Fifth Judicial District
Department of Correctional Services

"...protect the public, employees, and offenders from victimization , and, to help transform offenders in to productive Iowa Citizens."



Facility and Site Study | Final Report

December 12, 2008

ASK STUDIO ARCHITECTS SCHIPPER KASTNER

K&A

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1. INTRODUCTION

The Fifth Judicial District Department of Correctional Services is a community-based correctional agency which provides a variety of services to approximately 9,000 offenders in South-Central Iowa. The Fifth Judicial District Department of Correctional Services provides supervision and treatment to offenders prior to conviction, post conviction, and for offenders in residential settings. Evidence based practices are used to achieve the vision of "A Fifth Judicial District with No More Victims."

The belief and values of the over 300 employees of the Fifth Judicial District are that people can change; offenders can become stable, productive citizens, and employees; that every person should be treated with dignity and respect; that our work efforts need to facilitate public safety, and that everyone must work as a team if we are to succeed. Services are based on those beliefs and values.

The study entitled Fifth Judicial District Department of Correctional Services - Facilities and Site Selection Study was undertaken with the purpose of providing a planning document for future infrastructure by evaluation the existing structures through functional/security analysis, engineering analysis and an architectural overview and life-cycle assessment. This analysis provides a foundation for space planning for future structures, utilizing evidence based practice and the parameters of increasing offender population by 170 persons. All assessments, projection and conclusions consider possible growth as a paramount component of achieving public value and sustainable design.

The goal of the study is to locate a site appropriate for a 170 offender unit, based on an understanding of current needs, existing and proposed procedure and the longevity of existing facility use. The study is based on master-plan process. A framework on which multiple stages of infrastructure development can be based is initiated through the systemic study of infrastructure condition, infrastructure needs and treatment objectives.

The participants of the study included the following:

Fifth Judicial District Department of Correctional Services Staff
Department of Corrections Staff
ASK Studio; local architectural firm responsible for architectural analysis, report coordination and community communications.
Kimme and Associates; corrections consultant from Champaign, IL responsible for security and function analysis of existing facilities and space needs studies required for site determination.
Twin Rivers Engineering; local engineering firm responsible for engineering analysis of existing facilities.

Person or entities involved by informational meetings or discussions to better understand concerns of involved communities, governments and law enforcement:

Fifth Judicial District Department of Correctional Services Executive Committee
City of Des Moines Department of Community Development
Local Police Chiefs
Polk County Sheriff's Office
City of Ankeny Department of Planning and Building
Terry Rich, CEO Blank Park Zoo
Supervisor Marvin Grace, Warren County Board of Supervisors

Understanding of the Fifth Judicial District

2. INFRASTRUCTURE (In Use)

General Observations

Fort Des Moines Men's Community Corrections Residential Facility (CCRF)

The Male CCRF is a complex of several different buildings. They are located on the south side of Des Moines on the historic Fort Des Moines military grounds. Building 68 houses eighty (80) "probation" offenders who were sentenced by the Court to the facility as a condition of probation. Building 70 (which is linked to building 68 by dining space) houses one hundred twenty (120) offenders placed on work release by the Board of Parole. Some federal offenders are there as well and provide a revenue source to the CCRF. Building 69 is the kitchen for the campus and is also attached to the 68/70 buildings.

Building 65/66 is across the road from the 68/69/70 facility. It houses a sixty-seven (67) bed treatment facility for OWI inmates sentenced by the Court. This program is licensed by the Iowa Department of Health, Division of Substance Abuse. An independent program, "Bridges of Iowa" also has residential facilities in this building.

There are three other facilities on the site, Building 63/64 which is unoccupied, Building 71 which is vacant stable space used as storage, and Building 72 which is occupied by Maintenance and adjoins Building 71.

