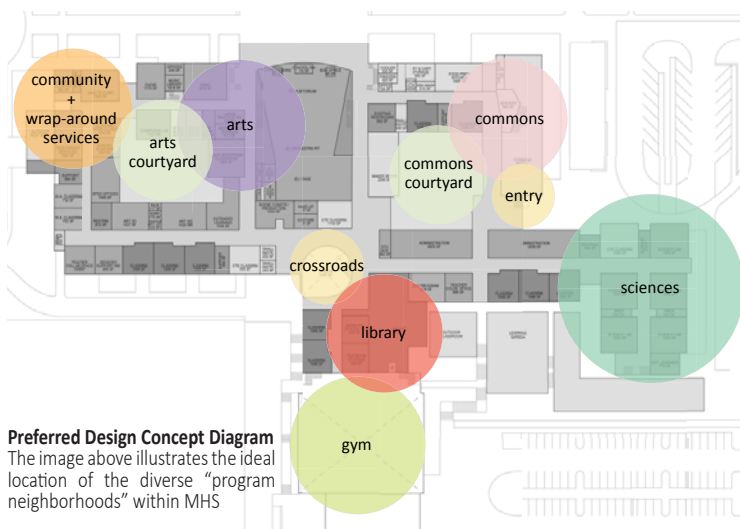


MADISON HIGH SCHOOL // Executive Summary



Preferred Design Concept Diagram
The image above illustrates the ideal location of the diverse “program neighborhoods” within MHS

PROJECT INTENT

Based on recommendations from the Bond Development Committee, the Board of Education voted to master plan Benson, Lincoln, and Madison High Schools for possible inclusion in future capital bond work. Master planning of these three schools began in late 2015 and concluded in June 2016. Madison HS was chosen because it had the highest facility condition index, serves the largest portion of East and NE Portland, and the largest percentage of historically under-served students.

Key Challenges

- » A diverse community with an antiquated school building that creates a barrier to connecting across cultures
- » Existing building is an opaque space that is not inviting or welcoming, discouraging future students from considering attending MHS
- » The building systems are well beyond their life-cycle and are in need of replacement to increase efficiency, reduce operating costs, and improve occupant comfort
- » A lack of “maker space” that enhances innovative learning programs, including urban agriculture, Career Technical Education (CTE), computer science, sustainability, and textiles
- » Disjointed places of learning that make it difficult to integrate the site and building, thereby hindering community connections and safety
- » Building does not meet current seismic, ADA, or safety codes
- » A significant lack of athletic facilities for students who are not on formal MHS teams
- » Insufficient facilities for the students and community, as well as inadequate wrap-around services

Construction Cost

\$95,000,000

Student Design Capacity

1,700

Project Cost

\$145,909,717*

Proposed Building Area

325,706 SF

* Project cost based on recommended construction schedule. Final project cost will be based on Board of Education-approved construction schedule.

Master Plan Committee (MPC) Process

The Madison High School master planning committee comprised of over 30 Madison feeder school parents, community leaders and parents began work in January 2016. The master planning team also met with staff during two staff meetings and held several one on one interviews with staff and student clubs. The master planning process identified a number of challenges that the modernization of Madison High School will need to meet. The preferred design concept plan (pg.7-9) addressed these issues with a mix of renovation (65%) and new construction (35%). The primary elements of the concept plan included: moving the student commons to the front (east) side of the campus; locating support and wrap around services to the west side, creating a STEM wing as a “beacon” to 82nd Ave.; upgrading building heating, electrical, plumbing systems; bringing building and site to current seismic, accessibility, fire life safety standards.

Due Diligence

Using the master plan as a starting place, the current Pre-Design Due Diligence Phase begins to reach beyond the master planning and into early schematic design. This phase is taking a more in depth look at the building systems that need to be updated to address environmental health and safety requirements as well as the school’s academic program requirements to ensure current and future program requirements are met. In order to have a more accurate construction cost estimate, the building system analysis performed a Phase 1 environmental assessment, geotechnical analysis, structural analysis (including destructive testing in certain areas), mechanical and electrical systems analysis, asbestos location verification and a campus security analysis. The design team has identified 10 options for reducing project scope and cost. The master planning committee is evaluating these options and voting to rank the priority of these options.

