

# feasibility study

## Story County Human Services Campus-Feasibility Study First Evangelical Free Church Ames, Iowa

September 18, 2008

RDG Rudi Lee Dreyer  
2712 Stange Road, Ames, IA 50010





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Story County Human Services Campus - Feasibility Study

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# 01





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Story County Human Services Campus - Feasibility Study

Human Services Agencies

Ames Community Preschool Center – ACPC

Aging Resources of Central Iowa

American Red Cross – Lincoln Way Chapter

ARC of Story County

Foster Grandparent Program

Habitat for Humanity Central Iowa

Heartland Senior Services

ISU Extension Service

National Alliance for the Mentally Ill – NAMI

Raising Readers

The Richmond Center

Retired and Senior Volunteer Program – RSVP

Story County Community Foundation

United Way of Story County – UWSC – Frankee Oleson, Executive Director

Donna Moorman, Project Coordinator

Rick Hugdahl, President, Board of Directors

Volunteer Center of Story County

City of Ames, Iowa

Sheila Lundt – Assistant City Manager

Architectural:

RDG Rudi Lee Dreyer – Bill Dreyer, AIA

RDG Rudi Lee Dreyer – Eliz Erbes, AIA, LEED AP

Structural:

Charles Saul Engineering – Donald Jotzke, P.E.

Mechanical & Electrical:

RDG Planning & Design – Mark Conway, P.E., LEED AP

RDG Planning & Design – Mike Chambers P.E., LEED AP







# 02





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Story County Human Services Campus - Feasibility Study

In April 2008 RDG Rudi Lee Dreyer was employed to evaluate the feasibility of converting the existing First Evangelical Free Church located at 2008 24th Street, Ames, Iowa for the purpose of housing several human services agencies on a common campus.

Items addressed in this study include:

- Site assessment and zoning.
- Architectural assessment of the facility for code compliance, level of remodeling or re-purposing, and agency programming space evaluation.
- Structural evaluation of the existing facility.
- Evaluation of the existing facility for mechanical system needs, upgrades, and services.
- Evaluation of the existing facility for electrical needs, upgrades, and services.
- Preliminary cost considerations of re-purposing the existing facility.
- Concept sketches illustrating a potential building layout.

RDG Rudi Lee Dreyer began the evaluation process by reviewing information presented in the previous “Study for Facility Needs – Story County Human Services Agencies, September 11, 2007.” Interviews were conducted with each participating agency to verify, or in the case of new agencies, to develop a program statement of area needs.

The information gathered and/or verified during the agency interviews included:

- description of services
- clients served
- future area requirements and requests
- potential shared facility, equipment, and services opportunities

During the course of this study, surrounding property owners were notified and two neighborhood courtesy meetings were conducted, one on Aug. 21, 2008, and one on Aug. 23, 2008 at the church building. Members of city staff, the architect’s office, United Way of Story County, First Evangelical Free Church – Ames, and several Human Service Agencies attended the meetings and were available to answer questions from the floor. Approximately 50 people from the neighborhoods attended these meetings. Questions centered primarily on traffic issues and building ownership issues.

On-site evaluations of the existing facility were completed by structural, mechanical, and electrical engineers, and architects. Their findings are recorded in section 4 of this booklet, assessment narrative. Site analysis included determination of green space, size of building footprint, parking requirements, and other zoning requirements. Those findings are recorded in the site assessment portion of this report, section 4.

Assuming that all participating agencies occupied the campus, it became apparent that an addition would be required to accommodate the agency needs. The size of the addition, however, might vary, depending on the physical layout of the building concept and reasonable compromises on the part of the agencies.

For the purposes of comparison, three options were investigated to explore a potential range in costs and to identify resultant functional consequences. Other options are certainly available, depending on final agency participation or funding availability.



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Story County Human Services Campus - Feasibility Study

The First Evangelical Free Church – Ames has agreed to vacate the east multipurpose area of the building by spring 2009 but has requested continued occupancy of the remainder of the building until spring 2010. Thus, phasing of the construction becomes a consideration in evaluating options.

The three options incorporate the idea of constructing a second floor level within the existing two-story “32 feet high” sanctuary space. This strategy gains approximately 7000 square feet of area within the existing footprint of the building, reduces the size for the addition, and alleviates the awkward condition of single floor construction within a high volume space. These options are illustrated in section 5 of this report.

Option One proposes an addition in two parts of approximately 14,000 square feet and utilizes a second floor in the sanctuary. It meets the needs of all the participating agencies with approximately 2500 square feet of available space for future growth. This option places primary agencies in the optimum location with respect to existing conditions, accommodates project phasing, and illustrates the maximum buildable facility on this site. Based on current information, this is the recommended concept.

- Option One estimated cost is \$6.48 million to 7.51 million.  
(Plus site purchase cost.)

Option Two proposes a single addition of approximately 10,000 square feet and utilizes a second floor in the sanctuary. It meets the needs of all participating agencies with a slight reduction in shared spaces, and no opportunities for future growth. This option minimizes disruption to the existing parking. However, the placement of the addition to the south side of the building, results in compromises of function and access for Heartland Senior Services and maximizes the construction in the most sensitive area with respect to the adjacent residents. This option is not as easy to phase or access for construction. Based on current information, this is not a recommended solution.

- Option Two estimated cost is \$5.95 million to \$6.88 million.  
(Plus site purchase cost.)

Option Three proposes a minimum addition in two parts of approximately 7,000 square feet and utilizes a full second floor in the sanctuary. It reduces the area requested by the participating agencies and shared spaces by approximately 5% and offers no opportunity for future growth within the facility. It does not lend itself well to the phasing strategy which would meet the church’s needs. The largest deficiency, however, is the placement of Heartland Senior Services in the first floor of the sanctuary, an internal area which is not well suited to the basic needs and functional relationships of that agency. Based on current information, this is not a recommended solution.

- Option Three estimated cost is \$5.25 million to \$6.06 million.  
(Plus site purchase cost.)

In conclusion, we put forth the following comments:

- The site and building appear to be in good to very good condition and suitable for occupancy by a Human Services Campus with appropriate remodeling.
- Adequate utilities are available to the site. It is anticipated that this occupancy will require an upgrade in HVAC system, water service, and electrical service.
- Under the requirements of a special use permit, a Human Services Campus is an



Story County Human Services Campus - Feasibility Study

acceptable use on the site.

- There is a limited amount of area within the existing building which is suitable for occupancy without some degree of remodeling.
- Based on this study, it appears the maximum amount of buildable area on this site is approximately 58,000 gross square feet with approximately 10,000 of that on a second level. (Illustrated by Option #1.)
- With appropriate remodeling, the facility is capable of meeting applicable code requirements and accessibility standards.
- Based on this study and input from current participating agencies, an addition to the existing building will be required to meet agency needs.
- Concepts are available which would allow for phased or sequenced construction. (One is illustrated by Option #1.)



# 03







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Story County Human Services Campus - Feasibility Study

The following agencies expressed an interest in being part of the Human Services Campus project. These agencies were interviewed, program requirements were assessed, support services were reviewed and adjacencies were determined.

**AMES COMMUNITY PRESCHOOL CENTER – ACPC**

ACPC is a nonprofit children’s center which receives public funding to assist families of lower–income levels with their childcare costs. Governed by a volunteer Board of Directors, the members serve a three–year term and appoint an Executive Director to administer the center. Serving central Iowa and Ames for over 35 years, they have locations for toddler and preschool children, in addition to providing after school care in six elementary buildings throughout Ames. All sites are licensed by the State Department of Human Services. Services have been expanded to provide a variety of social and educational experiences for children ages 18 months through 12 years.

**AGING RESOURCES OF CENTRAL IOWA**

Aging Resources provides services to frail elders who live alone with limited incomes. Through private donations, fees, grants, and local, state and federal support, Aging Resources of central Iowa provides funding for community resources, supportive services, nutrition services, in–home care, and case management. Aging Resources has served more than 100,000 older Iowans and their caregivers in Story and neighboring counties since 1973.

**AMERICAN RED CROSS – LINCOLN WAY CHAPTER**

Serving Story, Boone and Green Counties, the chapter provides services that are consistent with its Congressional charter and the fundamental principles of the International Red Cross Movement. They are led by over 400 volunteers who provide relief to victims of disaster and help people prevent, prepare for, and respond to emergencies.

**ARC OF STORY COUNTY**

Incorporated in 1953 as the Story County Association for Retarded Children, this nonprofit organization is an advocate for and provides services to persons with developmental disabilities and their families. The ARC strives to enrich the lives of persons with mental retardation and related developmental disabilities as they learn, work, play and grow within the community. Programs provided include: Children at Home, Faith Fellowship, People First of Iowa, and Best Buddies. The populations they serve are: families, mobility disabilities, learning disabilities, cognitive disabilities, hearing disabilities, emotional disabilities, infants/toddlers, children, adolescents, and adults.

**FOSTER GRANDPARENT PROGRAM**

The Story County Foster Grandparent Program was first established in the spring of 2002. This federal program (the first program being established over 40 years ago) matches up low income seniors with at–risk and special needs children in area daycares and schools. Each foster grandparent is required to work between 15–40 hours per week at their site. Foster Grandparents work alongside teachers helping these children learn to read, master math skills, develop social skills, etc. Currently, the Story County Program has 16 foster grandparents and eight sites.



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Story County Human Services Campus - Feasibility Study

**HABITAT FOR HUMANITY CENTRAL IOWA – HFHCI**

Habitat for Humanity is a hands-on ecumenical, non-profit housing ministry that has been serving partner families in need to build simple, decent and affordable houses in Story County since 1996. Habitat for Humanity is a Christian organization that welcomes people and organizations of all faiths or no faith. Habitat for Humanity builds and rehabilitates housing using volunteer labor, donations, local resources, and sells them to pre-qualified partner families with 0% interest mortgages.

**HEARTLAND SENIOR SERVICES**

Celebrating over 33 years of service, the mission of Heartland Senior Services is to help create a community that values older people and supports them in achieving and maintaining their desired quality of life. Programs and services include: Activity and Resource Center (7% of overall operating budget), Adult Day Care – supervised by a Registered Nurse (22% of budget), Nutrition – serving approximately 425 meals per day at meal sites throughout Story County and delivering 240 meals per week directly to seniors (23% of budget), and Outreach – making personal contact and offering assistance to more than 200 older adults each month (15% of budget).

**ISU EXTENSION SERVICE**

Iowa State University Extension builds partnerships and provides research-based learning opportunities to improve quality of life in Iowa. ISU Extension has programs that serve people in Agriculture and Natural Resources, Business and Industry, Community and Economic development, Families, 4-H Development, and Continuing Education and Professional Development.

**NATIONAL ALLIANCE FOR THE MENTALLY ILL – NAMI**

NAMI of Central Iowa provides people affected by mental illness information and referrals for help in coping with mental illness, and offers understanding, encouragement, and support to all who face mental illness. They hold meetings and support groups to help people develop the understanding, skills and strength needed to cope with mental illness. They work toward the development of vocational rehabilitation programs and employment opportunities for the mentally ill and seek to improve housing opportunities for Central Iowans with mental illnesses.

**RAISING READERS**

Initiated by then First Lady Christie Vilsack, Raising Readers began as an Iowa Stories 2000 project, was incorporated as Baby Talk in 2004, and was renamed Raising Readers in Story County in 2007. With the mission of promoting early language and literacy development in children from birth to eight years of age, this coalition works with families and care and education providers who are young children's first teachers. Raising Readers utilizes curriculum and training of nationally recognized model programs. Primary funding is dependent on contributions from member organizations, grants, and individuals.

**THE RICHMOND CENTER**

Founded in 1957, the Richmond Center is one of Iowa's finest community mental health centers and focuses primarily on the central Iowa counties of Story, Boone, and Greene. Each year over 2,500 people of all ages seek outpatient and community-based services at the Center, with over 60% of these being referred by professional sources. Services include:



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therapy and counseling, outpatient psychiatry, psychological testing and evaluation, outreach services, employee assistance program (EAP) services, Clubhouse, crisis intervention and education and prevention services.

**RETIRED AND SENIOR VOLUNTEER PROGRAM – RSVP**

Story County RSVP matches the life skills, experiences, and interests of adults aged 55 and older with a variety of opportunities to address priority community needs. RSVP volunteers help children become better readers and students, help local law enforcement to better serve the public, and assist home bound elderly residents to remain living in their own homes. They also serve the needs of victims in times of disaster, help children learn life skills, assist families in need, and provide a variety of community services to public, non-profit, and health care agencies.

