,000
E20 FURNISHINGS						
E2010 FIXED FURNISHINGS						
Window shades	3,750	sf	7.00	26,250		
Entrance mats	1	ls	5,000.00	5,000		
123553 CASEWORK						
Sinks, counters and casework allowance	47,580	sf	10.00	475,800		
SUBTOTAL					507,050	
E2020 MOVABLE FURNISHINGS						
All movable furnishings to be provided and installed by owner						
SUBTOTAL					NIC	
TOTAL - FURNISHINGS						\$507,050
F10 SPECIAL CONSTRUCTION						
F10 SPECIAL CONSTRUCTION						
SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION						
F20 SELECTIVE BUILDING DEMOLITION						
F2010 BUILDING ELEMENTS DEMOLITION						
Remove exterior glazing	3,750	sf	7.00	26,250		
Remove roofing	23,790	sf	2.00	In HazMat		
Interior demolition	47,580	gsf	6.00	285,480		
Temporary exterior	750	sf	40.00	30,000		
Temporary enclosures/protection	47,580	sf	3.00	142,740		
SUBTOTAL					484,470	
F2020 HAZARDOUS COMPONENTS ABATEMENT						
See summary						
SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION						\$484,470



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BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%
CONSTRUCTION COST SUMMARY				
OPTION 3A1 NEW ADDITION				
A10 FOUNDATIONS				
A1010 Standard Foundations	\$540,560			
A1020 Special Foundations	\$2,702,800			
A1030 Lowest Floor Construction	\$1,108,328	\$4,351,688	\$27.80	7.4%
A20 BASEMENT CONSTRUCTION				
A2010 Basement Excavation	\$0			
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%
B10 SUPERSTRUCTURE				
B1010 Upper Floor Construction	\$3,451,525			
B1020 Roof Construction	\$2,766,909	\$6,218,434	\$39.73	10.6%
B20 EXTERIOR CLOSURE				
B2010 Exterior Walls	\$7,714,074			
B2020 Windows	\$3,073,209			
B2030 Exterior Doors	\$101,640	\$10,888,923	\$69.57	18.5%
B30 ROOFING				
B3010 Roof Coverings	\$1,621,680			
B3020 Roof Openings	\$32,500	\$1,654,180	\$10.57	2.8%
C10 INTERIOR CONSTRUCTION				
C1010 Partitions	\$3,756,648			
C1020 Interior Doors	\$939,162			
C1030 Specialties/Millwork	\$1,465,432	\$6,161,242	\$39.36	10.5%
C20 STAIRCASES				
C2010 Stair Construction	\$178,000			
C2020 Stair Finishes	\$25,149	\$203,149	\$1.30	0.3%
C30 INTERIOR FINISHES				
C3010 Wall Finishes	\$2,191,378			
C3020 Floor Finishes	\$1,408,743			
C3030 Ceiling Finishes	\$1,721,797	\$5,321,918	\$34.00	9.1%
D10 CONVEYING SYSTEMS				
D1010 Elevator	\$120,000	\$120,000	\$0.77	0.2%
D20 PLUMBING				
D20 Plumbing	\$2,504,432	\$2,504,432	\$16.00	4.3%
D30 HVAC				
D30 HVAC	\$10,956,890	\$10,956,890	\$70.00	18.7%

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 3A1 NEW ADDITION					
D40 FIRE PROTECTION					
D40 Fire Protection	\$939,162	\$939,162	\$6.00	1.6%	
D50 ELECTRICAL					
D5010 Complete System	\$6,404,807	\$6,404,807	\$40.92	10.9%	
E10 EQUIPMENT					
E10 Equipment	\$1,259,100	\$1,259,100	\$8.04	2.1%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$1,726,071				
E2020 Movable Furnishings	NIC	\$1,726,071	\$11.03	2.9%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$58,709,996	\$375.08	100.0%	



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GFA 156,527

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
OPTION 3A1 NEW ADDITION								
GROSS FLOOR AREA CALCULATION								
	Level 2				75,709			
	Level 1				67,570			
	Level 3				13,248			
TOTAL GROSS FLOOR AREA (GFA)						156,527	sf	
A10 FOUNDATIONS								
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations; 50% of building footprint							
		33,785	sf	16.00	540,560			
SUBTOTAL						540,560		
A1020 SPECIAL FOUNDATIONS	Allowance for shallow pier foundations; 50% of building footprint							
		33,785	sf	80.00	2,702,800			
SUBTOTAL						\$2,702,800		
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick							
	Gravel fill, 12"	2,804	cy	40.00	112,160			
	Rigid insulation	75,709	sf	2.25	170,345			
	Vapor barrier	75,709	sf	1.00	75,709			
	Compact existing sub-grade	75,709	sf	0.50	37,855			
	Mesh reinforcing 15% lap	87,065	sf	1.15	100,125			
	Concrete - 5" thick; 4,000 psi	1,237	cy	125.00	154,625			
	Placing concrete	1,237	cy	45.00	55,665			
	Finishing and curing concrete	75,709	sf	2.50	189,273			
	Control joints - saw cut	75,709	sf	0.10	7,571			
<u>Miscellaneous</u>								
	Premium for rock excavation to 50% of foundations	1	ls	100,000.00	100,000			
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000			
	New Elevator pit	1	ea	40,000.00	40,000			
	Equipment pads	1	ls	15,000.00	15,000			
SUBTOTAL						1,108,328		
TOTAL - FOUNDATIONS							\$4,351,688	
A20 BASEMENT CONSTRUCTION								
A2010 BASEMENT EXCAVATION	SUBTOTAL							-
A2020 BASEMENT WALLS	SUBTOTAL							-
TOTAL - BASEMENT CONSTRUCTION								
B10 SUPERSTRUCTURE								
		14.50	lbs/sf		-			
		1,135	tns		-			
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:							
	Steel beams and columns to new addition; 14.5#/SF	586	tns	3,800.00	2,226,800			
	Premium for HSS	147	tns	300.00	44,100			
	Shear studs	16,164	ea	2.50	40,410			
	Floor Structure							
	2" 18 Ga. Metal galvanized floor Deck	80,818	sf	4.00	323,272			
	WWF reinforcement	92,941	sf	0.80	74,353			

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A1 NEW ADDITION							
62	Concrete Fill to metal deck; 6" Normal Weight	1,886	cy	135.00	254,610		
63	Place and finish concrete	80,818	sf	2.50	202,045		
64	Rebar to decks	24,245	lbs	1.20	29,094		
65	Misc. angles	80,818	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Fire proofing to columns and beams	80,818	sf	2.25	181,841		
68	Intumescent paint	1	ls	50,000.00	50,000		
69	Fire stopping floors	1	ls	25,000.00	25,000		
70	SUBTOTAL					3,451,525	
71							
72	B1020 ROOF CONSTRUCTION						
73	<u>Roof Structure - Steel:</u>						
74	Steel beams and columns to new addition; 14.5#/SF	549	tns	3,800.00	2,086,200		
75	Premium for HSS	137	tns	300.00	41,100		
76	Exposed steel	1	ls	50,000.00	50,000		
77	<u>Roof Structure</u>						
78	Acoustic deck allowance	5,000	sf	9.00	45,000		
79	3" 20 Ga. galvanized Metal Roof Deck	70,709	sf	3.50	247,482		
80	<u>Miscellaneous</u>						
81	Concrete under RTU's	8,500	sf	10.00	85,000		
82	Fire proofing to columns, beams and deck	70,709	sf	3.00	212,127		
83	SUBTOTAL					2,766,909	
84							
85	TOTAL - SUPERSTRUCTURE \$6,218,434						
86							
87							
88	B20 EXTERIOR CLOSURE						
89							
90	B2010 EXTERIOR WALLS						
91	Exterior Wall Area	68,010	sf				
92							
93	055000 MISC. METALS						
94	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
95							
96	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
97	Air barrier	68,010	sf	7.00	476,070		
98	Air barrier/flashing at windows	11,202	lf	6.25	70,013		
99	Miscellaneous sealants to closure	68,010	sf	1.00	68,010		
100							
101	072100 THERMAL INSULATION						
102	Insulation; 6" XPS	68,010	sf	5.50	374,055		
103	Insulation; 4" spray	68,010	sf	4.25	289,043		
104							
105	076400 CLADDING						
106	Metal panel; rainscreen system	68,010	sf	70.00	4,760,700		
107	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
108							
109	092900 GYPSUM BOARD ASSEMBLIES						
110	6" metal stud backup	68,010	sf	12.00	816,120		
111	Gypsum Sheathing	68,010	sf	2.75	187,028		
112	Drywall lining to interior face of stud backup	68,010	sf	3.50	238,035		
113							
114	SUBTOTAL					7,714,074	
115							
116	B2020 WINDOWS						
117	Exterior Wall Area	19,043	sf				
118							
119	061000 ROUGH CARPENTRY						
120	Wood blocking at openings	11,202	lf	12.00	134,424		
121							
122							



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OPTION 3A1 NEW ADDITION							
123	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
124	Backer rod & double sealant	11,202	lf	10.00	112,020		
125							
126	080001 METAL WINDOWS						
127	Windows, triple glazed; fiberglass	13,602	sf	125.00	1,700,250		
128	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	5,441	sf	165.00	897,765		
129	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
130							
131	089000 LOUVERS						
132	Louvers	250	sf	75.00	18,750		
133	SUBTOTAL					3,073,209	
134							
135	B2030 EXTERIOR DOORS						
136	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
137	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
138	Backer rod & double sealant	280	lf	10.00	2,800		
139	Wood blocking at openings	280	lf	3.00	840		
140	SUBTOTAL					101,640	
141							
142	TOTAL - EXTERIOR CLOSURE \$10,888,923						
143							
144							
145	B30 ROOFING						
146							
147	B3010 ROOF COVERINGS						
148	New roofing complete; TPO 8" Insulation	67,570	sf	24.00	1,621,680		
149	SUBTOTAL					1,621,680	
150							
151	B3020 ROOF OPENINGS						
152	Skylights, allow	1	ls	30,000.00	30,000		
153	Roof hatch	1	loc	2,500.00	2,500		
154	SUBTOTAL					32,500	
155							
156	TOTAL - ROOFING \$1,654,180						
157							
158							
159	C10 INTERIOR CONSTRUCTION						
160							
161	C1010 PARTITIONS						
162	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	156,527	gsf	24.00	3,756,648		
163	SUBTOTAL					3,756,648	
164							
165	C1020 INTERIOR DOORS						
166	Interior doors, frames and hardware	156,527	gsf	6.00	939,162		
167	SUBTOTAL					939,162	
168							
169	C1030 SPECIALTIES / MILLWORK						
170	Toilet Partitions and accessories	156,527	gsf	1.00	156,527		
171	Backer panels in electrical closets	1	ls	1,000.00	1,000		
172	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	156,527	sf	1.25	195,659		
173	Room Signs	156,527	gsf	0.50	78,264		
174	Fire extinguisher cabinets	52	ea	350.00	18,200		
175	Lockers, full height	710	ea	350.00	248,500		
176	New catwalk	1	ls	100,000.00	100,000		
177	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
178	Janitors Closet Accessories	3	rms	300.00	900		
179	<u>Media</u>						
180	Reception desks	2	loc	25,000	50,000		
181	Railings to open to below areas	151	lf	300	45,300		
182	Library shelving at perimeters 7' Tall				F,F & E		
183	Library shelving at perimeters 3' Tall				F,F & E		
184	Stage proscenium	1	ls	100,000	100,000		

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OPTION 3A1 NEW ADDITION							
185	Display cases	156,527	gsf	0.25	39,132		
186	Miscellaneous metals throughout building	156,527	sf	1.25	195,659		
187	Miscellaneous sealants throughout building	156,527	sf	1.50	234,791		
188	SUBTOTAL					1,465,432	
TOTAL - INTERIOR CONSTRUCTION							\$6,161,242
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
196	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
197	Main staircase	2	flt	50,000.00	100,000		
198	Concrete fill to stairs	4	flt	2,000.00	8,000		
199	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
202	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
203	Rubber tile at stairs - landings	400	sf	10.00	4,000		
204	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
205	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
213	Wall finishes	156,527	sf	14.00	2,191,378		
214	SUBTOTAL					2,191,378	
C3020 FLOOR FINISHES							
217	Floor finishes	156,527	sf	9.00	1,408,743		
218	SUBTOTAL					1,408,743	
C3030 CEILING FINISHES							
221	Ceiling finishes	156,527	sf	11.00	1,721,797		
222	SUBTOTAL					1,721,797	
TOTAL - INTERIOR FINISHES							\$5,321,918
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
230	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
231	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
239	Plumbing; complete system	156,527	sf	16.00	2,504,432		
240	SUBTOTAL					2,504,432	
TOTAL - PLUMBING							\$2,504,432
D30 HVAC							
D30 HVAC, GENERALLY							
248	New HVAC system; Geoexchange	156,527	gsf	70.00	10,956,890		
249	SUBTOTAL					10,956,890	
TOTAL - HVAC							\$10,956,890
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A1 NEW ADDITION							
257	Fire protection system	156,527	gsf	6.00	939,162		
258	SUBTOTAL					939,162	
TOTAL - FIRE PROTECTION							\$939,162
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
268	Normal power distribution switchgear & feeders	156,527	sf	5.00	782,635		
Emergency power							
270	Emergency power distribution switchgear & feeders	156,527	sf	3.00	469,581		
Equipment Wiring							
272	Equipment wiring	156,527	sf	2.25	352,186		
273	SUBTOTAL					1,604,402	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
278	Lighting fixtures (LED as BOD) with installation labor	156,527	sf	6.00	939,162		
Lighting control system							
280	Lighting controls including interface with DDC	156,527	sf	1.75	273,922		
Branch devices							
282	Branch devices	156,527	sf	0.50	78,264		
Lighting and branch circuitry							
284	Lighting & branch circuitry	156,527	sf	5.00	782,635		
285	SUBTOTAL					2,073,983	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
290	Fire alarm system	156,527	sf	3.00	469,581		
Bi-Directional System							
292	BDA system	156,527	sf	0.50	78,264		
Security System							
294	Security System	156,527	sf	2.50	391,318		
Telephone/Data/CATV							
296	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
297	Telecommunications rough in	156,527	sf	1.50	234,791		
298	Telecommunications devices and cabling	156,527	sf	2.00	313,054		
Public Address/Clock System							
300	PA/Master Clock system	156,527	sf	1.25	195,659		
Audio Visual (rough-in and power only)							
AV equipment							
303	Rough-In conduit and backboxes only	156,527	sf	1.00	156,527		
Auditorium							
Rigging system equipment & installation							
306	Power to rigging equipment	1	ls	12,000.00	12,000		
307	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
308	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
309	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
310	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
Gymnasium							
312	Sound system	1	ls	50,000.00	In Renovation		
313	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	In Renovation		
314	Misc. gym equipment feed and connections	1	ls	25,000.00	In Renovation		
315	SUBTOTAL					2,406,194	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
319	Temp power and lights	156,527	sf	1.00	156,527		
320	Seismic restraints	1	ls	15,000.00	15,000		
321	Lightning Protection System, UL Master label	156,527	sf	0.45	70,437		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A1 NEW ADDITION							
	Fees & Permits	156,527	sf	0.50	78,264		
	SUBTOTAL					320,228	
TOTAL - ELECTRICAL							\$6,404,807
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
	Theatrical AV allowance	1	ls	200,000.00	200,000		
	Kitchen equipment	2,030	sf	220.00	446,600		
	Auditorium seats	750	seat	350.00	262,500		
	SUBTOTAL					1,259,100	
TOTAL - EQUIPMENT							\$1,259,100
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
	Window blinds	19,043	sf	7.00	133,301		
	SUBTOTAL					1,726,071	
E2020 MOVABLE FURNISHINGS							
	All movable furnishings to be provided and installed by owner						NIC
TOTAL - FURNISHINGS							\$1,726,071
F10 SPECIAL CONSTRUCTION							
F10 SPECIAL CONSTRUCTION							
	No items in this section						
	SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
F2010 BUILDING ELEMENTS DEMOLITION							
	No items in this section						
	SUBTOTAL						
F2020 HAZARDOUS COMPONENTS ABATEMENT							
	See main summary for HazMat allowance				See Summary		
	SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK OPTION 1							
G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
	Site construction fence/barricades	3,657	lf	18.00	65,826		
	Site construction fence gates	1	ea	10,000.00	10,000		
	Stabilized construction entrance	1	ls	15,000.00	15,000		
	Pavement/curbing removal, crush and re-use for sub-base	242,276	sf	1.00	242,276		
	Walkways	1	ls	20,000.00	20,000		
	Miscellaneous demolition	1	ls	150,000.00	150,000		
	Temporary parking	250	spc	2,000.00	500,000		
	Blasting for temporary parking	1	ls	150,000.00	150,000		
Site Earthwork							
	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368		
	Fine grading	200,000	sf	0.20	40,000		
	Cut and Fill; assumed AV 1ft; balanced site	7,407	cy	15.00	111,105		
	Silt fence/erosion control, wash bays, stock piles	3,657	lf	12.00	43,884		
	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000		
Hazardous Waste Remediation							
	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000		
	Dispose/treat contaminated soils	1	ls	20,000.00	20,000		
	SUBTOTAL					1,508,459	
G20 SITE IMPROVEMENTS							
Asphalt Paving; parking lot and roadway							
	gravel base; 12" thick	8,973	cy	40.00	358,920		
	asphalt; 4" thick	26,920	sy	25.00	673,000		
	VGC	9,691	lf	40.00	387,640		
	Single solid lines, 4" thick	1	ls	10,000.00	10,000		
	Crosswalk Hatching	4	loc	900.00	3,600		
	Other road markings	1	ls	7,500.00	7,500		
	HC curb cuts	8	loc	350.00	2,800		
	Signage	1	ls	20,000.00	20,000		
Pedestrian Paving							
	Concrete paving						
	gravel base; 8" thick	372	cy	35.00	13,020		
	4" concrete paving	15,000	sf	7.00	105,000		
Drop Off Plaza							
	Precast pavers; 50%	8,076	sf	40.00	323,040		
	Poured in place rubber safety surface; 25%	4,038	sf	26.00	104,988		
	Planted areas; 25%	4,038	sf	10.00	40,380		
Pre-K Playground							
	Rubber surface	3,000	sf	35.00	105,000		
	Play equipment	1	loc	50,000.00	50,000		
Site Athletics							
	Baseball/Field Hockey	1	ea	240,000.00	240,000		
	Natural grass soccer field	1	ea	350,000.00	350,000		
	Softball field	1	ea	200,000.00	200,000		
	Tennis courts - Six Courts	1	ea	480,000.00	480,000		
Site Improvements							
	Flag pole 50' high	1	ea	6,500.00	6,500		
	Concrete retaining walls; AV 9ft high	910	lf	790.00	718,900		
	Other site improvements; walls, fences etc.	1	ls	200,000.00	200,000		
	Outdoor dining	1	ls	50,000.00	50,000		
	SUBTOTAL					4,450,288	
Landscaping							
	Topsoil - Import new topsoil; minimum 6"	1,111	cy	65.00	72,215		
	Green space	60,000	sf	10.00	600,000		
	SUBTOTAL					672,215	
G30 CIVIL MECHANICAL UTILITIES							
Water supply. Pricing includes E&B and bedding							
	New DI piping; 8"	450	lf	100.00	45,000		

