Presentation prepared for:

Cleveland Landmarks Commission

CLEVELAND METROPOLITAN SCHOOL DISTRICT
Vision to Victory

December 8, 2011 rev

Cost analysis and masterplan options for:

Segment 5

John Marshall High School

Provided by:

Ohio School Facilities Commission (OSFC)

Cleveland Educational Design Alliance (CEDA)

Ozanne, Hammond, Gilbane, Regency (OHGR)

Cleveland Educational Design Alliance CEDA

John Marshall High School

- **Cleveland Metropolitan School District (CMSD) works in partnership with The Ohio School Facilities Commission (OSFC)**
- **John Marshall is part of Segment 5 of the CMSD Master Plan**
- **OSFC co-funds 68% of project cost**
- **Ohio School Design Manual**

CLEVELAND METROPOLITAN SCHOOL DISTRICT
Vision to Victory

OHIO SCHOOL FACILITIES COMMISSION

John Marshall High School

CEDA

Cleveland Educational Design Alliance

- **Worked with CMSD since 1996**
- **Warm, Safe, & Dry – 17 schools**
- **11 New schools**
  - **John Adams High School**
- **Several renovation projects**
  - **James Rhodes High School**
- **STEM Schools**
- **New Tech Academies**
- **Currently in Design Phase**
  - **Max Hayes Career Tech High School**
  - **John Marshall High School**

John Adams High School

R G Jones K-8School

John Marshall High School

ARCHITECT

George M. Hopkinson

Designed other schools for the CMSD

AB Hart – Art Deco
Alexander Hamilton – Neo-Gothic
Charles Dickens – Neo-Classic
Cleveland School of the Arts – Neo-Classic
James Ford Rhodes – Neo-Classic – renovation
John Hay – Neo-Classic - renovation
Louisa May Alcott – Neo-Classic - renovation
Louis Agassiz – Neo-Classic
Nathan Hale – Neo-Gothic
Oliver Hazard Perry – Neo-Classic
Robert Fulton – Neo-Classic
Wilber Wright – Neo-Gothic
William Cullen Bryant – Neo-Gothic
William Raney Harper – Neo-Classic

John Marshall – Main Entry

John Marshall – W.140th Elevation

John Marshall High School

BUILDING CONSTRUCTION HISTORY

1932 - Original Building completed – 174,000 SF + 19,100 SF Auditorium

1936 - WPA Grandstands added

1949 - Interior renovation of study halls to vocational classrooms

1963 - Third Floor Classroom Addition on roof.

1964 - Major addition including 22 new classrooms, a new girl's gym and remodeling 28 other rooms.

1967 - New lighting installed throughout building.

1969 - Recreation Center Addition – Gym and Swimming Pool, the original gyms were converted into print and wood shop areas. In the 1990's the industrial arts programs were ended and space converted into an art room. The 1964 girl's gym is converted into a Library.

1969 - Stadium improvements - Playing field, track, bleachers, lockers rooms.