**STORY COUNTY COMMUNITY FOUNDATION**

The Story County Community Foundation is a charitable foundation created by and for local citizens to improve the quality of life in their communities. The Foundation helps donors make positive, local impact by offering a variety of giving tools that enables them to achieve their charitable giving goals.

**UNITED WAY OF STORY COUNTY – UWSC**

Incorporated in 1953 as the Ames United Fund, Inc., the first annual campaigns were conducted by volunteers who went door to door asking for donations. In 1985, the name was officially changed to United Way of Story County. As a part of the collaborative ASSET allocations process in Story County, UWSC provides leadership in uniting individuals and organizations in a county-wide effort to plan, support, deliver and evaluate effective human service programs that respond to current and future needs and improve the quality of life in the community.

**VOLUNTEER CENTER OF STORY COUNTY**

Providing 25 years of service to Story County, the Volunteer Center of Story County connects volunteers with opportunities throughout the County, promotes volunteering, community involvement, and volunteer recognition. This nonprofit community service agency is funded in part by United Way of Story County and ISU Government of the Student Body.

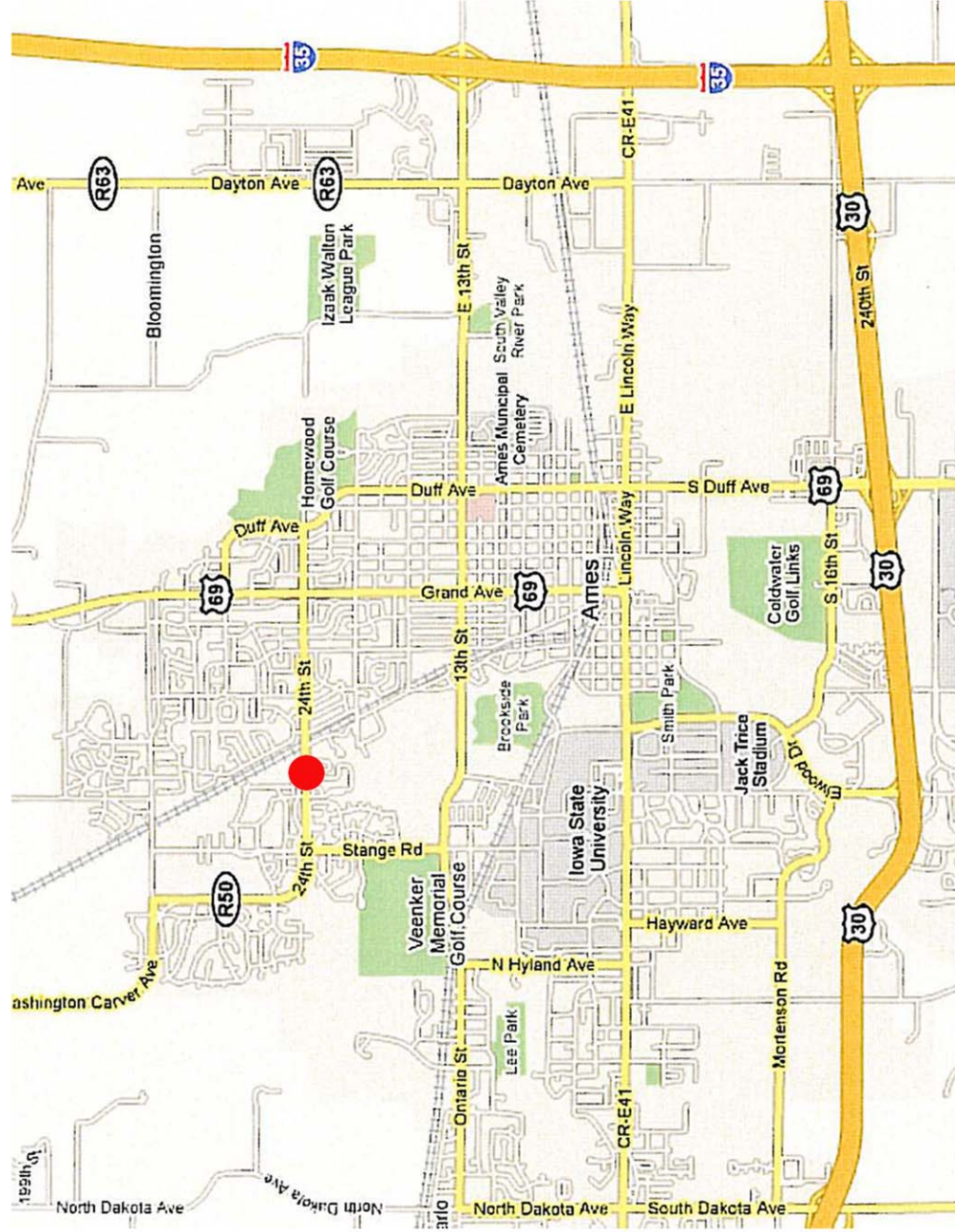




# 04







1 Location Map - First Evangelical Free Church - Ames, Iowa

2008 24th Street







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Story County Human Services Campus - Feasibility Study

#### ZONING

The site is located at 2008 24th Street, Ames, Iowa and occupies approximately 4.7 acres. The site is zoned as R-L: Residential/ Low Density and is currently occupied by First Evangelical Free Church— Ames under a special use permit. A community facility, such as a Human Services Campus, is an acceptable occupancy for this site within the requirements of a special use permit. Existing site development conforms to zoning set back regulations. The existing building footprint, drives, parking, and other site improvements cover approximately 73% of the existing site, not including the existing temporary building. Any future approved occupancy of the site shall not exceed this existing condition.

In addition to the primary building, there is also a temporary classroom, a small yard— storage building and a cargo storage container located on the site. It is recommended that these structures be removed from the site.

#### PARKING

The existing site has 279 conforming parking spaces and a canopy covered drive which accommodates 8–10 temporary vehicle spaces for drop—off purposes. Parking and drives are of concrete construction in good condition. There does not appear to be areas of excessive cracking or settlement. A moderate amount of joint treatment and curb replacement would be recommended as part of the site maintenance. Future development will require parking as determined by zoning regulations.

The church has marked out an addition 25–30 parking spaces along the west and east property lines which do not meet standard dimensions, and which necessitated the one—way traffic pattern currently on site. It is recommended that these spaces not be included in the parking count and that a two—way traffic pattern be restored to the site.

#### UTILITIES

Primary utility services of a size adequate to accommodate proposed future development are available to the site, including water, sanitary, electrical, storm, gas and communications. It is anticipated that future development will require an upgrade of water service, electrical service, and possibly storm water service.

Existing storm water runoff is accumulated primarily in the parking and drives and carried directly to the public storm system via intakes and underground piping. There is no evidence of on—site storm water detention. The majority of building roof runoff is carried via internal piping to the storm system.

#### LANDSCAPING

Existing landscaping consists of mature trees located in the parking area, along the site perimeter and adjacent to the building, and grass areas and shrubs adjacent to the building. Dense landscape materials along the south property line and portions of the east and west property lines provide a visual separation from the adjacent residential property. The landscape plan appears to be in general conformance with zoning requirements. It would be desirable to add additional landscaping along portions of the east and west property lines for additional visual separation from existing residential areas.



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**ACCESS**

The site is accessed from two drives located along 24th Street adjacent to the east and west property lines. The drives are currently designated as a one-way entrance (west) and a one-way exit (east). The drives are of adequate width to accommodate two-way traffic at each entrance. It is recommended the drives be restored to two-way traffic at each location for more efficient site access and exit.

Public transportation to the site is provided via CyRide stops on 24th Street. Current stops are located approximately 350 feet west of the west property line and approximately 100 feet east of the east property line.

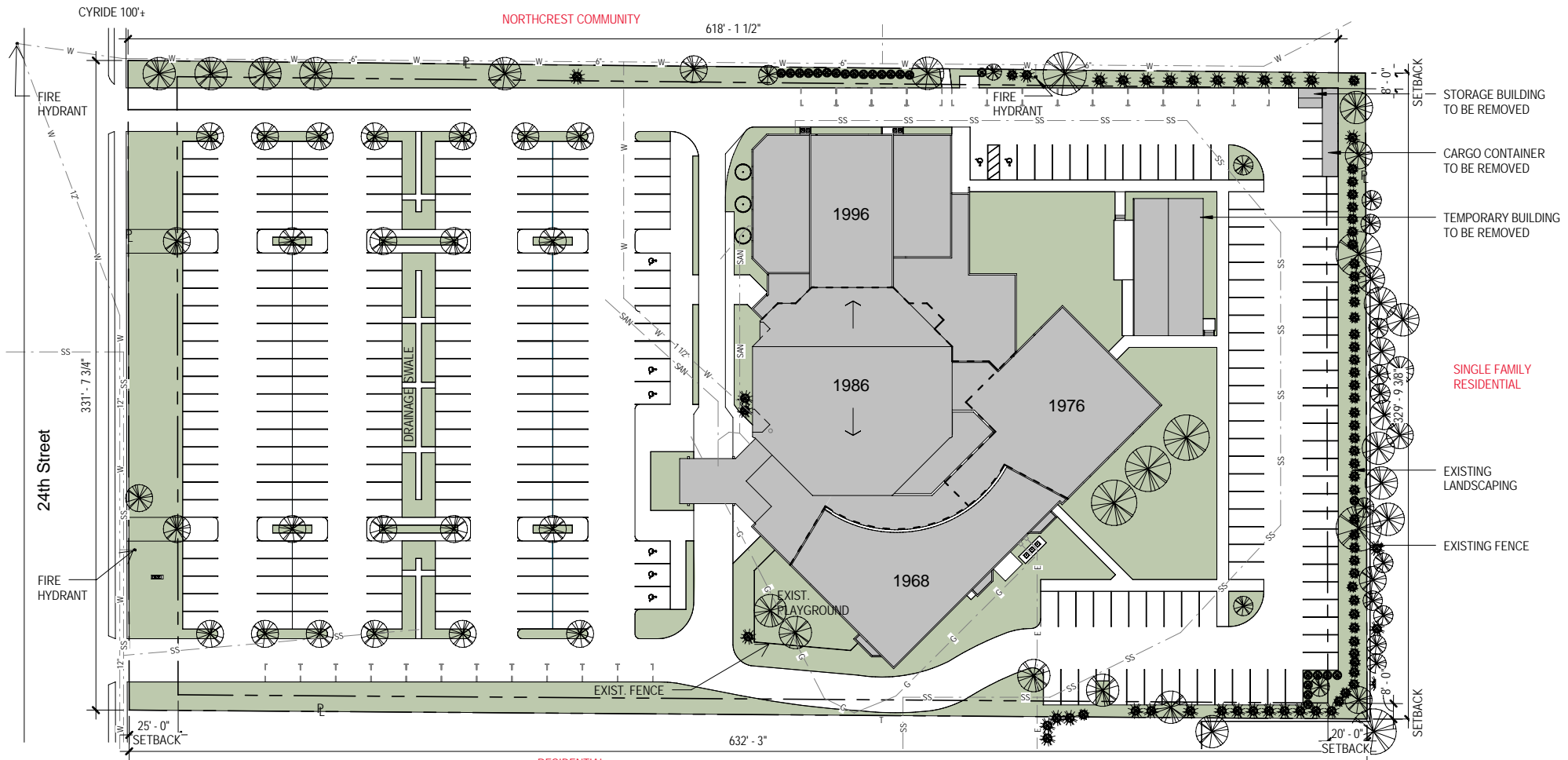
It is recommended that a public transit bus stop with a pull-off lane be developed along the north property line. This would move the busses out of the traffic lanes and ease any congestion on 24th street. It would also replace the existing CyRide stop located just east of the property adjacent to the Heartwood House – Northcrest Community, thus eliminating an existing traffic sight-line issue at that location. A similar drop-off lane could be considered for the north side of the street with an appropriate cross-walk designation.

**ACCESSIBILITY**

The existing site currently has conforming accessible routes to the building and accessible parking spaces in conformance with recommendations.



Feasibility Study



1 Site Plan - Existing

ZONING: R-L = Residential - Low Density / Special Use  
 Existing Site Coverage = 73.4%

SITE AREA: 4.7 ACRES  
 279 Existing Authorized Parking Spaces  
 Existing Gross Building Area = 37,644 SF



**EXISTING SITE**



#### BUILDING DESCRIPTION

The existing building includes approximately 34,500 gross square feet on the ground floor and approximately 3,144 gross square feet on a second floor balcony, for a total of 37,644 gross square feet.

