

## DEVELOPER/OWNER:

KAPPA SIGMA HOUSING COMMITTEE  
1641 TOWER GROVE AVENUE  
ST. LOUIS, MISSOURI 63110  
PHONE: (314) 664-3011

## ARCHITECT:

DICK BUSCH ARCHITECTS, P.C.  
16678 OLD CHESTERFIELD ROAD  
CHESTERFIELD, MISSOURI 63017  
PHONE: (636) 530-1181  
FAX: (636) 530-2315  
DICKBUSCHARCHITECTS.COM

## GENERAL CONTRACTOR

CONWAY CONTRACTING INC.  
3943 WEST PINE BLVD.  
ST. LOUIS, MISSOURI 63108  
PHONE: (314) 534-6500  
FAX: (314) 534-6501

## STRUCTURAL ENGINEER

FRONTENAC ENGINEERING GROUP  
2125 BUTTON BLVD.  
ST. LOUIS, MISSOURI 63143  
PHONE: (314) 644-2200  
FAX: (314) 644-0645

## MECHANICAL (DESIGN BUILD)

HOFFMANN BROTHERS HEATING AIR CONDITIONING  
AND REFRIGERATION  
1641 TOWER GROVE AVENUE  
ST. LOUIS, MISSOURI 63110  
PHONE: (314) 664-3011  
FAX: (314) 664-0636

## CIVIL ENGINEER

GREDELL ENGINEERING RESOURCES INC.  
1505 E. HIGH STREET  
JEFFERSON CITY, MISSOURI 65101  
PHONE: (513) 659-9078  
FAX: (513) 659-9079

## SOILS CONSULTANT

MIDWEST TESTING  
8606 PAGE AVENUE  
ST. LOUIS, MISSOURI 63114  
PHONE: (314) 739-2121  
FAX: (314) 739-5429

## PLUMBING (DESIGN BUILD)

MERLO PLUMBING CO., INC.  
11041 GRAVOIS INDUSTRIAL COURT  
ST. LOUIS, MISSOURI 63128  
PHONE: (314) 843-1000  
FAX: (314) 843-1000

## ELECTRICAL (DESIGN BUILD)

BATES ELECTRIC  
P.O. BOX 100  
IMPERIAL, MISSOURI 63128  
PHONE: (636) 464-3333  
FAX: (636) 464-3338

## FIRE SUPPRESSION (DESIGN BUILD)

FIRETECH, LLC  
1353 BAUR BLVD.  
ST. LOUIS, MISSOURI 63132  
PHONE: (314) 292-6250  
FAX: (314) 292-6255

## INTERIOR DESIGN CONSULTANT

CHESTERFIELD DESIGN INTERIORS  
17621 WILD HORSE CREEK ROAD  
CHESTERFIELD, MISSOURI 63025  
PHONE: (314) 211-2536

## LANDSCAPE ARCHITECT

TO BE DETERMINED

## KITCHEN CONSULTANT (DESIGN BUILD)

TO BE DETERMINED

# BETA CHI / KAPPA SIGMA HOUSE RENOVATION AND ADDITION



## PROJECT DATA

EXISTING BUILDING :  
31 INDIVIDUAL STUDY ROOMS TOTAL  
21 2-MAN ROOMS = 42 OCCUPANTS  
10 3-MAN ROOMS = 30 OCCUPANTS  
TOTAL = 72 OCCUPANTS  
NEW ADDITION 12 INDIVIDUAL STUDY ROOMS :  
12 2-MAN ROOMS = 24 OCCUPANTS  
TOTAL PROJECT = 96 OCCUPANTS

DATE: 5/11/10  
REVISED: 5/28/10  
PER CITY OF ROLLA REQUEST  
FOR ADDITIONAL PLAN  
REVIEW INFORMATION

PARKING SPACES :  
38 EXISTING  
42 NEW  
TOTAL SPACES = 80 SPACES

JURISDICTION  
CITY OF ROLLA COMMUNITY DEVELOPMENT  
901 NORTH ELM STREET  
ROLLA, MISSOURI 65401  
ROLLA FIRE AND RESCUE DEPARTMENT  
1403 E. 10TH STREET  
ROLLA, MISSOURI 65401