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SITework OPTION 1								
66	New DI piping; 8" Fire loop	2,000	lf	100.00	200,000			
67	Connect to existing	1	loc	5,000.00	5,000			
68	FD connection	1	ea	2,000.00	2,000			
69	Gate valves	8	ea	750.00	6,000			
70	Fire hydrant	3	ea	5,000.00	15,000			
71	<u>Sanitary: Pricing includes E&B and bedding</u>							
72	Manholes	4	ea	4,000.00	16,000			
73	Grease trap	1	ea	15,000.00	15,000			
74	8" PVC	1,000	lf	60.00	60,000			
75	Connect to existing drain	1	ea	3,000.00	3,000			
76	<u>Storm water: Pricing includes E&B and bedding</u>							
77	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828			
78	Infiltration systems; cultec chambers	137,500	cf	8.00	1,100,000			
79	Rock excavation	1	ls	250,000.00	250,000			
80	Catch basins	12	ea	3,800.00	45,600			
81	Manholes	10	ea	4,500.00	45,000			
82	WQ structures	3	ea	16,000.00	48,000			
83	Area drains	4	ea	1,500.00	6,000			
84	Work to culvert	1	ls	250,000.00	250,000			
85	<u>Gas service</u>							
86	E&B trench for new gas pipe - install by plumbing	450	lf	25.00	11,250			
87	SUBTOTAL							2,849,678
88	G40 ELECTRICAL UTILITIES							
89	<u>Power</u>							
91	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.			
93	Connections at existing manhole				Utility co.			
94	Manhole	1	ls	8,500.00	8,500			
95	Connections in manhole	1	ls	3,500.00	3,500			
96	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000			
97	Transformer by utility company				By Utility Co.			
98	Transformer pad	1	ea	2,500.00	2,500			
99	Secondary service	60	lf	1,100.00	66,000			
100	<u>Communications</u>							
101	Connection at riser pole, allow	1	ea	1,500.00	1,500			
102	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000			
103	<u>Site Lighting</u>							
104	Site Parking lighting (allow)	1	ls	150,000.00	150,000			
105	SUBTOTAL							504,000
106	TOTAL - SITE DEVELOPMENT						\$9,984,640	



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BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 3A2 NEW ADDITION					
A10 FOUNDATIONS					
A1010 Standard Foundations		\$0			
A1020 Special Foundations	\$5,498,640				
A1030 Lowest Floor Construction	\$1,152,459	\$6,651,099	\$42.49	11.4%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation		\$0			
A2020 Basement Walls		\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$2,945,200				
B1020 Roof Construction	\$3,186,461	\$6,131,661	\$39.17	10.5%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$6,124,340				
B2020 Windows	\$1,723,811				
B2030 Exterior Doors	\$101,640	\$7,949,791	\$50.79	13.6%	
B30 ROOFING					
B3010 Roof Coverings	\$2,107,056				
B3020 Roof Openings	\$32,500	\$2,139,556	\$13.67	3.7%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$3,756,648				
C1020 Interior Doors	\$939,162				
C1030 Specialties/Millwork	\$1,465,432	\$6,161,242	\$39.36	10.5%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.30	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,191,378				
C3020 Floor Finishes	\$1,408,743				
C3030 Ceiling Finishes	\$1,721,797	\$5,321,918	\$34.00	9.1%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.77	0.2%	
D20 PLUMBING					
D20 Plumbing	\$2,504,432	\$2,504,432	\$16.00	4.3%	
D30 HVAC					
D30 HVAC	\$10,956,890	\$10,956,890	\$70.00	18.8%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 3A2 NEW ADDITION					
D40 FIRE PROTECTION					
D40 Fire Protection	\$939,162	\$939,162	\$6.00	1.6%	
D50 ELECTRICAL					
D5010 Complete System	\$6,404,807	\$6,404,807	\$40.92	11.0%	
E10 EQUIPMENT					
E10 Equipment	\$1,259,100	\$1,259,100	\$8.04	2.2%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$1,659,977				
E2020 Movable Furnishings	NIC	\$1,659,977	\$10.61	2.8%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$58,402,784	\$373.12	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
OPTION 3A2 NEW ADDITION							
GROSS FLOOR AREA CALCULATION							
	Level 2				68,733		
	Level 1				87,794		
TOTAL GROSS FLOOR AREA (GFA)						156,527	sf
A10 FOUNDATIONS							
A1010 STANDARD FOUNDATIONS							
See Special Foundations							
SUBTOTAL							
A1020 SPECIAL FOUNDATIONS							
Allowance for shallow pier foundations; 50% of building footprint							
		68,733	sf	80.00	5,498,640		
SUBTOTAL							
A1030 LOWEST FLOOR CONSTRUCTION							
<u>New Slab on grade, 5" thick</u>							
	Gravel fill, 12"	3,252	cy	40.00	130,080		
	Rigid insulation	87,794	sf	2.25	197,537		
	Vapor barrier	87,794	sf	1.00	87,794		
	Compact existing sub-grade	87,794	sf	0.50	43,897		
	Mesh reinforcing 15% lap	100,963	sf	1.15	116,107		
	Concrete - 5" thick; 4,000 psi	1,434	cy	125.00	179,250		
	Placing concrete	1,434	cy	45.00	64,530		
	Finishing and curing concrete	87,794	sf	2.50	219,485		
	Control joints - saw cut	87,794	sf	0.10	8,779		
<u>Miscellaneous</u>							
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000		
	New Elevator pit	1	ea	40,000.00	40,000		
	Equipment pads	1	ls	15,000.00	15,000		
SUBTOTAL							
TOTAL - FOUNDATIONS						\$6,651,099	
A20 BASEMENT CONSTRUCTION							
A2010 BASEMENT EXCAVATION							
SUBTOTAL							
A2020 BASEMENT WALLS							
SUBTOTAL							
TOTAL - BASEMENT CONSTRUCTION							
B10 SUPERSTRUCTURE							
B1010 FLOOR CONSTRUCTION							
<u>Floor Structure - Steel:</u>							
	Steel beams and columns to new addition; 14.5#/SF	498	tns	3,800.00	1,892,400		
	Premium for HSS	125	tns	300.00	37,500		
	Shear studs	13,747	ea	2.50	34,368		
<u>Floor Structure</u>							
	2" 18 Ga. Metal galvanized floor Deck	68,733	sf	4.00	274,932		
	WWF reinforcement	79,043	sf	0.80	63,234		
	Concrete Fill to metal deck; 6" Normal Weight	1,604	cy	135.00	216,540		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A2 NEW ADDITION							
62	Place and finish concrete	68,733	sf	2.50	171,833		
63	Rebar to decks	20,620	lbs	1.20	24,744		
64	Misc. angles	68,733	sf	0.50	Incl		
<i>Miscellaneous</i>							
66	Fire proofing to columns and beams	68,733	sf	2.25	154,649		
67	Intumescent paint	1	ls	50,000.00	50,000		
68	Fire stopping floors	1	ls	25,000.00	25,000		
69	SUBTOTAL					2,945,200	
B1020 ROOF CONSTRUCTION							
<i>Roof Structure - Steel:</i>							
73	Steel beams and columns to new addition; 14.5#/SF	637	tns	3,800.00	2,420,600		
74	Premium for HSS	159	tns	300.00	47,700		
75	Exposed steel	1	ls	50,000.00	50,000		
<i>Roof Structure</i>							
77	Acoustic deck allowance	5,000	sf	9.00	45,000		
78	3" 20 Ga. galvanized Metal Roof Deck	82,794	sf	3.50	289,779		
<i>Miscellaneous</i>							
80	Concrete under RTU's	8,500	sf	10.00	85,000		
81	Fire proofing to columns, beams and deck	82,794	sf	3.00	248,382		
82	SUBTOTAL					3,186,461	
TOTAL - SUPERSTRUCTURE							\$6,131,661
B20 EXTERIOR CLOSURE							
B2010 EXTERIOR WALLS							
Exterior Wall Area							
93	53,340 sf						
055000 MISC. METALS							
93	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
070001 WATERPROOFING, DAMPPROOFING AND CAULKING							
97	Air barrier	53,340	sf	7.00	373,380		
98	Air barrier/flashing at windows	5,648	lf	6.25	35,300		
99	Miscellaneous sealants to closure	53,340	sf	1.00	53,340		
072100 THERMAL INSULATION							
102	Insulation; 6" XPS	53,340	sf	5.50	293,370		
103	Insulation; 4" spray	53,340	sf	4.25	226,695		
076400 CLADDING							
106	Metal panel; rainscreen system	53,340	sf	70.00	3,733,800		
107	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
092900 GYPSUM BOARD ASSEMBLIES							
110	6" metal stud backup	53,340	sf	12.00	640,080		
111	Gypsum Sheathing	53,340	sf	2.75	146,685		
112	Drywall lining to interior face of stud backup	53,340	sf	3.50	186,690		
114	SUBTOTAL					6,124,340	
B2020 WINDOWS							
Exterior Wall Area							
117	9,601 sf						
061000 ROUGH CARPENTRY							
120	Wood blocking at openings	5,648	lf	12.00	67,776		
070001 WATERPROOFING, DAMPPROOFING AND CAULKING							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A2 NEW ADDITION							
123	Backer rod & double sealant	5,648	lf	10.00	56,480		
080001 METAL WINDOWS							
126	Windows, triple glazed; fiberglass	5,334	sf	125.00	666,750		
127	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	4,267	sf	165.00	704,055		
128	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
089000 LOUVERS							
131	Louvers	250	sf	75.00	18,750		
132	SUBTOTAL					1,723,811	
B2030 EXTERIOR DOORS							
134	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
136	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
137	Backer rod & double sealant	280	lf	10.00	2,800		
138	Wood blocking at openings	280	lf	3.00	840		
139	SUBTOTAL					101,640	
TOTAL - EXTERIOR CLOSURE							\$7,949,791
B30 ROOFING							
B3010 ROOF COVERINGS							
147	New roofing complete; TPO 8" Insulation	87,794	sf	24.00	2,107,056		
148	SUBTOTAL					2,107,056	
B3020 ROOF OPENINGS							
151	Skylights, allow	1	ls	30,000.00	30,000		
152	Roof hatch	1	loc	2,500.00	2,500		
153	SUBTOTAL					32,500	
TOTAL - ROOFING							\$2,139,556
C10 INTERIOR CONSTRUCTION							
C1010 PARTITIONS							
161	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	156,527	gsf	24.00	3,756,648		
162	SUBTOTAL					3,756,648	
C1020 INTERIOR DOORS							
165	Interior doors, frames and hardware	156,527	gsf	6.00	939,162		
166	SUBTOTAL					939,162	
C1030 SPECIALTIES / MILLWORK							
169	Toilet Partitions and accessories	156,527	gsf	1.00	156,527		
170	Backer panels in electrical closets	1	ls	1,000.00	1,000		
171	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	156,527	sf	1.25	195,659		
172	Room Signs	156,527	gsf	0.50	78,264		
173	Fire extinguisher cabinets	52	ea	350.00	18,200		
174	Lockers, full height	710	ea	350.00	248,500		
175	New catwalk	1	ls	100,000.00	100,000		
176	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
177	Janitors Closet Accessories	3	rms	300.00	900		
<i>Media</i>							
179	Reception desks	2	loc	25,000	50,000		
180	Railings to open to below areas	151	lf	300	45,300		
181	Library shelving at perimeters 7' Tall				F,F & E		
182	Library shelving at perimeters 3' Tall				F,F & E		
183	Stage proscenium	1	ls	100,000	100,000		
184	Display cases	156,527	gsf	0.25	39,132		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3A2 NEW ADDITION							
185	Miscellaneous metals throughout building	156,527	sf	1.25	195,659		
186	Miscellaneous sealants throughout building	156,527	sf	1.50	234,791		
187	SUBTOTAL					1,465,432	
TOTAL - INTERIOR CONSTRUCTION							\$6,161,242
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
195	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
196	Main staircase	2	flt	50,000.00	100,000		
197	Concrete fill to stairs	4	flt	2,000.00	8,000		
198	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
201	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
202	Rubber tile at stairs - landings	400	sf	10.00	4,000		
203	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
204	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
212	Wall finishes	156,527	sf	14.00	2,191,378		
213	SUBTOTAL					2,191,378	
C3020 FLOOR FINISHES							
216	Floor finishes	156,527	sf	9.00	1,408,743		
217	SUBTOTAL					1,408,743	
C3030 CEILING FINISHES							
220	Ceiling finishes	156,527	sf	11.00	1,721,797		
221	SUBTOTAL					1,721,797	
TOTAL - INTERIOR FINISHES							\$5,321,918
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
229	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
230	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
238	Plumbing; complete system	156,527	sf	16.00	2,504,432		
239	SUBTOTAL					2,504,432	
TOTAL - PLUMBING							\$2,504,432
D30 HVAC							
D30 HVAC, GENERALLY							
247	New HVAC system; Geoexchange	156,527	gsf	70.00	10,956,890		
248	SUBTOTAL					10,956,890	
TOTAL - HVAC							\$10,956,890
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							
256	Fire protection system	156,527	gsf	6.00	939,162		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
257	SUBTOTAL					939,162	
TOTAL - FIRE PROTECTION							\$939,162
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
267	Normal power distribution switchgear & feeders	156,527	sf	5.00	782,635		
Emergency power							
269	Emergency power distribution switchgear & feeders	156,527	sf	3.00	469,581		
Equipment Wiring							
271	Equipment wiring	156,527	sf	2.25	352,186		
272	SUBTOTAL					1,604,402	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
277	Lighting fixtures (LED as BOD) with installation labor	156,527	sf	6.00	939,162		
Lighting control system							
279	Lighting controls including interface with DDC	156,527	sf	1.75	273,922		
Branch devices							
281	Branch devices	156,527	sf	0.50	78,264		
Lighting and branch circuitry							
283	Lighting & branch circuitry	156,527	sf	5.00	782,635		
284	SUBTOTAL					2,073,983	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
289	Fire alarm system	156,527	sf	3.00	469,581		
Bi-Directional System							
291	BDA system	156,527	sf	0.50	78,264		
Security System							
293	Security System	156,527	sf	2.50	391,318		
Telephone/Data/CATV							
295	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
296	Telecommunications rough in	156,527	sf	1.50	234,791		
297	Telecommunications devices and cabling	156,527	sf	2.00	313,054		
Public Address/Clock System							
299	PA/Master Clock system	156,527	sf	1.25	195,659		
Audio Visual (rough-in and power only)							
301	AV equipment					By Owner	
302	Rough-In conduit and backboxes only	156,527	sf	1.00	156,527		
Auditorium							
304	Rigging system equipment & installation					See equipment	
305	Power to rigging equipment	1	ls	12,000.00	12,000		
306	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
307	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
308	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
309	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
Gymnasium							
311	Sound system	1	ls	50,000.00	In Renovation		
312	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	In Renovation		
313	Misc. gym equipment feed and connections	1	ls	25,000.00	In Renovation		
314	SUBTOTAL					2,406,194	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
318	Temp power and lights	156,527	sf	1.00	156,527		
319	Seismic restraints	1	ls	15,000.00	15,000		
320	Lightning Protection System, UL Master label	156,527	sf	0.45	70,437		
321	Fees & Permits	156,527	sf	0.50	78,264		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3A2 NEW ADDITION								
322	SUBTOTAL					320,228		
TOTAL - ELECTRICAL							\$6,404,807	
E10 EQUIPMENT								
328	E10 EQUIPMENT, GENERALLY							
329	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000			
330	Theatrical AV allowance	1	ls	200,000.00	200,000			
331	Kitchen equipment	2,030	sf	220.00	446,600			
332	Auditorium seats	750	seat	350.00	262,500			
333	SUBTOTAL					1,259,100		
TOTAL - EQUIPMENT							\$1,259,100	
E20 FURNISHINGS								
341	E2010 FIXED FURNISHINGS							
342	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500			
343	Window blinds	9,601	sf	7.00	67,207			
344								
345	123553 CASEWORK							
346	Sinks, counters and casework; allowance	156,527	sf	10.00	1,565,270			
347	SUBTOTAL					1,659,977		
348	E2020 MOVABLE FURNISHINGS							
349	All movable furnishings to be provided and installed by owner							
350								
351	SUBTOTAL					NIC		
352								
353	TOTAL - FURNISHINGS							\$1,659,977
354								
355	F10 SPECIAL CONSTRUCTION							
356	F10 SPECIAL CONSTRUCTION							
357	No items in this section							
358	SUBTOTAL							
359								
360	TOTAL - SPECIAL CONSTRUCTION							
361								
362	F20 SELECTIVE BUILDING DEMOLITION							
363	F2010 BUILDING ELEMENTS DEMOLITION							
364	No items in this section							
365	SUBTOTAL							
366								
367	F2020 HAZARDOUS COMPONENTS ABATEMENT							
368	See main summary for HazMat allowance					See Summary		
369	SUBTOTAL							
370								
371								
372								
373								
374	TOTAL - SELECTIVE BUILDING DEMOLITION							
375								