The building was constructed in four phases:

1968 – Original wood frame church building – it currently houses the church administrative offices and a Sunday morning preschool/nursery. It has been re-sided with metal siding.

1976 – A wood frame classroom addition was added – it currently houses church classrooms, with moveable partitions, and support spaces. It is sided with brick veneer.

1986 – An addition housing a sanctuary with balcony, public lobby, and public toilets was added – primarily masonry and steel frame construction, with a brick veneer.

1996 – An addition housing a multi-purpose room, kitchen, toilets, and classrooms was added – primarily masonry and steel frame construction. It is faced with a brick veneer and metal siding.

There is a small basement area below the original building which houses mechanical equipment and electrical service equipment. Access to this space is via an exterior areaway and ladder.

The sanctuary is a large space of approximately 7000 square feet with a high articulated ceiling which ranges from 24' to 32' above the finished floor. The existing raised altar area, baptismal, and access ramp at the east end of the sanctuary appears to be wood frame construction built above the floor slab and would be easily removed for remodeling.

There is a balcony that overlooks the sanctuary and is accessed via two separate enclosed stairwells. It is a concrete floor over a steel frame which steps above and below the entrance level of the balcony.

Removal or reconfiguration of the balcony structure would be an expensive undertaking. The stepped configuration makes it impractical for reconfiguration as “office” space. It might be used as a stepped classroom setting, but would present serious accessibility issues. If a second floor and elevator were added to the sanctuary volume, the lower portion of the balcony could be overbuilt to meet that floor at the entrance level of the balcony, thus utilizing the existing stairwells. The upper level of the balcony could then be used for storage.

The 1976 classroom area is a wood frame addition which utilizes folding partitions for room dividers. The existing corridor doors are serviceable, but do not comply with current accessibility clearance on the latch side of the doors. The roof framing is unprotected wood trusses. This area is not large and would require a minimum of demolition for reconfiguration. It should be considered as a “gut and remodel” for re-use as general office spaces and a layer of gypsum fire protection added to the roof framing.

The remainder of the building is suitable for remodeling and reuse utilizing conventional construction methods.

In general the building appears to be in good to very good condition and site observations would generate the following comments about the structure:



#### BUILDING ENVELOPE

- Windows consist of aluminum store front, wood, and clad wood types and are in good shape with the possible exception of some of the windows in the 1968 and 1976 portions of the building. Although currently serviceable, it is recommended that these windows be assessed and upgraded or replaced during remodeling of that portion of the building.
- Exterior cladding consists primarily of brick veneer and metal architectural siding.

The 1968 portion of the building was re-sided with metal in recent years and the underlying substrate is not visible, thus its condition is unknown at this time. The metal siding is in very good condition.

The masonry of the building is covered in brick veneer which appears to be in good condition overall. There is evidence of some deterioration in the veneer joints in the area of the sanctuary and a small to moderate amount of tuck pointing and /or sealant replacement is recommended. The water infiltration which has been observed occasionally in this area may be attributed to these joints.

The 1976 classroom area brick veneer appears to be stable and little deterioration is evident. However, it is lacking control joints, and it is recommended that joints be added in this area as remodeling occurs. This will lessen the possibility of damage from expansion and contraction over time.

- Exterior doors and hardware are of aluminum and steel, in good condition and serviceable. They exhibit the expected amount of wear for this age and occupancy.
- The roofing system appears to be a standard weight fully adhered single ply EPDM membrane applied over rigid insulation. It has received periodic maintenance.

The 1968 portion of the building has been replaced (1987±) but is likely due for another replacement in the near future. There is some evidence of leaking in this area via stained ceiling tile, but Owners comments indicated that recent repairs have corrected this problem. A recent proposal for roof replacement for this area and the canopy was not executed. A new roof membrane applied over a layer of tapered insulation to assist drainage would be beneficial to this area.

The roofing over the sanctuary is a combination adhered/"button down" system which is original to the 1986 addition, making it 22 years old. It has received periodic maintenance, but is nearing the end of an expected service life. Replacement of this roof within 3–5 years should be anticipated.

The roofing over the 1996 addition is original to the work making it 12 years old, with proper observation and periodic maintenance, it should perform well



### Story County Human Services Campus - Feasibility Study

for another 8–10 years. There is a persistent leak in the area near the sanctuary, but it is not known if this is attributable to the roofing system or the masonry details.

In summary, it is recommended that an amount be added to the project budget for an early replacement of a portion of the roofing and maintenance of exterior details.

- Interior finishes are generally serviceable, but in need of upgrading, primarily for aesthetic purposes, as areas are remodeled.
  - Gypsum surfaces – serviceable, but would benefit from painting.
  - Resilient flooring – serviceable, assess as remodeling occurs.
  - Carpet – currently serviceable, recommend replacement as remodeling occurs
  - Masonry surfaces – excellent condition, some cleaning recommended
  - Suspended ceiling – currently serviceable, but showing some age – recommend replacement as remodeling occurs.

Note: a sprinkler system is recommended for the building. It is likely that a large portion of the ceiling will be upgraded as part of that system installation.
- Hazardous materials – A formal hazardous materials assessment was not conducted as part of this study.

#### CODE COMPLIANCE

The existing facility was assessed for ADA, building, life safety, and plumbing code compliance. The existing building has several doorways that will need modifications to meet ADA. Because many of these doors are in areas that would be remodeled to accommodate the different Agencies, this is viewed as a minor issue.

All options in this report utilize the availability of approximately 7,000 SF of area obtained from filling in the existing sanctuary with a second story at the level of the walkway through the balcony. An elevator will be required for access to the second floor if this solution is implemented.

Plumbing fixtures required for reuse of this facility for the Human Services Campus are listed in the plumbing calculations report at the end of this booklet. Additional lavatories and drinking fountains will be required. In addition, the programmatic needs of Heartland Senior Services will require dedicated toilet and bathing rooms as part of their program needs.

A thorough code compliance study can only be done when the final building concept and occupancy is determined. A pre–design review of the 2006 International Building Code would offer the following comments:

- All participating agencies are acceptable occupancies within the existing building.
- The existing building is of an acceptable construction type for the proposed occupancy with two (2) possible exceptions:
  1. The 1976 addition is a Type V unprotected wood construction with exposed



wood roof trusses above an unrated ceiling system. This condition may be alleviated with the installation of a sprinkler system. It can also be alleviated by the installation of a gypsum fire barrier below the roof trusses. This condition will likely be resolved as the area is remodeled.

2. There is unprotected wood framing above the lobby where the 1968 and 1986 additions meet. This condition can be alleviated with the addition of a sprinkler system or the addition of a gypsum fire barrier.
  - Anticipated occupancy groups would include:
    - Assembly – A3 @ open areas of Heartland Senior Services
    - Adult care – I-4 @ Heartland Senior Services
    - Child care – I-4 @ Ames Community Preschool Center (ACPC)
    - Business – B @ remaining agencies or portions of agencies.
  - Fire separation walls may be required if the building area exceeds code allowances for construction type and occupancy. It is anticipated that one fire separation wall will be required which may coincide with an existing separation wall in the building. The existing water service is not adequate to support a fire sprinkler system, and a new 6" service will have to be brought to the building. It is not known at this time if the new water service tap can be made at the east property line or if it must be served from the 12" line at 24th Street.
  - The existing building conforms to required maximum travel distances and number of exits required by code.
  - Life safety systems, such as fire and smoke detection, emergency lighting and exit lights require upgrading as part of the remodeling.
  - It is highly recommended that a fire sprinkler protection system be added to the building. In addition to public safety and protection of property, it offers greater flexibility in construction type, allowable area, travel distance to exits, separation of construction, and fire resistance.

Conclusion – the pre-design analysis indicates that the existing structure and potential expansion can be accomplished in a code-compliant manner with conventional construction methods.

#### ACCESSIBILITY

The two existing primary public toilets for men and women are accessible and provide adequate accessible toilets for the existing building. Other existing toilets will require upgrading to meet accessibility standards and some agencies will require dedicated toilets as part of their remodeling.

Existing corridor and corridor door widths are wide enough to meet accessibility standards, although the latch side clearance at doors in the 1976 addition does not meet current standards. This issue will likely be resolved as the area is remodeled. Some interior office doors and accessible routes do not conform to current standards. Again, these may be resolved by remodeling or interpretation by local authority.

The existing balcony is accessible only via stairs. In the event that a second floor is added to the sanctuary space, an elevator will be required to provide accessibility to that level.

All new construction shall conform to current accessibility standards.





#### HVAC SYSTEMS

Generally, the building is served by 20 gas-fired forced air furnaces with cooling coils. The units are of varying ages and efficiency ratings, but are currently serviceable for the existing occupancy. Further engineering analysis and a final building layout will be necessary to determine if these units can deliver adequate outside air to meet current code requirements. New additions to the building will require new systems. A portion of the units are of a service age where replacement may be expected in 3–5 years. Service life is difficult to predict, but it is recommended that a sequenced replacement strategy be a part of the building maintenance plan. See mechanical assessment following.

#### ELECTRICAL SYSTEMS

The existing electrical service and distribution are in good condition and adequate for the existing building. However, the proposed addition, remodeling, and potential elevator will require an upgrade of the electrical service. It is recommended that existing lighting be upgraded to more efficient fixtures to the extent that budget allows. See electrical assessment following.

#### FLOOR AREA OVERVIEW

As stated earlier, the gross area of the existing building is approximately 37,644 gross square feet.

The removal of the area for wall thickness, circulation, toilets, mechanical rooms, stairwells, and other fixed building elements yields a net usable area of approximately 26,350 net square feet within the existing building.

The required area for participating agencies and shared spaces as currently programmed is 37,800 net square feet. This indicates that approximately 11,500 net square feet of area must be added to the existing building to accommodate agency needs.

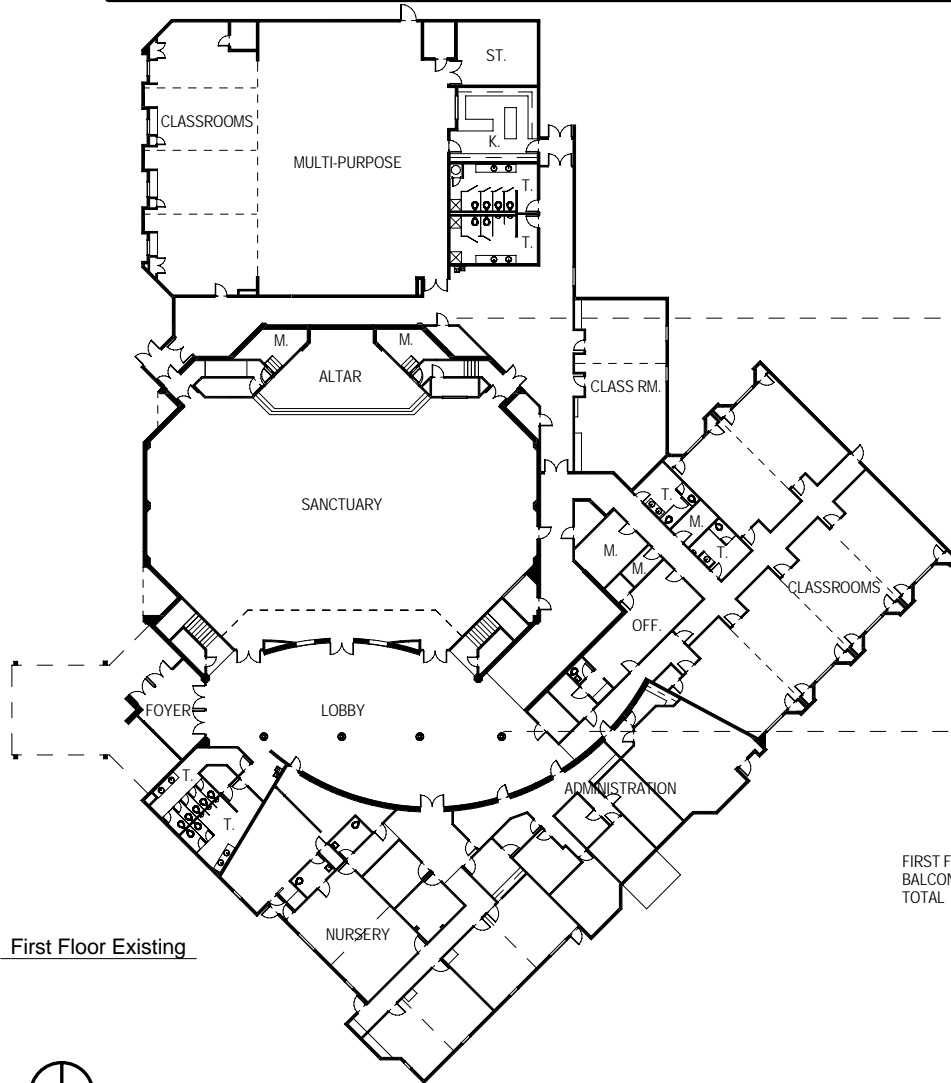
Because agency functions are being fit into an existing building, programmed area will not exactly coincide with floor plan areas. This is typical in retrofitting existing buildings.

