

GLENBROOK HIGH SCHOOLS
District Business Office

TO: Dr. Mike Riggle

FROM: Kimberly L. Ptak

DATE: September 30, 2013

RE: DISCUSSION/ACTION: 2014/2015 RECOMMENDED PROJECTS

Recommendation

It is recommended that the Board of Education approve the following projects for the 2014/15 budget year. The costs listed are estimates. Projects will be bid and actual costs will be brought to the Board for approval.

1. GBS enrollment driven projects - \$829,316
2. GBS small building projects - \$190,000
3. 3801 W. Lake Ave building renovation work - \$1,500,000

Background

Every fall, administration brings forward a list of recommended facility projects to be completed the following year. At this time, the Board is only being asked to approve the projects for purposes of creating design specifications. Once designed, projects will go out to bid and actual costs will be brought to the Board for final approval.

GBS Enrollment Driven Projects (\$829,316)

Attached is a list of projects at Glenbrook South which are being recommended due to increasing enrollment. The recommended projects include splitting computer labs into two classrooms and converting four peer group rooms into eight classrooms to better accommodate the increased enrollment and small class size. In addition, there is a recommendation to add 90 parking spots at GBS to better serve the growing student enrollment. Administration is also reviewing other alternatives to add parking at a lower cost.

GBS Small Building Projects (\$190,000)

Gary Freund will be at the meeting to review his recommended summer 2014 building project which involves creating two high-end computer driven classrooms with a shared production lab to support a new program, Project Lead the Way.

3801 W. Lake Ave Renovations (\$1,500,000)

The district office building, located at 3801 W. Lake Ave, was purchased in 2009. The majority of remaining tenants will vacate the building by September 2014. It has been part of the facility financial projection to renovate the space previously occupied by tenants as well as replace all windows and siding. This work would begin October 1, 2014. The renovated space will involve:

- Creating a board room and conference room
- Relocating human resources, reception and residency to the first floor
- Building a technology office space to house 12 technicians
- Adding file space
- Creating an employee break area

GBS Enrollment Driven Projects

FACILITY CHANGES DUE TO 2980 STUDENTS GLENBROOK SOUTH 2013 - 2014

Transition to the A/B Block Schedule will increase the general capacity of Glenbrook South High School. In general, it will also increase the number of course selections by students and the need for general classroom space for these course selections and for areas to house Peer Group. As enrollment increases, providing a student-driven schedule, which has been a staple in the Glenbrooks, will be challenged in the areas of science, automotives and foods. A student-driven schedule in automotives and foods will not likely be possible due to the fact that the foods lab is currently used 15/16 sections and the auto lab is used 7/8 sections. Students will be turned away in these areas at 2980 students.

Handling the increase in enrollment at Glenbrook South High School will require the conversion of computer labs into classrooms and the addition of badly needed parking spaces on campus. To support 2980 students, the following modifications will be needed:

- SOCIAL STUDIES COMPUTER LAB** **\$35,160**
Convert the social studies computer lab into 2 classrooms. This replaces the two classrooms used for the PLTW expansion (building project).
- WRITING LAB** **\$52,920**
Convert writing computer lab into 2 classrooms using an operable partition for flexibly.
- WRITING LAB ANNEX** **\$22,980**
Convert writing lab annex into a classroom.
- PEER GROUP** **\$140,832**
Convert Rooms 151, 152, 190, 191 into eight small rooms for peer group. This modification ultimately serves these needs more efficiently, using four classrooms instead of eight.
- PARKING** **\$577,424**
Drop off and pick up currently are a problem at GBS. The increase to 2980 students compounds an already unsafe condition. In addition, GBS needs to maintain or increase the number of students going out to lunch to manage the volume in our food courts areas.

GBS currently has 444 student parking spaces that serve 1360 juniors and seniors. Currently, 299 student requests for parking were denied. This number is projected to increase to 350 at 2980 students. Moving the maintenance garage will add 45 parking spots and adding parking south of the turf field would add approximately 45 more spots for a total of 90 additional spots. This will also relieve the drop off and pick up congestion.