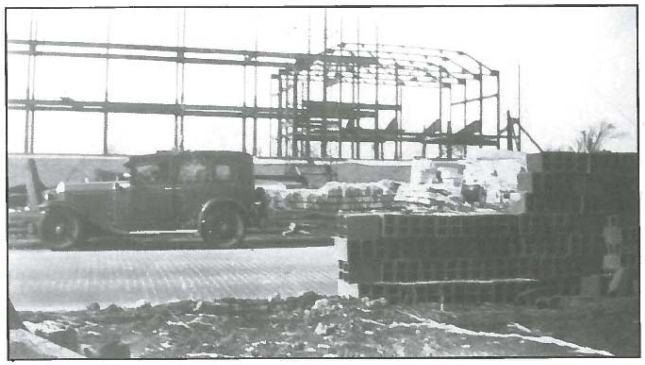
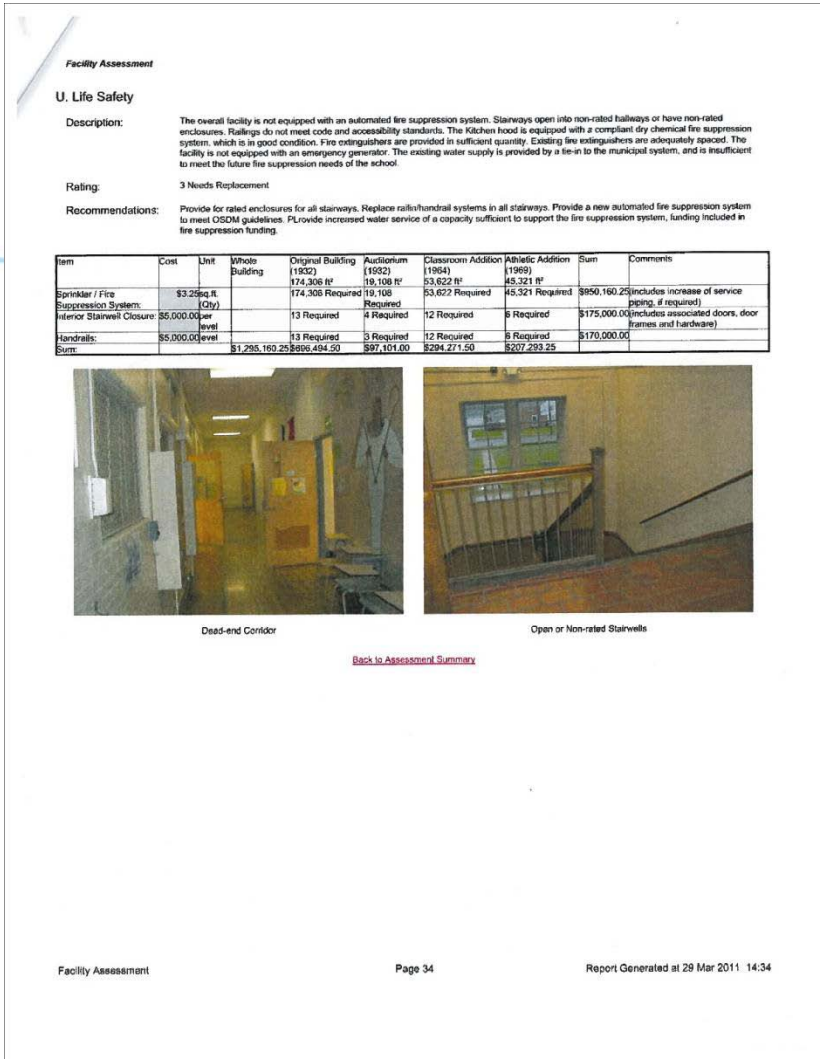


Figure 2-11. February 15, 1931. Auditorium superstructure.

Figure 2-17. June 27, 1931. Front view from the south (gym) end of the building.

John Marshall High School

- **OSFC Facility Assessment**
- **Latest study completed in 2006**
- **School site**
- **Structural and mechanical features**
- **Plant maintainability**
- **Building safety and security**
- **Educational adequacy**
- **Environment for education**
- **Estimated costs for renovation upgrades**



Facility Assessment

U. Life Safety

Description: The overall facility is not equipped with an automated fire suppression system. Stairways open into non-rated hallways or have non-rated enclosures. Railings do not meet code and accessibility standards. The Kitchen hood is equipped with a compliant dry chemical fire suppression system, which is in good condition. Fire extinguishers are provided in sufficient quantity. Existing fire extinguishers are adequately spaced. The facility is not equipped with an emergency generator. The existing water supply is provided by a tie-in to the municipal system, and is insufficient to meet the future fire suppression needs of the school.

Rating: 3 Needs Replacement

Recommendations: Provide for rated enclosures for all stairways. Replace rails/handrail systems in all stairways. Provide a new automated fire suppression system to meet OSDM guidelines. PLrovide increased water service of a capacity sufficient to support the fire suppression system, funding included in fire suppression funding.

Item	Cost	Unit	Whole Building	Original Building (1932) 174,306 ft²	Auditorium (1932) 19,108 ft²	Classroom Addition (1964) 53,622 ft²	Athletic Addition (1969) 45,321 ft²	Sum	Comments
Sprinkler / Fire Suppression System:	$3.25	sq.ft. (Qty)		174,306 Required	19,108 Required	53,622 Required	45,321 Required	$950,160.25	includes increase of service piping, if required)
Interior Stairwell Closure:	$5,000.00	per level		13 Required	4 Required	12 Required	6 Required	$175,000.00	includes associated doors, door frames and hardware)
Handrails:	$5,000.00	level		13 Required	3 Required	12 Required	6 Required	$170,000.00	
Sum:			$1,295,160.25	$696,494.50	$97,101.00	$294,271.50	$207,293.25		

Dead-end Corridor

Open or Non-rated Stairwells

Back to Assessment Summary

Facility Assessment Page 34 Report Generated at 28 Mar 2011 14:34

John Marshall High School

Renovate or build new?