The final building footprint plus the area of all other site improvements shall not exceed the existing land coverage of 73.4%.

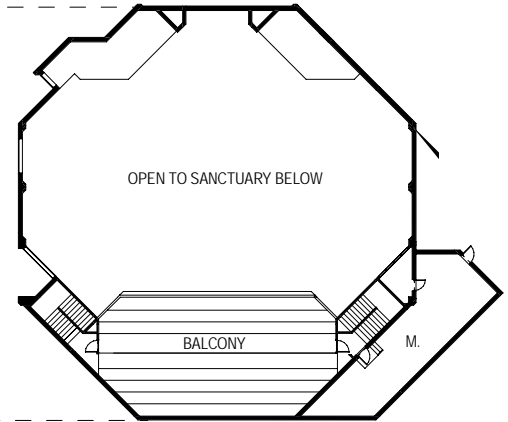




Feasibility Study



① First Floor Existing



② Second Floor Existing

FIRST FLOOR : 34,500 GROSS SQ. FT.  
 BALCONY : 3,144 GROSS SQ. FT.  
 TOTAL : 37,644 GROSS SQ. FT.



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Story County Human Services Campus - Feasibility Study

The First Evangelical Free Church located at 2008 24th Street, Ames, Iowa is being considered as a possible site for relocation of several agencies that comprise the Story County Human Services Campus. As requested, a walkthrough structural review was conducted on May 6, 2008 to determine the structural framing systems of the complex, the structural condition of the existing structure, the feasibility of adding a second floor in the sanctuary area, and the feasibility of constructing additions to the existing building. The review was conducted in the presence of Bill Dreyer, AIA, RDG-RLD, project architect. Jeremy Bents, Director of IT and Facility Services for the church provided information and assistance during this review.

#### STRUCTURAL SYSTEMS

The original portion of the church built c. 1968 is located in the western area of the complex. It is a one story building currently housing a daycare center and offices. The structural system is wood decking, plywood webbed pre-engineered wood joists and wood stud bearing walls with gypsum board finish. The floor is concrete slab on grade with a spread foundation system. There is a small mechanical basement area accessed from the exterior on the southwest side. The structural floor above this is wood framing. The structure would be classified as Type V Protected (one hour) in this area. The 1976 portion of the complex was added to the southeast of the original church as a classroom wing; it contains classrooms with movable partitions and an unrated suspended acoustical tile ceiling. The structure is plywood deck, wood trusses and wood stud bearing. This addition has a concrete slab on grade floor with a spread footing foundation. The structure would be classified as Type V Unprotected in this area. The current sanctuary was added in 1986 and is east of the original church. The roof structure appears to be a steel deck, joist and beam frame. A balcony located on the west is a stepped concrete slab on metal deck with steel purlins supported by sloped steel beams and steel columns. The balcony steel is not fireproofed. The floor slab of the sanctuary is concrete slab on grade poured flat with a wood framed raised chancel area. The structure would be classified as a Type II in this area when the platform is removed. The last addition which was built in 1996 is located to the east of the current sanctuary. It contains a multi-purpose room, classrooms, toilets and a kitchen. The framing of this one story addition consists of a metal deck roof with steel joists and trusses allowing a column free area with a raised center roof area. The walls are masonry with a concrete slab on grade floor and spread footing foundation. The structure would be classified as Type II in this area.

#### STRUCTURAL CONDITION

Structurally, it is concluded that the complex is in excellent condition. Observed roof members showed no signs of being overstressed or deflected. In the original wood framed roofed area, no deterioration of the wood was noted in the areas observed. Where roof structure was not observed, ceilings showed no excessive movement which would indicate that the roof structure above is performing in an acceptable manner. The concrete topped steel structure of the balcony was observed from below. It showed no signs of being overstressed or damaged. The slab on grade floors appeared level with no areas of slab cracking or settlement. The only raised floor area was the chancel, the wood structure of which appeared to be constructed on the base level concrete slab on grade that would allow easy removal to allow alignment with other floor areas. The exterior walls showed no signs of settlement. No major cracks or joint movement were observed on the interior surface. The brick veneer appeared crack free except in the 1976 addition. There, it appeared that temperature expansion may have caused cracking in some mortar joints that are now repaired. Although minor,



it would be suggested that control joints be cut and caulked in these exterior walls. It was also noted that the mortar appeared in good condition and thus, no tuck pointing would be needed during the relocation effort. The 1968 portion has been re-sided with metal vertical siding which appears to be in excellent condition, but precluded visual observation of the wall studs and sheathing.

#### SECOND FLOOR OPTION

One option being considered in the renovation to a Human Services Campus is the addition of a second floor in the existing sanctuary. This appears structurally feasible. The large window on the north could easily be removed to provide access for construction. A floor system of concrete on metal deck with steel beams and columns or hollow core prestressed slabs on steel beam and columns could be erected in the existing space. The existing balcony appears to be structurally capable of supporting a second floor on the risers below the second floor entrance level as proposed. The removal or lowering of the risers above this level would be difficult. This space could be used as a stepped storage space.

#### ADDITION OPTION

The location for additions to the building appears to be somewhat limited by the boundary of the site. However, the existing structure would allow additions attached to the existing exterior walls. The removal of load bearing walls is not recommended, but openings could be installed with minimal effort. Short spans of roof loads could be supported on existing walls.

#### CONCLUSION

In conclusion, the existing structure appears to be in excellent condition and would be serviceable for reuse as a commercial-office complex. The addition of a second floor in the existing sanctuary is feasible and horizontal additions could be added.

The opinions presented in the report are based on a review of original design drawings and visible observations. This report does not express or imply any warranty, but provides an opinion based on structural engineering judgment using the available information. Thank you for allowing us to serve you. Please call if I can be of further assistance.

Donald A. Jotzke, PE  
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Des Moines, IA 50311-3424  
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fax: 515.279.5233



**Plumbing**

The facility is provided with a 2 inch water service that enters the building near the northwest main entrance. This water service does not include a backflow preventer which will be required. Water piping throughout the facility appears to be of copper piping and appears to be in good condition.

The facility is not provided with a central water heater. The original building uses localized instantaneous type water heaters but not all lavatories are provided with hot water. Additional point of use water heaters will be required. The 1986 south administration wing is served by a 30 gallon electric Rheem water heater. The 1995 east addition which includes the kitchen is served by a 75 gallon gas-fired State water heater. Plumbing fixtures appear to be in good condition and include counter mounted and wall mounted lavatories, vitreous china urinals and tank type water closets. Some of the lavatories have battery operated automatic faucets and all of the urinals have battery operated automatic flush valves.

The 1995 addition is provided with a shower stall located in each of the men’s and women’s restrooms. We did not observe a grease trap in the kitchen area. This will be required if any modifications are made to the kitchen.

A 12 inch storm line is routed from the southeast side of the building around the south and exits the site to the west and connects to the city main on Prairie View East Street. Interior storm piping in the building is cast iron and it appears to be in good condition. Exterior piping is shown on existing plans to be concrete pipe and its condition was not observed.



Men’s restroom northwest corner of the 1995 addition.



Story County Human Services Campus - Feasibility Study

Two 4 inch sanitary lines exit the facility to the north. One sanitary line is routed to the northeast and exits the site on the east. The observed interior sanitary piping is of cast iron material. There have not been issues with that sanitary piping system.

**Fire Sprinkler Protection**

The facility is not provided with a fire sprinkler protection system. The current water service is not adequate for fire sprinklers. The kitchen hood is provided with an individual suppression system.

**HVAC**

The facility uses split DX systems for space cooling utilizing furnaces or blower coils for space cooling and gas-fired furnaces or duct furnaces for space heating. The furnaces are provided with provisions for a small amount of outdoor air for space ventilation. The units are regularly serviced by a local service company. They change the filters and perform regular service on a calendar basis and respond “on-call” as required. Many of the units are showing their age while a few condensing units have been replaced.

The furnaces vary in size and are manufactured by Lennox or Ruud. Furnaces are distributed throughout the facility (see attached drawing) most condensing units are located on grade with the remainder of the units located on the roof.

Three furnaces serving the west office area and southwest classrooms are located in a basement area that is accessed by an exterior ladder. This basement space is provided with a sump pump due to past flooding issues. These units perform a heating only function and a separate blower coil is located above the ceiling of these spaces to provide cooling. Two furnaces located in the custodial office serve the southwest classrooms and center offices. These areas are provided with below grade return air (through tunnels). Some times of the year, the spaces served by these units have an odor.



Condensing units and furnaces serving original building NW areas.



Story County Human Services Campus - Feasibility Study

There may be an issue with moisture in the return air plenums of these units. The 1985 addition furnace's supply air ductwork is routed below grade with above grade returns.

Furnaces provided in the 1996 addition have supply air and return air above grade.

The south and west entrances have been provided with electric resistance unit heaters mounted in the wall near the doors.



Blower coil and duct furnace serving one zone of the worship space



Kitchen range and exhaust hood located in the 1995 addition

**Temperature Controls**

The 1985 addition was provided with a temperature control system provided by Solidyne corporation which provided a setback opportunity based on the time of day. Local thermostats allow for temperature adjustment and an over-ride switch to allow operation when the system is setback. Other areas are provided with local thermostats.

### **Temporary Building**

A walk-through of the remote building was not performed. The remote building is heated and cooled by three Bard heating and cooling units mounted to the exterior of the building. These units appear to be self contained all electric units.

### **Recommendations:**

#### **Plumbing**

The facility is served with a 2 inch exterior water service and which is not sized for flush valve water closets. We recommend a new water service be installed at a new location and mains be extended in the building to connect to existing main.

Plumbing fixtures appear to be in good condition but we recommend that hot water be provided to all lavatories currently not provided with hot water. Water heaters appear to be in working order and are not recommended for replacement.

Options for consideration are to change out water closets to pressure assist tank type or to floor mounted flush valve type.

Current storm line is 12 inches and current design recommendations would have a minimum of 15 inch line. With the additions proposed, a new storm line to the city main is recommended.

The 4 inch sanitary sewer line is adequately sized for current loads and can support the addition of 8–10 additional fixtures. The kitchen is not provided with a grease trap and with the addition, a new exterior grease interceptor is recommended. The kitchen waste piping will need to be routed through the interceptor before being tied into the sanitary system.

#### **Fire Sprinkler Protection**

Fire sprinkler protection system is recommended throughout the facility. A 6 inch new fire service will be required. The water mains include a 6 inch east of the building and a 12 inch in 24<sup>th</sup> street.

#### **HVAC**

Except for a few furnaces and condensing units, all of the units are original equipment. The newest systems are approaching 13 years old. Most of the furnaces/condensing units have a small amount of ventilation air capabilities and these capacities may not be adequate for the current code requirements to serve the future occupancy. This can be determined once the total occupants are determined by HVAC zone. The systems would most likely not have capacity for the required ventilation and the systems should be replaced. The four systems located in the upper level serving the worship space appear to have adequate outdoor air capacity and may be utilized.

In the event the existing systems are to be utilized, modifications/additions would be required to the HVAC system. The 4,000 SF new south addition and the 10,000 SF north addition would require new systems. The original building and the 1995 additions could be utilized with minimal modifications. The systems serving the worship spaces have an underground air distribution system that delivers air to the exterior wall. The ductwork layout would not adequately serve the new space layout and with an underground delivery, would not be easy to modify.