ARCHITECTURAL DESIGN

The preferred design for Madison combines areas of demolition and new construction, as well as heavy, medium and light renovation. Modernization aims to bring the facility up to 21st century health, safety, teaching and learning standards. A major design feature is the addition of a science wing as a beacon for the community and an improvement to the visual transparency of the building to the surrounding neighborhood. The addition of a welcoming commons and cafeteria greets students, staff and visitors at the entrance from 82nd.

MADISON HIGH SCHOOL // Existing Conditions

EXISTING FACILITY

Building Size

At 284,400 square feet, the existing Madison High School appears to match the suggested total area. However, a deeper review of the current building to the Ed Spec reveals a number of areas in the building that are significantly larger in area than recommended, while other areas are smaller or non-existent. For instance, the large, 1,200 seat auditorium and supporting spaces are approximately 14,000 square feet larger than the 600 seat theater of the Ed Spec. The MPC considered reducing the size of the theater to be closer to the Ed Spec, however this was determined to be more costly than renovating the existing, larger space providing little benefit to the school.

On the other hand, many CTE, science, and other technical spaces are undersized according to contemporary standards. For example, the existing science labs require a larger area and prep spaces with extensive infrastructure. As a result, these spaces are best built from the ground up, as new construction. Lastly, most of the lowest level of school below the locker rooms is currently a leased space for School House Supplies. This space is not an Ed Spec program space therefore, it is disconnected from the main academic portions of the building and is not ideal for uses other than expanded athletics space or to remain as a rental or storage space. The resulting Preferred Design program accommodates very closely the Ed Spec program, however due to the larger size of some of the existing spaces noted above, results in a total area of approximately 325,706 square feet.

HEALTH & SAFETY

Categories

1. Water Quality: Replacement of existing plumbing, piping and mechanical systems to meet current standards for efficiency
2. Fire/Life Safety: Upgrade and additions to sprinkler and fire alarm systems
3. Asbestos: Abatement and removal in floors, ceilings and walls is a priority throughout the building
4. Building envelope: Improve energy efficiency and durability through increased insulation and the replacement of outdated single pane windows
5. ADA: Improvements in access throughout the building, especially connections to the south east site entrance and athletic fields
6. Radon: Modernization would provide radon mitigation in foundation areas of new construction
7. Seismic: A whole building overhaul to bring structures up to current building codes
8. Security Systems: Improved visibility, access controls and monitoring equipment is necessary due to Madison's location in an elevated risk neighborhood
9. Auditorium/Stage: Replacement of outdated theatrical lighting and rigging systems to improve safety and ease of maintenance

School Stats

- » Opened 1957
- » 35 Gen Ed Classrooms
- » 7 Science Labs
- » 1 Gym
- » 3 Computer Labs

Existing Area

284,000 SF

Required Area*

282,000 SF

27 of 35 Gen Ed classrooms, and 5 out of 7 science labs do not meet current PPS Ed Specs for size.*

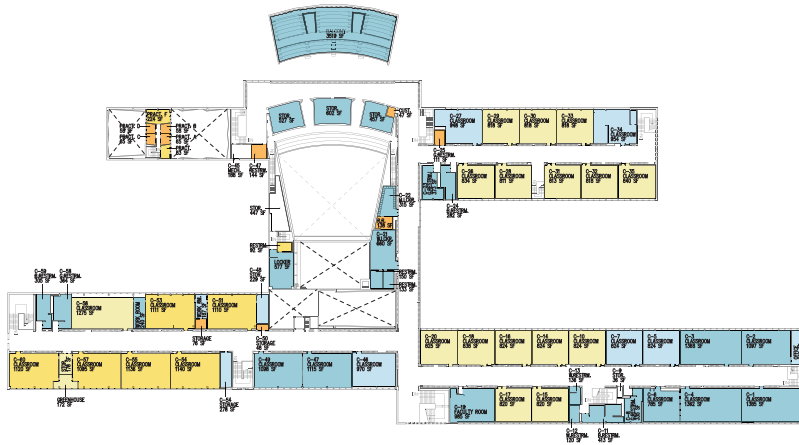
*According to 2016 PPS Ed. Spec. Requirements