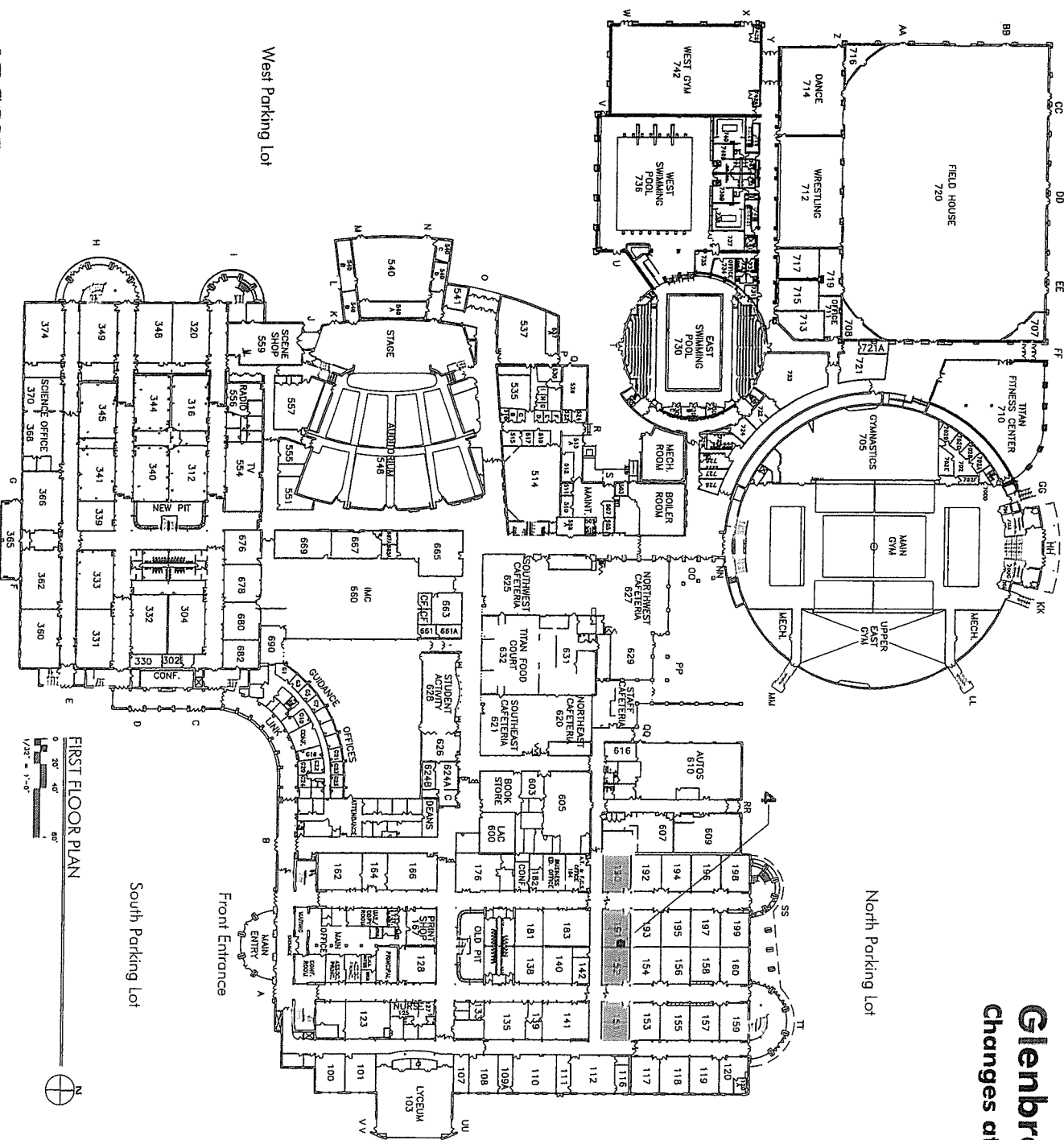
Total **\$829,316**

Parking Spot Analysis

	<u>GBN</u>	<u>GBS</u>
Student Spots	611	444
% of Student Population	29%	16%
# of Students Turned Away	0	300
Recommended Spots to Add		<u>90</u>
		534
% of Student Population		19%