## BUILDING CODE DATA

### CURRENT CODES OBSERVED

2000 ICC INTERNATIONAL BUILDING CODE  
2000 ICC INTERNATIONAL RESIDENTIAL CODE  
2000 ICC INTERNATIONAL MECHANICAL CODE  
2000 ICC INTERNATIONAL PLUMBING CODE  
2000 ICC INTERNATIONAL FIRE CODE  
2000 ICC ELECTRICAL CODE  
1999 NATIONAL ELECTRICAL CODE AS REFERENCED IN THE ICC ELECTRICAL CODE  
2000 ICC INTERNATIONAL PROPERTY MAINTENANCE CODE  
CITY OF ROLLA CODE

EXISTING BUILDING AND NEW ADDITION  
USE GROUP: NONSEPARATED MIXED USE  
R-2, FRATERNITIES AND SORORITIES, A-2 DINING, and  
A-3 MEETING ROOMS

CONSTRUCTION TYPE - TYPE III B

TYPE OF AUTOMATIC FIRE SPRINKLER SYSTEM- NFPA 13R SYSTEM (IBC 903.3.12)  
(DESIGN BUILD)

SUPERVISORY SERVICE- AUTOMATIC SPRINKLER SYSTEM SHALL BE MONITORED  
BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 12 (IBC 901.6)  
(DESIGN BUILD)

BUILDING FOOTPRINT AREA & HEIGHT:

EXISTING BUILDING AND NEW ADDITION: ACTUAL: 2 STORIES AND 28'-0" IN HEIGHT  
AND 15,185 SQ. FT./FLR FOOTPRINT (INCLUDING PORCHES)

NOTE: THE HEIGHT AND AREA LIMITATIONS SHALL APPLY TO THE  
MOST RESTRICTIVE USE GROUP OF THE BUILDING'S MIXED USES WHICH  
IS THE ASSEMBLY A2 USE

HEIGHT AND AREA INCREASE COMPUTATIONS

ASSEMBLY A2 USE ALLOWABLE PER TABLE 503 IN  
III B CONSTRUCTION: 2 STORY (35'-0" MAX. HGT.) AND 9,500  
SQ. FT. PER FLOOR

INCREASE COMPUTATIONS

HEIGHT INCREASE: AUTOMATIC SPRINKLER SYSTEM INCREASE PER  
SECTION 504.2 TO TABLE 503 LIMITS: 1 ADDITIONAL STORY AND  
MAXIMUM HEIGHT IS INCREASED BY 20'-0" TO:

NEW LIMIT: 3 STORIES AND 35'-0"

EXISTING BUILDING IS: 2 STORIES AND 28'-0" IN HEIGHT

AREA INCREASE: AUTOMATIC SPRINKLER SYSTEM INCREASE PER  
SECTION 506.3 TO TABLE 503 LIMITS: 200% FOR MULTI-STORY  
BUILDINGS  
NEW LIMIT: 200% x 9,500 = 19,000 + 9,500 = 28,500 SQ. FT.

EXISTING BUILDING :  
28,500 SQ. FT./FLR ALLOWED 15,185 SQ. FT./FLR OF EXISTING BUILDING  
AND NEW ADDITION

OCCUPANT LOAD CALCULATION

NOTE: THE OCCUPANT LOAD IS FORMULATED BY ACTUAL NUMBER AND  
TABLE FOR RESIDENTIAL USE AND BY TABLE 1003.2.2.2 FOR ASSEMBLY USE

ASSEMBLY - UNCONCENTRATED (TABLE AND CHAIRS)

DINING/CONFERENCE AREA = 1171 SQ. FT.