There are some general observations that apply to all of the housing facilities (specific comments about the individual buildings that reinforce some of these observations appear below in sections about each building):

- Supervision and Surveillance. The linear layout of Building 68 (Men's Residential), 70 (Men's Work Release) and 65/66 (OWI Facility) limits the staff to periodic or intermittent surveillance of the offender population. This is the least effective and least secure method of offender control since it restricts an officer to only intermittent periods of contact and control every 30 to 60 minutes. The problem is especially bad in 65/66. Thus, the officer must depend, in part, on the good intentions and behavior of the offenders for the avoidance of fights, sexual assaults, vandalism, intimidation, self-destructive behavior and escape attempts. In essence, this type design, which is now considered outdated, can allow the offenders to control the housing areas while staff controls the corridors.

- Special Housing. There is no suitable and suitably observable housing for "special needs" offenders such as the mentally unstable, those vulnerable to victimization, or the disabled.

- Disciplinary or Temporary Offender Isolation. There are no individual "cells" or "rooms" to temporarily isolate an offender who is engaging in disruptive or threatening behavior and may need temporary restriction as a consequence for repeated rule infractions. There is no suitable housing for these

offenders, which can serve to erode staff control and potentially jeopardize facility security as well as staff and inmate safety.

- Inmate Activities & Programs. Building 68 (Men's Residential) and Building 70 (Men's Work Release) have no program space. All program space is located in Buildings 65/66 inhibiting program delivery to these offenders. In addition, there is no "out of cell" or "out of room" dayroom space for offenders to engage in passive recreation activities that promote social interaction and "keep them busy". Offenders tend to congregate in corridors or around staff control posts which is very unproductive and distracting to staff. Offenders with idle time are more prone to non-compliant or disruptive behavior, which complicates officer functions and offender control.

- Intake/Daily Processing In/Out. Little space is available for the crucial task of adequately checking work releases into and out of the buildings. Check-ins and outs are important because they present the best opportunity facility staff has of preventing the introduction of contraband into the facilities. This is especially important in a complex housing individuals with drug and alcohol addiction problems.

Building 65/66

Architectural

The building is masonry bearing construction with wood framed flooring and roofing. It is on the National Historic Register. The building was originally constructed in 1904, has been remodeled numerous times (1980, 1984, and 1999) and suffers from inadequate circulation, lack of basic code compliance and does not adhere to program requirements of the Fifth Judicial District Department of Correctional Services.

The shingle roof is in fair condition. It was estimated to be 15 years old and we are recommending replacement within 5 years.

Windows are aluminum double pane units with storm/screen and are approximately 15 years old. Windows at units inspected operated, sash material was sound, weather-stripping was intact and there was no evidence of any water damage at interior jambs and/or sills. With continued routine maintenance windows should function, however we are recommending replacement in year 5 for energy efficiency issues. The existing window replacement is not compliant with standards of the National Park Service for historic structure. Future replacements would require actual divided light units.

Attics have blown-in insulation. Soffits are minimally vented and condensation concerns are evident. Roof sheathing is plywood and appeared sound. No areas of water damage were observed.

Wall and ceiling finishes in commons area are painted gypsum board and original plaster. They are generally in fair condition.

Floor Coverings: Age of carpet and vinyl in units varies from between 4 to 20 years old. Older carpet varies from being in poor to fair condition.

Interior doors and trim: Interior trim is a mix of colonial and ranch style casing with stain finish. Doors are stained, solid core of mixed species. Trim is in poor/fair shape and is not appropriate for the current use of the structure. Doors are also worn and at the end of useful life.

Code Compliance

The current facility lacks code compliance in numerous aspects.

Accessibility

The current facility lacks accessibility at entries, stairs, nearly all doorways and lacks an elevator as is required by the ADA.

Function/Security

This historic building on the Fort Des Moines site is used by the Fifth Judicial District Residential Services as their OWI facility. It is essentially a three story building that has been partially sectioned off on its west side to provide lease space for the Bridges of Iowa rehabilitation program.