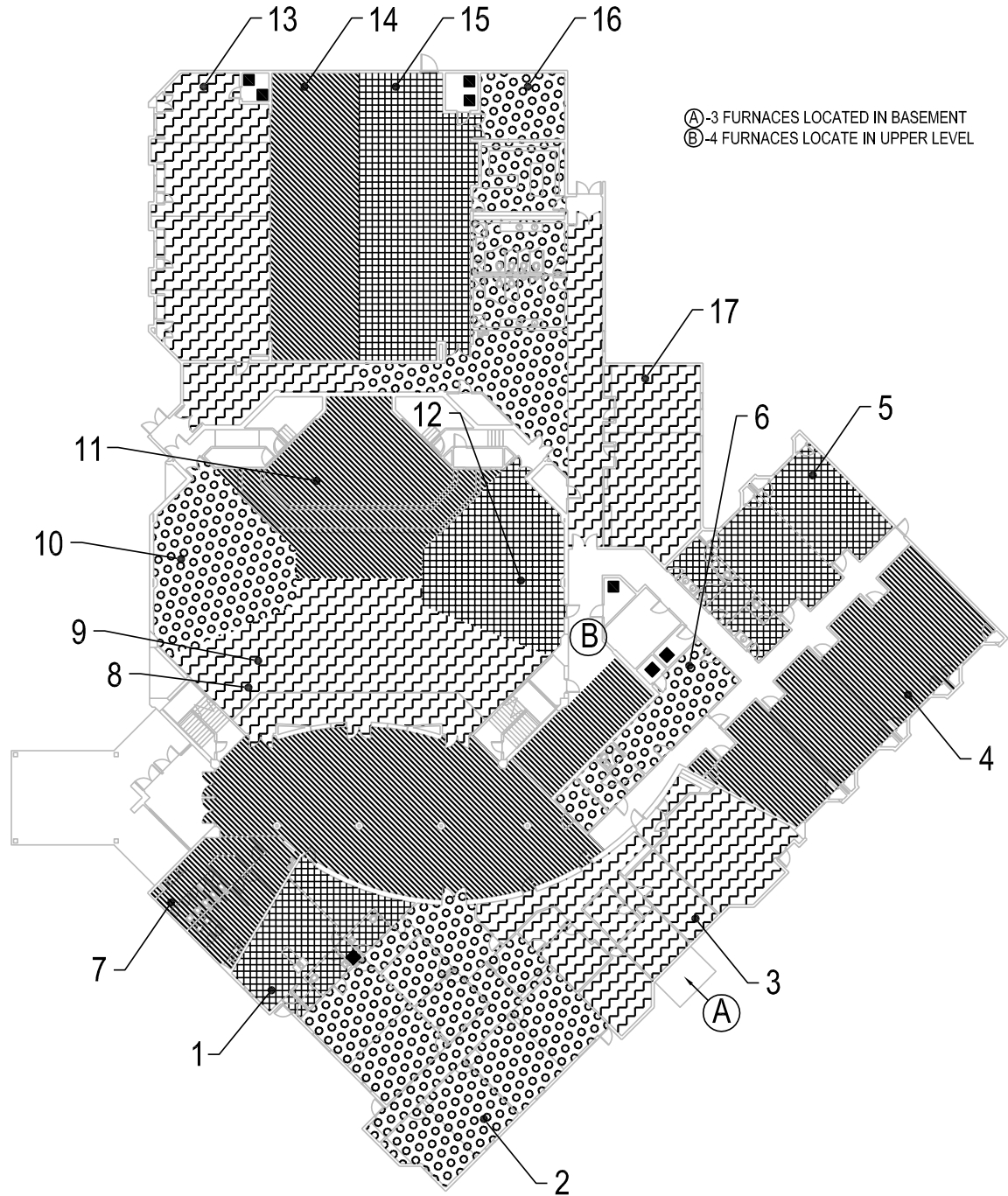


**Temperature Controls**

Systems controls vary between the three phases of construction. If the existing systems are used, programmable thermostats at a minimum should be installed in the original building and the 1995 additions. The existing control system in the 1985 addition can be utilized. If the HVAC systems are modified, a new building temperature control system should be included in the design.

**Temporary Building**

The current recommendation is to remove the temporary building.



**FLOOR PLAN** – Approximate zones currently served by existing furnaces.

N.T.S.



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Story County Human Services Campus - Feasibility Study

A preliminary walk-through evaluation of Ames Evangelical Free Church electrical systems was performed on April 15, 2008.

The following items are recommended for inclusion in the next building renovation project:

Item:

1. Provide access stair to Main Electrical Service equipment.
2. Upgrade existing lighting system to high-efficiency lamps and electronic ballasts.
  - a. Provide occupancy sensors for local control of lighting.
  - b. Provide central system to sweep lighting circuits to off in unoccupied status.
3. Replace existing Fire Alarm System with new addressable type.
  - a. Provide Fire Alarm auxiliary controls for AHUI Shutdown.
  - b. Provide remote annunciation at Fire Department entrance.
4. Upgrade existing communication head-end and horizontal circuits to accommodate increased communications needs.

A more detailed description of systems, observations, and recommendations follows.

#### Main Electrical Service and Distribution

Existing Conditions:

- a. Existing Main Electrical Distribution Panel, (MDP), is rated at 800 Amps, 208/120VAC, 3-phase. Facility Distribution is via a 800 Amp Square D "I-Line" Panelboard.
- b. Service originates at pole-top transformers located at west edge of parking lot directly west of existing electrical room.
- c. Facility is served from the main distribution panel via six sub-panels, one emergency load panel, one dimming panel, and one motor control center, (MCC).

Observations:

- a. Main distribution equipment is in good condition and has been well maintained. Maximum existing electrical demand is unknown.
- b. Service parts for existing main distribution equipment are readily available.
- c. Main Electrical Distribution equipment is located at basement level with access only via ladder.
- d. Sub-distribution panelboards have been added along with each prior building addition and are in good working order with replacement parts readily available.

Recommendations:

- a. Recommend increasing electrical service size for new building use.
  1. Minimum 1200A, 208/120V, 3-phase service to accommodate new proposed additions and possible elevator.
  2. Provide new electric room for new service.
- b. Recommend providing code-compliant access stair to existing electrical service room.



Lighting System:

Existing conditions:

- a. Troffer fixtures utilizing T8 lamps installed in office area.
- b. Troffer fixtures utilizing T12 U-lamps installed in the corridors.
- c. T12 linear lamps throughout the balance of the facility.
- d. Incandescent down-lighting in existing sanctuary.
- e. Incandescent exit fixtures.
- f. Limited emergency egress lighting.
- g. High pressure sodium shoe-box and lantern-type pole-lighting in parking lots.

Observations:

- a. Many fixtures have been retrofitted with T8 lamps and magnetic ballasts as the old ballasts have failed.
- b. Individual manual control at smaller spaces.
- c. Dimming provided at sanctuary via dedicated dimming panel located on mezzanine.

Recommendations

- a. Replace existing interior lighting system with high efficiency lamps and electronic ballasts.
- b. Provide occupancy sensors for offices/classrooms.
- c. Provide code-compliant emergency/exit lighting system.
- d. Provide building-wide sweep of lighting circuits to meet ASHRAE 90.1 Energy Code. (Provide automatic shut-down of lighting when building is unoccupied.)
- e. Re-use existing parking-lot pole lighting if Architecturally desirable.

Communications Systems:

Existing Conditions:

- a. Existing building has 90's vintage tele/com communications distribution system.
- b. Existing Sound system – vintage unknown.

Observations:

- a. Existing systems appears to perform adequately for the current use.

Recommendations:

- a. For new office use, provide new Communications MDF room and centralize communication distribution head-end equipment.
- b. Distribute communication back-bone cable to distribution closets to limit length of horizontal communication links to 90 meters or less.
- c. Replace existing sound system with building-wide sound/intercom distribution system.



### Fire Alarm System:

#### Existing Conditions:

- a. Fire Alarm is zoned system, (1996's vintage).
- b. Remote batteries for Fire Alarm Panel exist above ceiling.

#### Observations:

- a. Existing FACP batteries above ceiling are code violation.  
Limited access not listed for plenum space.
- b. System does not meet current code requirements.

#### Recommendations

- a. Replace existing fire alarm system with addressable type manual and automatic fire detection and notification system to meet local code requirements.
- b. Size new system to accommodate future planned expansions.





# 05





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Story County Human Services Campus - Feasibility Study

During the course of this study, three options were studied briefly to test suggested variations of agency placement within the existing building and the resultant effect on the site. The options were intended to explore the minimum amount of area to be added to the existing building to accommodate the participating agencies. All three of the options included a new addition and the construction of a second floor within the two-story existing sanctuary to meet area needs.

Option one included the largest addition of approximately 14,000 gross square feet, but provided the best functional relationship between agencies. It does not compromise the area needs and provides approximately 2500 square feet of area available for future internal expansion. This expansion can be phased to meet variations in occupancy or funding. (refer to option one sketches)

Option two illustrates a smaller addition of approximately 10,000 gross square feet, but compromises the functional relationships for Heartland Senior Services by locating the day-care program across the existing exit corridor and behind the existing public toilets. This creates an awkward, circuitous connection to the kitchen/multi-purpose room and would likely require relocation of the kitchen. In addition, this concept would locate the day-care drop-off and kitchen delivery to the south end of the building where vehicular circulation would be more congested. It provides only adequate area for the Agencies, with little or no opportunity for internal future expansion. Also, this option does not lend itself as well to a phasing strategy. (refer to option two sketches).

Option three illustrates the smallest addition of approximately 7,000 gross square feet, which maximizes the use of existing floor area by locating a portion of Heartland Senior Services in the existing sanctuary. In addition to creating functional problems, it is not a good fit for the quality of space for Heartland. In addition, this option has an approximate 10% shortfall for agency area needs and no opportunity for internal future expansion. This option does not lend itself well to a phasing strategy. (refer to option three sketches)

Option one appeared to be the most favorable concept to explore further. As the study progressed, and the facility was reviewed in more detail for optimum use and organizational potential, several points became evident:

- It seems prudent to utilize the existing preschool portion of the 1968 building, located in the northwest corner of the existing facility, for occupancy by the Ames Community Pre-School Center. This area closely matches the needs of ACPC, including a nicely shaded and established play yard. In addition, it is close to the main entrance which offers a drive-up canopy and safe queuing for vehicles dropping off children. Remodeling of the interior space would include mechanical and electrical upgrades, new floor covering, and new paint. The installation of a fire sprinkler protection system would likely result in ceiling replacement and new lighting. Relocation of walls and new plumbing will not be necessary.
- American Red Cross – Lincolnway Chapter has a considerable storage requirement for emergency supplies requiring at-grade access under all conditions. The remainder of the 1968 portion of the building seems appropriate for these needs. Systems upgrades, general remodeling, and some relocation of interior partitions would be anticipated.



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Story County Human Services Campus - Feasibility Study

- The 1976 classroom addition appears to be an appropriate location for the Richmond Center, supplemented with a new addition to meet program needs. Richmond's need for sound control and the need to upgrade fire protection in this area would imply an interior "gut and re-build" of the area, including replacement of doors and windows. This location provides the opportunity for a dedicated entrance to Richmond, adjacent to existing parking. The new addition would be built to match the existing building and appear as a continuation of the classroom wing. Remodeling would include systems upgrade, new partitions and new finishes throughout.
- In the event that The Richmond Center is not a participating agency, the new addition in this area could be deleted and the existing portion remodeled for other agencies or held in abeyance for future growth. In any event, it would not impact the basic master plan for the building.
- The existing lobby is generous in area and would accommodate a central receptionist for the building, general building traffic, including ACPC, display of agency information and resources, and also serve as a central entrance for all agencies.
- It seems logical to locate Heartland Senior Services in the location of the existing large volume multi-purpose space to meet the needs for dining and other activities. The existing kitchen is not large enough for their purposes and would have to be enlarged and new equipment procured. However, utilities are available here. Heartland Senior Services has the largest area needs of the participating agencies and it appears an addition of approximately 10,000 square feet of special-use space is required to meet the needs of expanded programming in the area of Day-care, Alzheimer's, and dementia clients. This is a type of space which is not available in the existing building and is best accommodated with new construction. An addition located in the northeast corner, adjacent to the multipurpose area would provide for easy access and the opportunity to provide a separate entrance for day-care clients. This concept also accommodates the occupancy schedule requested by the church and allows Heartland to proceed as phase one of the facility construction.
- The remainder of the facility would accommodate offices for various agencies, and shared program spaces which include: conference/classrooms, building services, employee hospitality, resources, employee workroom, and information technology.
- Because a large percentage of the work is interior remodeling, the construction start is not weather sensitive, and work could begin at any time during the year. It is estimated that the construction period would be 12–15 months for the total project. This estimate would vary if the project is phased.
- All agencies expressed the willingness to share common facilities which are necessary, but not occupied full time. These shared spaces include a central building reception area, a resource area for agency literature, two small conference rooms (for 6), one medium conference room (for 10), one larger conference room (for 20), one classroom, a central work room, one employee services room, two offices for building management and one small cafe area. The assignable area for shared space is 3,340 net square feet.