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 3B NEW ADDITION					
A10 FOUNDATIONS					
A1010 Standard Foundations		\$0			
A1020 Special Foundations	\$5,686,640				
A1030 Lowest Floor Construction	\$1,124,489	\$6,811,129	\$43.51	11.7%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$3,043,171				
B1020 Roof Construction	\$3,101,586	\$6,144,757	\$39.26	10.5%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$5,932,346				
B2020 Windows	\$1,673,349				
B2030 Exterior Doors	\$101,640	\$7,707,335	\$49.24	13.2%	
B30 ROOFING					
B3010 Roof Coverings	\$2,050,656				
B3020 Roof Openings	\$32,500	\$2,083,156	\$13.31	3.6%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$3,756,648				
C1020 Interior Doors	\$939,162				
C1030 Specialties/Millwork	\$1,465,432	\$6,161,242	\$39.36	10.6%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.30	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,191,378				
C3020 Floor Finishes	\$1,408,743				
C3030 Ceiling Finishes	\$1,721,797	\$5,321,918	\$34.00	9.1%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.77	0.2%	
D20 PLUMBING					
D20 Plumbing	\$2,504,432	\$2,504,432	\$16.00	4.3%	
D30 HVAC					
D30 HVAC	\$10,956,890	\$10,956,890	\$70.00	18.8%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 3B NEW ADDITION					
D40 FIRE PROTECTION					
D40 Fire Protection	\$939,162	\$939,162	\$6.00	1.6%	
D50 ELECTRICAL					
D5010 Complete System	\$6,404,807	\$6,404,807	\$40.92	11.0%	
E10 EQUIPMENT					
E10 Equipment	\$1,259,100	\$1,259,100	\$8.04	2.2%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$1,657,709				
E2020 Movable Furnishings	NIC	\$1,657,709	\$10.59	2.8%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$58,274,786	\$372.30	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
OPTION 3B NEW ADDITION							
GROSS FLOOR AREA CALCULATION							
	Level 2				71,083		
	Level 1				85,444		
TOTAL GROSS FLOOR AREA (GFA)						156,527	sf
A10 FOUNDATIONS							
A1010 STANDARD FOUNDATIONS							
See Special Foundations							
SUBTOTAL							
A1020 SPECIAL FOUNDATIONS							
Allowance for shallow pier foundations; 50% of building footprint							
		71,083	sf	80.00	5,686,640		
SUBTOTAL							
A1030 LOWEST FLOOR CONSTRUCTION							
<u>New Slab on grade, 5" thick</u>							
	Gravel fill, 12"	3,165	cy	40.00	126,600		
	Rigid insulation	85,444	sf	2.25	192,249		
	Vapor barrier	85,444	sf	1.00	85,444		
	Compact existing sub-grade	85,444	sf	0.50	42,722		
	Mesh reinforcing 15% lap	98,261	sf	1.15	113,000		
	Concrete - 5" thick; 4,000 psi	1,396	cy	125.00	174,500		
	Placing concrete	1,396	cy	45.00	62,820		
	Finishing and curing concrete	85,444	sf	2.50	213,610		
	Control joints - saw cut	85,444	sf	0.10	8,544		
<u>Miscellaneous</u>							
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000		
	New Elevator pit	1	ea	40,000.00	40,000		
	Equipment pads	1	ls	15,000.00	15,000		
SUBTOTAL							
TOTAL - FOUNDATIONS						\$6,811,129	
A20 BASEMENT CONSTRUCTION							
A2010 BASEMENT EXCAVATION							
SUBTOTAL							
A2020 BASEMENT WALLS							
SUBTOTAL							
TOTAL - BASEMENT CONSTRUCTION							
B10 SUPERSTRUCTURE							
		14.49	lbs/sf		-		
		1,134	tns		-		
B1010 FLOOR CONSTRUCTION							
<u>Floor Structure - Steel:</u>							
	Steel beams and columns to new addition; 14.5#/SF	515	tns	3,800.00	1,957,000		
	Premium for HSS	129	tns	300.00	38,700		
	Shear studs	14,217	ea	2.50	35,543		
<u>Floor Structure</u>							
	2" 18 Ga. Metal galvanized floor Deck	71,083	sf	4.00	284,332		
	WWF reinforcement	81,745	sf	0.80	65,396		
	Concrete Fill to metal deck; 6" Normal Weight	1,659	cy	135.00	223,965		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3B NEW ADDITION							
62	Place and finish concrete	71,083	sf	2.50	177,708		
63	Rebar to decks	21,325	lbs	1.20	25,590		
64	Misc. angles	71,083	sf	0.50	Incl		
<i>Miscellaneous</i>							
66	Fire proofing to columns and beams	71,083	sf	2.25	159,937		
67	Intumescent paint	1	ls	50,000.00	50,000		
68	Fire stopping floors	1	ls	25,000.00	25,000		
69	SUBTOTAL					3,043,171	
B1020 ROOF CONSTRUCTION							
<i>Roof Structure - Steel:</i>							
73	Steel beams and columns to new addition; 14.5#/SF	619	tns	3,800.00	2,352,200		
74	Premium for HSS	155	tns	300.00	46,500		
75	Exposed steel	1	ls	50,000.00	50,000		
<i>Roof Structure</i>							
77	Acoustic deck allowance	5,000	sf	9.00	45,000		
78	3" 20 Ga. galvanized Metal Roof Deck	80,444	sf	3.50	281,554		
<i>Miscellaneous</i>							
80	Concrete under RTU's	8,500	sf	10.00	85,000		
81	Fire proofing to columns, beams and deck	80,444	sf	3.00	241,332		
82	SUBTOTAL					3,101,586	
TOTAL - SUPERSTRUCTURE							\$6,144,757
B20 EXTERIOR CLOSURE							
B2010 EXTERIOR WALLS							
Exterior Wall Area							
		51,540	sf				
<i>MISC. METALS</i>							
93	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
<i>WATERPROOFING, DAMPPROOFING AND CAULKING</i>							
97	Air barrier	51,540	sf	7.00	360,780		
98	Air barrier/flashing at windows	5,457	lf	6.25	34,106		
99	Miscellaneous sealants to closure	51,540	sf	1.00	51,540		
<i>THERMAL INSULATION</i>							
102	Insulation; 6" XPS	51,540	sf	5.50	283,470		
103	Insulation; 4" spray	51,540	sf	4.25	219,045		
<i>CLADDING</i>							
106	Metal panel; rainscreen system	51,540	sf	70.00	3,607,800		
107	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
<i>GYPSON BOARD ASSEMBLIES</i>							
110	6" metal stud backup	51,540	sf	12.00	618,480		
111	Gypsum Sheathing	51,540	sf	2.75	141,735		
112	Drywall lining to interior face of stud backup	51,540	sf	3.50	180,390		
114	SUBTOTAL					5,932,346	
B2020 WINDOWS							
Exterior Wall Area							
		9,277	sf				
<i>ROUGH CARPENTRY</i>							
120	Wood blocking at openings	5,457	lf	12.00	65,484		
<i>WATERPROOFING, DAMPPROOFING AND CAULKING</i>							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3B NEW ADDITION							
123	Backer rod & double sealant	5,457	lf	10.00	54,570		
<i>METAL WINDOWS</i>							
126	Windows, triple glazed; fiberglass	5,154	sf	125.00	644,250		
127	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	4,123	sf	165.00	680,295		
128	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
<i>LOUVERS</i>							
131	Louvers	250	sf	75.00	18,750		
132	SUBTOTAL					1,673,349	
B2030 EXTERIOR DOORS							
Glazed entrance doors including frame and hardware; double door							
		10	pr	9,000.00	90,000		
HM doors, frames and hardware- Double							
		4	pr	2,000.00	8,000		
Backer rod & double sealant							
		280	lf	10.00	2,800		
Wood blocking at openings							
		280	lf	3.00	840		
139	SUBTOTAL					101,640	
TOTAL - EXTERIOR CLOSURE							\$7,707,335
B30 ROOFING							
B3010 ROOF COVERINGS							
New roofing complete; TPO 8" Insulation							
		85,444	sf	24.00	2,050,656		
148	SUBTOTAL					2,050,656	
B3020 ROOF OPENINGS							
Skylights, allow							
		1	ls	30,000.00	30,000		
Roof hatch							
		1	loc	2,500.00	2,500		
153	SUBTOTAL					32,500	
TOTAL - ROOFING							\$2,083,156
C10 INTERIOR CONSTRUCTION							
C1010 PARTITIONS							
Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.							
		156,527	gsf	24.00	3,756,648		
163	SUBTOTAL					3,756,648	
C1020 INTERIOR DOORS							
Interior doors, frames and hardware							
		156,527	gsf	6.00	939,162		
166	SUBTOTAL					939,162	
C1030 SPECIALTIES / MILLWORK							
Toilet Partitions and accessories							
		156,527	gsf	1.00	156,527		
Backer panels in electrical closets							
		1	ls	1,000.00	1,000		
Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms							
		156,527	sf	1.25	195,659		
Room Signs							
		156,527	gsf	0.50	78,264		
Fire extinguisher cabinets							
		52	ea	350.00	18,200		
Lockers, full height							
		710	ea	350.00	248,500		
New catwalk							
		1	ls	100,000.00	100,000		
Janitors Work Shop Accessories							
		1	ls	1,500.00	1,500		
Janitors Closet Accessories							
		3	rms	300.00	900		
<i>Media</i>							
Reception desks							
		2	loc	25,000	50,000		
Railings to open to below areas							
		151	lf	300	45,300		
Library shelving at perimeters 7' Tall							
					F,F & E		
Library shelving at perimeters 3' Tall							
					F,F & E		
Stage proscenium							
		1	ls	100,000	100,000		
Display cases							
		156,527	gsf	0.25	39,132		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 3B NEW ADDITION							
185	Miscellaneous metals throughout building	156,527	sf	1.25	195,659		
186	Miscellaneous sealants throughout building	156,527	sf	1.50	234,791		
187	SUBTOTAL					1,465,432	
TOTAL - INTERIOR CONSTRUCTION							\$6,161,242
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
195	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
196	Main staircase	2	flt	50,000.00	100,000		
197	Concrete fill to stairs	4	flt	2,000.00	8,000		
198	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
201	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
202	Rubber tile at stairs - landings	400	sf	10.00	4,000		
203	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
204	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
212	Wall finishes	156,527	sf	14.00	2,191,378		
213	SUBTOTAL					2,191,378	
C3020 FLOOR FINISHES							
216	Floor finishes	156,527	sf	9.00	1,408,743		
217	SUBTOTAL					1,408,743	
C3030 CEILING FINISHES							
220	Ceiling finishes	156,527	sf	11.00	1,721,797		
221	SUBTOTAL					1,721,797	
TOTAL - INTERIOR FINISHES							\$5,321,918
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
229	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
230	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
238	Plumbing; complete system	156,527	sf	16.00	2,504,432		
239	SUBTOTAL					2,504,432	
TOTAL - PLUMBING							\$2,504,432
D30 HVAC							
D30 HVAC, GENERALLY							
247	New HVAC system; Geoexchange	156,527	gsf	70.00	10,956,890		
248	SUBTOTAL					10,956,890	
TOTAL - HVAC							\$10,956,890
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							
256	Fire protection system	156,527	gsf	6.00	939,162		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
257	SUBTOTAL					939,162	
TOTAL - FIRE PROTECTION							\$939,162
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
267	Normal power distribution switchgear & feeders	156,527	sf	5.00	782,635		
Emergency power							
269	Emergency power distribution switchgear & feeders	156,527	sf	3.00	469,581		
Equipment Wiring							
271	Equipment wiring	156,527	sf	2.25	352,186		
272	SUBTOTAL					1,604,402	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
277	Lighting fixtures (LED as BOD) with installation labor	156,527	sf	6.00	939,162		
Lighting control system							
279	Lighting controls including interface with DDC	156,527	sf	1.75	273,922		
Branch devices							
281	Branch devices	156,527	sf	0.50	78,264		
Lighting and branch circuitry							
283	Lighting & branch circuitry	156,527	sf	5.00	782,635		
284	SUBTOTAL					2,073,983	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
289	Fire alarm system	156,527	sf	3.00	469,581		
Bi-Directional System							
291	BDA system	156,527	sf	0.50	78,264		
Security System							
293	Security System	156,527	sf	2.50	391,318		
Telephone/Data/CATV							
295	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
296	Telecommunications rough in	156,527	sf	1.50	234,791		
297	Telecommunications devices and cabling	156,527	sf	2.00	313,054		
Public Address/Clock System							
299	PA/Master Clock system	156,527	sf	1.25	195,659		
Audio Visual (rough-in and power only)							
301	AV equipment					By Owner	
302	Rough-In conduit and backboxes only	156,527	sf	1.00	156,527		
Auditorium							
304	Rigging system equipment & installation					See equipment	
305	Power to rigging equipment	1	ls	12,000.00	12,000		
306	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
307	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
308	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
309	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
Gymnasium							
311	Sound system	1	ls	50,000.00	In Renovation		
312	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	In Renovation		
313	Misc. gym equipment feed and connections	1	ls	25,000.00	In Renovation		
314	SUBTOTAL					2,406,194	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
318	Temp power and lights	156,527	sf	1.00	156,527		
319	Seismic restraints	1	ls	15,000.00	15,000		
320	Lightning Protection System, UL Master label	156,527	sf	0.45	70,437		
321	Fees & Permits	156,527	sf	0.50	78,264		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
OPTION 3B NEW ADDITION								
322	SUBTOTAL					320,228		
TOTAL - ELECTRICAL							\$6,404,807	
E10 EQUIPMENT								
328	E10 EQUIPMENT, GENERALLY							
329	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000			
330	Theatrical AV allowance	1	ls	200,000.00	200,000			
331	Kitchen equipment	2,030	sf	220.00	446,600			
332	Auditorium seats	750	seat	350.00	262,500			
333	SUBTOTAL					1,259,100		
TOTAL - EQUIPMENT							\$1,259,100	
E20 FURNISHINGS								
341	E2010 FIXED FURNISHINGS							
342	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500			
343	Window blinds	9,277	sf	7.00	64,939			
344								
345	123553 CASEWORK							
346	Sinks, counters and casework; allowance	156,527	sf	10.00	1,565,270			
347	SUBTOTAL					1,657,709		
348	E2020 MOVABLE FURNISHINGS							
349	All movable furnishings to be provided and installed by owner							
350								
351	SUBTOTAL					NIC		
352								
353	TOTAL - FURNISHINGS							\$1,657,709
354								
355	F10 SPECIAL CONSTRUCTION							
356	F10 SPECIAL CONSTRUCTION							
357	No items in this section							
358	SUBTOTAL							
359								
360	TOTAL - SPECIAL CONSTRUCTION							
361								
362	F20 SELECTIVE BUILDING DEMOLITION							
363	F2010 BUILDING ELEMENTS DEMOLITION							
364	No items in this section							
365	SUBTOTAL							
366								
367	F2020 HAZARDOUS COMPONENTS ABATEMENT							
368	See main summary for HazMat allowance				See Summary			
369	SUBTOTAL							
370								
371								
372								
373								
374	TOTAL - SELECTIVE BUILDING DEMOLITION							
375								



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A1 NEW BUILDING					
A10 FOUNDATIONS					
A1010 Standard Foundations	\$823,344				
A1020 Special Foundations	\$4,116,720				
A1030 Lowest Floor Construction	\$1,482,882	\$6,422,946	\$31.47	8.7%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$4,803,666				
B1020 Roof Construction	\$3,707,361	\$8,511,027	\$41.70	11.5%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$8,140,246				
B2020 Windows	\$2,253,563				
B2030 Exterior Doors	\$101,640	\$10,495,449	\$51.42	14.1%	
B30 ROOFING					
B3010 Roof Coverings	\$2,590,008				
B3020 Roof Openings	\$32,500	\$2,622,508	\$12.85	3.5%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$4,898,568				
C1020 Interior Doors	\$1,224,642				
C1030 Specialties/Millwork	\$1,744,617	\$7,867,827	\$38.55	10.6%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.00	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,857,498				
C3020 Floor Finishes	\$1,836,963				
C3030 Ceiling Finishes	\$2,245,177	\$6,939,638	\$34.00	9.3%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.59	0.2%	
D20 PLUMBING					
D20 Plumbing	\$3,265,712	\$3,265,712	\$16.00	4.4%	
D30 HVAC					
D30 HVAC	\$14,287,490	\$14,287,490	\$70.00	19.2%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A1 NEW BUILDING					
D40 FIRE PROTECTION					
D40 Fire Protection	\$1,224,642	\$1,224,642	\$6.00	1.6%	
D50 ELECTRICAL					
D5010 Complete System	\$8,279,783	\$8,279,783	\$40.57	11.2%	
E10 EQUIPMENT					
E10 Equipment	\$1,832,600	\$1,832,600	\$8.98	2.5%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,159,591				
E2020 Movable Furnishings	NIC	\$2,159,591	\$10.58	2.9%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$74,232,362	\$363.69	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
OPTION 4A1 NEW BUILDING								
GROSS FLOOR AREA CALCULATION								
	Level 2				87,942			
	Level 1				102,917			
	Level 3				13,248			
TOTAL GROSS FLOOR AREA (GFA)						204,107 sf		
A10 FOUNDATIONS								
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations; 50% of building footprint							
		51,459	sf	16.00	823,344			
	SUBTOTAL						823,344	
A1020 SPECIAL FOUNDATIONS	Allowance for shallow pier foundations; 50% of building footprint							
		51,459	sf	80.00	4,116,720			
	SUBTOTAL						\$4,116,720	
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick							
	Gravel fill, 12"	3,812	cy	40.00	152,480			
	Rigid insulation	102,917	sf	2.25	231,563			
	Vapor barrier	102,917	sf	1.00	102,917			
	Compact existing sub-grade	102,917	sf	0.50	51,459			
	Mesh reinforcing 15% lap	118,355	sf	1.15	136,108			
	Concrete - 5" thick; 4,000 psi	1,681	cy	125.00	210,125			
	Placing concrete	1,681	cy	45.00	75,645			
	Finishing and curing concrete	102,917	sf	2.50	257,293			
	Control joints - saw cut	102,917	sf	0.10	10,292			
	<u>Miscellaneous</u>							
	Premium for rock excavation to 50% of foundations	1	ls	150,000.00	150,000			
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000			
	New Elevator pit	1	ea	40,000.00	40,000			
	Equipment pads	1	ls	15,000.00	15,000			
	SUBTOTAL						1,482,882	
TOTAL - FOUNDATIONS						\$6,422,946		
A20 BASEMENT CONSTRUCTION								
A2010 BASEMENT EXCAVATION	SUBTOTAL							-
A2020 BASEMENT WALLS	SUBTOTAL							-
TOTAL - BASEMENT CONSTRUCTION								
B10 SUPERSTRUCTURE								
		14.50	lbs/sf		-			
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:							
	Steel beams and columns to new addition; 14.5#/SF	734	tns	3,800.00	2,789,200			
	Premium for HSS	184	tns	300.00	55,200			
	Shear studs	20,238	ea	2.50	50,595			
	<u>Floor Structure</u>							
	2" 18 Ga. Metal galvanized floor Deck	101,190	sf	4.00	404,760			
	WWF reinforcement	116,369	sf	0.80	93,095			

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OPTION 4A1 NEW BUILDING							
62	Concrete Fill to metal deck; 6" Normal Weight	2,361	cy	135.00	318,735		
63	Place and finish concrete	101,190	sf	2.50	252,975		
64	Rebar to decks	30,357	lbs	1.20	36,428		
65	Misc. angles	101,190	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Allowance for running track	1	ls	500,000.00	500,000		
68	Fire proofing to columns and beams	101,190	sf	2.25	227,678		
69	Intumescent paint	1	ls	50,000.00	50,000		
70	Fire stopping floors	1	ls	25,000.00	25,000		
71	SUBTOTAL					4,803,666	
72							
73	B1020 ROOF CONSTRUCTION						
74	<u>Roof Structure - Steel:</u>						
75	Steel beams and columns to new addition; 14.5#/SF	746	tns	3,800.00	2,834,800		
76	Premium for HSS	187	tns	300.00	56,100		
77	Exposed steel	1	ls	50,000.00	50,000		
78	<u>Roof Structure</u>						
79	Acoustic deck allowance	5,000	sf	9.00	45,000		
80	3" 20 Ga. galvanized Metal Roof Deck	97,917	sf	3.50	342,710		
81	<u>Miscellaneous</u>						
82	Concrete under RTU's	8,500	sf	10.00	85,000		
83	Fire proofing to columns, beams and deck	97,917	sf	3.00	293,751		
84	SUBTOTAL					3,707,361	
85							
86	TOTAL - SUPERSTRUCTURE						\$8,511,027
87							
88							
89	B20 EXTERIOR CLOSURE						
90							
91	B2010 EXTERIOR WALLS						
92	Exterior Wall Area	72,240	sf				
93							
94	055000 MISC. METALS						
95	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
96							
97							
98	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
99	Air barrier	72,240	sf	7.00	505,680		
100	Air barrier/flashing at windows	7,649	lf	6.25	47,806		
101	Miscellaneous sealants to closure	72,240	sf	1.00	72,240		
102							
103	072100 THERMAL INSULATION						
104	Insulation; 6" XPS	72,240	sf	5.50	397,320		
105	Insulation; 4" spray	72,240	sf	4.25	307,020		
106							
107	076400 CLADDING						
108	Metal panel; rainscreen system	72,240	sf	70.00	5,056,800		
109	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
110							
111	092900 GYPSUM BOARD ASSEMBLIES						
112	6" metal stud backup	72,240	sf	12.00	866,880		
113	Gypsum Sheathing	72,240	sf	2.75	198,660		
114	Drywall lining to interior face of stud backup	72,240	sf	3.50	252,840		
115							
116	SUBTOTAL					8,140,246	
117							
118	B2020 WINDOWS						
119	Exterior Wall Area	13,003	sf				
120							
121	061000 ROUGH CARPENTRY						
122	Wood blocking at openings	7,649	lf	12.00	91,788		



