

**GLENBROOK HIGH SCHOOLS
Board Meeting – November 9, 2009
District Business Office**

**TO: Dr. Mike Riggle
Hillary Siena**

FROM: Kimberly L. Ptak

DATE: November 9, 2009

RE: DISCUSSION: 3801 W. Lake Ave and 1835 Landwehr Rd Update

Attached please find the following documents which will be discussed at the November 9, 2009 board meeting.

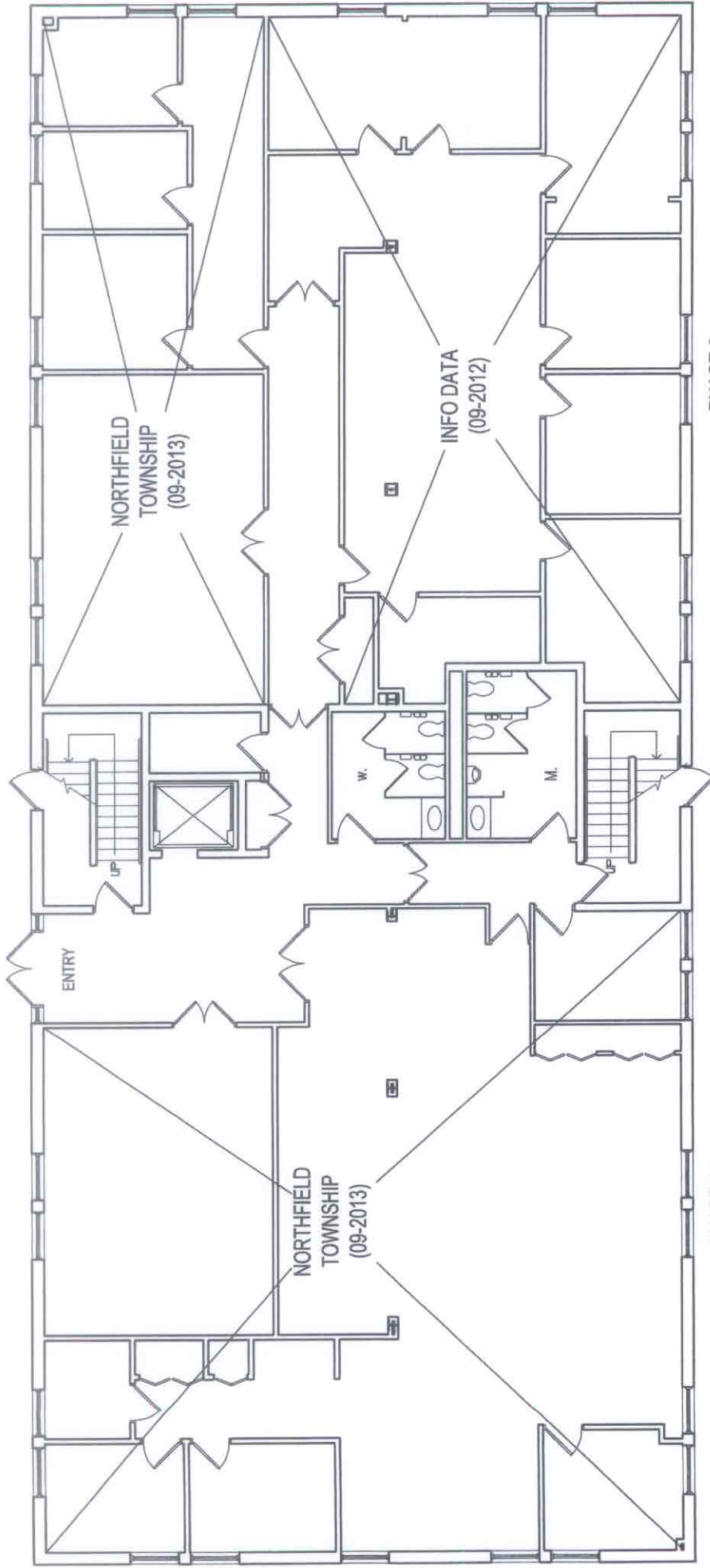
1. Tentative floor plans for first phase of construction at 3801 W. Lake Ave (district office) and 1835 Landwehr Rd (off campus). See below for a breakout of phase 1 and phase 2 scope of work and cost estimates for each location.