Shared spaces should be located centrally to all agencies to the extent possible. It would be



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Story County Human Services Campus - Feasibility Study

desirable to locate the cafe in close proximity to a classroom and conference rooms to accommodate light food service for seminars, retreats, or community workshops.

Each option is accompanied by a pre-design opinion of cost. Cost ranges were developed from past experience, R. S. Means cost guides, consultation with the participating engineers and consultation with a local contractor and cost estimating consultant. The opinion of cost does not include interior furnishings, equipment, building accessories, or design and contractor fees. An annual escalation factor of 5% for a period of one year was used.

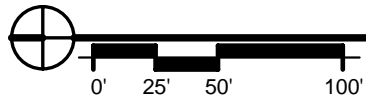
The following colored diagrams illustrate the three options discussed above. It is important to note that these diagrams are not to be viewed as finished floor plans, but rather as illustrations showing area allocations and layout concepts. Option one appears to offer the best potential solution, and is illustrated to a greater degree. Option one best responds to the comments above and appears to provide the most flexibility for growth within existing and future programs.

The diagrams are color-keyed to illustrate proposed areas of “level one remodeling”, “level two remodeling”, and new construction. A definition for the various levels of construction are provided on the cost summary sheets accompanying each option.





Feasibility Study



**OPTION ONE: EXISTING / NEW**

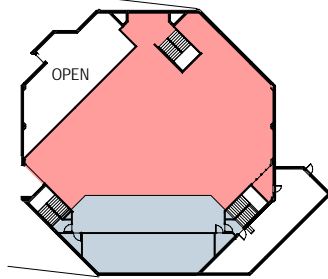






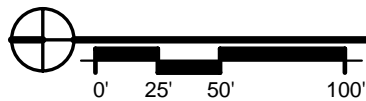
- Balcony Infill
- Level 1 Remodel
- Level 2 Remodel
- Level 3 Remodel
- New Addition

- Site Coverage = 73% (Equals Exist.)
- 230 Parking Spaces Available



② 2nd Floor Remodel Levels

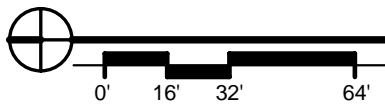
① Option #1 - First Floor - Remodel Levels



**OPTION ONE: REMODEL LEVELS**



Feasibility Study



TOTAL GROSS BUILDING AREA: 57,345 SF

**OPTION ONE - SCHEMATIC PLAN**

08/01/08







VIEW FROM NORTHWEST

08/01/08







VIEW FROM SOUTHWEST - EXISTING

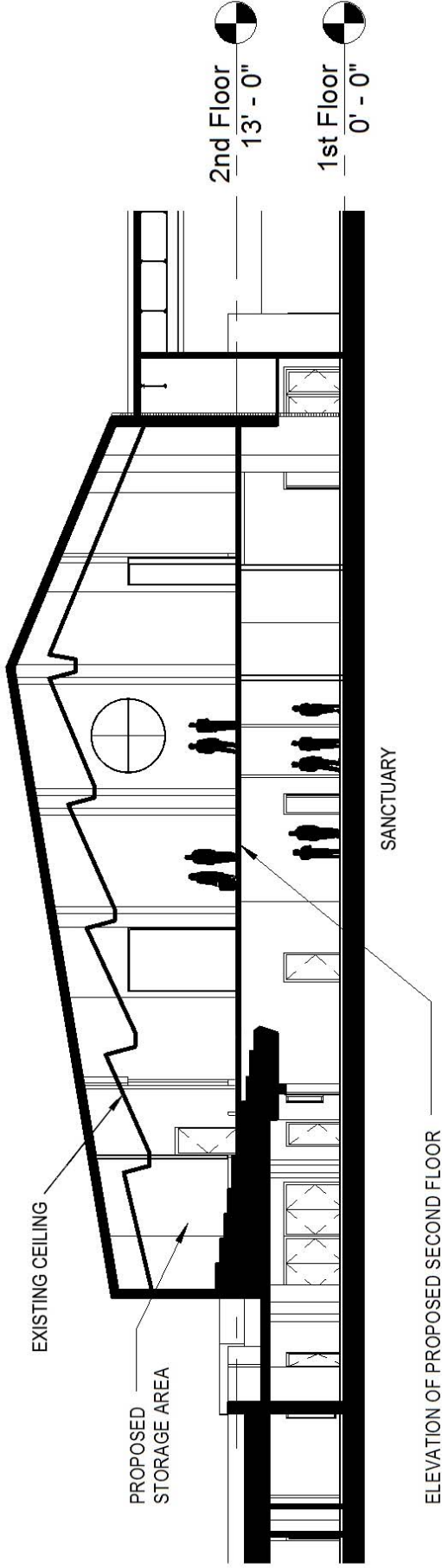






VIEW FROM SOUTHWEST - PROPOSED





1 Building Section - Proposed Second Floor  
1" = 20'-0"





## STORY COUNTY HUMAN SERVICES CAMPUS - COST SUMMARY

Option #1 Building Remodel with 14,000 SF Addition

<b>Human Services Cost Model Summary</b>						
<b>August 1, 2008</b>						
Estimated for bid Summer 2009						
<b>Description</b>	<b>Units</b>	<b>Cost Range</b>		<b>Quantity</b>	<b>Total Estimated Cost Low</b>	<b>Total Estimated Cost High</b>
		<b>Unit Cost Low</b>	<b>Unit Cost High</b>			
New Addition – Light Commercial	SF	\$175.00	\$200.00	9,676	\$1,693,300.00	\$1,935,200.00
New Addition – Protected Wood Frame	SF	\$140.00	\$160.00	4,530	\$634,200.00	\$724,800.00
New Addition – Second Floor Infill	SF	\$190.00	\$210.00	7,324	\$1,391,560.00	\$1,538,040.00
Remodeling Level 01 (Basic)	SF	\$25.00	\$35.00	15,211	\$380,275.00	\$532,385.00
Remodeling Level 02 (Reconfiguration)	SF	\$50.00	\$65.00	13,788	\$689,400.00	\$896,220.00
Remodeling Level 03 (Interior Demolition & Rebuild )	SF	\$90.00	\$105.00	6,817	\$613,530.00	\$715,785.00
Elevator	lump sum	\$125,000.00	\$150,000.00		\$125,000.00	\$150,000.00
Building Security	SF	\$1.00	\$1.00	57,345	\$57,345.00	\$57,345.00
Tech Wiring/Communication	SF	\$2.00	\$2.00	57,345	\$114,690.00	\$114,690.00
Fire Sprinkler	SF	\$3.25	\$3.25	57,345	\$186,371.25	\$186,371.25
Immediate Maintenance	lump sum	\$125,000.00	\$140,000.00		\$125,000.00	\$140,000.00
Upgrade Electrical Service	lump sum	\$8,000.00	\$10,000.00		\$8,000.00	\$10,000.00
Site (assumes road/parking adjustments)	lump sum	\$150,000.00	\$175,000.00		\$150,000.00	\$175,000.00
<b>Total Construction Allocation</b>					<b>\$6,168,671.25</b>	<b>\$7,175,836.25</b>
Escalation					5%	
					<b>\$308,433.56</b>	<b>\$358,791.81</b>
<b>Total Construction Costs</b>					<b>\$6,477,104.81</b>	<b>\$7,534,628.06</b>

Light Commercial: Standard new construction of steel frame, light gauge metal and masonry, slab on grade, carpeted, painted gypsum board and masonry interior partitions, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Protected Wood Frame: Standard new construction of wood framing – one hour protected – or light gauge metal framing, slab on grade, carpeted, brick veneer, painted interior gypsum walls and finishes, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Second Floor Infill: New construction of steel frame, metal deck, concrete floor slab, carpeted, painted gypsum board interior partitions, painted existing ceiling, upgraded mechanical and new electrical.

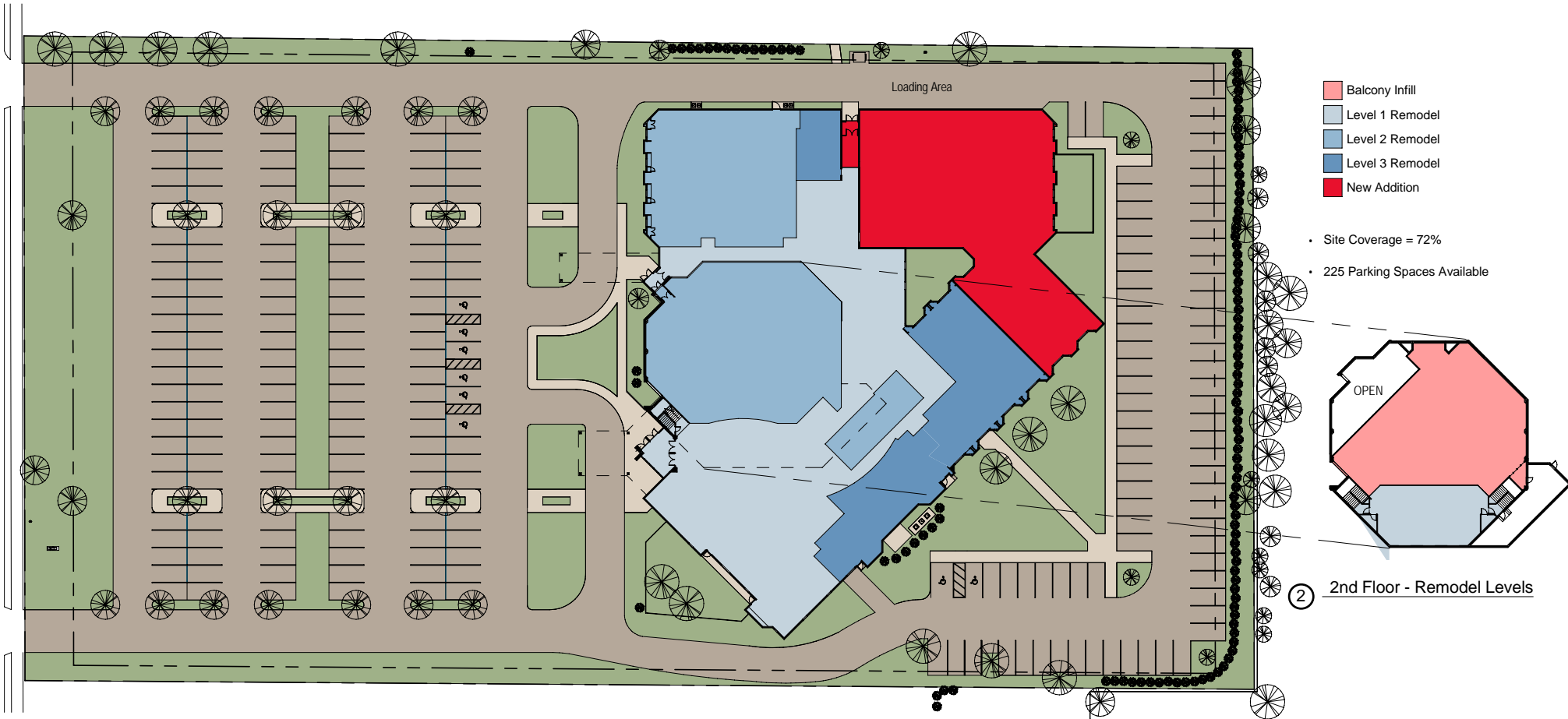
Remodeling Level 01: Basic remodeling of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, and new ceilings. Existing doors and windows would be reused.

Remodeling Level 02: Reconfiguration of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, new ceilings, some new partitions, new doors, and new windows.

Remodeling Level 03: Demolition & Rebuild of interior spaces. This level of remodeling includes total demolition and rebuild of interior space, including new partitions, new doors and windows. New distribution and upgrades to Mechanical and Electrical systems.