In general, this is a very marginal facility that minimally provides basic space for the OWI function. There are few positives that can be cited about this facility except for the fact that it does have sufficient space to provide a minimum of classroom and treatment areas and has sleeping rooms for the offender population as opposed to open dorms. From a custody point-of-view the drawbacks of this facility are significant.

1. The facility has a very convoluted organization over three separate floors that makes movement difficult and supervision and monitoring of inmate activities and whereabouts very difficult.

2. There is no ADA accessibility in this building thus causing offenders with disabilities to be housed separate from the treatment environment intended for this facility.

3. Additional space is needed for the secure intake and storage functions. They need to be more efficiently organized in order to make reception easier to monitor and manage.

4. Storage capabilities throughout the facility are very inadequate. Some storage areas, like the chaplain storage, are inappropriately within and accessed through the boiler room.

5. The chaplain's laundry area, which is used to wash the clothing of indigent offenders, is inappropriately located in the boiler room.

6. Classroom space is separated from the sleeping areas by two floors. It would be much more convenient in terms of offender movement and monitoring to have the classrooms be in much closer proximity to the housing areas of the offender.

7. The facility lacks indoor or outdoor exercise space.

8. There is limited day space to support the sleeping areas.

9. The facility houses the only health care exam room in the complex. However, the exam room is in the basement located in an office suite as opposed to in a properly located and developed health care area with a legitimate waiting room and other medical support space.

10. The floor plan is so convoluted and chopped-up that providing effective camera monitoring from a control post is very difficult. Given the complex layout and corridor system, the number of cameras needed to provide security is far in excess of the ability of staff to monitor them.

11. Reducing the amount of contraband that might enter the facility is very difficult given the inadequate check-in and property storage facilities of the building.

12. There is inadequate space for the storage of tools, boots and other items which the offenders bring back to the facility but which do not belong in the housing areas.

Mechanical

Domestic Water
The building is served by a 2-inch water service that enters from the south. The water service includes a water meter and a 2-inch reduced pressure zone (RPZ) backflow preventer. The water service is adequate for the current fixture demand in the building. The domestic hot water is generated by two gas-fired water heaters located in the boiler room. One unit is a State SBT80-180, 180 MBH input, 80 gallon storage, gas-fired water heater and the other is a Rheem G82-156, 156 MBH input, 82 gallon storage, gas-fire water heater. The hot water system includes a recirculated loop and pump. The State water heater was installed in 2005 and should have another 10 to 15 years of useful life. The Rheem water heater was installed in 1990 and is near the end of its life.

Plumbing Fixtures
The plumbing fixtures throughout the building are in good condition. All water closets and urinals are flush valve type fixtures. Flush valves for the resident restrooms are a concealed style with the flush valves installed within the plumbing chase. Some fixture conversions may be necessary for ADA accessibility.

Natural Gas Service
Natural gas service is routed to the domestic hot water heaters and boilers. The service size and pressure is adequate for the current building needs.

Fire Protection
The building is served by a wet and dry fire protection service. The wet zone serves the occupied spaces and the dry zone serves the attic due to the combustible construction. The compressor for the dry zone is located in the attic.

Heating Plant
A portion of the building is served by two Ajax WG-675 hot water boilers. Each boiler has a rated input of 675 MBH and an output of 540 MBH for a gross heating capacity of 1080 MBH. The boilers were installed in 1980 and are reaching the end of their useful life. Replacement of these boilers should be considered.