Glenbrook South High School

Changes at 2,980 Students




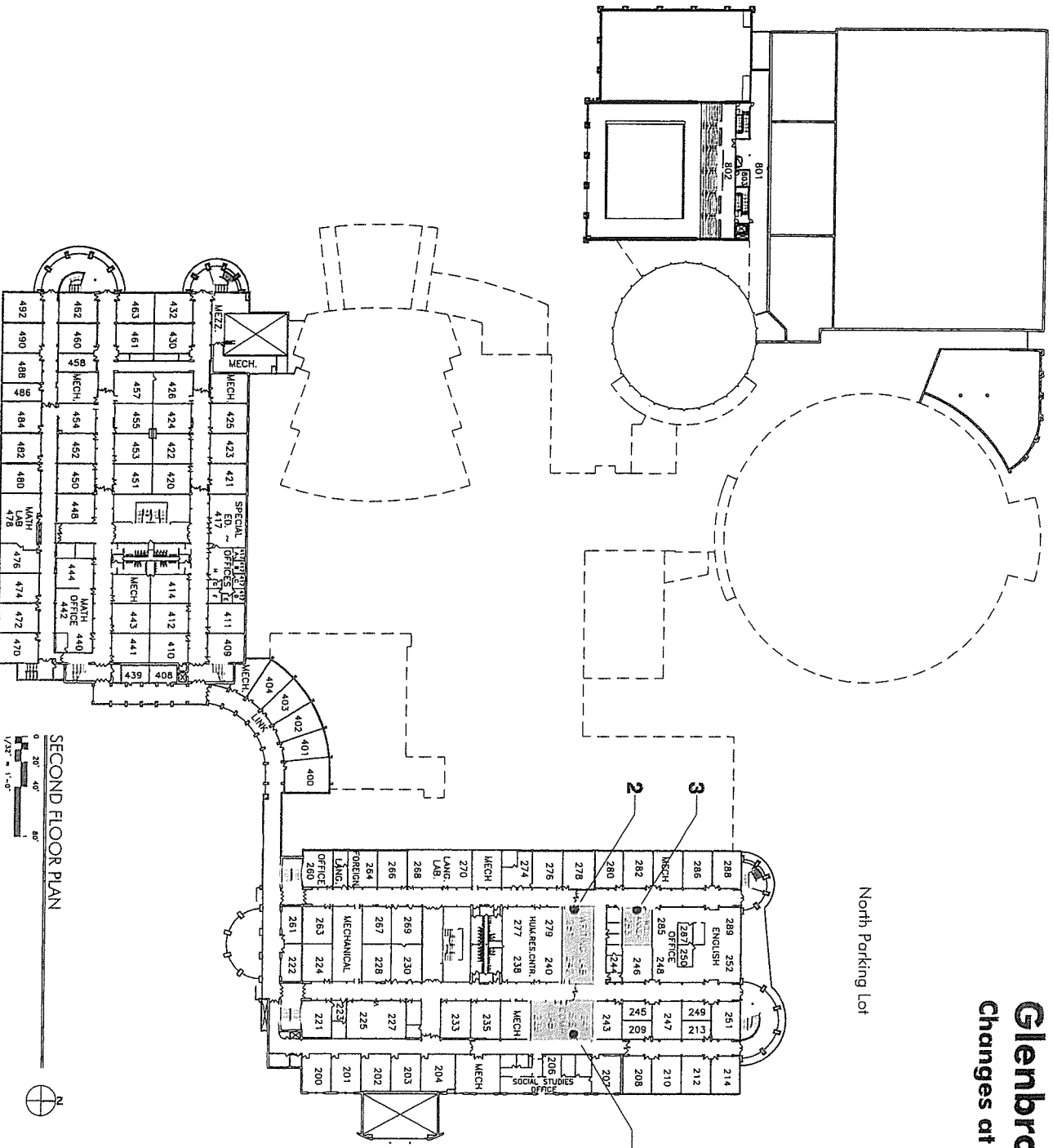
Northfield Township High School District 225
 Glenbrook South High School - Space Utilization and Capacity Study
 Project No 13040
 August 29 2013