EXISTING BUILDING  
OCCUPANT LOAD FACTOR = 15 NET  
OCCUPANT LOAD = 118

STUDY ROOM/ RECREATION AREA  
LOWER LEVEL NEW ADDITION = 1380 SQ. FT.  
OCCUPANT LOAD FACTOR = 15 NET  
OCCUPANT LOAD = 92

RESIDENTIAL ACTUAL COUNT

EXISTING BUILDING:

31 INDIVIDUAL STUDY ROOMS TOTAL  
21 2-MAN ROOMS = 42 OCCUPANTS  
10 3-MAN ROOMS = 30 OCCUPANTS  
TOTAL = 72 OCCUPANTS

NEW ADDITION 12 INDIVIDUAL STUDY ROOMS:  
12 2-MAN ROOMS = 24 OCCUPANTS

TOTAL PROJECT ACTUAL = 96 OCCUPANTS

RESIDENTIAL PER TABLE 1003.2.2.2

EXISTING BUILDING:

FIRST FLOOR AREA = 7100 SQ. FT.  
OCCUPANT LOAD FACTOR = 200 GROSS  
OCCUPANT LOAD = 35

SECOND FLOOR AREA = 1800 SQ. FT.  
OCCUPANT LOAD FACTOR = 200 GROSS  
OCCUPANT LOAD = 39

NEW ADDITION:

FIRST FLOOR AREA = 3363 SQ. FT.  
OCCUPANT LOAD FACTOR = 200 GROSS  
OCCUPANT LOAD = 16

SECOND FLOOR AREA = 3324 SQ. FT.  
OCCUPANT LOAD FACTOR = 200 GROSS  
OCCUPANT LOAD = 16

TOTAL PROJECT PER TABLE = 106 OCCUPANTS

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### PLUMBING

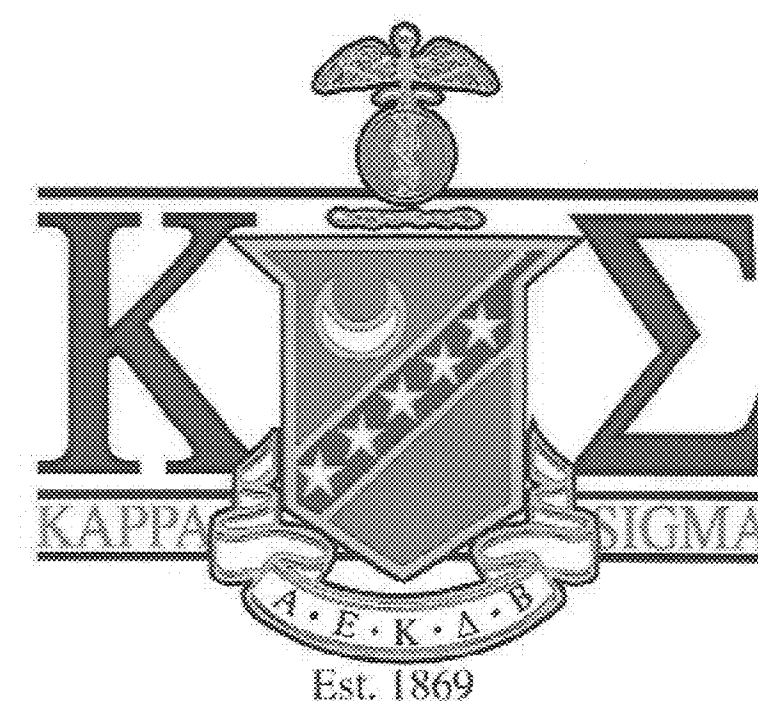
P-1 BASEMENT PLUMBING PLAN  
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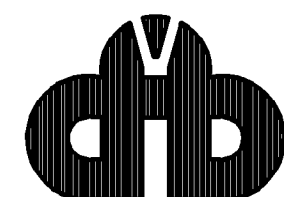
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**Conway**  
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