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OPTION 4A1 NEW BUILDING							
123							
124	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
125	Backer rod & double sealant	7,649	lf	10.00	76,490		
126							
127	080001 METAL WINDOWS						
128	Windows, triple glazed; fiberglass	7,224	sf	125.00	903,000		
129	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	5,779	sf	165.00	953,535		
130	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
131							
132	089000 LOUVERS						
133	Louvers	250	sf	75.00	18,750		
134	SUBTOTAL					2,253,563	
135							
136	B2030 EXTERIOR DOORS						
137	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
138	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
139	Backer rod & double sealant	280	lf	10.00	2,800		
140	Wood blocking at openings	280	lf	3.00	840		
141	SUBTOTAL					101,640	
142							
143	TOTAL - EXTERIOR CLOSURE						\$10,495,449
144							
145							
146	B30 ROOFING						
147							
148	B3010 ROOF COVERINGS						
149	New roofing complete; TPO 8" Insulation	102,917	sf	24.00	2,470,008		
150	Roof garden/outdoor sensory garden; 50% decking/50% planters; includes furnishings and planting	4,000	sf	30.00	120,000		
151	SUBTOTAL					2,590,008	
152							
153	B3020 ROOF OPENINGS						
154	Skylights, allow	1	ls	30,000.00	30,000		
155	Roof hatch	1	loc	2,500.00	2,500		
156	SUBTOTAL					32,500	
157							
158	TOTAL - ROOFING						\$2,622,508
159							
160							
161	C10 INTERIOR CONSTRUCTION						
162							
163	C1010 PARTITIONS						
164	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	204,107	gsf	24.00	4,898,568		
165	SUBTOTAL					4,898,568	
166							
167	C1020 INTERIOR DOORS						
168	Interior doors, frames and hardware	204,107	gsf	6.00	1,224,642		
169	SUBTOTAL					1,224,642	
170							
171	C1030 SPECIALTIES / MILLWORK						
172	Toilet Partitions and accessories	204,107	gsf	1.00	204,107		
173	Backer panels in electrical closets	1	ls	1,000.00	1,000		
174	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	204,107	sf	1.25	255,134		
175	Room Signs	204,107	gsf	0.50	102,054		
176	Fire extinguisher cabinets	68	ea	350.00	23,800		
177	Lockers, full height	710	ea	350.00	248,500		
178	New catwalk	1	ls	100,000.00	100,000		
179	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
180	Janitors Closet Accessories	3	rms	300.00	900		
181	<u>Media</u>						
182	Reception desks	2	loc	25,000	50,000		
183	Railings to open to below areas	151	lf	300	45,300		
184	Library shelving at perimeters 7' Tall						F,F & E

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OPTION 4A1 NEW BUILDING							
185	Library shelving at perimeters 3' Tall					F,F & E	
186	Stage proscenium	1	ls	100,000	100,000		
187	Display cases	204,107	sf	0.25	51,027		
188	Miscellaneous metals throughout building	204,107	sf	1.25	255,134		
189	Miscellaneous sealants throughout building	204,107	sf	1.50	306,161		
190	SUBTOTAL					1,744,617	
TOTAL - INTERIOR CONSTRUCTION							\$7,867,827
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
196	Metal pan stair, egress stair	2	flt	35,000.00	70,000		
197	Main staircase	2	flt	50,000.00	100,000		
198	Concrete fill to stairs	4	flt	2,000.00	8,000		
199	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
200	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
201	Rubber tile at stairs - landings	400	sf	10.00	4,000		
202	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
203	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
204	Wall finishes	204,107	sf	14.00	2,857,498		
205	SUBTOTAL					2,857,498	
C3020 FLOOR FINISHES							
206	Floor finishes	204,107	sf	9.00	1,836,963		
207	SUBTOTAL					1,836,963	
C3030 CEILING FINISHES							
208	Ceiling finishes	204,107	sf	11.00	2,245,177		
209	SUBTOTAL					2,245,177	
TOTAL - INTERIOR FINISHES							\$6,939,638
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
210	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
211	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
212	Plumbing; complete system	204,107	sf	16.00	3,265,712		
213	SUBTOTAL					3,265,712	
TOTAL - PLUMBING							\$3,265,712
D30 HVAC							
D30 HVAC, GENERALLY							
214	New HVAC system; Geoexchange	204,107	gsf	70.00	14,287,490		
215	SUBTOTAL					14,287,490	
TOTAL - HVAC							\$14,287,490



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OPTION 4A1 NEW BUILDING							
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							
256	Fire protection system	204,107	gsf	6.00	1,224,642		
257	SUBTOTAL					1,224,642	
TOTAL - FIRE PROTECTION							\$1,224,642
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
258	Normal power distribution switchgear & feeders	204,107	sf	5.00	1,020,535		
Emergency power							
259	Emergency power distribution switchgear & feeders	204,107	sf	3.00	612,321		
Equipment Wiring							
260	Equipment wiring	204,107	sf	2.25	459,241		
261	SUBTOTAL					2,092,097	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
262	Lighting fixtures (LED as BOD) with installation labor	204,107	sf	6.00	1,224,642		
Lighting control system							
263	Lighting controls including interface with DDC	204,107	sf	1.75	357,187		
Branch devices							
264	Branch devices	204,107	sf	0.50	102,054		
Lighting and branch circuitry							
265	Lighting & branch circuitry	204,107	sf	5.00	1,020,535		
266	SUBTOTAL					2,704,418	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
267	Fire alarm system	204,107	sf	3.00	612,321		
Bi-Directional System							
268	BDA system	204,107	sf	0.50	102,054		
Security System							
269	Security System	204,107	sf	2.50	510,268		
Telephone/Data/CATV							
By Owner							
270	Network switches, PBX, IP, VP, CCTV (By owner)						
271	Telecommunications rough in	204,107	sf	1.50	306,161		
272	Telecommunications devices and cabling	204,107	sf	2.00	408,214		
Public Address/Clock System							
273	PA/Master Clock system	204,107	sf	1.25	255,134		
Audio Visual (rough-in and power only)							
By Owner							
274	AV equipment						
275	Rough-In conduit and backboxes only	204,107	sf	1.00	204,107		
Auditorium							
See equipment							
276	Rigging system equipment & installation						
277	Power to rigging equipment	1	ls	12,000.00	12,000		
278	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
279	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
280	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
281	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
Gymnasium							
282	Sound system	1	ls	50,000.00	50,000		
283	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	30,000		
284	Misc. gym equipment feed and connections	1	ls	25,000.00	25,000		
285	SUBTOTAL					3,070,259	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							

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OPTION 4A1 NEW BUILDING								
321	Temp power and lights	204,107	sf	1.00	204,107			
322	Seismic restraints	1	ls	15,000.00	15,000			
323	Lightning Protection System, UL Master label	204,107	sf	0.45	91,848			
324	Fees & Permits	204,107	sf	0.50	102,054			
325	SUBTOTAL					413,009		
TOTAL - ELECTRICAL							\$8,279,783	
E10 EQUIPMENT								
E10 EQUIPMENT, GENERALLY								
333	Gym wall pads	1	ls	20,000.00	20,000			
334	Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000			
335	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000			
336	Volleyball net and standards	1	ls	5,000.00	5,000			
337	Telescoping bleachers	900	seats	240.00	216,000			
338	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000			
339	Theatrical AV allowance	1	ls	200,000.00	200,000			
340	Kitchen equipment	2,030	sf	220.00	446,600			
341	Auditorium seats	1,100	seat	350.00	385,000			
342	SUBTOTAL					1,832,600		
TOTAL - EQUIPMENT							\$1,832,600	
E20 FURNISHINGS								
E2010 FIXED FURNISHINGS								
350	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500			
351	Window blinds	13,003	sf	7.00	91,021			
352								
353	123553 CASEWORK							
354	Sinks, counters and casework; allowance	204,107	sf	10.00	2,041,070			
355	SUBTOTAL					2,159,591		
356								
357	E2020 MOVABLE FURNISHINGS							
358	All movable furnishings to be provided and installed by owner							
359	SUBTOTAL					NIC		
360								
361	TOTAL - FURNISHINGS							\$2,159,591
362								
363	F10 SPECIAL CONSTRUCTION							
364								
365	F10 SPECIAL CONSTRUCTION							
366	No items in this section							
367	SUBTOTAL							
368								
369	TOTAL - SPECIAL CONSTRUCTION							
370								
371								
372	F20 SELECTIVE BUILDING DEMOLITION							
373								
374	F2010 BUILDING ELEMENTS DEMOLITION							
375	No items in this section							
376	SUBTOTAL							
377								
378	F2020 HAZARDOUS COMPONENTS ABATEMENT							
379	See main summary for HazMat allowance					See Summary		
380								
381	SUBTOTAL							
382								
383	TOTAL - SELECTIVE BUILDING DEMOLITION							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK OPTION 1 NEW BUILDING								
G SITEWORK								
G10 SITE PREPARATION & DEMOLITION								
5	Site construction fence/barricades	3,657	lf	18.00	65,826			
6	Site construction fence gates	1	ea	10,000.00	10,000			
7	Stabilized construction entrance	1	ls	15,000.00	15,000			
8	Pavement/curbing removal, crush and re-use for sub-base	242,276	sf	1.00	242,276			
9	Walkways	1	ls	20,000.00	20,000			
10	Miscellaneous demolition	1	ls	150,000.00	150,000			
11	Temporary parking	250	spc	2,000.00	500,000			
12	Blasting for temporary parking	1	ls	150,000.00	150,000			
13	Site Earthwork							
14	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368			
15	Fine grading	200,000	sf	0.20	40,000			
16	Cut and Fill; assumed AV 1ft; balanced site	7,407	cy	15.00	111,105			
17	Silt fence/erosion control, wash bays, stock piles	3,657	lf	12.00	43,884			
18	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000			
19	Hazardous Waste Remediation							
20	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000			
21	Dispose/treat contaminated soils	1	ls	20,000.00	20,000			
22	SUBTOTAL					1,508,459		
23								
24	G20 SITE IMPROVEMENTS							
25	Asphalt Paving; parking lot and roadway	242,276						
26	gravel base; 12" thick	8,973	cy	40.00	358,920			
27	asphalt; 4" thick	26,920	sy	25.00	673,000			
28	VGC	9,691	lf	40.00	387,640			
29	Single solid lines, 4" thick	1	ls	10,000.00	10,000			
30	Crosswalk Hatching	4	loc	900.00	3,600			
31	Other road markings	1	ls	7,500.00	7,500			
32	HC curb cuts	8	loc	350.00	2,800			
33	Signage	1	ls	20,000.00	20,000			
34	Pedestrian Paving							
35	Concrete paving							
36	gravel base; 8" thick	372	cy	35.00	13,020			
37	4" concrete paving	15,000	sf	7.00	105,000			
38	Drop Off Plaza	16,152	sf					
39	Precast pavers; 50%	8,076	sf	40.00	323,040			
40	Poured in place rubber safety surface; 25%	4,038	sf	26.00	104,988			
41	Planted areas; 25%	4,038	sf	10.00	40,380			
42	Pre-K Playground	3,000	sf		-			
43	Rubber surface	3,000	sf	35.00	105,000			
44	Play equipment	1	loc	50,000.00	50,000			
45	Site Athletics							
46	Baseball/Field Hockey	1	ea	240,000.00	240,000			
47	Natural grass soccer field	1	ea	350,000.00	350,000			
48	Softball field	1	ea	200,000.00	200,000			
49	Tennis courts - Six Courts	1	ea	480,000.00	480,000			
50								
51	Site Improvements							
52	Flag pole 50' high	1	ea	6,500.00	6,500			
53	Concrete retaining walls; AV 9ft high	910	lf	790.00	718,900			
54	Other site improvements; walls, fences etc.	1	ls	200,000.00	200,000			
55	Outdoor dining	1	ls	50,000.00	50,000			
56	SUBTOTAL					4,450,288		
57								
58	Landscaping							
59	Topsoil - Import new topsoil; minimum 6"	1,111	cy	65.00	72,215			
60	Green space	60,000	sf	10.00	600,000			
61	SUBTOTAL					672,215		
62								
63	G30 CIVIL MECHANICAL UTILITIES							
64	Water supply. Pricing includes E&B and bedding							
65	New DI piping; 8"	450	lf	100.00	45,000			

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework OPTION 1 NEW BUILDING							
66	New DI piping; 8" Fire loop	2,000	lf	100.00	200,000		
67	Connect to existing	1	loc	5,000.00	5,000		
68	FD connection	1	ea	2,000.00	2,000		
69	Gate valves	8	ea	750.00	6,000		
70	Fire hydrant	3	ea	5,000.00	15,000		
71	<u>Sanitary: Pricing includes E&B and bedding</u>						
72	Manholes	4	ea	4,000.00	16,000		
73	Grease trap	1	ea	15,000.00	15,000		
74	8" PVC	1,000	lf	60.00	60,000		
75	Connect to existing drain	1	ea	3,000.00	3,000		
76	<u>Storm water: Pricing includes E&B and bedding</u>						
77	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828		
78	Infiltration systems; cultec chambers	137,500	cf	8.00	1,100,000		
79	Rock excavation	1	ls	250,000.00	250,000		
80	Catch basins	12	ea	3,800.00	45,600		
81	Manholes	10	ea	4,500.00	45,000		
82	WQ structures	3	ea	16,000.00	48,000		
83	Area drains	4	ea	1,500.00	6,000		
84	Work to culvert	1	ls	250,000.00	250,000		
85	<u>Gas service</u>						
86	E&B trench for new gas pipe - install by plumbing	450	lf	25.00	11,250		
87	SUBTOTAL						
88						2,849,678	
89	G40 ELECTRICAL UTILITIES						
90	<u>Power</u>						
91	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.		
92	Connections at existing manhole				Utility co.		
93	Manhole	1	ls	8,500.00	8,500		
94	Connections in manhole	1	ls	3,500.00	3,500		
95	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000		
96	Transformer by utility company				By Utility Co.		
97	Transformer pad	1	ea	2,500.00	2,500		
98	Secondary service	60	lf	1,100.00	66,000		
99	<u>Communications</u>						
100	Connection at riser pole, allow	1	ea	1,500.00	1,500		
101	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000		
102	<u>Site Lighting</u>						
103	Site Parking lighting (allow)	1	ls	150,000.00	150,000		
104	SUBTOTAL						
105						504,000	
106	TOTAL - SITE DEVELOPMENT						\$9,984,640



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A2 NEW BUILDING					
A10 FOUNDATIONS					
A1010 Standard Foundations	\$934,752				
A1020 Special Foundations	\$4,673,760				
A1030 Lowest Floor Construction	\$1,648,958	\$7,257,470	\$35.56	9.5%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$4,221,551				
B1020 Roof Construction	\$4,189,180	\$8,410,731	\$41.21	11.1%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$8,898,614				
B2020 Windows	\$2,452,889				
B2030 Exterior Doors	\$101,640	\$11,453,143	\$56.11	15.1%	
B30 ROOFING					
B3010 Roof Coverings	\$2,804,232				
B3020 Roof Openings	\$32,500	\$2,836,732	\$13.90	3.7%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$4,898,568				
C1020 Interior Doors	\$1,224,642				
C1030 Specialties/Millwork	\$1,744,617	\$7,867,827	\$38.55	10.3%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.00	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,857,498				
C3020 Floor Finishes	\$1,836,963				
C3030 Ceiling Finishes	\$2,245,177	\$6,939,638	\$34.00	9.1%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.59	0.2%	
D20 PLUMBING					
D20 Plumbing	\$3,265,712	\$3,265,712	\$16.00	4.3%	
D30 HVAC					
D30 HVAC	\$14,287,490	\$14,287,490	\$70.00	18.8%	

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PDP Estimate GFA 204,107

CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A2 NEW BUILDING					
D40 FIRE PROTECTION					
D40 Fire Protection	\$1,224,642	\$1,224,642	\$6.00	1.6%	
D50 ELECTRICAL					
D5010 Complete System	\$8,279,783	\$8,279,783	\$40.57	10.9%	
E10 EQUIPMENT					
E10 Equipment	\$1,710,100	\$1,710,100	\$8.38	2.2%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,168,551				
E2020 Movable Furnishings	NIC	\$2,168,551	\$10.62	2.9%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$76,024,968	\$372.48	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST	
OPTION 4A2 NEW BUILDING								
GROSS FLOOR AREA CALCULATION								
	Level 2				87,264			
	Level 1				116,843			
TOTAL GROSS FLOOR AREA (GFA)						204,107 sf		
A10 FOUNDATIONS								
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations; 50% of building footprint							
		58,422	sf	16.00	934,752			
SUBTOTAL						934,752		
A1020 SPECIAL FOUNDATIONS	Allowance for shallow pier foundations; 50% of building footprint							
		58,422	sf	80.00	4,673,760			
SUBTOTAL						\$4,673,760		
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick							
		4,328	cy	40.00	173,120			
		116,843	sf	2.25	262,897			
		116,843	sf	1.00	116,843			
		116,843	sf	0.50	58,422			
		134,369	sf	1.15	154,524			
		1,908	cy	125.00	238,500			
		1,908	cy	45.00	85,860			
		116,843	sf	2.50	292,108			
		116,843	sf	0.10	11,684			
Miscellaneous								
	Premium for rock excavation to 50% of foundations	1	ls	150,000.00	150,000			
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000			
	New Elevator pit	1	ea	40,000.00	40,000			
	Equipment pads	1	ls	15,000.00	15,000			
SUBTOTAL						1,648,958		
TOTAL - FOUNDATIONS						\$7,257,470		
A20 BASEMENT CONSTRUCTION								
A2010 BASEMENT EXCAVATION	SUBTOTAL							-
A2020 BASEMENT WALLS	SUBTOTAL							-
TOTAL - BASEMENT CONSTRUCTION								
B10 SUPERSTRUCTURE								
		14.50	lbs/sf		-			
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:							
	Steel beams and columns to new addition; 14.5#/SF	633	tns	3,800.00	2,405,400			
	Premium for HSS	158	tns	300.00	47,400			
	Shear studs	17,453	ea	2.50	43,633			
	Floor Structure							
	2" 18 Ga. Metal galvanized floor Deck	87,264	sf	4.00	349,056			
	WWF reinforcement	100,354	sf	0.80	80,283			