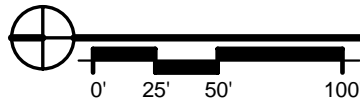
Estimate Does Not Include: Furnishings, Equipment, Accessories, Professional Fees





① Option #2 - First Floor - Remodel Levels

② 2nd Floor - Remodel Levels



**OPTION TWO: REMODEL LEVELS**





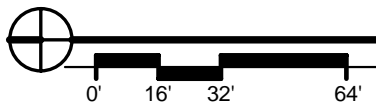
Feasibility Study



① Option #2 - First Floor - Agency Areas

② Second Floor - Agency Areas

**OPTION TWO - SCHEMATIC PLAN**



TOTAL GROSS BUILDING AREA: 53,502 SF





# STORY COUNTY HUMAN SERVICES CAMPUS - COST SUMMARY

## Option #2 Building Remodel with 10,000 SF Addition

Human Services Cost Model Summary						
Description	Units	Unit Cost Low	Unit Cost High	Quantity	Total Estimated Cost Low	Total Estimated Cost High
August 1, 2008						
Estimated for bid Summer 2009						
New Addition – Light Commercial	SF	\$175.00	\$200.00	7,360	\$1,288,000.00	\$1,472,000.00
New Addition – Protected Wood Frame	SF	\$140.00	\$160.00	2,653	\$371,420.00	\$424,480.00
New Addition – Second Floor Infill	SF	\$190.00	\$210.00	7,654	\$1,454,260.00	\$1,607,340.00
Remodeling Level 01 (Basic)	SF	\$25.00	\$35.00	15,261	\$381,525.00	\$534,135.00
Remodeling Level 02 (Reconfiguration)	SF	\$50.00	\$65.00	13,814	\$690,700.00	\$897,910.00
Remodeling Level 03 (Interior Demolition & Rebuild )	SF	\$90.00	\$105.00	6,758	\$608,220.00	\$709,590.00
Elevator	lump sum	\$125,000.00	\$150,000.00		\$125,000.00	\$150,000.00
Building Security	SF	\$1.00	\$1.00	53,502	\$53,502.00	\$53,502.00
Tech Wiring/Communication	SF	\$2.00	\$2.00	53,502	\$107,004.00	\$107,004.00
Fire Sprinkler	SF	\$3.25	\$3.25	53,502	\$173,881.50	\$173,881.50
Immediate Maintenance	lump sum	\$125,000.00	\$140,000.00		\$125,000.00	\$140,000.00
Upgrade Electrical Service	lump sum	\$8,000.00	\$10,000.00		\$8,000.00	\$10,000.00
Site (assumes road/parking adjustments)	lump sum	\$150,000.00	\$175,000.00		\$150,000.00	\$175,000.00
<b>Total Construction Allocation</b>					\$5,536,512.50	\$6,454,842.50
Escalation				5%	\$387,555.88	\$451,838.98
<b>Total Construction</b>					<b>\$5,924,068.38</b>	<b>\$6,906,681.48</b>

Light Commercial: Standard new construction of steel frame, light gauge metal and masonry, slab on grade, carpeted, painted gypsum board and masonry interior partitions, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Protected Wood Frame: Standard new construction of wood framing – one hour protected – or light gauge metal framing, slab on grade, carpeted, brick veneer, painted interior gypsum walls and finishes, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Second Floor Infill: New construction of steel frame, metal deck, concrete floor slab, carpeted, painted gypsum board interior partitions, painted existing ceiling, upgraded mechanical and new electrical.

Remodeling Level 01: Basic remodeling of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, and new ceilings. Existing doors and windows would be reused.

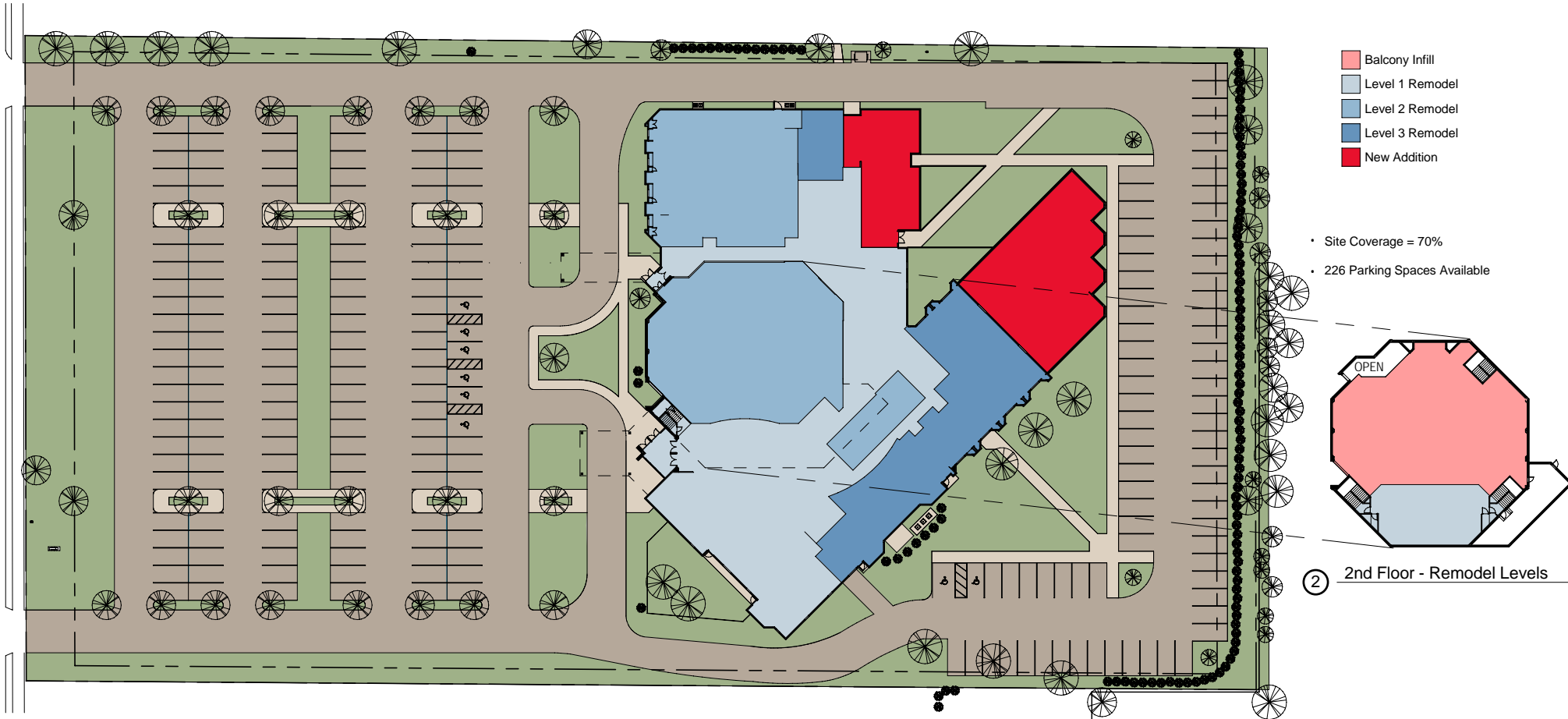
Remodeling Level 02: Reconfiguration of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, new ceilings, some new partitions, new doors, and new windows.

Remodeling Level 03: Demolition & Rebuild of interior spaces. This level of remodeling includes total demolition and rebuild of interior space, including new partitions, new doors and windows. New distributions and upgrades to Mechanical and Electrical systems.

Estimate Does Not Include: Furnishings, Equipment, Accessories, Professional Fees

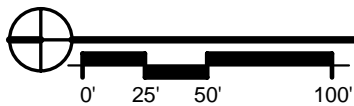


Feasibility Study



① Option #3 - First Floor - Remodel Areas

② 2nd Floor - Remodel Levels



**OPTION THREE: REMODEL LEVELS**

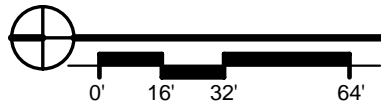


Feasibility Study



① Option #3 - First Floor - Agency Areas

② Second Floor - Agency Areas



TOTAL GROSS BUILDING AREA: 50,304 SF

**OPTION THREE - SCHEMATIC PLAN**







## STORY COUNTY HUMAN SERVICES CAMPUS - COST SUMMARY

### Option #3 Building Remodel with 7,000 SF Addition

Human Services Cost Model Summary							
August 1, 2008							
Estimated for bid Summer 2009							
Description	Units	Unit Cost Low	Cost Range	Unit Cost High	Quantity	Total Estimated Cost Low	Total Estimated Cost High
New Addition – Light Commercial	SF	\$175.00		\$200.00	2,298	\$402,150.00	\$459,600.00
New Addition – Protected Wood Frame	SF	\$140.00		\$160.00	4,529	\$634,060.00	\$724,640.00
New Addition – Second Floor Infill	SF	\$190.00		\$210.00	8,914	\$1,693,660.00	\$1,871,940.00
Remodeling Level 01 (Basic)	SF	\$25.00		\$35.00	13,933	\$348,325.00	\$487,655.00
Remodeling Level 02 (Reconfiguration)	SF	\$50.00		\$65.00	13,813	\$690,650.00	\$897,845.00
Remodeling Level 03 (Interior Demolition & Rebuild )	SF	\$90.00		\$105.00	6,817	\$613,530.00	\$715,785.00
Elevator	lump sum	\$125,000.00		\$150,000.00		\$125,000.00	\$150,000.00
Building Security	SF	\$1.00		\$1.00	50,304	\$50,304.00	\$50,304.00
Tech Wiring/Communication	SF	\$2.00		\$2.00	50,304	\$100,608.00	\$100,608.00
Fire Sprinkler	SF	\$3.25		\$3.25	50,304	\$163,488.00	\$163,488.00
Immediate Maintenance	lump sum	\$125,000.00		\$140,000.00		\$125,000.00	\$140,000.00
Upgrade Electrical Service	lump sum	\$8,000.00		\$10,000.00		\$8,000.00	\$10,000.00
Site (assumes road/parking adjustments)	lump sum	\$150,000.00		\$175,000.00		\$150,000.00	\$175,000.00
<b>Total Construction Allocation</b>						<b>\$5,104,775.00</b>	<b>\$5,946,865.00</b>
Escalation					5%	\$255,238.75	\$297,343.25
<b>Total Construction</b>						<b>\$5,360,013.75</b>	<b>\$6,244,208.25</b>

Light Commercial: Standard new construction of steel frame, light gauge metal and masonry, slab on grade, carpeted, painted gypsum board and masonry interior partitions, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Protected Wood Frame: Standard new construction of wood framing – one hour protected – or light gauge metal framing, slab on grade, carpeted, brick veneer, painted interior gypsum walls and finishes, ATC ceilings, clad windows, HM doors and frames, new mechanical and electrical.

Second Floor Infill: New construction of steel frame, metal deck, concrete floor slab, carpeted, painted gypsum board interior partitions, painted existing ceiling, upgraded mechanical and new electrical.

Remodeling Level 01: Basic remodeling of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, and new ceilings. Existing doors and windows would be reused.

Remodeling Level 02: Reconfiguration of interior spaces. In addition to Mechanical and Electrical upgrades, this level of remodeling would include new floor covering, new paint, new lighting, new ceilings, some new partitions, new doors, and new windows.

Remodeling Level 03: Demolition & Rebuild of interior spaces. This level of remodeling includes total demolition and rebuild of interior space, including doors and windows. Also included in this level of remodeling are new distributions and upgrades to Mechanical and Electrical systems.