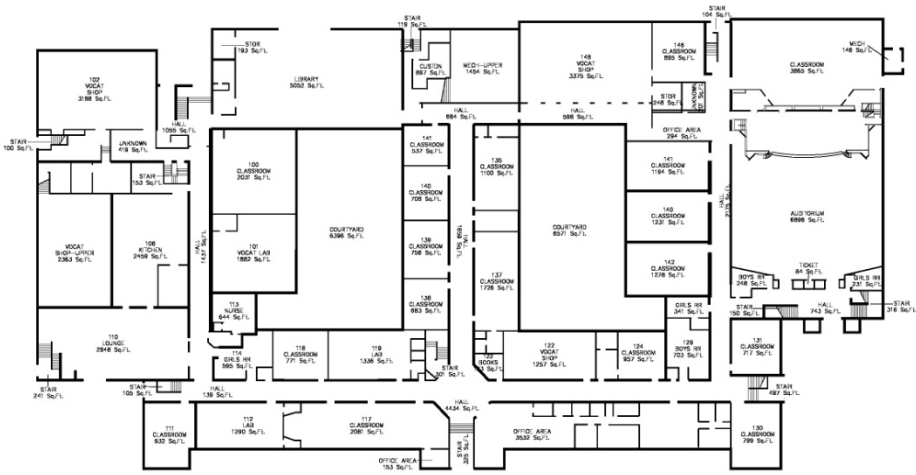
- Can the facility be renovated to an adequate standard for future use for classroom facilities?
- Can the facility be operationally efficient?
- What is the cost?
- Lessons from past renovation projects
  - John Hay
  - James Rhodes

John Marshall High School

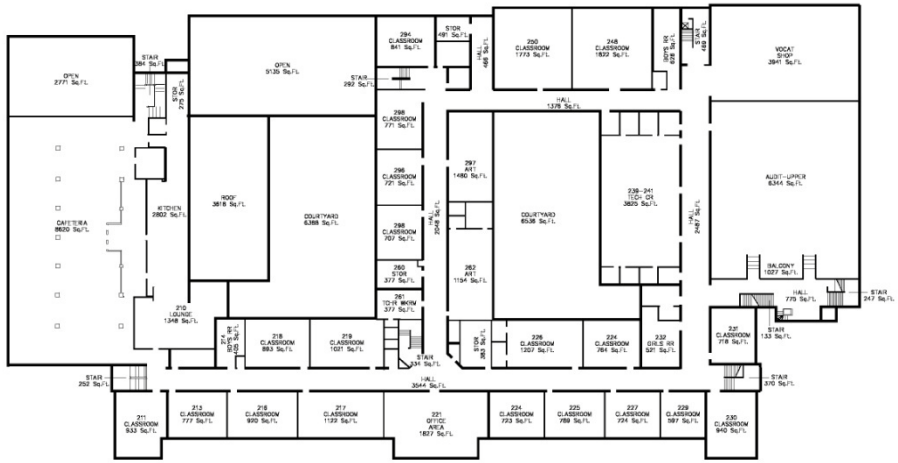
Educational Deficiencies

Renovations and additions have created an ad hoc arrangement of educational spaces

- **Classrooms sizes do not meet OSFC standards**
- **No secure main entrance**
- **Community space access**
- **Inefficient spatial relationships**
  - **Music on 3rd floor**
- **Floor height limitations for accommodating new HVAC systems**
- **Building envelope does not meet energy standards**
- **Unsafe site circulation**



John Marshall – Current 1st Floor Plan



John Marshall – Current 2nd Floor Plan

John Marshall High School

Existing Site Aerial

John Marshall High School

Cost of Renovation

- **OSFC Resolution - 2/3 Rule for renovations**
- **OSFC will co-fund only up to the cost of a correctly sized facility.**
- **Locally Funded Initiatives (LFI)**
- **Non-Compliant spaces - Auditoriums**
- **Oversize spaces**

Renovation (Assessment Items)	Budget
A. Heating Systems	$ 8,556,461
B. Roofing	$ 932,972
C. Ventilation	$ -
D. Electrical	$ 5,063,623
E. Plumbing	$ 2,200,275
F. Windows	$ 1,383,088
G. Foundations	$ 97,480
H. Ext. Walls	$ 263,212
I. Floor/Roof Structure	$ 10,000
J. General Finishes	$ 5,984,416
K. Interior Lighting	$ 1,461,785
L. Security Systems	$ 342,357
M. Emegency Lighting	$ -
N. Fire Alarm	$ -
O. ADA	$ 881,936
P. Site Condition	$ 1,002,312
Q. Sewage System	$ 17,172
R. Water Supply	$ 12,000
S. Exterior Doors	$ 15,000
T. Hazardous Materials	$ 526,390
U. Life Safety	$ 1,295,160
V. Loose Furnishings	$ 1,092,996
W. Technology	$ 1,653,452
X. Soft Costs	$ 8,011,205
Sub Total A-X	$ 40,803,292
Reg. Cost Factor (4.16%)	$ 1,697,417
Total A-X w/Reg.Cost	**$ 42,500,709**