Cooling Plant
A portion of the building cooling is provided with a chilled water system. A Carrier indoor chiller with a Carrier 09DK-044 air-cooled condenser generates chilled water for the parts of the building served by fan coil units. The chiller was installed around 1996. The chilled water plant should provide another 10 to 15 years of service with proper maintenance.
Under the current Safety Code for Mechanical Refrigeration (ASHRAE Standard 15), the chiller room should have a refrigerant leak detection system as well as a ventilation system to evacuate the room in the event of a refrigerant detection alarm. The standard describes the ventilation rates required based on the refrigerant charge capacity within the chiller, as well as providing heat removal from the machinery room. To meet these requirements it would be necessary to add a refrigerant leak detector, exhaust fan, ductwork and a louvered intake for make-up air.
ASHRAE 15 also prohibits the use of open flame equipment in equipment rooms that have refrigeration machinery. There are two conditions under which combustion

equipment can be used in the same room as the chiller. The first would be to have the combustion air ducted directly to any gas-fired equipment for sealed combustion. The second option would be to have a refrigerant vapor detector that would automatically shut down any gas-fired equipment within the room. The boiler plant currently uses combustion air from within the mechanical room that is introduced from a combustion air louver through the outside wall. The boilers are ready to be replaced and a sealed combustion type boiler would be a viable option. The water heater combustion air is from within the room as well. One of the water heaters is due to be replaced and a seal combustion type water heater would be an option for the size of equipment. Consideration should be given to replace the second water heater with a sealed combustion type water heater as well.

HVAC Piping/Pumps

The heating hot water and chilled water systems share the same piping for a dual water system. A series of valves allow for manual change over between heating and cooling. The dual water system serves fan coil units used for space heating and cooling.
The building heating hot water and chilled water is circulated with inline pumps. The pumps appear to be installed as a part of the chiller installation in the mid-1990 and should remain operational through the life of the chiller.

Air Handling Systems

The building is served by 2-pipe fan coil units throughout a majority of the building. Each fan coil unit has a single coil and utilizes hot water or chilled water for individual space temperature control for each zone. Fan coil units cannot simultaneously heat and cool. All fan coil units are in a heating mode or a cooling mode as dictated by the operating mode of the dual water system. All of the fan coil units are recirculating room air only. Ventilation air is not introduced at the fan coil units.
An additional fan coil unit was added in 2000 to provide ventilation air for some of the spaces. The fan coil units utilize direct expansion (DX) refrigeration coils to cool and hot water coils to heat the ventilation air. The fan coil units introduce approximately 15% outside air to provide ventilation air. The fan coil unit hot water coils need to be isolated when the dual water system is changed over to chilled water to prevent condensation on the duct mounted water coils.
The “old sleeping rooms” on the east side of the building are served by two DX/hot water fan coil units. Controls for these two units are stand-alone from local thermostats.

Duct Systems

Building exhaust for the restrooms is ducted to the roof or exterior wall and discharged with roof and wall mounted power ventilators. There are no known issues with existing exhaust fans. These fans appear to have been installed as a part of the 1980 building remodel and 1985 addition.

Ventilation

Ventilation air is introduced into portions of the building through the DX/hot water fan coil units located throughout the building. Control dampers on these fan coil units are adjusted to provide 15% outside air through the units. The outside air quantities have been adjusted to limit humidity issues during the summer. Actual ventilation rates through the fan coil units should be compared to minimum required ventilation rates for each space. There are some areas of the building that are not provided with ventilation air that should have systems added to introduce outside air.

Temperature Controls
The building temperature controls are served by a Siemens Direct Digital Control (DDC) system. The DDC controls serve the fan coil units and ventilation systems. The DDC system is extended from Building 68/70 across the street.

Electrical

Power Distribution
The building electric service is fed with overhead conductors from three 50 KVA pole mounted transformers at the street to a 600 amp main switch located in the basement of the existing building. The main switch is connected to a Square D switchboard distribution panel with seven branch switches. The seven branch switches distribute power to panel boards located throughout the building. Branch circuit panels are older Square D equipment. There is no emergency power system in this building.
The electric distribution equipment is in fair condition and is suitable for continued use for the building as-is. Any major renovation of the existing building will likely require removal and replacement of a majority of the electric distribution system.