Glenbrook South High School

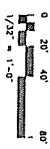
Changes at 2,980 Students

North Parking Lot

- LEGEND**
-  Exist. Computer Labs Converted Into Classrooms





SECOND FLOOR PLAN

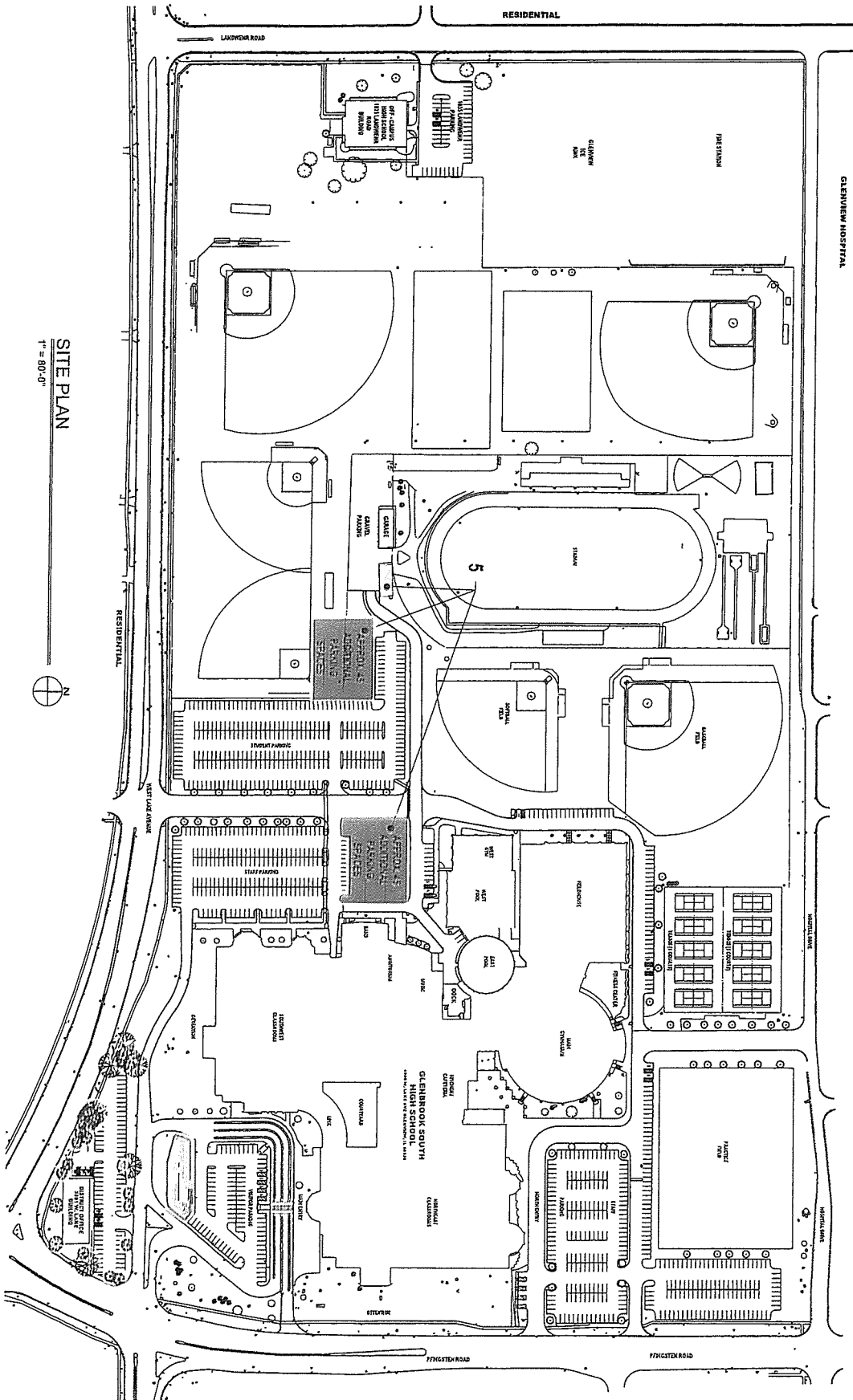


Northfield Township High School District 225
 Glenbrook South High School - Space Utilization and Capacity Study
 Project No 13040
 August 29 2013

Glenbrook South High School

Changes at 2,980 Students

- LEGEND**
-  Additional Parking
 -  New Maintenance Building



Northfield Township High School District 225
 Glenbrook South High School - Space Utilization and Capacity Study
 Project No. 13040
 August 29, 2013

SPECIAL BUILDING PROJECTS 2014 - 2015

GLENBROOK SOUTH

Project Lead the Way (PLTW) Facility

\$190,000

PLTW was introduced at Glenbrook South for the 2013-2014 school year. Student response has exceeded expectations with 250 students registered for the first two courses offered. Combining these requests with existing CAD enrollment requires 4 classes to be taught outside the current CAD Lab during the 2013-2014 school year. PLTW will continue to expand as additional courses are implemented over the next three years, which drives the need to expand our PLTW facility. The courses housed in the engineering classrooms for PLTW and CAD include:

1. Introduction to Engineering Design (IED)
 - Designed for 9th or 10th grade students, the major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.
2. Principles of Engineering (POE)
 - Designed for 10th or 11th grade students, this survey course exposes students to major concepts they'll encounter in a post-secondary engineering course of study. Topics include mechanics, energy, statics, materials, and kinematics. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges as they document their work and communicate solutions.
3. Architecture
4. CAD 1 and CAD 2
5. Future PLTW courses (beginning in 2014 - 2015) will be selected from: Digital Electronics, Civil Engineering and Architecture, and Engineering Design & Development.