MADISON HIGH SCHOOL // Existing Conditions- Ed Spec Comparison

- Exceeds Ed Spec (> +10%)
- Meets Ed Spec (+10% to -10%)
- Below Ed Spec (-10% to -20%)
- Below Ed Spec (-20% to -30%)
- Below Ed Spec (-30% or More)

UPPER FLOOR



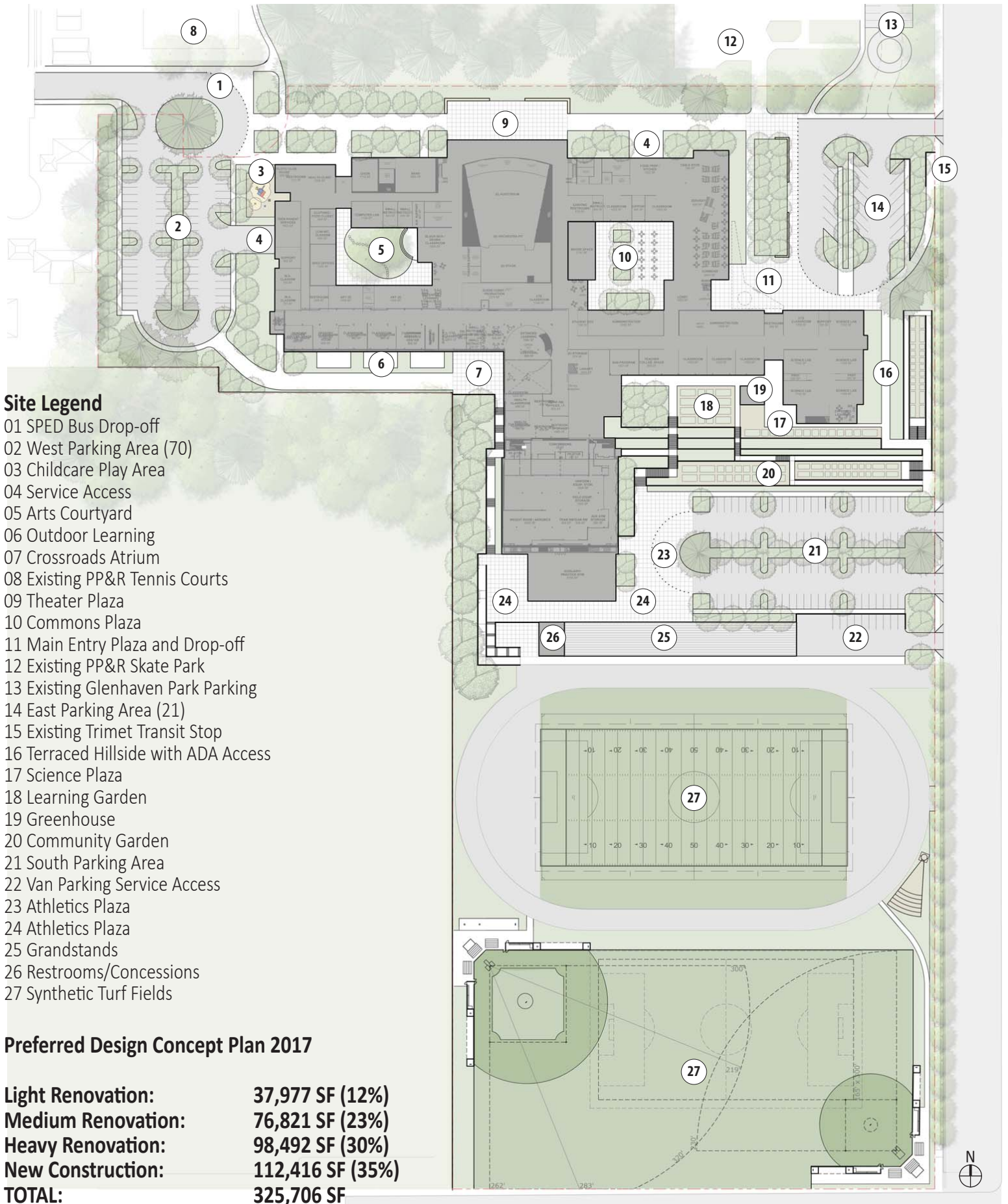
MAIN FLOOR



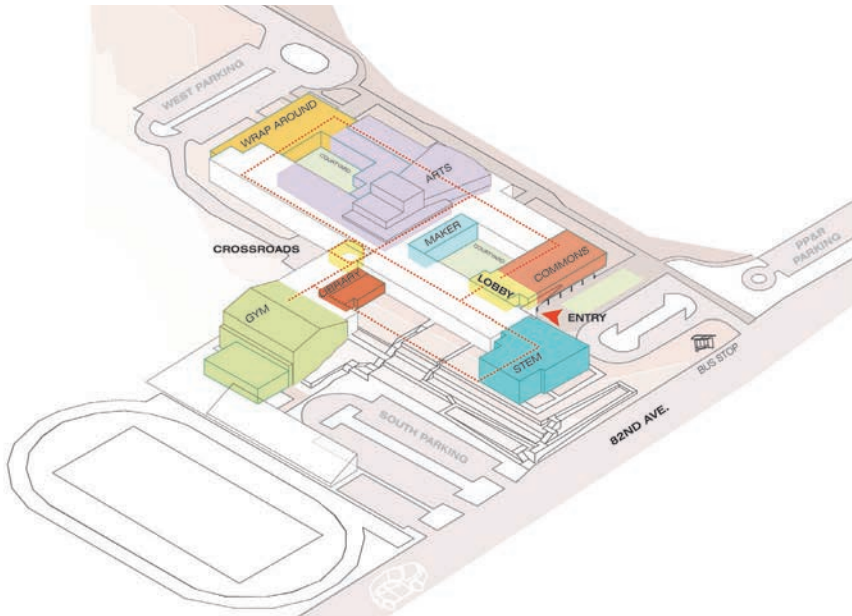
GROUND FLOOR & BASEMENTS



MADISON HIGH SCHOOL // Proposed Scheme

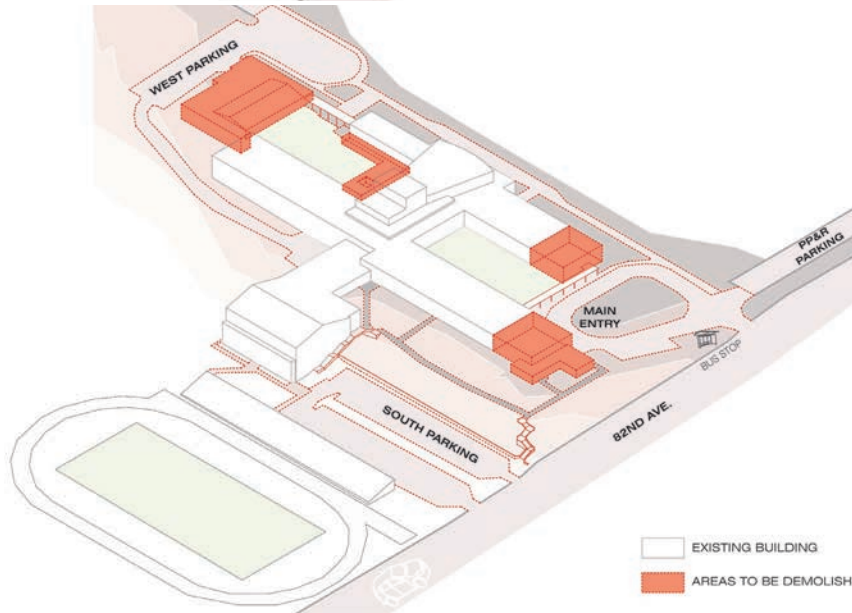


