City High Middle School
pre-design recommendations

March 29, 2017
City High Middle School

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**project description:**

**Statement:**

City High Middle School is situated in a prominent location on Plainfeld Avenue in the middle of the Creston neighborhood on Grand Rapids’ north side. The school is an important asset for the educational and recreational needs of the surrounding community. Accordingly, Grand Rapids Public Schools has determined that the renovation of the existing building on this current site will be the most effective strategy for executing its Building Improvement Plan. This renovation will afford GRPS an opportunity to create a unique space for City High Middle School. The project reflects the history of Creston High School while creating a 21st century learning environment for current and future students.

**Goals:**

The City High Middle School project will be a renovation to classrooms, administrative spaces and overall building systems mainly in the 7th-12th grade academic wing. It is our goal to work within the three existing building stories and the attic spaces.

- to welcome and stimulate students, staff, and visitors
- to provide the flexibility to adapt for future needs
- to accommodate an extended school day and school year
- to promote community
- to maintain and enhance the historic character of the building
- to promote environmental stewardship
- to balance long-term, short-term, and operational costs
existing system conditions

existing conduit and air handling unit
existing tank storage
existing steam condensate tank and pump
knob and tube fuses (1930's)
existing radiator
existing steam boilers
existing electrical sub station
existing building conditions

- building entry
- existing classroom
- existing classroom
- existing computer classroom
- existing lockers
- existing bathroom
- existing auditorium curtain
- existing chemistry station
existing classroom conditions
Forced air heating and air conditioning
LED light fixtures
Acoustical cloud ceiling
Window treatments
Smart Boards (tech budget)
Patch and paint walls
Classroom furniture (not included in the base)
Perimeter heating
Refinish hardwood floor (not included in the base)
classroom rendering - accent wall
existing science lab conditions
New fume hood
Casework and epoxy counters
Smart Boards (tech budget)
Acoustical cloud ceiling
Window treatments
Patch and paint walls
Perimeter heating
Classroom furniture (not included in the base)
Refinish hardwood floor (not included in the base)
LED light fixtures
Forced air heating and air conditioning

rendering: new science lab

rendering: new science lab teaching wall
### Preference 1

**VAV AHU’s, Heating Water, Chilled Water, with FTR**

Variable air volume system with approximately eight indoor AHU’s with a new heating water plant, air cooled chilled water plant, and perimeter fin tube.

### Preference 2

**VAV AHU’s, Heating Water, DX Cooling, with FTR**

Variable air volume system with approximately eight indoor AHU’s, new heating water plant, air cooled chilled DX, and perimeter fin tube heat.

### Preference 3

**VUV, Heating Water, Chilled Water, with FTR**

Vertical unit ventilators in each classroom, approximately fifty, heating water, chilled water, and perimeter fin tube.

### Preference 4

**Packaged RTU’s, gas fired, DX cooling, heating water, with FTR**

Variable air volume system with approx. eight RTU’s, modulating gas, packaged DX, new heating water system and Perimeter fin tube.

### Preference 5

**VUV, Exist Steam, Self Contained DX, with FTR**

Vertical unit ventilators in each classroom, approx. fifty, existing steam system to remain, outdoor air heating coil only, self contained cooling.

### Preference 6

**VUV, Heating Water, Self Contained DX, with FTR**

Vertical unit ventilators in each classroom, approx. fifty, new heating water system, outdoor air heating coil only, self contained cooling.

### Preference 7

**Conditioned Outdoor Ventilation Air with FTR**

Variable air volume system with a new heating water plant, air cooled DX that provides ventilation air cooling only, perimeter fin tube.

### Preference 8

**VAV AHUs, Heating Water, Chilled Water**

Variable air volume system with approximately eight indoor AHU’s, new heating water plant, air cooled chilled water plant.

### Preference 9

**VUV, Heating Water, Chilled Water**

Vertical unit ventilators in each classroom, approximately fifty, heating water, chilled water.
Project Scope of Work Descriptions:

Academic Space Improvements: $4,730,000

Architecture:
- New ceilings
- New LED lighting in classrooms, restrooms, corridors, and office areas
- Repair, patch, and paint existing walls
- Technology infrastructure: new conduits and raceways for new technology equipment
- Demolition of existing lighting and mechanical systems
- Replace all window treatments in classrooms and offices in Creston Building
- Refurbish wood floors and replace carpet

HVAC:
- New high efficiency condensing boilers to provide HW heating
- Approximately 60 VAV terminal units
- Each classroom, work area, groups of offices will be provided HVAC from central systems
- Variable air volume air handling units

Other Space Improvements: $1,385,000

- Replace curtains and lighting
- Allowance for replacing existing classroom furniture
- Refurbish and paint existing lockers
- Renovate existing restrooms to meet ADA requirements
- Upgrade all finishes, and lighting

Technology: $250,000

- Provide classroom teaching technology

- New teacher’s lounge
- New secure entry and office in the existing teacher’s lounge

- Refurbish wood floors and replace carpet

- Replace all window treatments in classrooms and offices

- Repair, patch, and paint existing walls

- New LED lighting in classrooms, restrooms, corridors, office areas

- New ceilings

- New fire alarm system
- New transmission and switch gear equipment

Science Lab Renovations:
- Renovate the existing science labs including new epoxy work stations and lab hood

Auditorium: $300,000 funded by KETA Grant

- Replace curtains and lighting

- Replace existing classroom furniture

- Repaint with electrostatic painting

Building Condition Improvements: $6,780,000

- New security system
- New transmission and switch gear equipment
- New power supply to branch panels

- Systems to remain: existing Media Center ductwork
- New heating water piping to each AHU, VAV unit, perimeter heating
- Exterior classrooms to receive new heating water perimeter heat
- Heating water piping from boiler room to each AHU, VAV unit, perimeter heating

- Approximately 60 VAV terminal units
- New high efficiency condensing boilers to provide HW heating
- Each classroom, work area, groups of offices will be provided HVAC from central systems
- Variable air volume air handling units

Building Condition Improvements 47%

Academic & Other Space Improvements 47%

Academic & Other Space Improvements 47%

Building Condition Improvements 43%

AE & CM Costs 16%

4/2017 11/2017 1/2018

Summer 2019

NOTE: Construction cost estimates are based on current concept planning and are subject to change as the project design progresses.