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A2 NEW BUILDING							
62	Concrete Fill to metal deck; 6" Normal Weight	2,036	cy	135.00	274,860		
63	Place and finish concrete	87,264	sf	2.50	218,160		
64	Rebar to decks	26,179	lbs	1.20	31,415		
65	Misc. angles	87,264	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Allowance for running track	1	ls	500,000.00	500,000		
68	Fire proofing to columns and beams	87,264	sf	2.25	196,344		
69	Intumescent paint	1	ls	50,000.00	50,000		
70	Fire stopping floors	1	ls	25,000.00	25,000		
71	SUBTOTAL					4,221,551	
72							
73	B1020 ROOF CONSTRUCTION						
74	<u>Roof Structure - Steel:</u>						
75	Steel beams and columns to new addition; 14.5#/SF	847	tns	3,800.00	3,218,600		
76	Premium for HSS	212	tns	300.00	63,600		
77	Exposed steel	1	ls	50,000.00	50,000		
78	<u>Roof Structure</u>						
79	Acoustic deck allowance	5,000	sf	9.00	45,000		
80	3" 20 Ga. galvanized Metal Roof Deck	111,843	sf	3.50	391,451		
81	<u>Miscellaneous</u>						
82	Concrete under RTU's	8,500	sf	10.00	85,000		
83	Fire proofing to columns, beams and deck	111,843	sf	3.00	335,529		
84	SUBTOTAL					4,189,180	
85							
86	TOTAL - SUPERSTRUCTURE						\$8,410,731
87							
88							
89	B20 EXTERIOR CLOSURE						
90							
91	B2010 EXTERIOR WALLS						
92	Exterior Wall Area	79,350	sf				
93							
94	055000 MISC. METALS						
95	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
96							
97							
98	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
99	Air barrier	79,350	sf	7.00	555,450		
100	Air barrier/flashing at windows	8,402	lf	6.25	52,513		
101	Miscellaneous sealants to closure	79,350	sf	1.00	79,350		
102							
103	072100 THERMAL INSULATION						
104	Insulation; 6" XPS	79,350	sf	5.50	436,425		
105	Insulation; 4" spray	79,350	sf	4.25	337,238		
106							
107	076400 CLADDING						
108	Metal panel; rainscreen system	79,350	sf	70.00	5,554,500		
109	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
110							
111	092900 GYPSUM BOARD ASSEMBLIES						
112	6" metal stud backup	79,350	sf	12.00	952,200		
113	Gypsum Sheathing	79,350	sf	2.75	218,213		
114	Drywall lining to interior face of stud backup	79,350	sf	3.50	277,725		
115							
116	SUBTOTAL					8,898,614	
117							
118	B2020 WINDOWS						
119	Exterior Wall Area	14,283	sf				
120							
121	061000 ROUGH CARPENTRY						
122	Wood blocking at openings	8,402	lf	12.00	100,824		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A2 NEW BUILDING							
123							
124	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
125	Backer rod & double sealant	8,402	lf	10.00	84,020		
126							
127	080001 METAL WINDOWS						
128	Windows, triple glazed; fiberglass	7,935	sf	125.00	991,875		
129	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	6,348	sf	165.00	1,047,420		
130	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
131							
132	089000 LOUVERS						
133	Louvers	250	sf	75.00	18,750		
134	SUBTOTAL					2,452,889	
135							
136	B2030 EXTERIOR DOORS						
137	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
138	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
139	Backer rod & double sealant	280	lf	10.00	2,800		
140	Wood blocking at openings	280	lf	3.00	840		
141	SUBTOTAL					101,640	
142							
143	TOTAL - EXTERIOR CLOSURE						\$11,453,143
144							
145							
146	B30 ROOFING						
147							
148	B3010 ROOF COVERINGS						
149	New roofing complete; TPO 8" Insulation	116,843	sf	24.00	2,804,232		
150	SUBTOTAL					2,804,232	
151							
152	B3020 ROOF OPENINGS						
153	Skylights, allow	1	ls	30,000.00	30,000		
154	Roof hatch	1	loc	2,500.00	2,500		
155	SUBTOTAL					32,500	
156							
157	TOTAL - ROOFING						\$2,836,732
158							
159							
160	C10 INTERIOR CONSTRUCTION						
161							
162	C1010 PARTITIONS						
163	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	204,107	gsf	24.00	4,898,568		
164	SUBTOTAL					4,898,568	
165							
166	C1020 INTERIOR DOORS						
167	Interior doors, frames and hardware	204,107	gsf	6.00	1,224,642		
168	SUBTOTAL					1,224,642	
169							
170	C1030 SPECIALTIES / MILLWORK						
171	Toilet Partitions and accessories	204,107	gsf	1.00	204,107		
172	Backer panels in electrical closets	1	ls	1,000.00	1,000		
173	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	204,107	sf	1.25	255,134		
174	Room Signs	204,107	gsf	0.50	102,054		
175	Fire extinguisher cabinets	68	ea	350.00	23,800		
176	Lockers, full height	710	ea	350.00	248,500		
177	New catwalk	1	ls	100,000.00	100,000		
178	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
179	Janitors Closet Accessories	3	rms	300.00	900		
180	<u>Media</u>						
181	Reception desks	2	loc	25,000	50,000		
182	Railings to open to below areas	151	lf	300	45,300		
183	Library shelving at perimeters 7' Tall				F,F & E		
184	Library shelving at perimeters 3' Tall				F,F & E		
185	Stage proscenium	1	ls	100,000	100,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A2 NEW BUILDING							
186	Display cases	204,107	sf	0.25	51,027		
187	Miscellaneous metals throughout building	204,107	sf	1.25	255,134		
188	Miscellaneous sealants throughout building	204,107	sf	1.50	306,161		
189	SUBTOTAL					1,744,617	
TOTAL - INTERIOR CONSTRUCTION							\$7,867,827
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
197	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
198	Main staircase	2	flt	50,000.00	100,000		
199	Concrete fill to stairs	4	flt	2,000.00	8,000		
200	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
203	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
204	Rubber tile at stairs - landings	400	sf	10.00	4,000		
205	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
206	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
213	Wall finishes	204,107	sf	14.00	2,857,498		
214	SUBTOTAL					2,857,498	
C3020 FLOOR FINISHES							
218	Floor finishes	204,107	sf	9.00	1,836,963		
219	SUBTOTAL					1,836,963	
C3030 CEILING FINISHES							
222	Ceiling finishes	204,107	sf	11.00	2,245,177		
223	SUBTOTAL					2,245,177	
TOTAL - INTERIOR FINISHES							\$6,939,638
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
231	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
232	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
239	Plumbing; complete system	204,107	sf	16.00	3,265,712		
240	SUBTOTAL					3,265,712	
TOTAL - PLUMBING							\$3,265,712
D30 HVAC							
D30 HVAC, GENERALLY							
249	New HVAC system; Geoexchange	204,107	gsf	70.00	14,287,490		
250	SUBTOTAL					14,287,490	
TOTAL - HVAC							\$14,287,490
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A2 NEW BUILDING							
258	Fire protection system	204,107	gsf	6.00	1,224,642		
259	SUBTOTAL					1,224,642	
TOTAL - FIRE PROTECTION							\$1,224,642
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
269	Normal power distribution switchgear & feeders	204,107	sf	5.00	1,020,535		
270	Emergency power						
271	Emergency power distribution switchgear & feeders	204,107	sf	3.00	612,321		
272	Equipment Wiring						
273	Equipment wiring	204,107	sf	2.25	459,241		
274	SUBTOTAL					2,092,097	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
278	Lighting fixtures (LED as BOD) with installation labor	204,107	sf	6.00	1,224,642		
279	Lighting control system						
280	Lighting controls including interface with DDC	204,107	sf	1.75	357,187		
281	Branch devices						
282	Branch devices	204,107	sf	0.50	102,054		
283	Lighting and branch circuitry						
284	Lighting & branch circuitry	204,107	sf	5.00	1,020,535		
285	SUBTOTAL					2,704,418	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
290	Fire alarm system	204,107	sf	3.00	612,321		
Bi-Directional System							
292	BDA system	204,107	sf	0.50	102,054		
Security System							
293	Security System	204,107	sf	2.50	510,268		
Telephone/Data/CATV							
294	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
295	Telecommunications rough in	204,107	sf	1.50	306,161		
296	Telecommunications devices and cabling	204,107	sf	2.00	408,214		
Public Address/Clock System							
297	PA/Master Clock system	204,107	sf	1.25	255,134		
Audio Visual (rough-in and power only)							
298	AV equipment					By Owner	
299	Rough-In conduit and backboxes only	204,107	sf	1.00	204,107		
Auditorium							
300	Rigging system equipment & installation					See equipment	
301	Power to rigging equipment	1	ls	12,000.00	12,000		
302	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
303	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
304	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
305	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
306	Gymnasium						
307	Sound system	1	ls	50,000.00	50,000		
308	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	30,000		
309	Misc. gym equipment feed and connections	1	ls	25,000.00	25,000		
310	SUBTOTAL					3,070,259	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
319	Temp power and lights	204,107	sf	1.00	204,107		
320	Seismic restraints	1	ls	15,000.00	15,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A2 NEW BUILDING							
322	Lightning Protection System, UL Master label	204,107	sf	0.45	91,848		
323	Fees & Permits	204,107	sf	0.50	102,054		
324	SUBTOTAL					413,009	
TOTAL - ELECTRICAL							\$8,279,783
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
330	Gym wall pads	1	ls	20,000.00	20,000		
332	Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000		
333	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
334	Volleyball net and standards	1	ls	5,000.00	5,000		
335	Telescoping bleachers	900	seats	240.00	216,000		
336	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
337	Theatrical AV allowance	1	ls	200,000.00	200,000		
338	Kitchen equipment	2,030	sf	220.00	446,600		
339	Auditorium seats	750	seat	350.00	262,500		
340	SUBTOTAL					1,710,100	
TOTAL - EQUIPMENT							\$1,710,100
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
348	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
349	Window blinds	14,283	sf	7.00	99,981		
350	123553 CASEWORK						
351	Sinks, counters and casework; allowance	204,107	sf	10.00	2,041,070		
352	SUBTOTAL					2,168,551	
E2020 MOVABLE FURNISHINGS							
353	All movable furnishings to be provided and installed by owner						NIC
354	SUBTOTAL						
TOTAL - FURNISHINGS							\$2,168,551
F10 SPECIAL CONSTRUCTION							
F10 SPECIAL CONSTRUCTION							
363	No items in this section						
364	SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
F2010 BUILDING ELEMENTS DEMOLITION							
373	No items in this section						
374	SUBTOTAL						
F2020 HAZARDOUS COMPONENTS ABATEMENT							
375	See main summary for HazMat allowance						See Summary
376	SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK OPTION 3 NEW BUILDING							
G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
5	Site construction fence/barricades	3,657	lf	18.00	65,826		
6	Site construction fence gates	1	ea	10,000.00	10,000		
7	Stabilized construction entrance	1	ls	15,000.00	15,000		
8	Pavement/curbing removal, crush and re-use for sub-base	242,276	sf	1.00	242,276		
9	Walkways	1	ls	20,000.00	20,000		
10	Miscellaneous demolition	1	ls	150,000.00	150,000		
11	Temporary parking	250	spc	2,000.00	500,000		
12	Blasting for temporary parking	1	ls	150,000.00	150,000		
Site Earthwork							
13	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368		
14	Fine grading	200,000	sf	0.20	40,000		
15	Cut and Fill; assumed AV 1ft; balanced site	7,407	cy	15.00	111,105		
16	Silt fence/erosion control, wash bays, stock piles	3,657	lf	12.00	43,884		
17	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000		
Hazardous Waste Remediation							
18	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000		
19	Dispose/treat contaminated soils	1	ls	20,000.00	20,000		
20	SUBTOTAL					1,508,459	
G20 SITE IMPROVEMENTS							
21	Asphalt Paving; parking lot and roadway	242,276					
22	gravel base; 12" thick	8,973	cy	40.00	358,920		
23	asphalt; 4" thick	26,920	sy	25.00	673,000		
24	VGC	9,691	lf	40.00	387,640		
25	Single solid lines, 4" thick	1	ls	10,000.00	10,000		
26	Crosswalk Hatching	4	loc	900.00	3,600		
27	Other road markings	1	ls	7,500.00	7,500		
28	HC curb cuts	8	loc	350.00	2,800		
29	Signage	1	ls	20,000.00	20,000		
Pedestrian Paving							
30	Concrete paving						
31	gravel base; 8" thick	372	cy	35.00	13,020		
32	4" concrete paving	15,000	sf	7.00	105,000		
33	Drop Off Plaza	16,152	sf				
34	Precast pavers; 50%	8,076	sf	40.00	323,040		
35	Poured in place rubber safety surface; 25%	4,038	sf	26.00	104,988		
36	Planted areas; 25%	4,038	sf	10.00	40,380		
37	Pre-K Playground	3,000	sf		-		
38	Rubber surface	3,000	sf	35.00	105,000		
39	Play equipment	1	loc	50,000.00	50,000		
Site Athletics							
40	Baseball/Field Hockey	1	ea	240,000.00	240,000		
41	Natural grass soccer field	1	ea	350,000.00	350,000		
42	Softball field	1	ea	200,000.00	200,000		
43	Tennis courts - Six Courts	1	ea	480,000.00	480,000		
Site Improvements							
44	Flag pole 50' high	1	ea	6,500.00	6,500		
45	Concrete retaining walls; AV 9ft high	910	lf	790.00	718,900		
46	Other site improvements; walls, fences etc.	1	ls	200,000.00	200,000		
47	Outdoor dining	1	ls	50,000.00	50,000		
48	SUBTOTAL					4,450,288	
Landscaping							
49	Topsoil - Import new topsoil; minimum 6"	1,111	cy	65.00	72,215		
50	Green space	60,000	sf	10.00	600,000		
51	SUBTOTAL					672,215	
G30 CIVIL MECHANICAL UTILITIES							
52	Water supply. Pricing includes E&B and bedding						
53	New DI piping; 8"	450	lf	100.00	45,000		

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SITework OPTION 3 NEW BUILDING								
66	New DI piping; 8" Fire loop	2,000	lf	100.00	200,000			
67	Connect to existing	1	loc	5,000.00	5,000			
68	FD connection	1	ea	2,000.00	2,000			
69	Gate valves	8	ea	750.00	6,000			
70	Fire hydrant	3	ea	5,000.00	15,000			
71	<u>Sanitary: Pricing includes E&B and bedding</u>							
72	Manholes	4	ea	4,000.00	16,000			
73	Grease trap	1	ea	15,000.00	15,000			
74	8" PVC	1,000	lf	60.00	60,000			
75	Connect to existing drain	1	ea	3,000.00	3,000			
76	<u>Storm water: Pricing includes E&B and bedding</u>							
77	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828			
78	Infiltration systems; cultec chambers	137,500	cf	8.00	1,100,000			
79	Rock excavation	1	ls	250,000.00	250,000			
80	Catch basins	12	ea	3,800.00	45,600			
81	Manholes	10	ea	4,500.00	45,000			
82	WQ structures	3	ea	16,000.00	48,000			
83	Area drains	4	ea	1,500.00	6,000			
84	Work to culvert	1	ls	250,000.00	250,000			
85	<u>Gas service</u>							
86	E&B trench for new gas pipe - install by plumbing	450	lf	25.00	11,250			
87	SUBTOTAL							2,849,678
88	G40 ELECTRICAL UTILITIES							
89	<u>Power</u>							
91	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.			
93	Connections at existing manhole				Utility co.			
94	Manhole	1	ls	8,500.00	8,500			
95	Connections in manhole	1	ls	3,500.00	3,500			
96	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000			
97	Transformer by utility company				By Utility Co.			
98	Transformer pad	1	ea	2,500.00	2,500			
99	Secondary service	60	lf	1,100.00	66,000			
100	<u>Communications</u>							
101	Connection at riser pole, allow	1	ea	1,500.00	1,500			
102	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000			
103	<u>Site Lighting</u>							
104	Site Parking lighting (allow)	1	ls	150,000.00	150,000			
105	SUBTOTAL							504,000
106	TOTAL - SITE DEVELOPMENT						\$9,984,640	