| <u>3801 Phase 1 – Spring 2010</u> | <u>Cost Est.</u> | <u>3801 Phase 2 – Fall 2013+</u> | <u>Cost Est.</u> | <u>TOTAL</u> |
|---|------------------|---|------------------|--------------|
| <u>Renovation</u> | \$520,000 | <u>Renovation</u> | \$255,000 | \$775,000 |
| Phase 1 moves district office (except for technology and board room) to 3801 and involves renovation work on ¾ of the 2 nd floor and ½ of the 3 rd floor. Work includes gutting the space and adding new carpet, ceiling tile, ceiling grid, lights, gypsum board and metal stud walls. | | Phase 2 moves technology to 3801 and adds a board room and potential professional development space. Renovation work will be on the first floor, ¼ 2 nd floor and ½ the 3 rd floor. | | |
| <u>HVAC</u> | \$640,000 | <u>HVAC</u> | \$35,000 | \$675,000 |
| For scope of work please see attached letter from Paul Connor, AMSCO Engineering. | | For scope of work please see attached letter from Paul Connor, AMSCO Engineering. | | |
| <u>Roof Support</u> | \$15,000 | | | \$15,000 |
| <u>Security System</u> | \$25,000 | | | \$25,000 |
| <u>Fiber Connection</u> | \$18,000 | | | \$18,000 |
| | \$1,218,000 | | \$290,000 | \$1,508,000 |

| <u>1835 Phase 1 – Fall 2010</u> | <u>Cost Est.</u> | <u>1835 Phase 2 – Fall 2014+</u> | <u>Cost Est.</u> | <u>TOTAL</u> |
|--|------------------|--|------------------|---------------------------|
| <u>Renovation</u> | \$550,000 | <u>Renovation</u> | \$25,000 | <u>\$575,000</u> |
| Phase 1 will convert the majority of the building, with the exception of the back technology area, into an off campus space. Work includes gutting the space, adding new carpet, ceiling tile, ceiling grid, lights, gypsum board, metal stud walls, student bathroom facility and a sprinkler system. | | The back technology area will be converted into classroom space. | | |
| <u>HVAC</u> | \$525,000 | <u>HVAC</u> | | <u>\$525,000</u> |
| For scope of work please see attached letter from Paul Connor, AMSCO Engineering. | | | | |
| <u>Roof Replacement</u> | \$650,000 | | | <u>\$650,000</u> |
| <u>Parking Lot Repair</u> | \$50,000 | | | <u>\$50,000</u> |
| <u>Security</u> | \$15,000 | | | <u>\$15,000</u> |
| | \$1,790,000 | | \$25,000 | <u>\$1,815,000</u> |