MADISON HIGH SCHOOL // Proposed Scheme



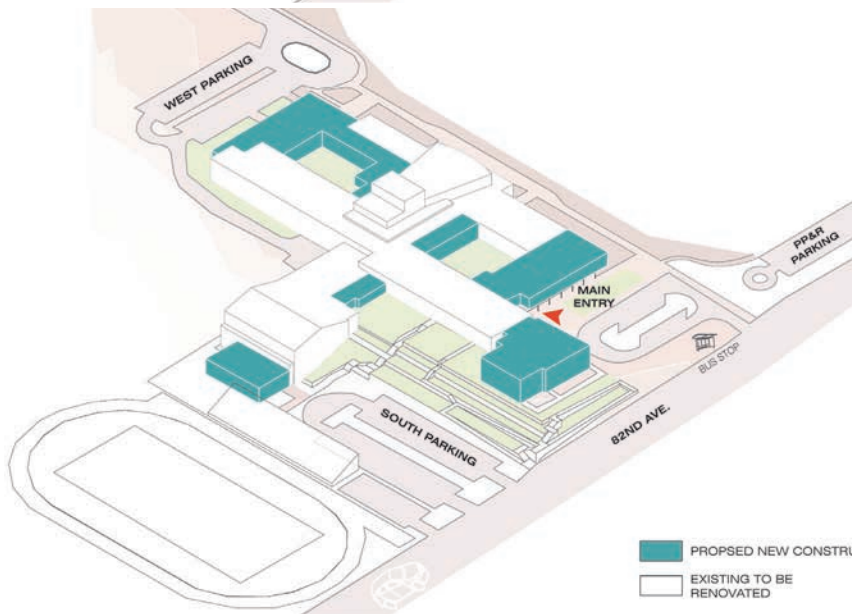
Program Neighborhoods

Program districts anchor each wing of the building and surround the outdoor learning courtyards and southern terraced gardens.