This project incorporates two general classrooms with the existing CAD Lab to create two high-end computer driven classrooms with a shared production lab. This efficient model has been designed with the input of our experienced PLTW teachers. See attached drawing.

Project Lead the Way Pathway to Engineering

What is Project Lead the Way?

Project Lead the Way (PLTW) is the leading provider of rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) education curricular programs used in middle and high schools across the U.S. STEM education is at the heart of today's high-tech, high-skill global economy. PLTW integrates national academic and technical standards and STEM principals while influencing and engaging both males and females to pursue careers in engineering with a real-world project-based curriculum.

Who should take Project Lead the Way?

PLTW courses are appropriate for students interested in engineering or architecture, and focuses on engaging all students in activities-, projects-, and problem-based (APPB) learning, which provides hands-on classroom experiences.

Why take Project Lead the Way?

PLTW promotes critical thinking, creativity, innovation and real-world problem solving skills in students. Students create, design, build, discover, collaborate and solve problems while applying what they learn in math and science.

New Course Offerings for the 2013-14 School Year at GBS

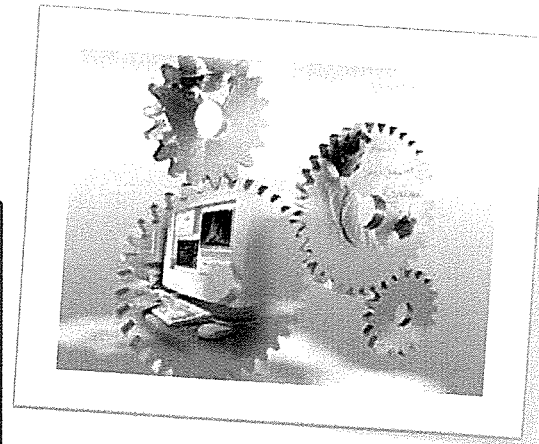
- Introduction to Engineering Design (IED)
- Principles of Engineering (POE)

Prospective Courses for 2014-15

- Digital Electronics (DE)
- Engineering Design and Development (EDD) *capstone course

Other PLTW Prospective Courses

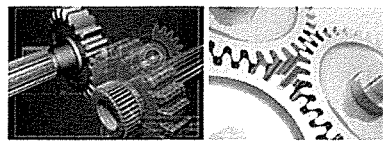
- Aerospace Engineering (AE)
- Biotechnical Engineering (BE)
- Civil Engineering and Architecture (CEA)
- Computer Integrated Manufacturing (CIM)



Key Benefits:

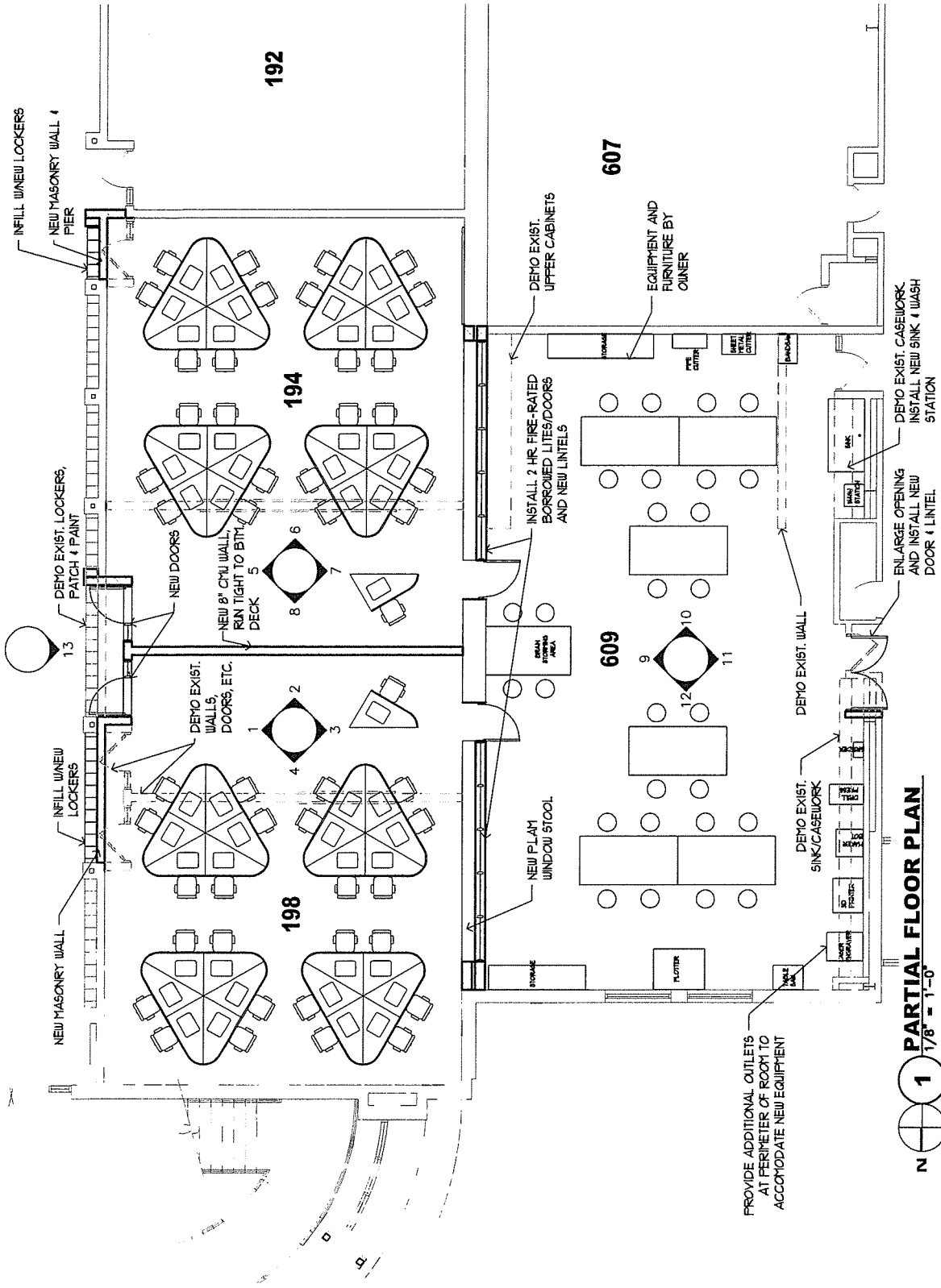
Students completing PLTW courses will have significant advantages in their future, and have achieved far higher retention rates in college engineering programs.

- 1 College Credit and Preferred Admissions status with college partners across the country, as well as scholarship.**
- 2 Industry Partners – students interact with engineers in a project-based curriculum.**
- 3 Students think and act like engineers, building a foundation of skills and knowledge to prepare them for success in college and career.**