Req'd Locally Funded Initiatives (LFIs)	
Excess Area (62,057 sf)	$ 8,759,966
Auditorium Renovation	$ 655,829
Natatorium Renovation	$ 940,408
Indoor Track Renovation	$ 2,017,035
Auditorium LEED	$ 28,021
Natatorium LEED	$ 40,180
Indoor Track LEED	$ 86,181
Excess Area LEED	$ 374,282
Total Required LFIs	**$ 12,901,902**

JOHN MARSHALL HIGH SCHOOL 9/7/2011
Cleveland Metopolitan School District
Complete Renovation Master Plan Option
Detailed Budget Breakdown

Based on 292,357 total gsf

Reprogramming	Qty. (L.F.)	Unit Cost	Total
Demo Interior walls	38,625	$ 2.75	$ 106,219
Build new int.walls	60,050	$ 9.00	$ 540,450
Total Reprogramming Scope			**$ 646,669**

LEED	Qty. (L.F.)	Unit Cost	Total
OSFC Standard Allowance			$ 1,763,283
Insulate Ext. Walls	95,000	$ 6.00	$ 570,000
Total LEED Budget			**$ 2,333,283**

Summary of Scope

Total A-X w/Reg.Cost	**$ 42,500,709**
Total Reprogramming Scope	**$ 646,669**
Total LEED Budget	**$ 2,333,283**
TOTAL BUDGET	**$ 45,480,661**
minus required Locally Funded Initiatives	$ 12,901,902
Co-Funded Budget	**$ 32,578,759**
CMSD Share (32%)	$ 10,425,203
Plus required Locally Funded Initiatives	$ 12,901,902
Plus Re-Design & Other Planning Fees	$ 1,500,000
Non-required Auditorium Renovation LFI	$ 1,288,296
Swing Space LFI (Brooklawn & Shuler)	$ 6,667,185
TOTAL CMSD COST (BUDGET)	**$ 32,782,586**

John Marshall High School

- **Three Facility Concepts studied for the project:**

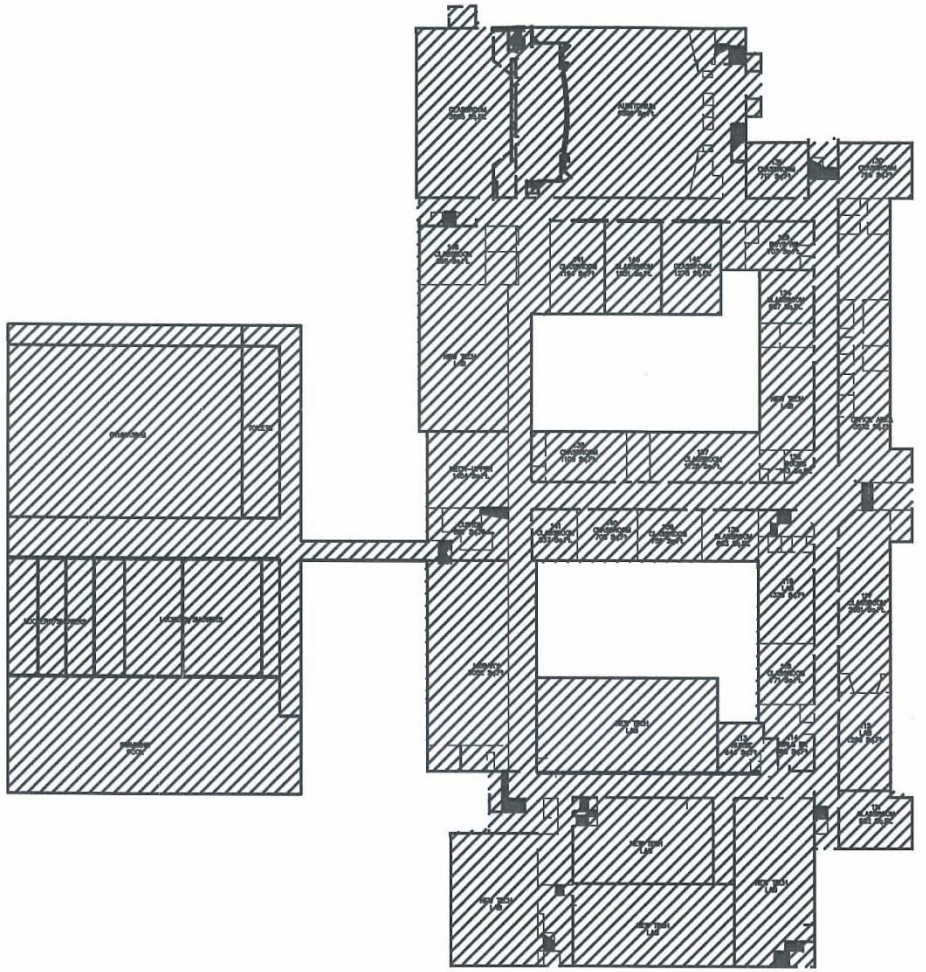
1) **Comprehensive Renovation: 292,357 SF**
   - **Complete renovation, but not a historic preservation/restoration project. Similar to recent renovation project at Rhodes High School.**