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A3 NEW BUILDING					
A10 FOUNDATIONS					
A1010 Standard Foundations	\$1,904,976				
A1020 Special Foundations	\$0				
A1030 Lowest Floor Construction	\$1,775,546	\$3,680,522	\$18.03	5.1%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$4,129,175				
B1020 Roof Construction	\$4,265,597	\$8,394,772	\$41.13	11.6%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$8,581,824				
B2020 Windows	\$2,369,564				
B2030 Exterior Doors	\$101,640	\$11,053,028	\$54.15	15.3%	
B30 ROOFING					
B3010 Roof Coverings	\$2,857,464				
B3020 Roof Openings	\$32,500	\$2,889,964	\$14.16	4.0%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$4,898,568				
C1020 Interior Doors	\$1,224,642				
C1030 Specialties/Millwork	\$1,744,617	\$7,867,827	\$38.55	10.9%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.00	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,857,498				
C3020 Floor Finishes	\$1,836,963				
C3030 Ceiling Finishes	\$2,245,177	\$6,939,638	\$34.00	9.6%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.59	0.2%	
D20 PLUMBING					
D20 Plumbing	\$3,265,712	\$3,265,712	\$16.00	4.5%	
D30 HVAC					
D30 HVAC	\$14,287,490	\$14,287,490	\$70.00	19.8%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4A3 NEW BUILDING					
D40 FIRE PROTECTION					
D40 Fire Protection	\$1,224,642	\$1,224,642	\$6.00	1.7%	
D50 ELECTRICAL					
D5010 Complete System	\$8,279,783	\$8,279,783	\$40.57	11.5%	
E10 EQUIPMENT					
E10 Equipment	\$1,710,100	\$1,710,100	\$8.38	2.4%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,164,806				
E2020 Movable Furnishings	NIC	\$2,164,806	\$10.61	3.0%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$72,081,433	\$353.16	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
GROSS FLOOR AREA CALCULATION							
	Level 2				85,046		
	Level 1				119,061		
TOTAL GROSS FLOOR AREA (GFA)						204,107 sf	
A10 FOUNDATIONS							
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations	119,061	sf	16.00	1,904,976		
	SUBTOTAL					1,904,976	
A1020 SPECIAL FOUNDATIONS	No work assumed						
	SUBTOTAL						
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick						
	Gravel fill, 12"	4,410	cy	40.00	176,400		
	Rigid insulation	119,061	sf	2.25	267,887		
	Vapor barrier	119,061	sf	1.00	119,061		
	Compact existing sub-grade	119,061	sf	0.50	59,531		
	Mesh reinforcing 15% lap	136,920	sf	1.15	157,458		
	Concrete - 5" thick; 4,000 psi	1,945	cy	125.00	243,125		
	Placing concrete	1,945	cy	45.00	87,525		
	Finishing and curing concrete	119,061	sf	2.50	297,653		
	Control joints - saw cut	119,061	sf	0.10	11,906		
	Miscellaneous						
	Premium for rock excavation to 100% of foundations	1	ls	250,000.00	250,000		
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000		
	New Elevator pit	1	ea	40,000.00	40,000		
	Equipment pads	1	ls	15,000.00	15,000		
	SUBTOTAL					1,775,546	
TOTAL - FOUNDATIONS						\$3,680,522	
A20 BASEMENT CONSTRUCTION							
A2010 BASEMENT EXCAVATION	SUBTOTAL						
A2020 BASEMENT WALLS	SUBTOTAL						
TOTAL - BASEMENT CONSTRUCTION							
B10 SUPERSTRUCTURE							
		14.50	lbs/sf				
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:	1,480	tns				
	Steel beams and columns to new addition; 14.5#/SF	617	tns	3,800.00	2,344,600		
	Premium for HSS	154	tns	300.00	46,200		
	Shear studs	17,009	ea	2.50	42,523		
	Floor Structure						
	2" 18 Ga. Metal galvanized floor Deck	85,046	sf	4.00	340,184		
	WWF reinforcement	97,803	sf	0.80	78,242		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
62	Concrete Fill to metal deck; 6" Normal Weight	1,984	cy	135.00	267,840		
63	Place and finish concrete	85,046	sf	2.50	212,615		
64	Rebar to decks	25,514	lbs	1.20	30,617		
65	Misc. angles	85,046	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Allowance for running track	1	ls	500,000.00	500,000		
68	Fire proofing to columns and beams	85,046	sf	2.25	191,354		
69	Intumescent paint	1	ls	50,000.00	50,000		
70	Fire stopping floors	1	ls	25,000.00	25,000		
71	SUBTOTAL					4,129,175	
72							
73	B1020 ROOF CONSTRUCTION						
74	<u>Roof Structure - Steel:</u>						
75	Steel beams and columns to new addition; 14.5#/SF	863	tns	3,800.00	3,279,400		
76	Premium for HSS	216	tns	300.00	64,800		
77	Exposed steel	1	ls	50,000.00	50,000		
78	<u>Roof Structure</u>						
79	Acoustic deck allowance	5,000	sf	9.00	45,000		
80	3" 20 Ga. galvanized Metal Roof Deck	114,061	sf	3.50	399,214		
81	<u>Miscellaneous</u>						
82	Concrete under RTU's	8,500	sf	10.00	85,000		
83	Fire proofing to columns, beams and deck	114,061	sf	3.00	342,183		
84	SUBTOTAL					4,265,597	
85							
86	TOTAL - SUPERSTRUCTURE						\$8,394,772
87							
88							
89	B20 EXTERIOR CLOSURE						
90							
91	B2010 EXTERIOR WALLS						
92	Exterior Wall Area	76,380	sf				
93							
94	055000 MISC. METALS						
95	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
96							
97							
98	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
99	Air barrier	76,380	sf	7.00	534,660		
100	Air barrier/flashing at windows	8,087	lf	6.25	50,544		
101	Miscellaneous sealants to closure	76,380	sf	1.00	76,380		
102							
103	072100 THERMAL INSULATION						
104	Insulation; 6" XPS	76,380	sf	5.50	420,090		
105	Insulation; 4" spray	76,380	sf	4.25	324,615		
106							
107	076400 CLADDING						
108	Metal panel; rainscreen system	76,380	sf	70.00	5,346,600		
109	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
110							
111	092900 GYPSUM BOARD ASSEMBLIES						
112	6" metal stud backup	76,380	sf	12.00	916,560		
113	Gypsum Sheathing	76,380	sf	2.75	210,045		
114	Drywall lining to interior face of stud backup	76,380	sf	3.50	267,330		
115							
116	SUBTOTAL					8,581,824	
117							
118	B2020 WINDOWS						
119	Exterior Wall Area	13,748	sf				
120							
121	061000 ROUGH CARPENTRY						
122	Wood blocking at openings	8,087	lf	12.00	97,044		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
123							
124	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
125	Backer rod & double sealant	8,087	lf	10.00	80,870		
126							
127	080001 METAL WINDOWS						
128	Windows, triple glazed; fiberglass	7,638	sf	125.00	954,750		
129	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	6,110	sf	165.00	1,008,150		
130	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
131							
132	089000 LOUVERS						
133	Louvers	250	sf	75.00	18,750		
134	SUBTOTAL					2,369,564	
135							
136	B2030 EXTERIOR DOORS						
137	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
138	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
139	Backer rod & double sealant	280	lf	10.00	2,800		
140	Wood blocking at openings	280	lf	3.00	840		
141	SUBTOTAL					101,640	
142							
143	TOTAL - EXTERIOR CLOSURE						\$11,053,028
144							
145							
146	B30 ROOFING						
147							
148	B3010 ROOF COVERINGS						
149	New roofing complete; TPO 8" Insulation	119,061	sf	24.00	2,857,464		
150	SUBTOTAL					2,857,464	
151							
152	B3020 ROOF OPENINGS						
153	Skylights, allow	1	ls	30,000.00	30,000		
154	Roof hatch	1	loc	2,500.00	2,500		
155	SUBTOTAL					32,500	
156							
157	TOTAL - ROOFING						\$2,889,964
158							
159							
160	C10 INTERIOR CONSTRUCTION						
161							
162	C1010 PARTITIONS						
163	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	204,107	gsf	24.00	4,898,568		
164	SUBTOTAL					4,898,568	
165							
166	C1020 INTERIOR DOORS						
167	Interior doors, frames and hardware	204,107	gsf	6.00	1,224,642		
168	SUBTOTAL					1,224,642	
169							
170	C1030 SPECIALTIES / MILLWORK						
171	Toilet Partitions and accessories	204,107	gsf	1.00	204,107		
172	Backer panels in electrical closets	1	ls	1,000.00	1,000		
173	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	204,107	sf	1.25	255,134		
174	Room Signs	204,107	gsf	0.50	102,054		
175	Fire extinguisher cabinets	68	ea	350.00	23,800		
176	Lockers, full height	710	ea	350.00	248,500		
177	New catwalk	1	ls	100,000.00	100,000		
178	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
179	Janitors Closet Accessories	3	rms	300.00	900		
180	<u>Media</u>						
181	Reception desks	2	loc	25,000	50,000		
182	Railings to open to below areas	151	lf	300	45,300		
183	Library shelving at perimeters 7' Tall				F,F & E		
184	Library shelving at perimeters 3' Tall				F,F & E		
185	Stage proscenium	1	ls	100,000	100,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
186	Display cases	204,107	sf	0.25	51,027		
187	Miscellaneous metals throughout building	204,107	sf	1.25	255,134		
188	Miscellaneous sealants throughout building	204,107	sf	1.50	306,161		
189	SUBTOTAL					1,744,617	
TOTAL - INTERIOR CONSTRUCTION							\$7,867,827
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
197	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
198	Main staircase	2	flt	50,000.00	100,000		
199	Concrete fill to stairs	4	flt	2,000.00	8,000		
200	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
203	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
204	Rubber tile at stairs - landings	400	sf	10.00	4,000		
205	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
206	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
214	Wall finishes	204,107	sf	14.00	2,857,498		
215	SUBTOTAL					2,857,498	
C3020 FLOOR FINISHES							
218	Floor finishes	204,107	sf	9.00	1,836,963		
219	SUBTOTAL					1,836,963	
C3030 CEILING FINISHES							
222	Ceiling finishes	204,107	sf	11.00	2,245,177		
223	SUBTOTAL					2,245,177	
TOTAL - INTERIOR FINISHES							\$6,939,638
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
231	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
232	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
240	Plumbing; complete system	204,107	sf	16.00	3,265,712		
241	SUBTOTAL					3,265,712	
TOTAL - PLUMBING							\$3,265,712
D30 HVAC							
D30 HVAC, GENERALLY							
249	New HVAC system; Geoexchange	204,107	gsf	70.00	14,287,490		
250	SUBTOTAL					14,287,490	
TOTAL - HVAC							\$14,287,490
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
258	Fire protection system	204,107	gsf	6.00	1,224,642		
259	SUBTOTAL					1,224,642	
TOTAL - FIRE PROTECTION							\$1,224,642
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
269	Normal power distribution switchgear & feeders	204,107	sf	5.00	1,020,535		
270	Emergency power						
271	Emergency power distribution switchgear & feeders	204,107	sf	3.00	612,321		
272	Equipment Wiring						
273	Equipment wiring	204,107	sf	2.25	459,241		
274	SUBTOTAL					2,092,097	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
279	Lighting fixtures (LED as BOD) with installation labor	204,107	sf	6.00	1,224,642		
280	Lighting control system						
281	Lighting controls including interface with DDC	204,107	sf	1.75	357,187		
282	Branch devices						
283	Branch devices	204,107	sf	0.50	102,054		
284	Lighting and branch circuitry						
285	Lighting & branch circuitry	204,107	sf	5.00	1,020,535		
286	SUBTOTAL					2,704,418	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
291	Fire alarm system	204,107	sf	3.00	612,321		
292	Bi-Directional System						
293	BDA system	204,107	sf	0.50	102,054		
294	Security System						
295	Security System	204,107	sf	2.50	510,268		
296	Telephone/Data/CATV						
297	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
298	Telecommunications rough in	204,107	sf	1.50	306,161		
299	Telecommunications devices and cabling	204,107	sf	2.00	408,214		
300	Public Address/Clock System						
301	PA/Master Clock system	204,107	sf	1.25	255,134		
302	Audio Visual (rough-in and power only)						
303	AV equipment					By Owner	
304	Rough-In conduit and backboxes only	204,107	sf	1.00	204,107		
305	Auditorium						
306	Rigging system equipment & installation					See equipment	
307	Power to rigging equipment	1	ls	12,000.00	12,000		
308	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
309	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
310	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
311	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
312	Gymnasium						
313	Sound system	1	ls	50,000.00	50,000		
314	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	30,000		
315	Misc. gym equipment feed and connections	1	ls	25,000.00	25,000		
316	SUBTOTAL					3,070,259	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
320	Temp power and lights	204,107	sf	1.00	204,107		
321	Seismic restraints	1	ls	15,000.00	15,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4A3 NEW BUILDING							
322	Lightning Protection System, UL Master label	204,107	sf	0.45	91,848		
323	Fees & Permits	204,107	sf	0.50	102,054		
324	SUBTOTAL					413,009	
TOTAL - ELECTRICAL							\$8,279,783
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
331	Gym wall pads	1	ls	20,000.00	20,000		
332	Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000		
333	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
334	Volleyball net and standards	1	ls	5,000.00	5,000		
335	Telescoping bleachers	900	seats	240.00	216,000		
336	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
337	Theatrical AV allowance	1	ls	200,000.00	200,000		
338	Kitchen equipment	2,030	sf	220.00	446,600		
339	Auditorium seats	750	seat	350.00	262,500		
340	SUBTOTAL					1,710,100	
TOTAL - EQUIPMENT							\$1,710,100
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
349	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
350	Window blinds	13,748	sf	7.00	96,236		
E2011 CASEWORK							
352	Sinks, counters and casework; allowance	204,107	sf	10.00	2,041,070		
353	SUBTOTAL					2,164,806	
E2020 MOVABLE FURNISHINGS							
354	All movable furnishings to be provided and installed by owner						NIC
TOTAL - FURNISHINGS							\$2,164,806
F10 SPECIAL CONSTRUCTION							
F10 SPECIAL CONSTRUCTION							
361	No items in this section						
362	SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
F2010 BUILDING ELEMENTS DEMOLITION							
371	No items in this section						
372	SUBTOTAL						
F2020 HAZARDOUS COMPONENTS ABATEMENT							
373	See main summary for HazMat allowance						See Summary
374	SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK OPTION 4 NEW BUILDING							
G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
	Site construction fence/barricades	3,657	lf	18.00	65,826		
	Site construction fence gates	1	ea	10,000.00	10,000		
	Stabilized construction entrance	1	ls	15,000.00	15,000		
	Pavement/curbing removal, crush and re-use for sub-base	242,276	sf	1.00	242,276		
	Walkways	1	ls	20,000.00	20,000		
	Miscellaneous demolition	1	ls	150,000.00	150,000		
	Temporary parking	250	spc	2,000.00	500,000		
	Blasting for temporary parking	1	ls	150,000.00	150,000		
Site Earthwork							
	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368		
	Fine grading	200,000	sf	0.20	40,000		
	Cut and Fill; assumed AV 1ft; balanced site	7,407	cy	15.00	111,105		
	Silt fence/erosion control, wash bays, stock piles	3,657	lf	12.00	43,884		
	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000		
Hazardous Waste Remediation							
	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000		
	Dispose/treat contaminated soils	1	ls	20,000.00	20,000		
	SUBTOTAL					1,508,459	
G20 SITE IMPROVEMENTS							
	Asphalt Paving; parking lot and roadway	242,276					
	gravel base; 12" thick	8,973	cy	40.00	358,920		
	asphalt; 4" thick	26,920	sy	25.00	673,000		
	VGC	9,691	lf	40.00	387,640		
	Single solid lines, 4" thick	1	ls	10,000.00	10,000		
	Crosswalk Hatching	4	loc	900.00	3,600		
	Other road markings	1	ls	7,500.00	7,500		
	HC curb cuts	8	loc	350.00	2,800		
	Signage	1	ls	20,000.00	20,000		
Pedestrian Paving							
	Concrete paving						
	gravel base; 8" thick	372	cy	35.00	13,020		
	4" concrete paving	15,000	sf	7.00	105,000		
Drop Off Plaza							
	Precast pavers; 50%	8,076	sf	40.00	323,040		
	Poured in place rubber safety surface; 25%	4,038	sf	26.00	104,988		
	Planted areas; 25%	4,038	sf	10.00	40,380		
Pre-K Playground							
	Rubber surface	3,000	sf	35.00	105,000		
	Play equipment	1	loc	50,000.00	50,000		
Site Athletics							
	Baseball/Field Hockey	1	ea	240,000.00	240,000		
	Natural grass soccer field	1	ea	350,000.00	350,000		
	Softball field	1	ea	200,000.00	200,000		
	Tennis courts - Six Courts	1	ea	480,000.00	480,000		
Site Improvements							
	Flag pole 50' high	1	ea	6,500.00	6,500		
	Concrete retaining walls; AV 9ft high	910	lf	790.00	718,900		
	Concrete retaining walls to Northeast	1	ls	250,000.00	250,000		
	Other site improvements; walls, fences etc.	1	ls	200,000.00	200,000		
	Outdoor dining	1	ls	50,000.00	50,000		
	SUBTOTAL					4,700,288	
Landscaping							
	Topsoil - Import new topsoil; minimum 6"	1,111	cy	65.00	72,215		
	Green space	60,000	sf	10.00	600,000		
	SUBTOTAL					672,215	
G30 CIVIL MECHANICAL UTILITIES							
	Water supply; Pricing includes E&B and bedding						

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SITework OPTION 4 NEW BUILDING								
66	New DI piping; 8"	450	lf	100.00	45,000			
67	New DI piping; 8" Fire loop	2,000	lf	100.00	200,000			
68	Connect to existing	1	loc	5,000.00	5,000			
69	FD connection	1	ea	2,000.00	2,000			
70	Gate valves	8	ea	750.00	6,000			
71	Fire hydrant	3	ea	5,000.00	15,000			
72	<u>Sanitary: Pricing includes E&B and bedding</u>							
73	Manholes	4	ea	4,000.00	16,000			
74	Grease trap	1	ea	15,000.00	15,000			
75	8" PVC	1,000	lf	60.00	60,000			
76	Connect to existing drain	1	ea	3,000.00	3,000			
77	<u>Storm water: Pricing includes E&B and bedding</u>							
78	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828			
79	Infiltration systems; cultec chambers	137,500	cf	8.00	1,100,000			
80	Rock excavation	1	ls	250,000.00	250,000			
81	Catch basins	12	ea	3,800.00	45,600			
82	Manholes	10	ea	4,500.00	45,000			
83	WQ structures	3	ea	16,000.00	48,000			
84	Area drains	4	ea	1,500.00	6,000			
85	Work to culvert	1	ls	250,000.00	NR			
86	<u>Gas service</u>							
87	E&B trench for new gas pipe - install by plumbing	450	lf	25.00	11,250			
88	SUBTOTAL						2,599,678	
90	G40 ELECTRICAL UTILITIES							
92	<u>Power</u>							
93	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.			
94	Connections at existing manhole				Utility co.			
95	Manhole	1	ls	8,500.00	8,500			
96	Connections in manhole	1	ls	3,500.00	3,500			
97	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000			
98	Transformer by utility company				By Utility Co.			
99	Transformer pad	1	ea	2,500.00	2,500			
100	Secondary service	60	lf	1,100.00	66,000			
101	<u>Communications</u>							
102	Connection at riser pole, allow	1	ea	1,500.00	1,500			
103	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000			
104	<u>Site Lighting</u>							
105	Site Parking lighting (allow)	1	ls	150,000.00	150,000			
106	SUBTOTAL						504,000	
TOTAL - SITE DEVELOPMENT						\$9,984,640		