PLTW is a “model for 21st century career and technical education” –

Harvard Graduate School of Education

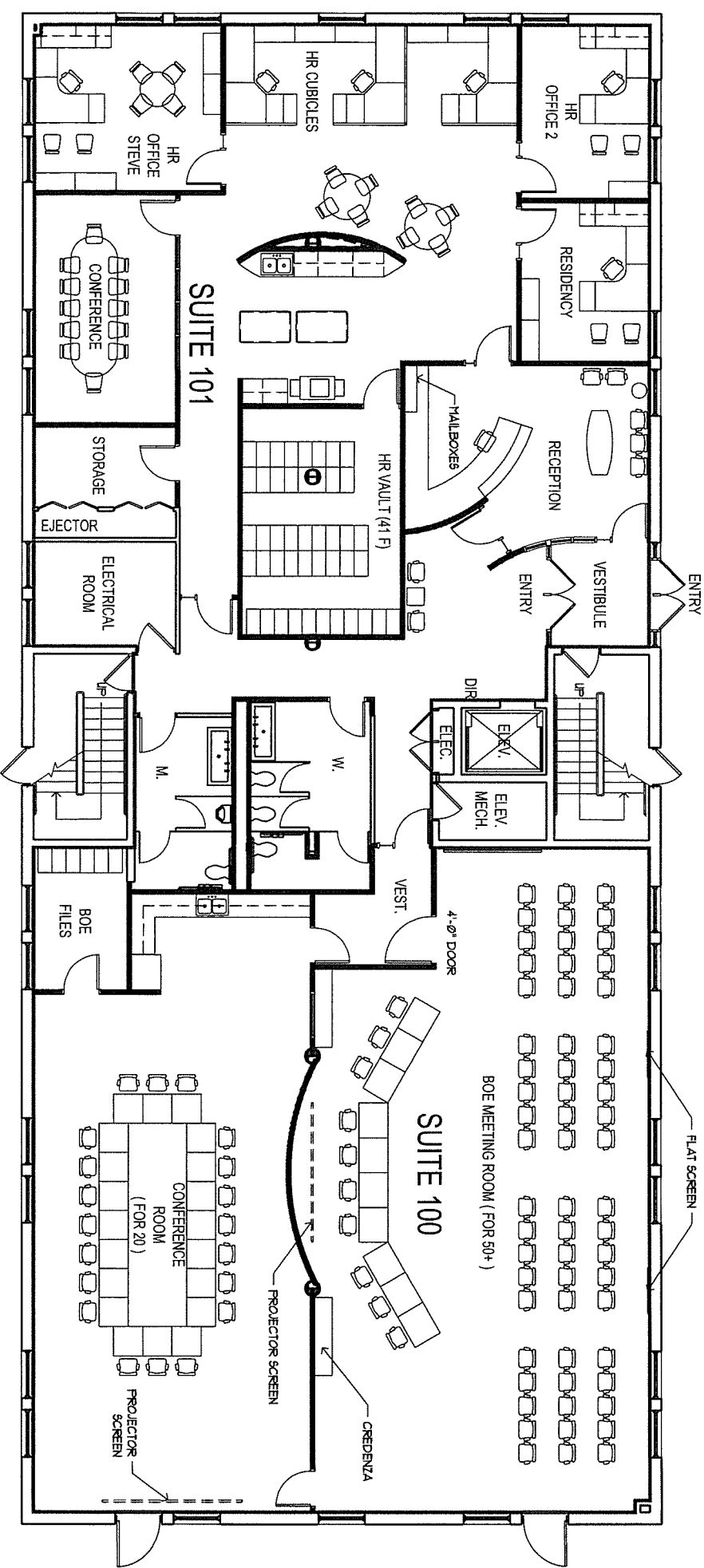


1 PARTIAL FLOOR PLAN
1/8" = 1'-0"

Northfield Township High School District 225
Interior Remodeling at Glenbrook South High School
Project No. 13040
August 14, 2013