2) **Partial Demolition, Renovation + Addition: 230,877 SF**
   - **Renovate three story front façade (classroom wing) and auditorium, demo remaining and build new addition.**

3) **New Construction: 207,182 SF**
   - **Demolish existing building and build a new high school on the existing school site.**

John Marshall High School

1) Comprehensive Renovation – 292,357 square feet



John Marshall High School

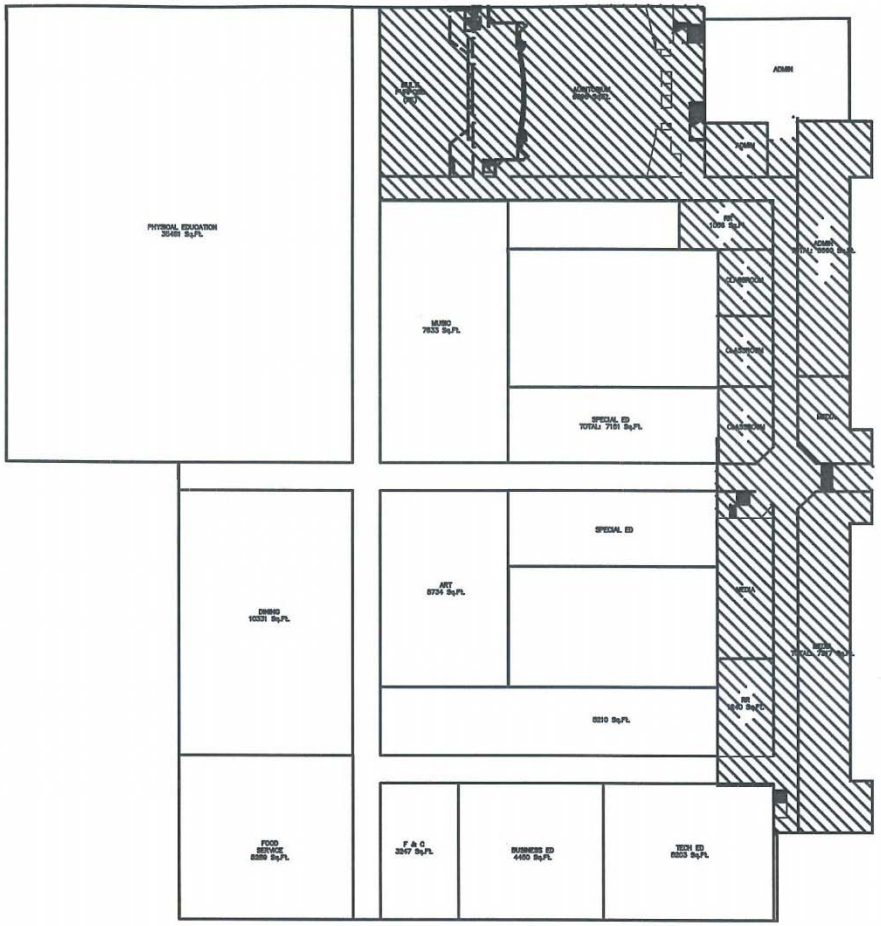
1) Comprehensive Renovation:

Total Renovation Cost:	**$45,480,662**
District Co-Funded Share (32% x $33,640,155):	**$10,764,850**
Required LFI:	**$11,840,507**
Swing Space LFI (Brooklawn and Shuler) (100%)	**$ 6,667,185**
LFI – Auditorium Renovation	**$ 1,288,296**
Fees for Re-design and Planning	**$ 1,500,000**
TOTAL DISTRICT COST:	**$32,060,838**

John Marshall High School

2) Partial Demo, Renovation + Addition:

- **85,763 SF Renovated, 145,114 SF New Construction**



John Marshall High School

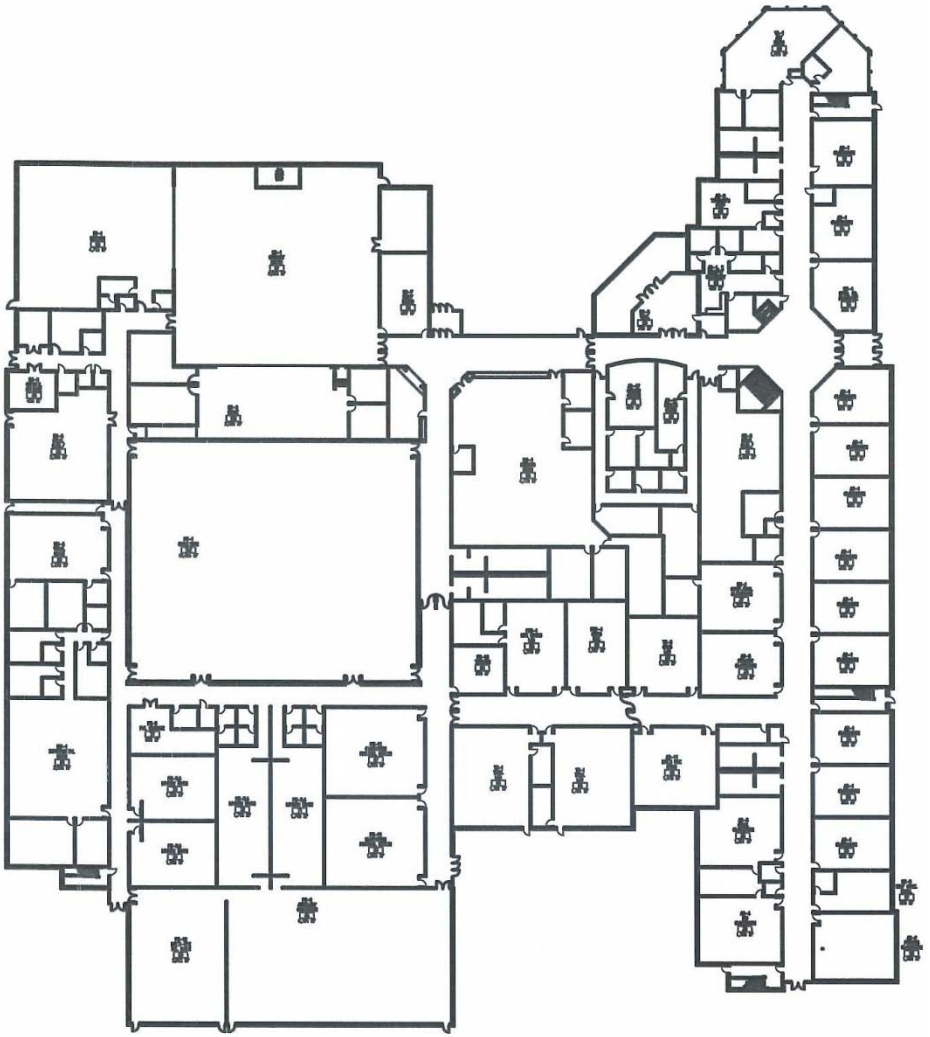
2) Partial Demo, Renovation + Addition:

Keep 3-story academic wing on West 140th and auditorium, build 145,114 SF new construction.

Total Demo/Reno/Add Project Cost:	**$46,791,729**
District Co-Funded Share (32% x $42,940,500):	**$13,740,960**
Required LFI:	**$ 3,851,229**
Swing Space LFI (Brooklawn and Shuler) (100%)	**$ 6,667,185**
LFI – Auditorium Renovation	**$ 1,288,296**
Fees for Re-design and Planning	**$ 1,500,000**
TOTAL DISTRICT COST:	**$27,046,670**

John Marshall High School

3) New Construction: 207,182 Square Feet



John Marshall High School

3) New Construction:

Build 207,182 SF new construction on original school site.