2. Letter from Paul Connor, AMSCO Engineering, regarding the scope of HVAC work.

3. Timeline/Next Steps

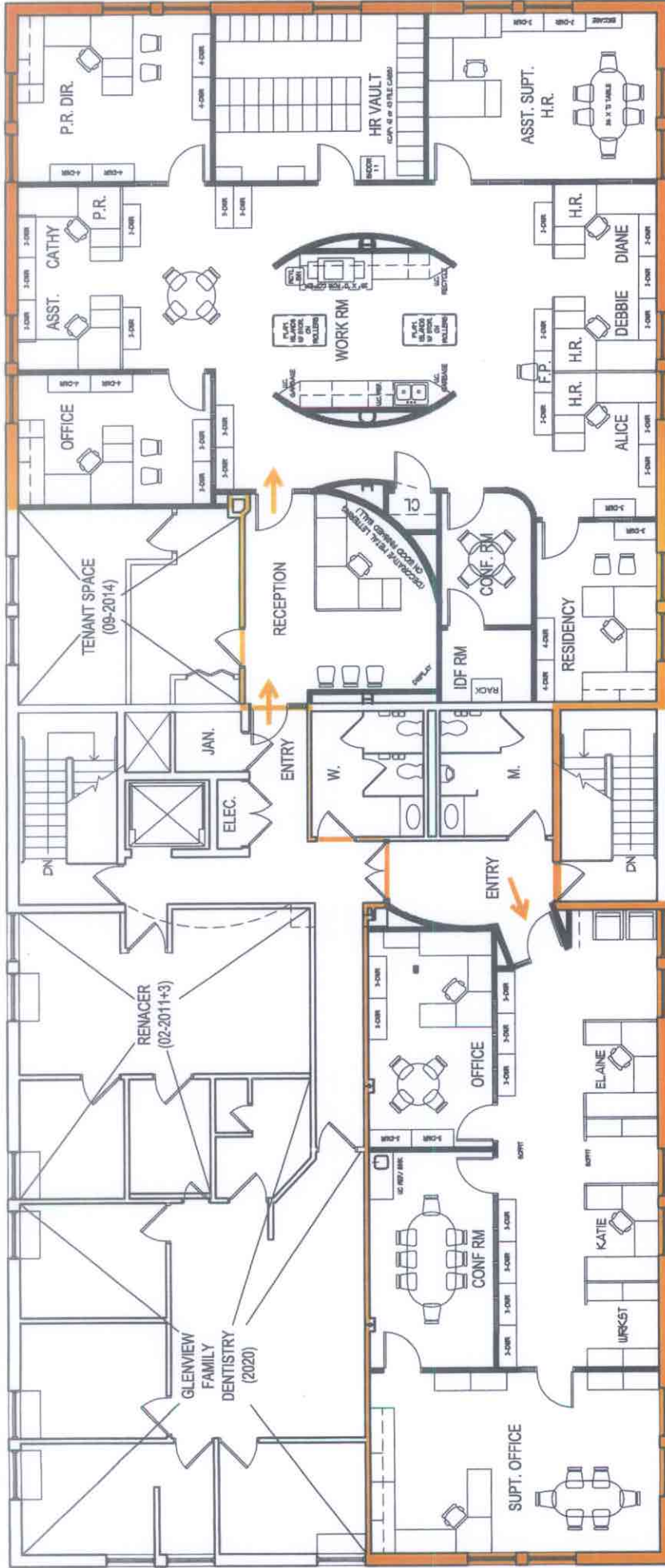


PHASE 1:
NO WORK

PHASE 2:
BOARD ROOM / PROFESSIONAL DEVELOPMENT SPACE

N