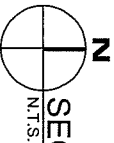
LEGEND
 AREA OF WORK _____



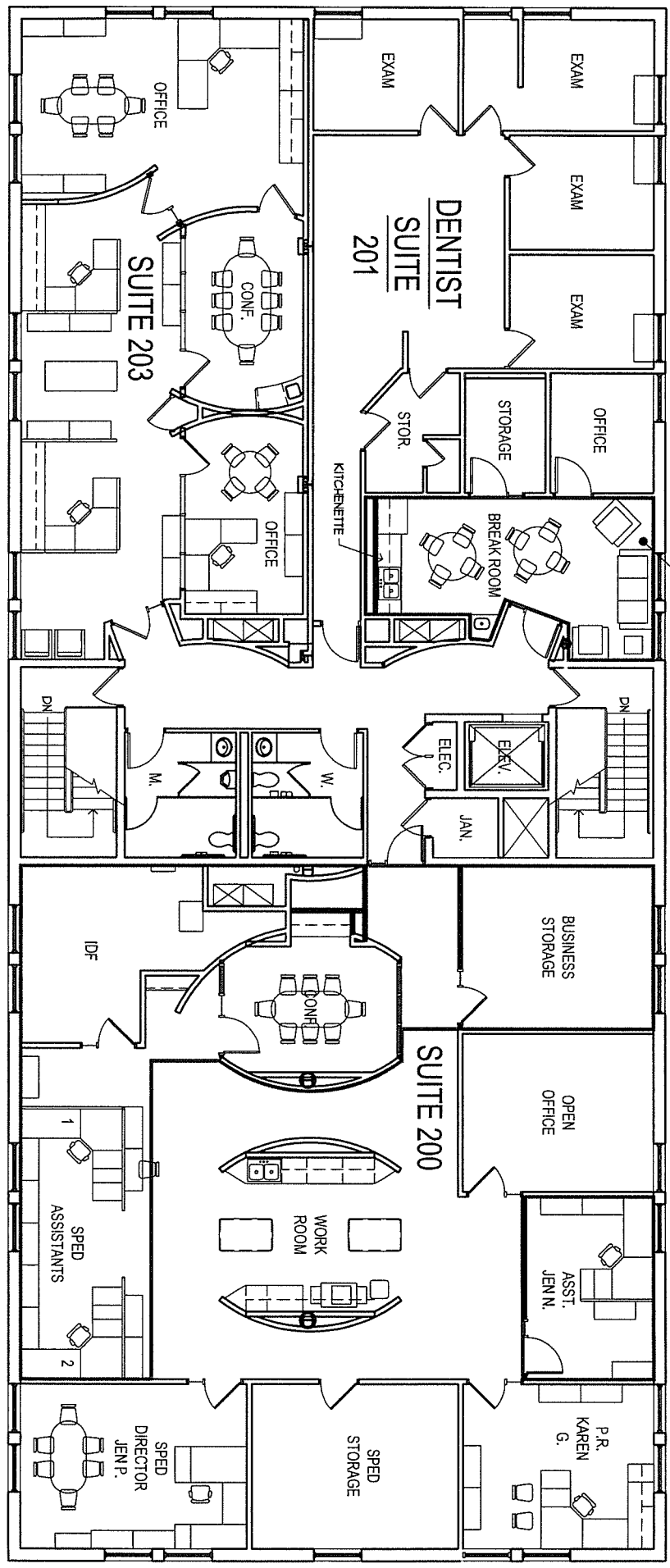
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 FIRST FLOOR PLAN
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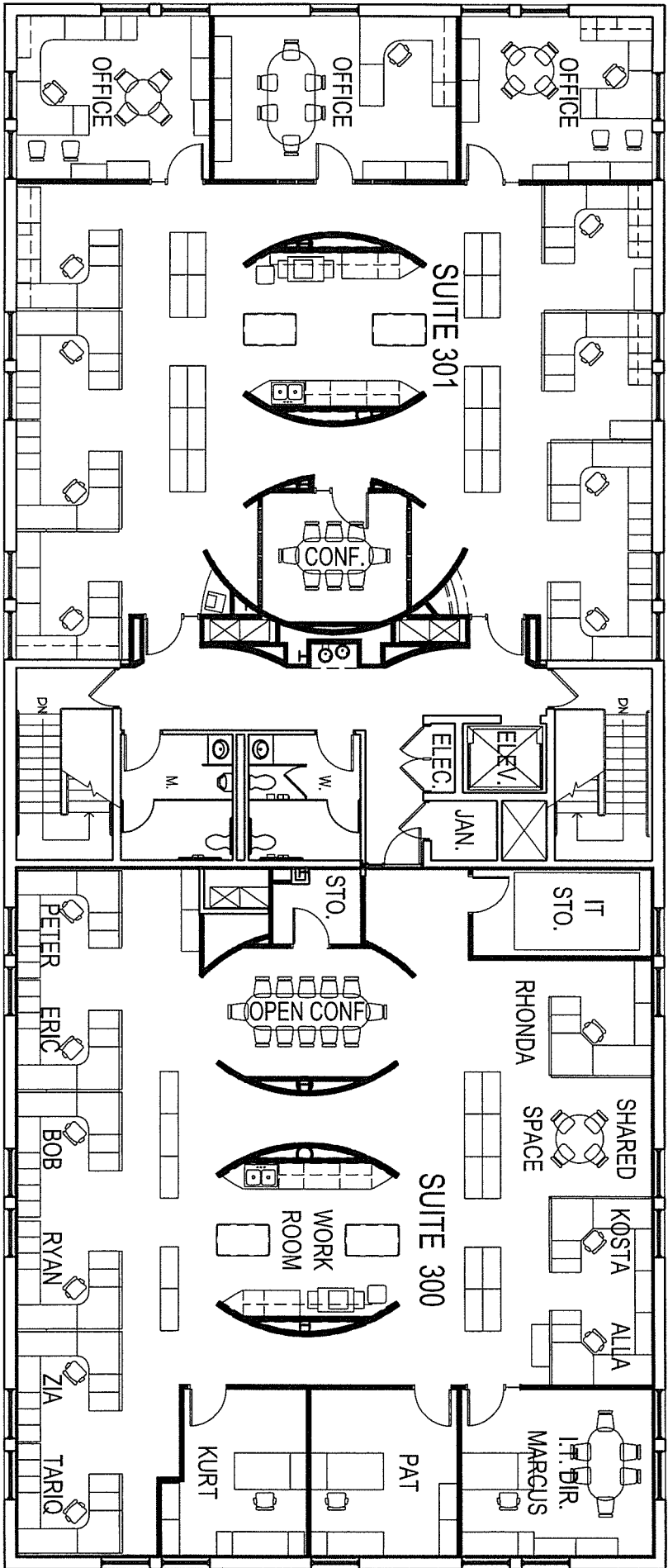
3801 Building
 Northfield Township Glenbrook High School District 225
 Project No. 13042
 June 20, 2013



SECOND FLOOR PLAN



3801 Building
Northfield Township Glenbrook High School District 225
Project No. 13042
June 20, 2013



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THIRD FLOOR PLAN
N.T.S.



3801 Building
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