Lighting
The building lighting is served primarily using 120 volt fixtures with T12 fluorescent lamps. Fixtures that originally used incandescent lamps have been retrofitted with self-ballasted compact fluorescent lamps. The lighting is not energy efficient and light levels are not sufficient in many areas. Emergency and exit lighting is deficient in some areas of the building.
Any renovation of the existing building will likely require removal and replacement of the lighting system.

Fire Alarm System
The fire alarm system is a Siemens Apogee addressable panel. The system includes the main control panel, enunciator panels, smoke detectors, heat detectors, manual break-glass pull stations, horns, strobes, relays for smoke dampers, and mechanical equipment shutdowns. Layouts appear to be in compliance with Code requirements.
The system is in good condition and is suitable for continued use.

CCTV System
The CCTV system consists of Allegiant digital video recording equipment, video monitors at control stations, and 16 color cameras. The camera system has been recently upgraded.
The camera system is in good condition and is suitable for continued use.

Door Control/Security System
The door control/security system consists of Siemens Apogee control panel and electric locks. The system reportedly has problems and continuous maintenance issues. The system should be replaced/upgraded as part of a major maintenance or renovation project.

Voice/Data Cabling System
Wiring is General Cable Category 5E routed in a star topography from the Main Distribution Frame (MDF) patch panels to outlet locations. Patch panels are Ortronics

Category 5. Cabling lengths are assumed to be 100 meters or less. The voice/data cabling system is in good condition and appears to be in compliance with EIA-TIA standards.

Summary

The building is not appropriate for its function. It lacks security, safety and accessibility. The building requires updates to nearly all major components. The building is well beyond its useful life, its use is not conducive to treatment housed within and continued use is not recommended. Replacement of this building should be the second step in a master plan beyond the proposed addition of 170 beds.

Ground Floor Plan

First Floor Plan

Second Floor Plan

Building 68/69/70

Architectural

The building is masonry bearing construction with wood framed flooring and roofing. It is on the National Historic Register. The building has been remodeled and was originally a horse barn. The 1999 remodeling has been a physical success and the remodeling was carried out with quality materials and methods.

The shingle roof is in fair condition. It was estimated to be 10 years old and we are recommending replacement within 6 years.

Windows are original single pane wood units. They are extremely poor weather barriers, but reuse and continued use is required by the National Park Service. All windows are in need of maintenance and will continue to require extensive maintenance for the life of the structure.

Attics have blown-in insulation. Soffits are minimally vented and condensation concerns are evident. Roof sheathing is plywood and appeared sound. No areas of water damage were observed.

Wall and ceiling finishes in commons area are painted gypsum board. They are generally in good condition.

Floor Coverings are generally sealed concrete. The floors are in good condition.

Interior wood doors are solid core with metal frames. They appear serviceable and well suited for use.

The restrooms all are in need a major maintenance. Original tile and grout has experienced extreme wear and should be replaced within the next two years to avoid more damage to the substrate materials.

Code Compliance

The current facility meets most components of contemporary codes.

Accessibility

The current facility meets most components of contemporary codes.

Security/Function

The facility is used to house work releasees coming from the state prison system and residential offenders sentenced to the facility by the courts as a condition of probation.

The facility consists of two long wings of housing linked by a center dining area creating what amounts to an "H" shaped plan. Between the wings and attached to the dining element is a separate facility that was made into a kitchen and later linked by a corridor to the dining area (Building 69). This kitchen provides food services for the complex.

The facility houses 120 work releasees in one wing and 80 residential probation inmates in the other. A small part of the work release area is occupied by federal offenders in exchange for per diem payments from the federal government. The residential wing also accommodates office space for facility staff, including the residential supervisor. The facility also houses the state-wide electronic monitoring center and the only dedicated staff training room on the complex.

Overall, this facility does a good job of utilizing the limited capabilities of a building meant for stabling horses while also preserving its historic character. Indeed, the facility has won awards for its historic preservation attainments. This facility is a much better facility, in correctional terms, than Building 65/66 though by no means ideal.