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

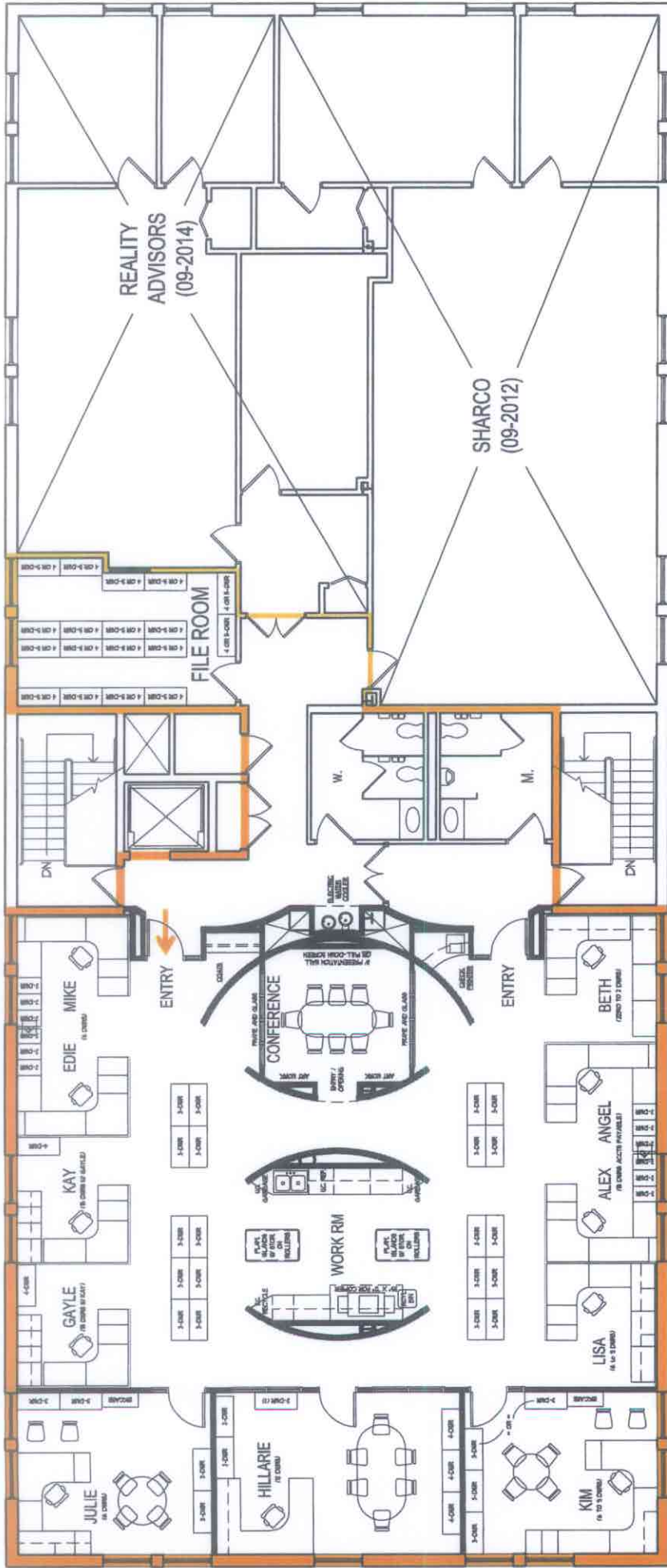


PHASE 1:
 HUMAN RESOURCES / PUBLIC RELATIONS / RESIDENCY
 (TEMPORARY SPACE: SP.ED. & EVENING H.S.)

PHASE 1:
 SUPERINTENDENT AREA

SECOND FLOOR PLAN - NEW WORK
 1/8" = 1'-0"