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4B NEW BUILDING					
A10 FOUNDATIONS					
A1010 Standard Foundations	\$1,775,632				
A1020 Special Foundations	\$0				
A1030 Lowest Floor Construction	\$1,679,083	\$3,454,715	\$16.93	4.8%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$4,464,715				
B1020 Roof Construction	\$3,988,151	\$8,452,866	\$41.41	11.8%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$8,466,631				
B2020 Windows	\$2,339,366				
B2030 Exterior Doors	\$101,640	\$10,907,637	\$53.44	15.2%	
B30 ROOFING					
B3010 Roof Coverings	\$2,663,448				
B3020 Roof Openings	\$32,500	\$2,695,948	\$13.21	3.8%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$4,898,568				
C1020 Interior Doors	\$1,224,642				
C1030 Specialties/Millwork	\$1,744,617	\$7,867,827	\$38.55	11.0%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.00	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,857,498				
C3020 Floor Finishes	\$1,836,963				
C3030 Ceiling Finishes	\$2,245,177	\$6,939,638	\$34.00	9.7%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.59	0.2%	
D20 PLUMBING					
D20 Plumbing	\$3,265,712	\$3,265,712	\$16.00	4.6%	
D30 HVAC					
D30 HVAC	\$14,287,490	\$14,287,490	\$70.00	20.0%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4B NEW BUILDING					
D40 FIRE PROTECTION					
D40 Fire Protection	\$1,224,642	\$1,224,642	\$6.00	1.7%	
D50 ELECTRICAL					
D5010 Complete System	\$8,279,783	\$8,279,783	\$40.57	11.6%	
E10 EQUIPMENT					
E10 Equipment	\$1,710,100	\$1,710,100	\$8.38	2.4%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,163,448				
E2020 Movable Furnishings	NIC	\$2,163,448	\$10.60	3.0%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$71,572,955	\$350.66	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
OPTION 4B NEW BUILDING							
GROSS FLOOR AREA CALCULATION							
	Level 2				93,130		
	Level 1				110,977		
TOTAL GROSS FLOOR AREA (GFA)						204,107	sf
A10 FOUNDATIONS							
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations	110,977	sf	16.00	1,775,632		
SUBTOTAL							1,775,632
A1020 SPECIAL FOUNDATIONS	No work assumed						
SUBTOTAL							
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick						
	Gravel fill, 12"	4,110	cy	40.00	164,400		
	Rigid insulation	110,977	sf	2.25	249,698		
	Vapor barrier	110,977	sf	1.00	110,977		
	Compact existing sub-grade	110,977	sf	0.50	55,489		
	Mesh reinforcing 15% lap	127,624	sf	1.15	146,768		
	Concrete - 5" thick; 4,000 psi	1,813	cy	125.00	226,625		
	Placing concrete	1,813	cy	45.00	81,585		
	Finishing and curing concrete	110,977	sf	2.50	277,443		
	Control joints - saw cut	110,977	sf	0.10	11,098		
Miscellaneous							
	Premium for rock excavation to 100% of foundations	1	ls	250,000.00	250,000		
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000		
	New Elevator pit	1	ea	40,000.00	40,000		
	Equipment pads	1	ls	15,000.00	15,000		
SUBTOTAL							1,679,083
TOTAL - FOUNDATIONS						\$3,454,715	
A20 BASEMENT CONSTRUCTION							
A2010 BASEMENT EXCAVATION							
SUBTOTAL							-
A2020 BASEMENT WALLS							
SUBTOTAL							-
TOTAL - BASEMENT CONSTRUCTION							
B10 SUPERSTRUCTURE							
		14.50	lbs/sf		-		
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:	1,480	tns		-		
	Steel beams and columns to new addition; 14.5#/SF	675	tns	3,800.00	2,565,000		
	Premium for HSS	169	tns	300.00	50,700		
	Shear studs	18,626	ea	2.50	46,565		
	Floor Structure						
	2" 18 Ga. Metal galvanized floor Deck	93,130	sf	4.00	372,520		
	WWF reinforcement	107,100	sf	0.80	85,680		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4B NEW BUILDING							
62	Concrete Fill to metal deck; 6" Normal Weight	2,173	cy	135.00	293,355		
63	Place and finish concrete	93,130	sf	2.50	232,825		
64	Rebar to decks	27,939	lbs	1.20	33,527		
65	Misc. angles	93,130	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Allowance for running track	1	ls	500,000.00	500,000		
68	Fire proofing to columns and beams	93,130	sf	2.25	209,543		
69	Intumescent paint	1	ls	50,000.00	50,000		
70	Fire stopping floors	1	ls	25,000.00	25,000		
71	SUBTOTAL					4,464,715	
72							
73	B1020 ROOF CONSTRUCTION						
74	<u>Roof Structure - Steel:</u>						
75	Steel beams and columns to new addition; 14.5#/SF	805	tns	3,800.00	3,059,000		
76	Premium for HSS	201	tns	300.00	60,300		
77	Exposed steel	1	ls	50,000.00	50,000		
78	<u>Roof Structure</u>						
79	Acoustic deck allowance	5,000	sf	9.00	45,000		
80	3" 20 Ga. galvanized Metal Roof Deck	105,977	sf	3.50	370,920		
81	<u>Miscellaneous</u>						
82	Concrete under RTU's	8,500	sf	10.00	85,000		
83	Fire proofing to columns, beams and deck	105,977	sf	3.00	317,931		
84	SUBTOTAL					3,988,151	
85							
86	TOTAL - SUPERSTRUCTURE						\$8,452,866
87							
88							
89	B20 EXTERIOR CLOSURE						
90							
91	B2010 EXTERIOR WALLS						
92	Exterior Wall Area	75,300	sf				
93							
94	055000 MISC. METALS						
95	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
96							
97							
98	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
99	Air barrier	75,300	sf	7.00	527,100		
100	Air barrier/flashing at windows	7,973	lf	6.25	49,831		
101	Miscellaneous sealants to closure	75,300	sf	1.00	75,300		
102							
103	072100 THERMAL INSULATION						
104	Insulation; 6" XPS	75,300	sf	5.50	414,150		
105	Insulation; 4" spray	75,300	sf	4.25	320,025		
106							
107	076400 CLADDING						
108	Metal panel; rainscreen system	75,300	sf	70.00	5,271,000		
109	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
110							
111	092900 GYPSUM BOARD ASSEMBLIES						
112	6" metal stud backup	75,300	sf	12.00	903,600		
113	Gypsum Sheathing	75,300	sf	2.75	207,075		
114	Drywall lining to interior face of stud backup	75,300	sf	3.50	263,550		
115							
116	SUBTOTAL					8,466,631	
117							
118	B2020 WINDOWS						
119	Exterior Wall Area	13,554	sf				
120							
121	061000 ROUGH CARPENTRY						
122	Wood blocking at openings	7,973	lf	12.00	95,676		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4B NEW BUILDING							
123							
124	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
125	Backer rod & double sealant	7,973	lf	10.00	79,730		
126							
127	080001 METAL WINDOWS						
128	Windows, triple glazed; fiberglass	7,530	sf	125.00	941,250		
129	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	6,024	sf	165.00	993,960		
130	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
131							
132	089000 LOUVERS						
133	Louvers	250	sf	75.00	18,750		
134	SUBTOTAL					2,339,366	
135							
136	B2030 EXTERIOR DOORS						
137	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
138	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
139	Backer rod & double sealant	280	lf	10.00	2,800		
140	Wood blocking at openings	280	lf	3.00	840		
141	SUBTOTAL					101,640	
142							
143	TOTAL - EXTERIOR CLOSURE						\$10,907,637
144							
145							
146	B30 ROOFING						
147							
148	B3010 ROOF COVERINGS						
149	New roofing complete; TPO 8" Insulation	110,977	sf	24.00	2,663,448		
150	SUBTOTAL					2,663,448	
151							
152	B3020 ROOF OPENINGS						
153	Skylights, allow	1	ls	30,000.00	30,000		
154	Roof hatch	1	loc	2,500.00	2,500		
155	SUBTOTAL					32,500	
156							
157	TOTAL - ROOFING						\$2,695,948
158							
159							
160	C10 INTERIOR CONSTRUCTION						
161							
162	C1010 PARTITIONS						
163	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	204,107	gsf	24.00	4,898,568		
164	SUBTOTAL					4,898,568	
165							
166	C1020 INTERIOR DOORS						
167	Interior doors, frames and hardware	204,107	gsf	6.00	1,224,642		
168	SUBTOTAL					1,224,642	
169							
170	C1030 SPECIALTIES / MILLWORK						
171	Toilet Partitions and accessories	204,107	gsf	1.00	204,107		
172	Backer panels in electrical closets	1	ls	1,000.00	1,000		
173	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	204,107	sf	1.25	255,134		
174	Room Signs	204,107	gsf	0.50	102,054		
175	Fire extinguisher cabinets	68	ea	350.00	23,800		
176	Lockers, full height	710	ea	350.00	248,500		
177	New catwalk	1	ls	100,000.00	100,000		
178	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
179	Janitors Closet Accessories	3	rms	300.00	900		
180	<u>Media</u>						
181	Reception desks	2	loc	25,000	50,000		
182	Railings to open to below areas	151	lf	300	45,300		
183	Library shelving at perimeters 7' Tall				F,F & E		
184	Library shelving at perimeters 3' Tall				F,F & E		
185	Stage proscenium	1	ls	100,000	100,000		

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OPTION 4B NEW BUILDING							
186	Display cases	204,107	sf	0.25	51,027		
187	Miscellaneous metals throughout building	204,107	sf	1.25	255,134		
188	Miscellaneous sealants throughout building	204,107	sf	1.50	306,161		
189	SUBTOTAL					1,744,617	
TOTAL - INTERIOR CONSTRUCTION							\$7,867,827
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
197	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
198	Main staircase	2	flt	50,000.00	100,000		
199	Concrete fill to stairs	4	flt	2,000.00	8,000		
200	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
203	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
204	Rubber tile at stairs - landings	400	sf	10.00	4,000		
205	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
206	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
214	Wall finishes	204,107	sf	14.00	2,857,498		
215	SUBTOTAL					2,857,498	
C3020 FLOOR FINISHES							
218	Floor finishes	204,107	sf	9.00	1,836,963		
219	SUBTOTAL					1,836,963	
C3030 CEILING FINISHES							
222	Ceiling finishes	204,107	sf	11.00	2,245,177		
223	SUBTOTAL					2,245,177	
TOTAL - INTERIOR FINISHES							\$6,939,638
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
231	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
232	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
240	Plumbing; complete system	204,107	sf	16.00	3,265,712		
241	SUBTOTAL					3,265,712	
TOTAL - PLUMBING							\$3,265,712
D30 HVAC							
D30 HVAC, GENERALLY							
249	New HVAC system; Geoexchange	204,107	gsf	70.00	14,287,490		
250	SUBTOTAL					14,287,490	
TOTAL - HVAC							\$14,287,490
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							



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OPTION 4B NEW BUILDING							
258	Fire protection system	204,107	gsf	6.00	1,224,642		
259	SUBTOTAL					1,224,642	
TOTAL - FIRE PROTECTION							\$1,224,642
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
269	Normal power distribution switchgear & feeders	204,107	sf	5.00	1,020,535		
270	Emergency power						
271	Emergency power distribution switchgear & feeders	204,107	sf	3.00	612,321		
272	Equipment Wiring						
273	Equipment wiring	204,107	sf	2.25	459,241		
274	SUBTOTAL					2,092,097	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
279	Lighting fixtures (LED as BOD) with installation labor	204,107	sf	6.00	1,224,642		
280	Lighting control system						
281	Lighting controls including interface with DDC	204,107	sf	1.75	357,187		
282	Branch devices						
283	Branch devices	204,107	sf	0.50	102,054		
284	Lighting and branch circuitry						
285	Lighting & branch circuitry	204,107	sf	5.00	1,020,535		
286	SUBTOTAL					2,704,418	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
291	Fire alarm system	204,107	sf	3.00	612,321		
292	Bi-Directional System						
293	BDA system	204,107	sf	0.50	102,054		
294	Security System						
295	Security System	204,107	sf	2.50	510,268		
296	Telephone/Data/CATV						
297	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
298	Telecommunications rough in	204,107	sf	1.50	306,161		
299	Telecommunications devices and cabling	204,107	sf	2.00	408,214		
300	Public Address/Clock System						
301	PA/Master Clock system	204,107	sf	1.25	255,134		
302	Audio Visual (rough-in and power only)						
303	AV equipment					By Owner	
304	Rough-In conduit and backboxes only	204,107	sf	1.00	204,107		
305	Auditorium						
306	Rigging system equipment & installation					See equipment	
307	Power to rigging equipment	1	ls	12,000.00	12,000		
308	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
309	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
310	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
311	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
312	Gymnasium						
313	Sound system	1	ls	50,000.00	50,000		
314	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	30,000		
315	Misc. gym equipment feed and connections	1	ls	25,000.00	25,000		
316	SUBTOTAL					3,070,259	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
320	Temp power and lights	204,107	sf	1.00	204,107		
321	Seismic restraints	1	ls	15,000.00	15,000		

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OPTION 4B NEW BUILDING							
322	Lightning Protection System, UL Master label	204,107	sf	0.45	91,848		
323	Fees & Permits	204,107	sf	0.50	102,054		
324	SUBTOTAL					413,009	
TOTAL - ELECTRICAL							\$8,279,783
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
331	Gym wall pads	1	ls	20,000.00	20,000		
332	Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000		
333	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
334	Volleyball net and standards	1	ls	5,000.00	5,000		
335	Telescoping bleachers	900	seats	240.00	216,000		
336	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
337	Theatrical AV allowance	1	ls	200,000.00	200,000		
338	Kitchen equipment	2,030	sf	220.00	446,600		
339	Auditorium seats	750	seat	350.00	262,500		
340	SUBTOTAL					1,710,100	
TOTAL - EQUIPMENT							\$1,710,100
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
348	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
349	Window blinds	13,554	sf	7.00	94,878		
350	123553 CASEWORK						
351	Sinks, counters and casework; allowance	204,107	sf	10.00	2,041,070		
352	SUBTOTAL					2,163,448	
353	E2020 MOVABLE FURNISHINGS						
354	All movable furnishings to be provided and installed by owner						
355	SUBTOTAL					NIC	
TOTAL - FURNISHINGS							\$2,163,448
F10 SPECIAL CONSTRUCTION							
F10 SPECIAL CONSTRUCTION							
363	No items in this section						
364	SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
F2010 BUILDING ELEMENTS DEMOLITION							
373	No items in this section						
374	SUBTOTAL						
375	F2020 HAZARDOUS COMPONENTS ABATEMENT						
376	See main summary for HazMat allowance					See Summary	
377	SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITWORK OPTION 2 NEW BUILDING							
G SITEWORK							
G10 SITE PREPARATION & DEMOLITION							
	Site construction fence/barricades	3,657	lf	18.00	65,826		
	Site construction fence gates	1	ea	10,000.00	10,000		
	Stabilized construction entrance	1	ls	15,000.00	15,000		
	Pavement/curbing removal, crush and re-use for sub-base	242,276	sf	1.00	242,276		
	Walkways	1	ls	20,000.00	20,000		
	Miscellaneous demolition	1	ls	150,000.00	150,000		
	Temporary parking	250	spc	2,000.00	500,000		
	Blasting for temporary parking	1	ls	150,000.00	150,000		
Site Earthwork							
	Strip Topsoil and remove; 6" thick	3,148	cy	16.00	50,368		
	Fine grading	200,000	sf	0.20	40,000		
	Cut and Fill; assumed AV 1ft; balanced site	7,407	cy	15.00	111,105		
	Silt fence/erosion control, wash bays, stock piles	3,657	lf	12.00	43,884		
	Silt fence maintenance and monitoring	1	ls	40,000.00	40,000		
Hazardous Waste Remediation							
	Remove existing underground fuel storage tanks; 500 Gal	1	ls	50,000.00	50,000		
	Dispose/treat contaminated soils	1	ls	20,000.00	20,000		
	SUBTOTAL					1,508,459	
G20 SITE IMPROVEMENTS							
	Asphalt Paving; parking lot and roadway	242,276					
	gravel base; 12" thick	8,973	cy	40.00	358,920		
	asphalt; 4" thick	26,920	sy	25.00	673,000		
	VGC	9,691	lf	40.00	387,640		
	Single solid lines, 4" thick	1	ls	10,000.00	10,000		
	Crosswalk Hatching	4	loc	900.00	3,600		
	Other road markings	1	ls	7,500.00	7,500		
	HC curb cuts	8	loc	350.00	2,800		
	Signage	1	ls	20,000.00	20,000		
Pedestrian Paving							
	Concrete paving						
	gravel base; 8" thick	372	cy	35.00	13,020		
	4" concrete paving	15,000	sf	7.00	105,000		
	Drop Off Plaza	16,152	sf				
	Precast pavers; 50%	8,076	sf	40.00	323,040		
	Poured in place rubber safety surface; 25%	4,038	sf	26.00	104,988		
	Planted areas; 25%	4,038	sf	10.00	40,380		
	Pre-K Playground	3,000	sf				
	Rubber surface	3,000	sf	35.00	105,000		
	Play equipment	1	loc	50,000.00	50,000		
Site Athletics							
	Baseball/Field Hockey	1	ea	240,000.00	240,000		
	Natural grass soccer field	1	ea	350,000.00	350,000		
	Softball field	1	ea	200,000.00	200,000		
	Tennis courts - Six Courts	1	ea	480,000.00	480,000		
Site Improvements							
	Flag pole 50' high	1	ea	6,500.00	6,500		
	Concrete retaining walls; AV 9ft high	910	lf	790.00	718,900		
	Other site improvements; walls, fences etc.	1	ls	200,000.00	200,000		
	Outdoor dining	1	ls	50,000.00	50,000		
	SUBTOTAL					4,450,288	
Landscaping							
	Topsoil - Import new topsoil; minimum 6"	1,111	cy	65.00	72,215		
	Green space	60,000	sf	10.00	600,000		
	SUBTOTAL					672,215	
G30 CIVIL MECHANICAL UTILITIES							
Water supply: Pricing includes E&B and bedding							
	New DI piping; 8"	450	lf	100.00	45,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITEWORK OPTION 2 NEW BUILDING								
66	New DI piping; 8" Fire loop	2,000	lf	100.00	200,000			
67	Connect to existing	1	loc	5,000.00	5,000			
68	FD connection	1	ea	2,000.00	2,000			
69	Gate valves	8	ea	750.00	6,000			
70	Fire hydrant	3	ea	5,000.00	15,000			
71	<u>Sanitary: Pricing includes E&B and bedding</u>							
72	Manholes	4	ea	4,000.00	16,000			
73	Grease trap	1	ea	15,000.00	15,000			
74	8" PVC	1,000	lf	60.00	60,000			
75	Connect to existing drain	1	ea	3,000.00	3,000			
76	<u>Storm water: Pricing includes E&B and bedding</u>							
77	Allowance for new drainage systems; piping only	242,276	sf	3.00	726,828			
78	Infiltration systems; cultec chambers	137,500	cf	8.00	1,100,000			
79	Rock excavation	1	ls	250,000.00	250,000			
80	Catch basins	12	ea	3,800.00	45,600			
81	Manholes	10	ea	4,500.00	45,000			
82	WQ structures	3	ea	16,000.00	48,000			
83	Area drains	4	ea	1,500.00	6,000			
84	Work to culvert	1	ls	250,000.00	NR			
85	<u>Gas service</u>							
86	E&B trench for new gas pipe - install by plumbing	450	lf	25.00	11,250			
87	SUBTOTAL							
88						2,599,678		
89	G40 ELECTRICAL UTILITIES							
90	<u>Power</u>							
91	Utility co. backcharges, allow	1	ls	30,000.00	Utility co.			
92	Connections at existing manhole				Utility co.			
93	Manhole	1	ls	8,500.00	8,500			
94	Connections in manhole	1	ls	3,500.00	3,500			
95	Primary ductbank 2-5" ductbank, empty, allow	1000	lf	120.00	120,000			
96	Transformer by utility company				By Utility Co.			
97	Transformer pad	1	ea	2,500.00	2,500			
98	Secondary service	60	lf	1,100.00	66,000			
99	<u>Communications</u>							
100	Connection at riser pole, allow	1	ea	1,500.00	1,500			
101	Telecom ductbank 4-4", allow	1000	lf	152.00	152,000			
102	<u>Site Lighting</u>							
103	Site Parking lighting (allow)	1	ls	150,000.00	150,000			
104	SUBTOTAL							504,000
105	TOTAL - SITE DEVELOPMENT							\$9,734,640



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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4C NEW BUILDING					
A10 FOUNDATIONS					
A1010 Standard Foundations	\$1,947,424				
A1020 Special Foundations	\$0				
A1030 Lowest Floor Construction	\$1,807,131	\$3,754,555	\$18.40	5.2%	
A20 BASEMENT CONSTRUCTION					
A2010 Basement Excavation	\$0				
A2020 Basement Walls	\$0	\$0	\$0.00	0.0%	
B10 SUPERSTRUCTURE					
B1010 Upper Floor Construction	\$4,015,506				
B1020 Roof Construction	\$4,356,541	\$8,372,047	\$41.02	11.6%	
B20 EXTERIOR CLOSURE					
B2010 Exterior Walls	\$8,795,136				
B2020 Windows	\$2,425,169				
B2030 Exterior Doors	\$101,640	\$11,321,945	\$55.47	15.6%	
B30 ROOFING					
B3010 Roof Coverings	\$2,921,136				
B3020 Roof Openings	\$32,500	\$2,953,636	\$14.47	4.1%	
C10 INTERIOR CONSTRUCTION					
C1010 Partitions	\$4,898,568				
C1020 Interior Doors	\$1,224,642				
C1030 Specialties/Millwork	\$1,744,617	\$7,867,827	\$38.55	10.9%	
C20 STAIRCASES					
C2010 Stair Construction	\$178,000				
C2020 Stair Finishes	\$25,149	\$203,149	\$1.00	0.3%	
C30 INTERIOR FINISHES					
C3010 Wall Finishes	\$2,857,498				
C3020 Floor Finishes	\$1,836,963				
C3030 Ceiling Finishes	\$2,245,177	\$6,939,638	\$34.00	9.6%	
D10 CONVEYING SYSTEMS					
D1010 Elevator	\$120,000	\$120,000	\$0.59	0.2%	
D20 PLUMBING					
D20 Plumbing	\$3,265,712	\$3,265,712	\$16.00	4.5%	
D30 HVAC					
D30 HVAC	\$14,287,490	\$14,287,490	\$70.00	19.7%	

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CONSTRUCTION COST SUMMARY					
BUILDING SYSTEM	SUB-TOTAL	TOTAL	\$/SF	%	
OPTION 4C NEW BUILDING					
D40 FIRE PROTECTION					
D40 Fire Protection	\$1,224,642	\$1,224,642	\$6.00	1.7%	
D50 ELECTRICAL					
D5010 Complete System	\$8,279,783	\$8,279,783	\$40.57	11.4%	
E10 EQUIPMENT					
E10 Equipment	\$1,710,100	\$1,710,100	\$8.38	2.4%	
E20 FURNISHINGS					
E2010 Fixed Furnishings	\$2,167,305				
E2020 Movable Furnishings	NIC	\$2,167,305	\$10.62	3.0%	
F10 SPECIAL CONSTRUCTION					
F10 Special Construction	\$0	\$0	\$0.00	0.0%	
F20 HAZMAT REMOVALS					
F2010 Building Elements Demolition	\$0				
F2020 Hazardous Components Abatement	\$0	\$0	\$0.00	0.0%	
TOTAL DIRECT COST (Trade Costs)		\$72,467,829	\$355.05	100.0%	