Demolition Diagram

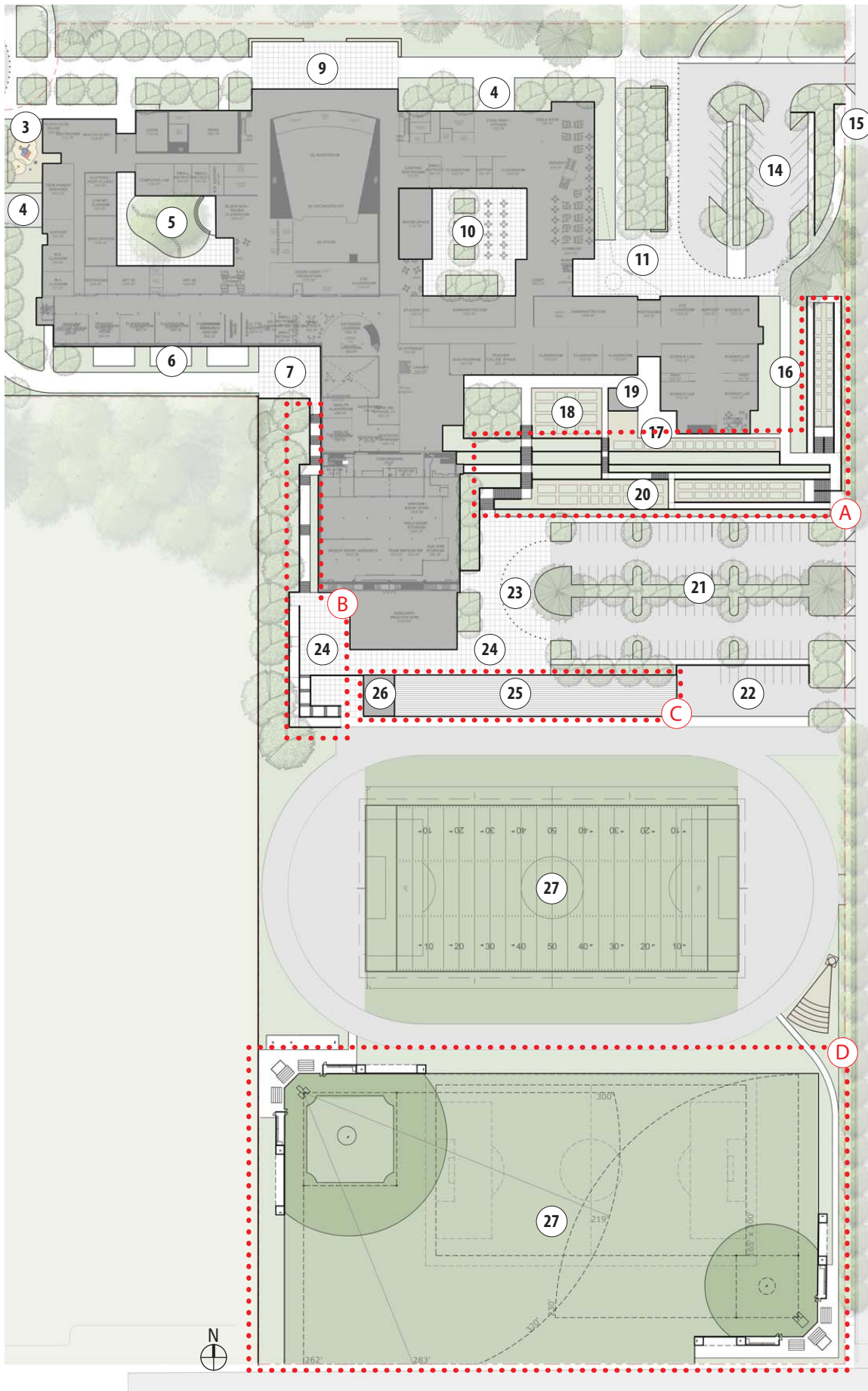
Areas of demolition occur in perimeter zones, to be addressed with modernized new construction areas.



Areas of Proposed New Construction

The areas of proposed new construction are located to efficiently address as many modernization goals as possible.

MADISON HIGH SCHOOL // Proposed Scheme



Pre-Design Due Diligence Process Winter 2016-2017:

Further examined concept plan developed in Spring 2016:

- » Program delivery- area of instructional spaces sufficient to deliver program for 1,700 students
- » Cost of concept plan modernization based on deeper analysis of the following categories:

Must do improvements:

Entire Campus

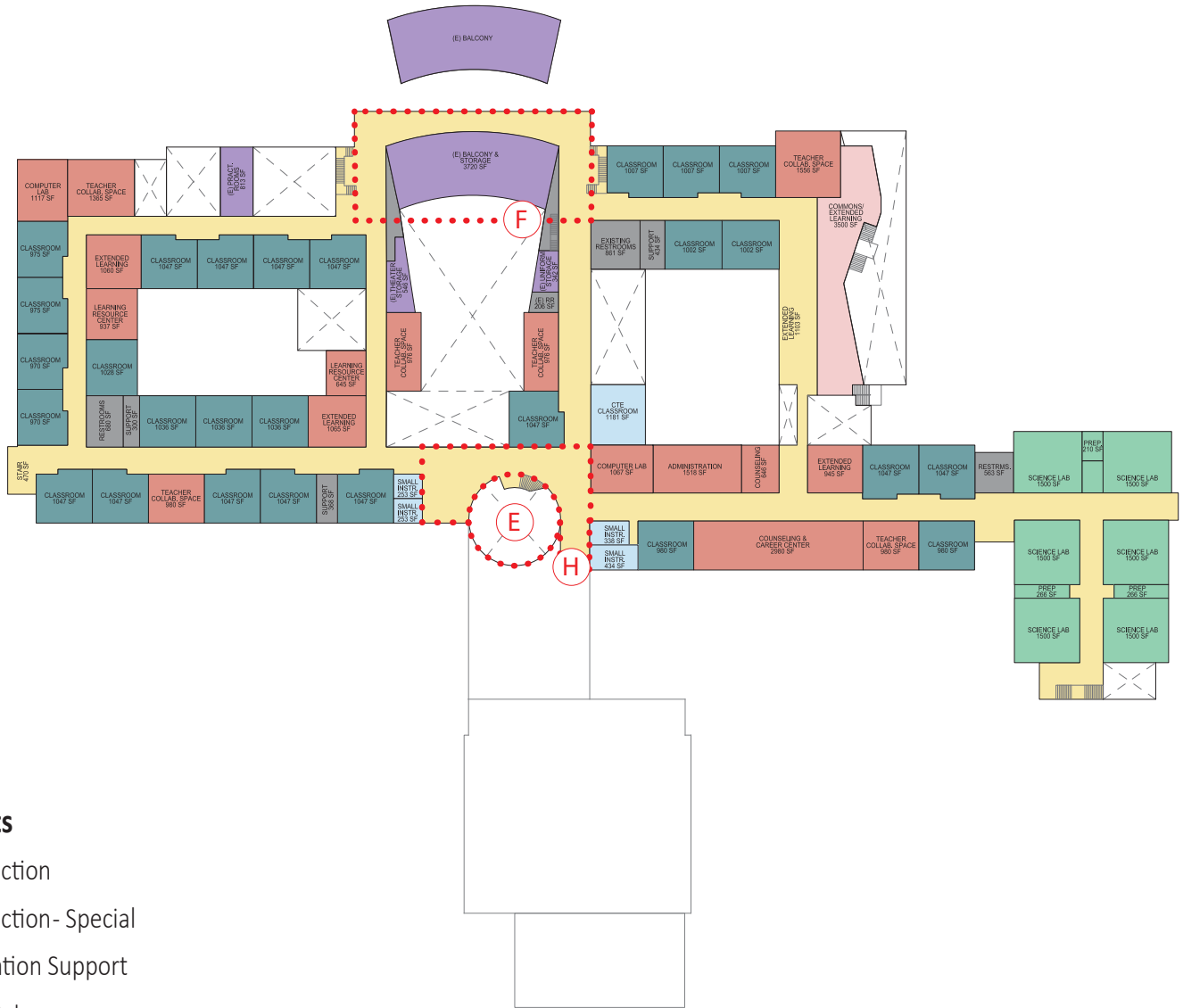
- » Safety and security
- » Hazardous materials mitigation
- » Seismic
- » Code compliance
- » Energy conservation
- » Learning environment upgrades
- » Infrastructure upgrades
- » Wrap around/community services provisions

Optional Priorities

Site:

- A. South slope stairs
- B. South yard improvements
- C. Stadium upgrade
- D. Field upgrade