PHASE 2:
TECHNOLOGY

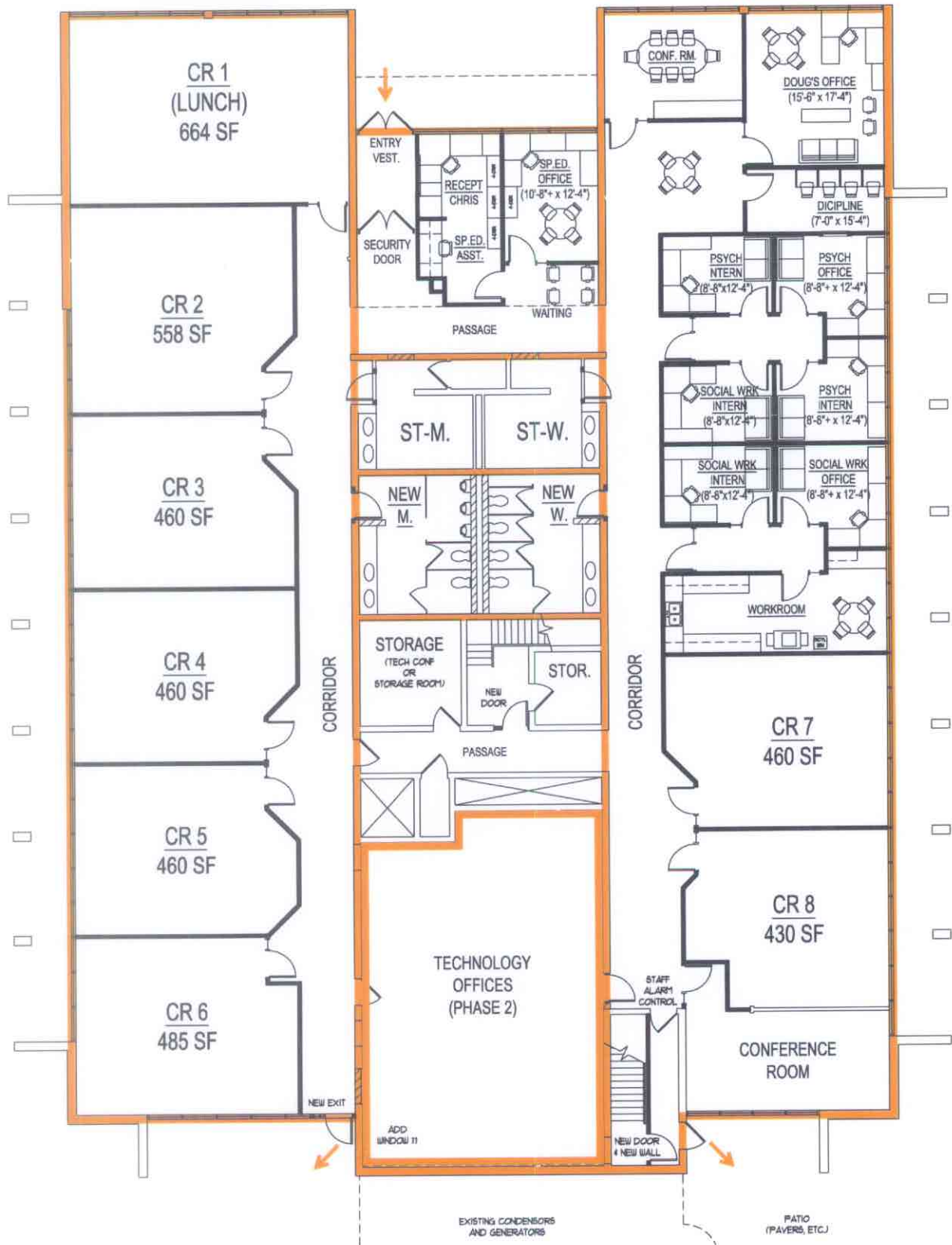
PHASE 1:
BUSINESS OFFICE

THIRD FLOOR PLAN - NEW WORK

1/8" = 1'-0"



INSTALL NEW OPENINGS & WINDOWS



FIRST FLOOR PLAN - DESIGN LAYOUT
 3/32" = 1'-0" (ON 11 X 17)

OPTION "G"
 PHASE 1 (w/ SPEC. ED OFFICE & TECHNOLOGY)





AMSCO
ENGINEERING INC.

5115 BELMONT ROAD
DOWNERS GROVE, IL 60515
PHONE: (630) 515-1555
FAX: (630) 515-1583

November 3, 2009

Northfield Twp H.S. District 225
1835 Landwehr Road
Glenview, IL 60025

RE: School Dist 225 – Glenbrook Options
for Mechanical Systems at 3801 Lake
Avenue and for 1835 Landwehr Road

ATTN : Mike Sauer

3801 LAKE STREET

The existing through wall packaged terminal air conditioners (PTAC) units will be removed from all of the remodeled areas and replaced with new mechanical equipment. The PTAC units will remain in areas that are not being renovated as part of this project.

We would also recommend removing the existing rooftop unit that serves the core areas of the building. The existing rooftop unit is a standard efficiency constant volume unit. The new systems would require that this unit be converted to a variable air volume unit. If this was converted it would be a less efficient unit that was field converted to a variable air volume (VAV) application. We would not recommend trying to re-use this unit because it will be less efficient and potentially less reliable because of the field conversion work that is required.