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
OPTION 4C NEW BUILDING							
GROSS FLOOR AREA CALCULATION							
	Level 2				82,393		
	Level 1				121,714		
TOTAL GROSS FLOOR AREA (GFA)						204,107 sf	
A10 FOUNDATIONS							
A1010 STANDARD FOUNDATIONS	Allowance for standard foundations	121,714	sf	16.00	1,947,424		
	SUBTOTAL					1,947,424	
A1020 SPECIAL FOUNDATIONS	No work assumed						
	SUBTOTAL						
A1030 LOWEST FLOOR CONSTRUCTION	New Slab on grade, 5" thick						
	Gravel fill, 12"	4,508	cy	40.00	180,320		
	Rigid insulation	121,714	sf	2.25	273,857		
	Vapor barrier	121,714	sf	1.00	121,714		
	Compact existing sub-grade	121,714	sf	0.50	60,857		
	Mesh reinforcing 15% lap	139,971	sf	1.15	160,967		
	Concrete - 5" thick; 4,000 psi	1,988	cy	125.00	248,500		
	Placing concrete	1,988	cy	45.00	89,460		
	Finishing and curing concrete	121,714	sf	2.50	304,285		
	Control joints - saw cut	121,714	sf	0.10	12,171		
	<u>Miscellaneous</u>						
	Premium for rock excavation to 100% of foundations	1	ls	250,000.00	250,000		
	Premium for sloped floor at auditorium	1	ls	50,000.00	50,000		
	New Elevator pit	1	ea	40,000.00	40,000		
	Equipment pads	1	ls	15,000.00	15,000		
	SUBTOTAL					1,807,131	
TOTAL - FOUNDATIONS						\$3,754,555	
A20 BASEMENT CONSTRUCTION							
A2010 BASEMENT EXCAVATION	SUBTOTAL						
A2020 BASEMENT WALLS	SUBTOTAL						
TOTAL - BASEMENT CONSTRUCTION							
B10 SUPERSTRUCTURE							
		14.49	lbs/sf				
B1010 FLOOR CONSTRUCTION	Floor Structure - Steel:	1,479	tns				
	Steel beams and columns to new addition; 14.5#/SF	597	tns	3,800.00	2,268,600		
	Premium for HSS	149	tns	300.00	44,700		
	Shear studs	16,479	ea	2.50	41,198		
	Floor Structure						
	2" 18 Ga. Metal galvanized floor Deck	82,393	sf	4.00	329,572		
	WWF reinforcement	94,752	sf	0.80	75,802		

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OPTION 4C NEW BUILDING							
62	Concrete Fill to metal deck; 6" Normal Weight	1,923	cy	135.00	259,605		
63	Place and finish concrete	82,393	sf	2.50	205,983		
64	Rebar to decks	24,718	lbs	1.20	29,662		
65	Misc. angles	82,393	sf	0.50	Incl		
66	<u>Miscellaneous</u>						
67	Allowance for running track	1	ls	500,000.00	500,000		
68	Fire proofing to columns and beams	82,393	sf	2.25	185,384		
69	Intumescent paint	1	ls	50,000.00	50,000		
70	Fire stopping floors	1	ls	25,000.00	25,000		
71	SUBTOTAL					4,015,506	
72							
73	B1020 ROOF CONSTRUCTION						
74	<u>Roof Structure - Steel:</u>						
75	Steel beams and columns to new addition; 14.5#/SF	882	tns	3,800.00	3,351,600		
76	Premium for HSS	221	tns	300.00	66,300		
77	Exposed steel	1	ls	50,000.00	50,000		
78	<u>Roof Structure</u>						
79	Acoustic deck allowance	5,000	sf	9.00	45,000		
80	3" 20 Ga. galvanized Metal Roof Deck	116,714	sf	3.50	408,499		
81	<u>Miscellaneous</u>						
82	Concrete under RTU's	8,500	sf	10.00	85,000		
83	Fire proofing to columns, beams and deck	116,714	sf	3.00	350,142		
84	SUBTOTAL					4,356,541	
85							
86	TOTAL - SUPERSTRUCTURE						\$8,372,047
87							
88							
89	B20 EXTERIOR CLOSURE						
90							
91	B2010 EXTERIOR WALLS						
92	Exterior Wall Area	78,380	sf				
93							
94	055000 MISC. METALS						
95	Stainless steel sign at main entrance	1	ls	10,000.00	10,000		
96							
97							
98	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
99	Air barrier	78,380	sf	7.00	548,660		
100	Air barrier/flashing at windows	8,297	lf	6.25	51,856		
101	Miscellaneous sealants to closure	78,380	sf	1.00	78,380		
102							
103	072100 THERMAL INSULATION						
104	Insulation; 6" XPS	78,380	sf	5.50	431,090		
105	Insulation; 4" spray	78,380	sf	4.25	333,115		
106							
107	076400 CLADDING						
108	Metal panel; rainscreen system	78,380	sf	70.00	5,486,600		
109	Mechanical screen; includes backup structure	5,000	sf	85.00	425,000		
110							
111	092900 GYPSUM BOARD ASSEMBLIES						
112	6" metal stud backup	78,380	sf	12.00	940,560		
113	Gypsum Sheathing	78,380	sf	2.75	215,545		
114	Drywall lining to interior face of stud backup	78,380	sf	3.50	274,330		
115							
116	SUBTOTAL					8,795,136	
117							
118	B2020 WINDOWS						
119	Exterior Wall Area	14,105	sf				
120							
121	061000 ROUGH CARPENTRY						
122	Wood blocking at openings	8,297	lf	12.00	99,564		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4C NEW BUILDING							
123							
124	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
125	Backer rod & double sealant	8,297	lf	10.00	82,970		
126							
127	080001 METAL WINDOWS						
128	Windows, triple glazed; fiberglass	7,836	sf	125.00	979,500		
129	Curtainwall, triple glazed; BOD Kawneer 1600 sys 2 1" IGU	6,269	sf	165.00	1,034,385		
130	Sunshades; 3" aluminum trellis	1,500	lf	140.00	210,000		
131							
132	089000 LOUVERS						
133	Louvers	250	sf	75.00	18,750		
134	SUBTOTAL					2,425,169	
135							
136	B2030 EXTERIOR DOORS						
137	Glazed entrance doors including frame and hardware; double door	10	pr	9,000.00	90,000		
138	HM doors, frames and hardware- Double	4	pr	2,000.00	8,000		
139	Backer rod & double sealant	280	lf	10.00	2,800		
140	Wood blocking at openings	280	lf	3.00	840		
141	SUBTOTAL					101,640	
142							
143	TOTAL - EXTERIOR CLOSURE						\$11,321,945
144							
145							
146	B30 ROOFING						
147							
148	B3010 ROOF COVERINGS						
149	New roofing complete; TPO 8" Insulation	121,714	sf	24.00	2,921,136		
150	SUBTOTAL					2,921,136	
151							
152	B3020 ROOF OPENINGS						
153	Skylights, allow	1	ls	30,000.00	30,000		
154	Roof hatch	1	loc	2,500.00	2,500		
155	SUBTOTAL					32,500	
156							
157	TOTAL - ROOFING						\$2,953,636
158							
159							
160	C10 INTERIOR CONSTRUCTION						
161							
162	C1010 PARTITIONS						
163	Miscellaneous partitions/glazed partitions/borrowed lights/blocking etc.	204,107	gsf	24.00	4,898,568		
164	SUBTOTAL					4,898,568	
165							
166	C1020 INTERIOR DOORS						
167	Interior doors, frames and hardware	204,107	gsf	6.00	1,224,642		
168	SUBTOTAL					1,224,642	
169							
170	C1030 SPECIALTIES / MILLWORK						
171	Toilet Partitions and accessories	204,107	gsf	1.00	204,107		
172	Backer panels in electrical closets	1	ls	1,000.00	1,000		
173	Marker boards/tackboards in classrooms, offices, conference rooms, library and MP rooms	204,107	sf	1.25	255,134		
174	Room Signs	204,107	gsf	0.50	102,054		
175	Fire extinguisher cabinets	68	ea	350.00	23,800		
176	Lockers, full height	710	ea	350.00	248,500		
177	New catwalk	1	ls	100,000.00	100,000		
178	Janitors Work Shop Accessories	1	ls	1,500.00	1,500		
179	Janitors Closet Accessories	3	rms	300.00	900		
180	<u>Media</u>						
181	Reception desks	2	loc	25,000	50,000		
182	Railings to open to below areas	151	lf	300	45,300		
183	Library shelving at perimeters 7' Tall				F,F & E		
184	Library shelving at perimeters 3' Tall				F,F & E		
185	Stage proscenium	1	ls	100,000	100,000		

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F. OPTION COMPARISON COST ESTIMATES



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PDP Estimate

GFA 204,107

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4C NEW BUILDING							
186	Display cases	204,107	sf	0.25	51,027		
187	Miscellaneous metals throughout building	204,107	sf	1.25	255,134		
188	Miscellaneous sealants throughout building	204,107	sf	1.50	306,161		
189	SUBTOTAL					1,744,617	
TOTAL - INTERIOR CONSTRUCTION							\$7,867,827
C20 STAIRCASES							
C2010 STAIR CONSTRUCTION							
197	Metal pan stair; egress stair	2	flt	35,000.00	70,000		
198	Main staircase	2	flt	50,000.00	100,000		
199	Concrete fill to stairs	4	flt	2,000.00	8,000		
200	SUBTOTAL					178,000	
C2020 STAIR FINISHES							
203	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000		
204	Rubber tile at stairs - landings	400	sf	10.00	4,000		
205	Rubber tile at stairs - treads & risers	480	lft	19.06	9,149		
206	SUBTOTAL					25,149	
TOTAL - STAIRCASES							\$203,149
C30 INTERIOR FINISHES							
C3010 WALL FINISHES							
214	Wall finishes	204,107	sf	14.00	2,857,498		
215	SUBTOTAL					2,857,498	
C3020 FLOOR FINISHES							
218	Floor finishes	204,107	sf	9.00	1,836,963		
219	SUBTOTAL					1,836,963	
C3030 CEILING FINISHES							
222	Ceiling finishes	204,107	sf	11.00	2,245,177		
223	SUBTOTAL					2,245,177	
TOTAL - INTERIOR FINISHES							\$6,939,638
D10 CONVEYING SYSTEMS							
D1010 ELEVATOR							
231	New elevator; 3 stop; oversize; 5,000 lbs	1	ea	120,000.00	120,000		
232	SUBTOTAL					120,000	
TOTAL - CONVEYING SYSTEMS							\$120,000
D20 PLUMBING							
D20 PLUMBING, GENERALLY							
240	Plumbing; complete system	204,107	sf	16.00	3,265,712		
241	SUBTOTAL					3,265,712	
TOTAL - PLUMBING							\$3,265,712
D30 HVAC							
D30 HVAC, GENERALLY							
249	New HVAC system; Geoexchange	204,107	gsf	70.00	14,287,490		
250	SUBTOTAL					14,287,490	
TOTAL - HVAC							\$14,287,490
D40 FIRE PROTECTION							
D40 FIRE PROTECTION, GENERALLY							



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4C NEW BUILDING							
258	Fire protection system	204,107	gsf	6.00	1,224,642		
259	SUBTOTAL					1,224,642	
TOTAL - FIRE PROTECTION							\$1,224,642
D50 ELECTRICAL							
D5010 SERVICE & DISTRIBUTION							
Gear & Distribution							
269	Normal power distribution switchgear & feeders	204,107	sf	5.00	1,020,535		
270	Emergency power						
271	Emergency power distribution switchgear & feeders	204,107	sf	3.00	612,321		
272	Equipment Wiring						
273	Equipment wiring	204,107	sf	2.25	459,241		
274	SUBTOTAL					2,092,097	
D5020 LIGHTING & POWER							
Lighting & Branch Power							
279	Lighting fixtures (LED as BOD) with installation labor	204,107	sf	6.00	1,224,642		
280	Lighting control system						
281	Lighting controls including interface with DDC	204,107	sf	1.75	357,187		
282	Branch devices						
283	Branch devices	204,107	sf	0.50	102,054		
284	Lighting and branch circuitry						
285	Lighting & branch circuitry	204,107	sf	5.00	1,020,535		
286	SUBTOTAL					2,704,418	
D5030 COMMUNICATION & SECURITY SYSTEMS							
Fire Alarm							
291	Fire alarm system	204,107	sf	3.00	612,321		
292	Bi-Directional System						
293	BDA system	204,107	sf	0.50	102,054		
294	Security System						
295	Security System	204,107	sf	2.50	510,268		
296	Telephone/Data/CATV						
297	Network switches, PBX, IP, VP, CCTV (By owner)					By Owner	
298	Telecommunications rough in	204,107	sf	1.50	306,161		
299	Telecommunications devices and cabling	204,107	sf	2.00	408,214		
300	Public Address/Clock System						
301	PA/Master Clock system	204,107	sf	1.25	255,134		
302	Audio Visual (rough-in and power only)						
303	AV equipment					By Owner	
304	Rough-In conduit and backboxes only	204,107	sf	1.00	204,107		
305	Auditorium						
306	Rigging system equipment & installation					See equipment	
307	Power to rigging equipment	1	ls	12,000.00	12,000		
308	Stage dimming system with performance fixture package, allow	1	ls	275,000.00	275,000		
309	Installation, rough-in & 120V power to dimming equipment	1	ls	70,000.00	70,000		
310	Performance audio visual equipment, installation & LV cabling, allow	1	ls	150,000.00	150,000		
311	Performance audio visual rough-in and power	1	ls	60,000.00	60,000		
312	Gymnasium						
313	Sound system	1	ls	50,000.00	50,000		
314	Scoreboard/ shot clocks with feed and connection	2	ea	15,000.00	30,000		
315	Misc. gym equipment feed and connections	1	ls	25,000.00	25,000		
316	SUBTOTAL					3,070,259	
D5040 OTHER ELECTRICAL SYSTEMS							
Miscellaneous							
320	Temp power and lights	204,107	sf	1.00	204,107		
321	Seismic restraints	1	ls	15,000.00	15,000		

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
OPTION 4C NEW BUILDING							
322	Lightning Protection System, UL Master label	204,107	sf	0.45	91,848		
323	Fees & Permits	204,107	sf	0.50	102,054		
324	SUBTOTAL					413,009	
TOTAL - ELECTRICAL							\$8,279,783
E10 EQUIPMENT							
E10 EQUIPMENT, GENERALLY							
329	Gym wall pads	1	ls	20,000.00	20,000		
333	Basketball backstops; swing up; electric operated	12	loc	10,000.00	120,000		
334	Gymnasium dividing net; electrically operated	3	ea	30,000.00	90,000		
335	Volleyball net and standards	1	ls	5,000.00	5,000		
336	Telescoping bleachers	900	seats	240.00	216,000		
337	Theatrical Equipment Stage curtains, rigging and controls	1	ls	350,000.00	350,000		
338	Theatrical AV allowance	1	ls	200,000.00	200,000		
339	Kitchen equipment	2,030	sf	220.00	446,600		
340	Auditorium seats	750	seat	350.00	262,500		
341	SUBTOTAL					1,710,100	
TOTAL - EQUIPMENT							\$1,710,100
E20 FURNISHINGS							
E2010 FIXED FURNISHINGS							
349	Entry mats & frames - recessed with carpet/rubber strips	500	sf	55.00	27,500		
350	Window blinds	14,105	sf	7.00	98,735		
352	123553 CASEWORK						
353	Sinks, counters and casework; allowance	204,107	sf	10.00	2,041,070		
354	SUBTOTAL					2,167,305	
356	E2020 MOVABLE FURNISHINGS						
357	All movable furnishings to be provided and installed by owner						
358	SUBTOTAL					NIC	
TOTAL - FURNISHINGS							\$2,167,305
F10 SPECIAL CONSTRUCTION							
365	F10 SPECIAL CONSTRUCTION						
366	No items in this section						
367	SUBTOTAL						
TOTAL - SPECIAL CONSTRUCTION							
F20 SELECTIVE BUILDING DEMOLITION							
376	F2010 BUILDING ELEMENTS DEMOLITION						
377	No items in this section						
378	SUBTOTAL						
379	F2020 HAZARDOUS COMPONENTS ABATEMENT						
380	See main summary for HazMat allowance					See Summary	
381	SUBTOTAL						
TOTAL - SELECTIVE BUILDING DEMOLITION							



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PDP Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SPORTS STADIUM REPLACEMENT							
G SITEWORK							
G20 SITE IMPROVEMENTS							
<u>Stairs</u>							
	Concrete to stair treads at press box	196	lfr	220.00	43,120		
	Cheek walls	45	lf	450.00	20,250		
	Concrete curb at sports field D area	205	lf	22.00	4,510		
	Synthetic turf anchor curb integral with trench drain	1,310	lf	80.00	104,800		
<u>RUNNING TRACK</u>							
	Resilient surface at track	75,525	sf	8.00	604,200		
	Gravel base - assumed 12" thick	3,334	cy	45.00	150,030		
	Geotextile drainage fabric over subgrade	90,015	sf	1.00	90,015		
	Compacted dense grade with stone dust leveling course, 10"	2,767	cy	38.00	105,146		
	Geotextile reinforced impermeable liner 20 mill	90,015	sf	1.00	See Summary		
	Synthetic turf field - Hybrid infill synthetic field with preformed resilient drainage pad	90,015	sf	13.00	See Summary		
	Football goals	4	ea	3,500.00	See Summary		
	Scoreboard, allowance provided	1	ea	60,000.00	See Summary		
	Line markings - allowance	2	ls	2,000.00	See Summary		
	Soccer goals (movable)	2	loc	10,000.00	See Summary		
	Field Hockey Nets	2	sets	3,000.00	See Summary		
	Lacrosse goals	2	sets	4,000.00	See Summary		
	1250 seat bleacher	1	loc	450,000.00	450,000		
	Rip-Rap under bleachers	1	ls	25,000.00	25,000		
	Field logo's	1	loc	6,000.00	6,000		
	Discus pad & enclosure	1	ea	15,000.00	15,000		
	Shot put pad & enclosure	1	ea	15,000.00	15,000		
	Long jump/triple jump	2	ea	10,000.00	20,000		
	Pole vault and accessories	1	ea	10,000.00	10,000		
	High jump pads	1	ea	6,000.00	6,000		
	Javelin with track surfacing runway	1	ea	10,000.00	10,000		
	Hurdles and starting blocks	1	ls	8,000.00	8,000		
	Track crossing pad	1	ls	10,000.00	10,000		
	Trash/recycling receptacles	12	ea	800.00	9,600		
	Team benches- 7'-5" long	12	ea	1,500.00	18,000		
	Portable ball control netting, 120' long	4	ea	2,500.00	10,000		
	Pit covers	2	ea	3,500.00	7,000		
<u>athletic track & field drainage</u>							
	Subsurface infiltration basin - drainage fabric and 2" double washed stone	778	cy	50.00	38,900		
	Trench drain integral catch basin	10	ea	4,500.00	45,000		
	12" HDPE high flow	270	lf	80.00	21,600		
	Concrete encased 12" perforated smooth wall corrugated subdrain, 6/L7.3	760	lf	130.00	98,800		
	6" HDPE high flow	270	lf	40.00	10,800		
G40 ELECTRICAL UTILITIES							
	Stadium sound system (AV)	1	ls	120,000.00	120,000		
TOTAL - STADIUM							2,076,771

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SPORTS LIGHTING							
G SITEWORK							
G40 ELECTRICAL UTILITIES							
<u>Sports Field Lighting and Sound System</u>							
	Football field lighting, bases and circuitry	1	ls	540,000.00	540,000		
	Soccer Field Lighting	2	loc	400,000.00	800,000		
	Remote lighting control system	1	ls	100,000.00	100,000		
TOTAL - SPORTS LIGHTING							1,440,000



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