In spite of its virtues there are some significant concerns with respect to this building and how well it suits the functions of housing work release, federal, and residential offenders.

1. There are no dayrooms that support the sleeping areas.

2. Showers are located centrally rather than in direct association with the wings.

3. The facility lacks any indoor exercise or recreation space.

4. The outdoor exercise area is very limited and used only sporadically when there is staff available to supervise the yard. The outdoor green space is plentiful in the area but again is only used sporadically dependent upon when staff are available to supervise outdoor activities.

5. There is a distinct lack of storage space that supports the housing wings.

6. The wings are very large in occupancy and are not able to be broken up into smaller units more conducive to treatment, programming and security.

7. The wings are so long that observation and awareness about what is occurring in the furthest sleeping rooms is quite poor. This awareness is further diminished by the fact that officer sight lines are parallel across the face of the sleeping room thus precluding officer awareness of what is occurring in those rooms.

8. Even though the greatest density of offenders is in this building, there are no health care facilities in support of the population such as exam rooms, secure medications processing, storage rooms, and so forth. Nor is there program space for them.

9. Visiting for the complex is done in the dining area thus requiring offenders from the Building 65/66 to pass through Building 68/70 building to reach the dining area visiting.

10. The kitchen is very small and tight. That it is theoretically capable of providing up to 500 meals per meal is questionable given the lack of traying areas, cart storage, cooking surfaces and so forth.

11. Food deliveries are quite awkward and do not involve any dock or delivery areas to the facility.

Security/Function Summary of Fort Des Moines Facilities
The existing OWI, Work Release and Men's Residential buildings have a number of operational and space deficiencies which raise serious questions about their role in the development of the Fifth Judicial Districts future Community Corrections facility needs. The Fifth Judicial District Department of Correctional Services does an excellent job in keeping the facilities clean, orderly and managing them in as safe and secure a way as possible. Administration has been very resourceful in not only adapting spaces to meet needs but very creative in classifying and separating offenders and meeting their needs. They are commended for their resourcefulness, flexibility, and monitoring of a very complex set of issues primarily driven by a set of archaic buildings that have outlived their useful life. Management, supervisory, line, and treatment staff has responded in a very professional manner. The deficiencies we perceived are not in the management of the facilities and programs but in the facilities themselves.

Mechanical

Domestic Water
The building is served by a 4-inch water service that enters from the east. The water service includes a water meter and a 4-inch reduced pressure zone (RPZ) backflow preventer. The water service is adequate for the current fixture demand in the building. The domestic hot water is generated by a single water heater located in the west wing mechanical room. The unit is a Lochinvar Copper Fin II gas-fired water heater with 990 MBH input and 831 MBH output. The hot water is circulated from the water heater to four 500 gallon hot water storage tanks. The hot water system includes a recirculated loop and pump. The water heating plant is approximately 7 year old and should have another 10 to 15 years of useful life.
A point-of-use, electric booster heater is used for higher temperature water demands in the kitchen.

Plumbing Fixtures
The plumbing fixtures throughout the building are in good condition. All fixtures were updated with the 2000 building renovation. All water closets and urinals are flush valve type fixtures. Flush valves for the resident restrooms are a push button style with the flush valve installed within the plumbing chase. The limited width of the plumbing chases has presented problems for maintenance for the valves.

Natural Gas Service
The building is served by a 4-inch gas service. Natural gas routed to the domestic hot water heater, kitchen make-up air unit, and kitchen equipment. The service size and pressure is adequate for the current building needs.

Fire Protection
The building is served by a wet and dry fire protection service. The wet zone serves the occupied spaces and the dry zone serves the attic due to the combustible construction. The fire protection water service entrance includes a fire pump to maintain adequate system pressure.