Estimate Does Not Include: Furnishings, Equipment, Accessories, Professional Fees



06

06





## agency - area program summary

### Story County Human Services Campus - Feasibility Study

Date: 8/01/08

RDG Planning and Design Project #28209.00

<b>AGENCY AREA SUMMARY - BY OPTION</b>		Proposed Options		
		Option #1	Option #2	Option #3
<b>OPTION AREA (G.S.F.) OF NEW CONSTRUCTION</b>		14,000 SF	10,000 SF	7,000 SF
AGENCIES	PROGRAM			
ACPC (Ames Community Preschool Center)	2,780	3,391	3,391	3,391
American Red Cross - Lincoln Way Chapter	2,336	2,658	2,656	2,658
Heartland Senior Services	15,264	15,312	15,439	15,496
The Richmond Center	7,323	7,764	8,384	8,364
United Way of Story County	1,734	1,919	1,919	1,901
Other Agencies:				
Aging Resources of Central Iowa	317			
ARC of Story County	689			
Foster Grandparent Program	154			
Habitat for Humanity	869			
ISU Extension Service	418			
NAMI National Alliance for the Mentally Ill	160			
Raising Readers	198			
RSVP Retired & Senior Volunteer Program	686			
Story County Community Foundation	385			
Volunteer Center of Story County	823			
SUBTOTAL (Other Agencies)	4,698	6,526	4,700	3,758
Shared Spaces	3,674	3,658	3,464	2,873
TOTAL MODIFIED GROSS ASSIGNABLE AREA	<b>37,809</b>	<b>41,228</b>	<b>39,953</b>	<b>38,441</b>
TOTAL GROSS AREA *	<b>49,151</b>	<b>57,345</b>	<b>53,502</b>	<b>50,304</b>

SITE REQUIREMENTS	Requested	14,000 SF	10,000 SF	7,000 SF
Heartland - Exterior Courtyards	1500	1500	1500	1500
ACPC - Play yard	400	1788	1788	1788

PARKING	Existing	14,000 SF	10,000 SF	7,000 SF
AVAILABLE	279	230	225	223



**agency - area program**

Story County Human Services Campus - Feasibility Study

Date: 8/01/08

RDG Planning and Design Project #28209.00

<b>ACPC (Ames Community Preschool Center)</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>				
Administrator		1	120	120
<b>Ancillary Spaces:</b>				
Classroom (Infant)		1	400	600
Classroom (Toddler)		1	420	420
Classroom Storage		2	60	120
Classroom Restrooms		2	56	112
Group Activity/Meeting Space		1	400	400
Activity Space Storage (Chairs, Tables, Equipment)		1	180	180
Vestibule / Lobby		1	200	200
Administrative Workstation (Shared by teachers)		1	80	80
Staff Lockers		10	1.5	15
Kitchen / Break		1	100	100
Laundry/Janitor (Washer/dryer, linen storage, supplies, sinks)		1	180	180
<b>Site Requirements:</b>				
Staff parking	10 stalls			
Short term parking / drop-off lane	8 car drop-off			
Outdoor activity space	400 SF			
Bus and van parking	2 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>2,527</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>2,780</b>

<b>Aging Resources of Central Iowa</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>				
Office (2 work stations)		1	288	288
<b>Site Requirements:</b>				
Staff Parking	2 stalls			
Client Parking	3 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>288</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>317</b>

<b>American Red Cross - Lincoln Way Chapter</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>				
Executive Director	Private	1	140	140
Officers	Private	1	120	120
Support Staff	Open	2	100	200
<b>Ancillary Spaces:</b>				
Lobby / Waiting		1	100	100
Sales Display		1	30	30
Storage (Red Cross)		1	1,314	1,314
Mannequin Storage / Server Room		1	100	100
Other storage (Health & Safety, Disaster Supplies)		1	120	120
<b>Site Requirements:</b>				
Staff Parking	7 stalls			
Client Parking	15 stalls			
Van / Trailer	1 large stall			
Vehicular access to building storage areas				
Generator parking	1 small stall			
<b>NET ASSIGNABLE AREA</b>				<b>2,124</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>2,336</b>

<b>ARC of Story County</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>				
	<b>Privacy</b>			
Administrator	Private	1	120	120
Administrative Staff		1	56	56
<b>Ancillary Spaces:</b>				
Storage		1	70	70
Supplies		1	10	10
Basement Storage		1	250	250
Reception		1	120	120
<b>Site Requirements:</b>				
	Description			
Staff Parking	2 stalls			
Client Parking	7 stalls			
Vehicular access to building storage areas				
<b>NET ASSIGNABLE AREA</b>				<b>626</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>689</b>



<b>Foster Grandparent Program</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>	<b>Privacy</b>			
Coordinator (19 hour work week)	Private	1	140	140
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	1 stall			
Client Parking	3 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>140</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>154</b>

<b>Habitat for Humanity</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>				
Director Office		1	140	140
Bookkeeper/Development Office		1	180	180
Construction Coordinator		1	120	120
Reception/Office Coordinator		1	250	250
File Storage/Copy		1	100	100
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	5 Stalls			
Client Parking	5 Stalls			
<b>NET ASSIGNABLE AREA</b>				<b>790</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>869</b>

Heartland Senior Services		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Administration</b>				
Executive Director Office	Private	1	140	140
Director Office	Private	1	140	140
Fund Development Office	Private	1	120	120
Administrative Staff Work Area	Semi-private	1	200	200
Staff Office Space	Semi-private	1	175	175
Staff Services Office	Semi-private	1	120	120
Records Storage	Private	1	64	64
<b>Outreach</b>				
Outreach office	Private	2	140	280
<b>Nutrition</b>				
Nutritionist office	Private	1	140	140
Kitchen		1	800	800
Receiving		1	120	120
Pantry Storage		1	220	220
Walk-in freezer		1	150	150
Dining Room (Table activity room)		1	1,500	1,500
Table & Chair Storage		1	150	150
<b>Activities</b>				
Activities office	Private	1	140	140
Fitness Room		1	1,500	1,500
Equipment Storage		1	150	150
<b>Ancillary Spaces</b>				
General Storage		1	120	120
Staff Toilet		2	56	112
Multi-purpose Room (Relaxed seating room) / Library		1	550	550
Supplies		1	20	20
Conference Room for 10		1	292	292
<b>Daycare</b>				
Quiet Activity Area		1	639	639
Multi-purpose Area		1	1,237	1,237
Salon		1	127	127
Laundry		1	115	115
Staff Toilet	Private	1	56	56
Nurse Office	Private	1	64	64
Director Office	Private	1	140	140
Nurse Station	Open	1	150	150
Storage		1	100	100
Waiting / Coats		1	200	200
Bathing room	Private	2	100	200
Conference Room for 6	Private	1	152	152
Dementia wing (for 15)		1	1,500	1,500
Advanced medical needs wing (for 10)		1	1,200	1,200
Chart/Exam Room		1	110	110
Toilets		2	40	80
<b>Site Requirements:</b>		<b>Description</b>		
Staff Parking		22 stalls		
Client Parking		77 stalls		
Drop-off lane : general		2 buses		
Drop-off lane : day care		6 cars		
Outdoor Courtyard				
Day care	1	500		
Dementia	1	500		
Alzheimer's	1	500		
Outdoor recreation space		1,500		
Vehicular access / delivery to receiving / kitchen				
<b>NET ASSIGNABLE AREA</b>				<b>13,273</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>15,264</b>

<b>ISU Extension Service</b>		AREAS		
		Proposed		
FUNCTION				
<b>Office Space:</b>				
Office		2	100	200
Reception/Staff Support		1	180	180
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	3			
Client Parking	4			
<b>NET ASSIGNABLE AREA</b>				<b>380</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>418</b>

<b>NAMI National Alliance for the Mentally Ill</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>	<b>Privacy</b>			
Office		1	120	120
Storage		1	25	25
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	1 stall			
Client Parking	1 stall			
<b>NET ASSIGNABLE AREA</b>				<b>145</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>160</b>

<b>Raising Readers</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>	<b>Privacy</b>			
Coordinator	Private	1	120	120
Book Storage		1	60	60
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	1 stall			
Client Parking	2 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>180</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>198</b>

<b>The Richmond Center</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Offices:</b>	<b>Privacy</b>			
Director	Private	1	120	120
Clinical Director		1	120	120
Office Manager		1	120	120
Controller		1	120	120
Nursing		2	220	440
Doctor's Office		7	120	840
Administrative Assistant		2	120	240
<b>Ancillary Spaces:</b>				
Reception (accommodate 4 support staff/once)		1	230	230
Waiting room (16-20 chairs)		1	205	205
Workroom (copy, fax, print) and records		1	278	278
Records storage		1	400	400
Dedicated HCP restrooms		1	95	95
Closet		2	30	61
Child's play area		1	106	106
Intake		2	124	248
Therapy Rooms		10	140	1,400
Records storage		1	250	250
Outreach Coordinator		1	120	120
Outreach 4 in one room		1	240	240
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	26 stalls			
Client Parking	28 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>5,633</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>7,323</b>

<b>RSVP Retired &amp; Senior Volunteer Program</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>	<b>Privacy</b>			
Office (2 workstations)	Private	1	300	300
Storage		1	324	324
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	3 stalls			
Client Parking	15 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>624</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>686</b>

<b>Story County Community Foundation</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Office Space:</b>	<b>Privacy</b>			
Office (2 workstations)	Private	1	300	300
Storage		1	50	50
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	2 stalls			
Client Parking	4 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>350</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>385</b>

<b>United Way of Story County</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Offices:</b>	<b>Privacy</b>			
Executive Director	Private	1	140	140
Financial Director		1	140	140
Office		3	120	360
Office		2	64	128
<b>Ancillary Spaces:</b>				
Waiting / Reception		1	360	360
Copy Room				-
Stuffing Room		1	200	200
Storage		1	80	80
Kitchenette		1	72	72
Counter Storage		1	48	48
Storage		1	48	48
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	6 stalls			
Client Parking	11 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>1,576</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>1,734</b>

<b>Volunteer Center of Story County</b>		AREAS		
		Proposed		
FUNCTION		Qty	Area	Total
<b>Offices:</b>	<b>Privacy</b>			
Director	Private	1	192	192
Office		2	140	280
<b>Ancillary Spaces:</b>				
Volunteer Work Stations		3	42	126
Storage		1	150	150
<b>Site Requirements:</b>	<b>Description</b>			
Staff Parking	3 stalls			
Client Parking	8 stalls			
<b>NET ASSIGNABLE AREA</b>				<b>748</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>823</b>

<b>Recommended Shared Spaces</b>		AREAS		
		Proposed		
		Qty	Area	Total
Reception		1	220	220
Resource		1	250	250
Conference room for 6		2	150	300
Conference Room for 10		1	250	250
Conference Room for 20		1	500	500
Conference/Classroom		1	800	800
Café		1	200	200
Workroom (copy, fax, print)		1	250	250
Kitchen/Break Room		1	250	250
Information Technology		1	200	200
Building Services		1	120	120
<b>NET ASSIGNABLE AREA</b>				<b>3,340</b>
<b>MODIFIED GROSS ASSIGNABLE AREA *</b>				<b>3,674</b>

<b>TOTAL NET ASSIGNABLE AREA</b>				<b>32,744</b>
<b>TOTAL MODIFIED GROSS ASSIGNABLE AREA</b>				<b>37,809</b>

\* FOR PURPOSES OF THIS EFFORT, A GROSSING FACTOR WAS ADDED TO THE NET ASSIGNABLE AREA TO ACCOMMODATE WALL THICKNESSES, CIRCULATION, SHAFTS, AND OTHER UNASSIGNABLE ITEMS TO DETERMINE AN APPROXIMATE GROSS FLOOR AREA FOR EACH AGENCY.

Story County Human Services Campus - Feasibility Study

The following analysis is based on occupant load factors for the existing building with a 14,000 SF Addition.

Plumbing Fixtures - Required						
Business	Occupant Load	wc	u*	lav	df	ss
Men	113	3		2		
Women**	113	3		2		
					3	1
<b>Sub Total</b>		<b>6</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>1</b>
Education						
Men	49	1		1		
Women**	49	1		1		
					1	1
<b>Sub Total</b>		<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>
Instituitonal 4						
Men	64	5		5		
Women**	64	5		5		
					1	1
<b>Sub Total</b>		<b>10</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>1</b>
Assembly						
Men	179	3		1		
Women**	179	3		1		
					5	1
<b>Sub Total</b>		<b>6</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>1</b>
<b>Total</b>		<b>24</b>	<b>0</b>	<b>18</b>	<b>10</b>	<b>4</b>

Plumbing Fixtures - Existing						
		wc	u	lav	df	ss
Men		6	6	6		
Women**		12		7	3	3
<b>Total</b>		<b>18</b>	<b>6</b>	<b>13</b>	<b>3</b>	<b>3</b>

Minimum Required Additional Plumbing Fixtures						
		wc	u	lav	df	ss
<b>Total</b>				<b>5</b>	<b>7</b>	<b>1</b>

**Footnotes:**

\* Urinal can be substituted for wc on above min with a limit of 1/3 wc reduction.

\*\*Female wc not less than male wc + u total.

**Abbreviations:**

wc - water closet

u - urinal

lav - lavatory

df - drinking fountain

ss - service sink