Total New Construction Cost:	**$44,590,111**
District Co-Funded Share (32% x $44,590,111):	**$14,268,836**
Required LFI:	**$ N/A**
Swing Space LFI (Brooklawn and Shuler) (100%)	**$ 6,667,185**
TOTAL DISTRICT COST:	**$20,936,021**

John Marshall High School

- **Cost Analysis Summary:**

What will it cost the taxpayer?

Total Renovation District Cost:	**$32,060,838**
Total Demo/Reno/Add District Cost:	**$27,047,670**
Total New Construction District Cost:	**$20,936,021***

(* Approved by CMSD School Board in 2008)

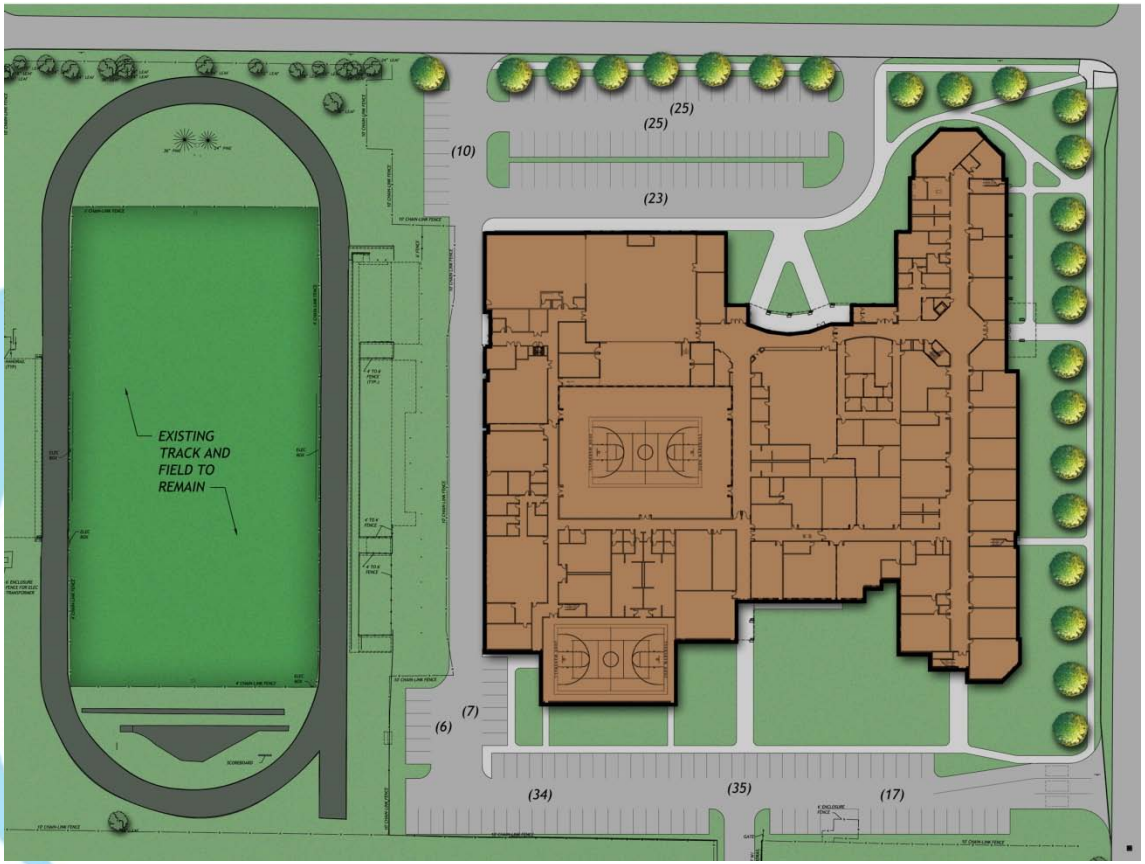
John Marshall High School

NEW BUILDING

- **1,260 students**
- **207,182 SF**

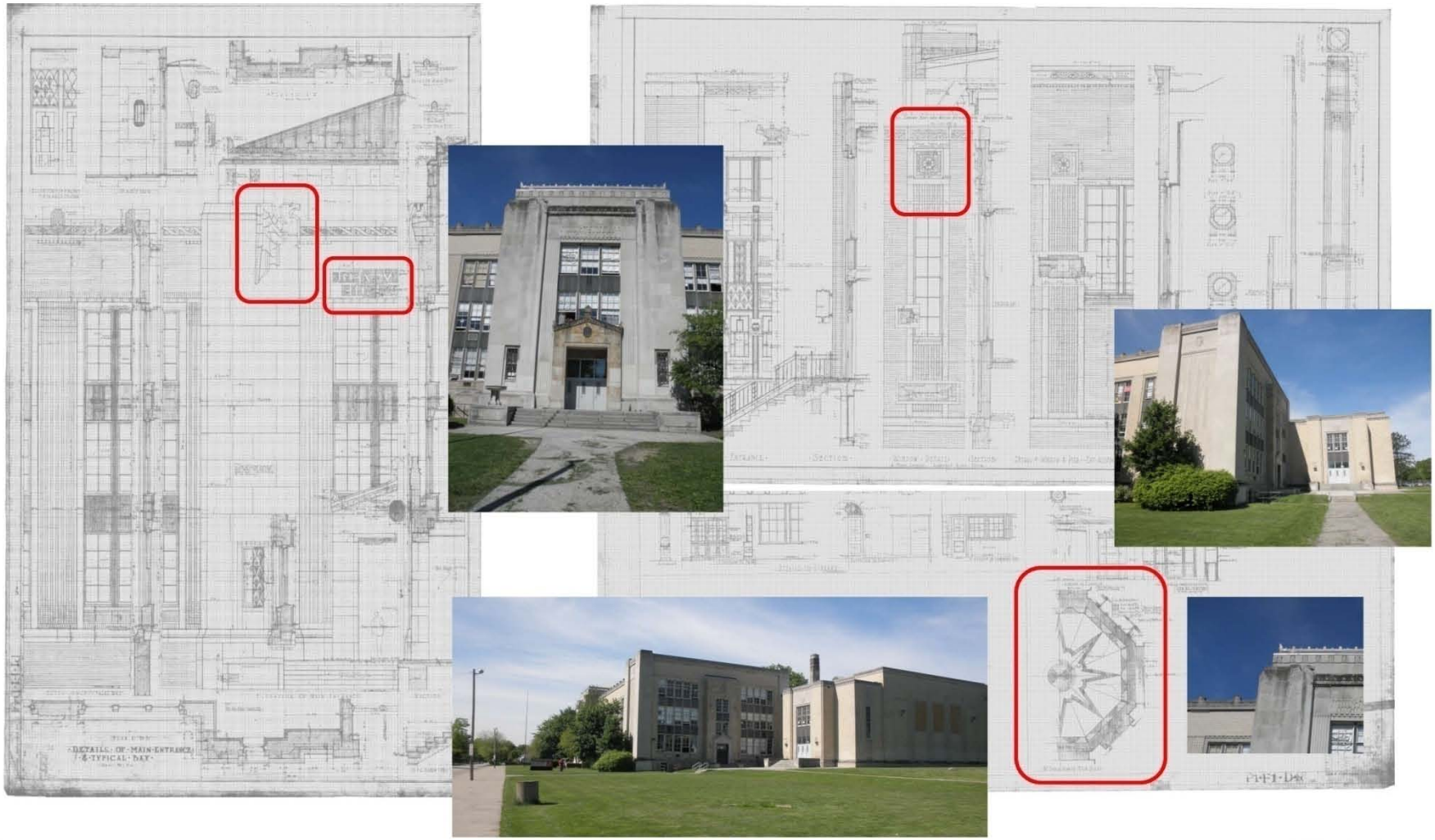
DESIGN OBJECTIVES

- **Optimize site/building opportunities**
- **Renovate stadium**
- **Frontage on W. 140th Street**
- **Entry element on W. 140th Street**
- **Respect massing, proportion, rhythm, materials of existing building**
- **Incorporate elements from existing building**



John Marshall – Proposed Site Plan

John Marshall High School



John Marshall – Proposed Use of Salvaged Elements

John Marshall High School

East Clark – Successful Use of Salvaged Elements

John Marshall High School

John Marshall – Proposed Aerial View

John Marshall High School

NORTH ELEVATION
SCALE: 1/16" = 1'-0"

EAST ELEVATION
SCALE: 1/16" = 1'-0"

P.E. & DINING
EAST ELEVATION
SCALE: 1/16" = 1'-0"

John Marshall – Proposed Elevations

John Marshall High School

SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

WEST ELEVATION
SCALE: 1/16" = 1'-0"

P.E. & DINING
WEST ELEVATION
SCALE: 1/16" = 1'-0"

John Marshall – Proposed Elevations

John Marshall High School

John Marshall – Proposed Street Level View

Final Thoughts

- **Do we want to provide a great educational environment with a new building or, at a greater cost, provide just a good educational environment in a renovated one?**

- **Which building will be more educationally viable in 20 years?**