The new mechanical systems will consist of two new cooling only variable air volume rooftop units. One unit will serve the east half of the building and one unit will serve the west half of the building. The units will be mounted atop 30" high curbs. Supply and return ductwork will run through the curb and drop down north and south of the building centerline. There will be four duct risers – two for each unit. This will simplify the ductwork routing and will allow the ductwork to be held as high as possible in the building to maximize the ceiling heights.

Individual variable air volume (VAV) boxes with electric heating coils will provide zone control in the building. Each VAV box will be controlled by a thermostat. The building temperature controls will be Siemens Direct Digital Controls (DDC) that will alarm remotely and will have the capability of being monitored remotely.

The equipment will be sized and designed for expansion of the system into all tenant spaces as tenant leases expire and the spaces are converted over for District 225 use.

The advantages of using a VAV system are:

- Ease of providing control zones. Zones can be added wherever they are desired by adding a VAV box.
- The VAV system allows a phased construction. As spaces are finished out ductwork is extended to that area and a VAV box is installed.
- VAV systems are more energy efficient. The air flow is reduced when the space temperature is satisfied.

Estimated Cost :

| | |
|--|------------------|
| Phase 1: | \$640,000 |
| Phase 2 cost as future tenants vacate: | <u>\$ 35,000</u> |
| Total Estimated Cost | \$ 675,000 |

EXISTING DISTRICT OFFICE 1835 LANDWEHR ROAD

The building is served by one multi-zone air handling unit that has hot water heating provided by gas fired boilers located in the basement of the building and cooling provided by an air cooled DX condensing unit that is located on the south side of the building. The condensing unit was replaced in 2005 and new DDC controls were added to the air handling unit. There are also electric baseboard heaters that are located along the outside wall of the building to provide heat and some zoning of the perimeter spaces.

The building is being converted for use as an Off Campus Classroom space. This will change the occupancy requirements of some of the spaces. Most of the spaces are currently used as office occupancy. If the spaces are used as classroom the number of people per square foot increases and the cooling and ventilation requirements increase for these spaces. The zoning would also change based on reconfiguring the spaces.

The existing systems could be modified to meet the requirements of the Off Campus Classroom use. The boiler systems would remain to provide heating. The newer condensing unit can be re-used to serve the new classroom spaces. The ductwork would have to be re-configured to meet the new classroom spaces. The air handling unit would have to be converted to a Variable Air Volume (VAV) system and VAV boxes added to provide control of temperature and air flow in the reconfigured spaces. An Energy Recovery Ventilator (ERV) would be provided to meet the increased outside air requirements. This unit uses a heat exchanger to take heat or cooling from the exhaust air stream and transfer it to the fresh air coming into the building. This is a more energy efficient way to provide ventilation and will allow increasing the ventilation to a building without increasing the load on the heating or cooling plant.

Estimated Cost - \$525,000

I am available to discuss any of these options.

Sincerely
Paul J. Connor P.E., LEED-AP
AMSCO Engineering Inc

TIMELINE
DISTRICT OFFICE USE OF 3801 WEST LAKE AVENUE
AND OFF CAMPUS USE OF 1835 LANDWEHR

| <u>DATE</u> | <u>EVENT</u> |
|-------------------------------|---|
| September 2009 – January 2010 | Finalize floor plans & bid specs for 3801 as district office and 1835 as off-campus |
| January 1, 2010 | Plans due to Nicholas for Scope Review |
| February 1, 2010 | Out to bid |
| February 16, 2010 | Bid Opening |
| February 23, 2010 | Finance Committee Meeting – review of bids |
| March 8, 2010 (Board Meeting) | Award of bids |
| April – July 2010 | Construction at 3801 W. Lake Ave |
| August 2010 | District office moves to 3801 W. Lake Ave |
| September – December 2010 | Construction at 1835 Landwehr |
| Winter Break 2010 | Space at 1835 Landwehr available for off-campus |