MADISON HIGH SCHOOL // Proposed Scheme



UPPER FLOOR

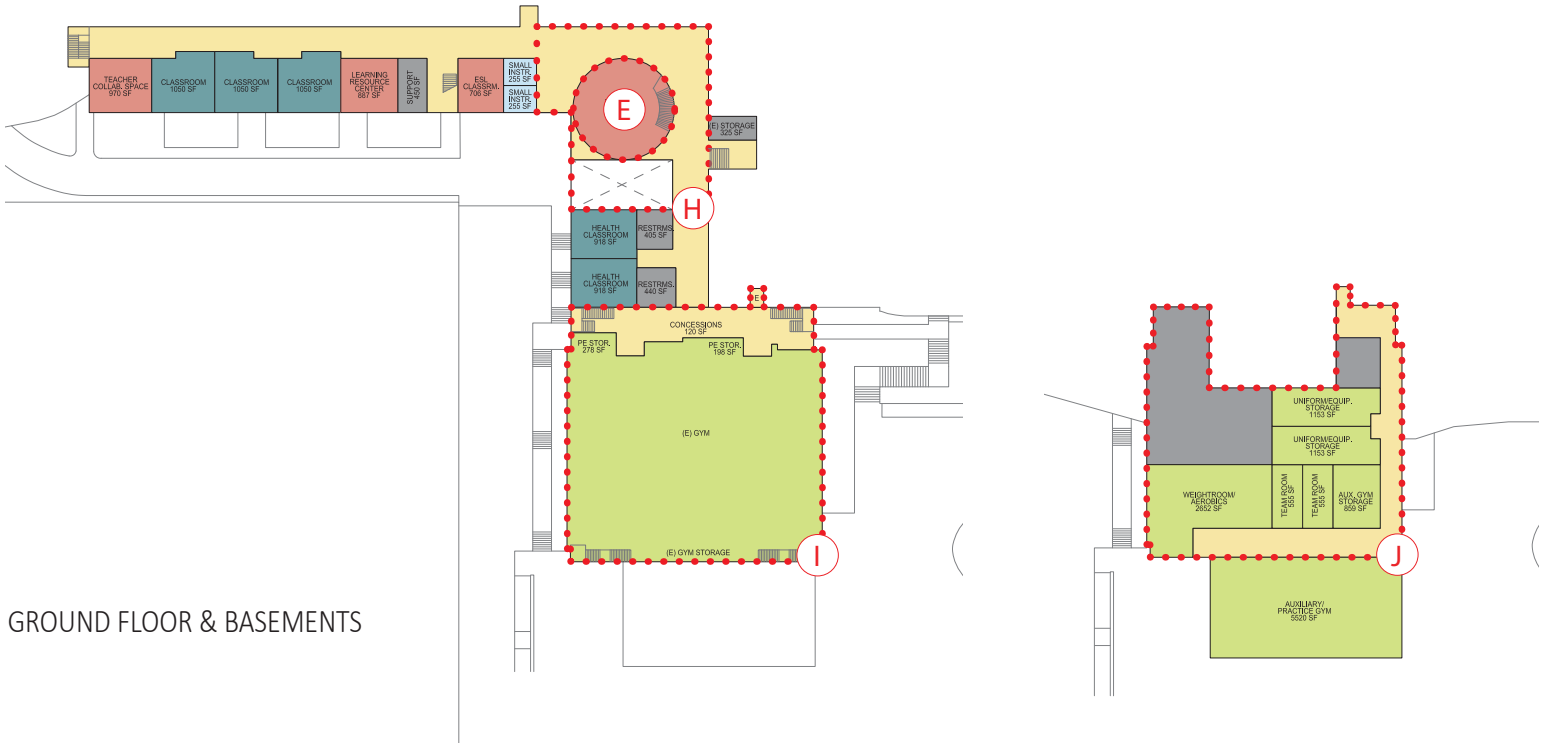
Departments

- Instruction
- Instruction- Special
- Education Support
- Fine Arts
- CTE
- Student Center
- PE/Athletics
- Library/Media Center
- Community Wrap-Around
- Support
- Circulation
- Outdoor Areas

Optional Priorities Building:

- E. Add atrium at 'Crossroads'
- F. Auditorium size reduction (re-purpose for instruction)
- G. Modify scope of 'Beacon' (renovation & new)
- H. Improve net/gross efficiency by 5%

MADISON HIGH SCHOOL // Proposed Scheme



GROUND FLOOR & BASEMENTS

Departments

- Instruction
- Instruction- Special
- Education Support
- Fine Arts
- CTE
- Student Center
- PE/Athletics
- Library/Media Center
- Community Wrap-Around
- Support
- Circulation
- Outdoor Areas

Optional Priorities Building:

- E. Add atrium at 'Crossroads'
- H. Improve net/gross efficiency by 5%
- I. Reduce scope of gymnasium
- J. Reduce scope of basement lease space