Air Handling Systems
The building is served by two 50-ton, Trane Intellipak packaged roof top units that are pad mounted at grade. Each unit serves one wing of the building. Supply and return ductwork is routed exposed from each unit through the exterior wall openings. The packaged units provide direct expansion (DX) cooling and economizer for the building. Space heating is provided with electric reheat coils within the space.
Minimum ventilation air is tempered through two roof mounted energy recovery units mounted on the roof. The energy recovery units utilize the building exhaust air to temper the outside air before introducing it to the return air of each unit.
The duct distribution system for each packaged unit is a variable air volume (VAV) system. Ductwork is extended to multiple VAV boxes with electric reheat coils. The VAV boxes and reheat coils allow for modulation and heating of the supply air to meet the individual needs of each zone. Some concerns have been expressed with the current zoning for the building. In some cases zones are too large and do not provide the individual space control desired. One advantage of the current VAV system is that it can be easily modified to enhance zoning as desired.
The kitchen is served by a gas-fired make-up air unit. The make-up air unit provides tempered outside air for the air exhaust through the range hoods.
The air handling systems should provide another 10 to 15 years of useful life for the building.

Temperature Controls
The building temperature controls are served by a Siemens Direct Digital Control (DDC) system that was installed in 2000. The DDC controls serve the packaged roof top units, ventilation systems and VAV boxes. The user interface for the DDC system is computer head end.

Electrical

Power Distribution
Power to the building is fed from a 500 KVA Mid American Energy pad mounted transformer. Primary conductors are fed underground to primary poles at the street. Secondary conductors are routed underground to the Main Distribution Panel (MDP) in the electric room. A separate circuit from the transformer feeds a fire pump and jockey pump for the fire protection system.
The Main Distribution Panel (MDP) is Siemens gear rated at 277/480 volt, 3 phase, 4 wire with a 1000 amp main switch and fuses. The MDP is protected by an Innovative Technologies Transient Voltage Surge Suppression panel.
Lighting and mechanical equipment loads are powered from Siemens 277/480 volt panels. Siemens dry type transformers and 120/208 volt branch circuit panels provide power for small equipment and receptacle loads.
Emergency power consists of an Onan 125 KW diesel generator rated at 277/480 volt, 3 phase with sub-base fuel tank. A 225 amp automatic transfer switch connects an

emergency distribution panel to the generator to power the kitchen, security systems, life safety systems, minimal lighting and egress lighting. The generator is not sized to provide emergency power to the entire building.
The electric distribution gear and generator are approximately 10 years old and in good condition.

Lighting
The building lighting is served primarily at 277 volts using T8 fluorescent lamps. Some specialty lighting may be served at 120 volts. Light levels generally appear to be adequate. Minimal lighting is connected to the generator to comply with emergency egress requirements.
Site lighting consists of poles for the pedestrian lighting along sidewalks and building mounted lights. Exterior lighting is connected to the emergency generator.
The lighting is generally in good condition and suitable for continued use.

Fire Alarm System
The fire alarm system is a Siemens Apogee addressable panel. The system includes the main control panel, annunciator panels at each control desk, smoke detectors, heat detectors, duct detectors, manual break-glass pull stations, horns, strobes, relays for smoke dampers, and mechanical equipment shutdowns. The addressable panel is tied into the control system for the HVAC, security and door controls. Layouts appear to be in compliance with Code requirements.
The system is in good condition and is suitable for continued use. Consideration should be given to separating the fire alarm system from the other control systems.

CCTV System
The CCTV system consists of Allegiant digital video recording equipment, video monitors at control stations, and 12 color cameras. The camera system has been recently upgraded. Camera coverage is deficient in some areas.
The camera system is in good condition and is suitable for continued use. The system should be expanded to provide additional coverage.

Door Control/Security System
The door control/security system consists of Siemens Apogee control panel and electric locks. The system reportedly has problems and continuous maintenance issues. The system should be replaced/upgraded as part of a major maintenance or renovation project.

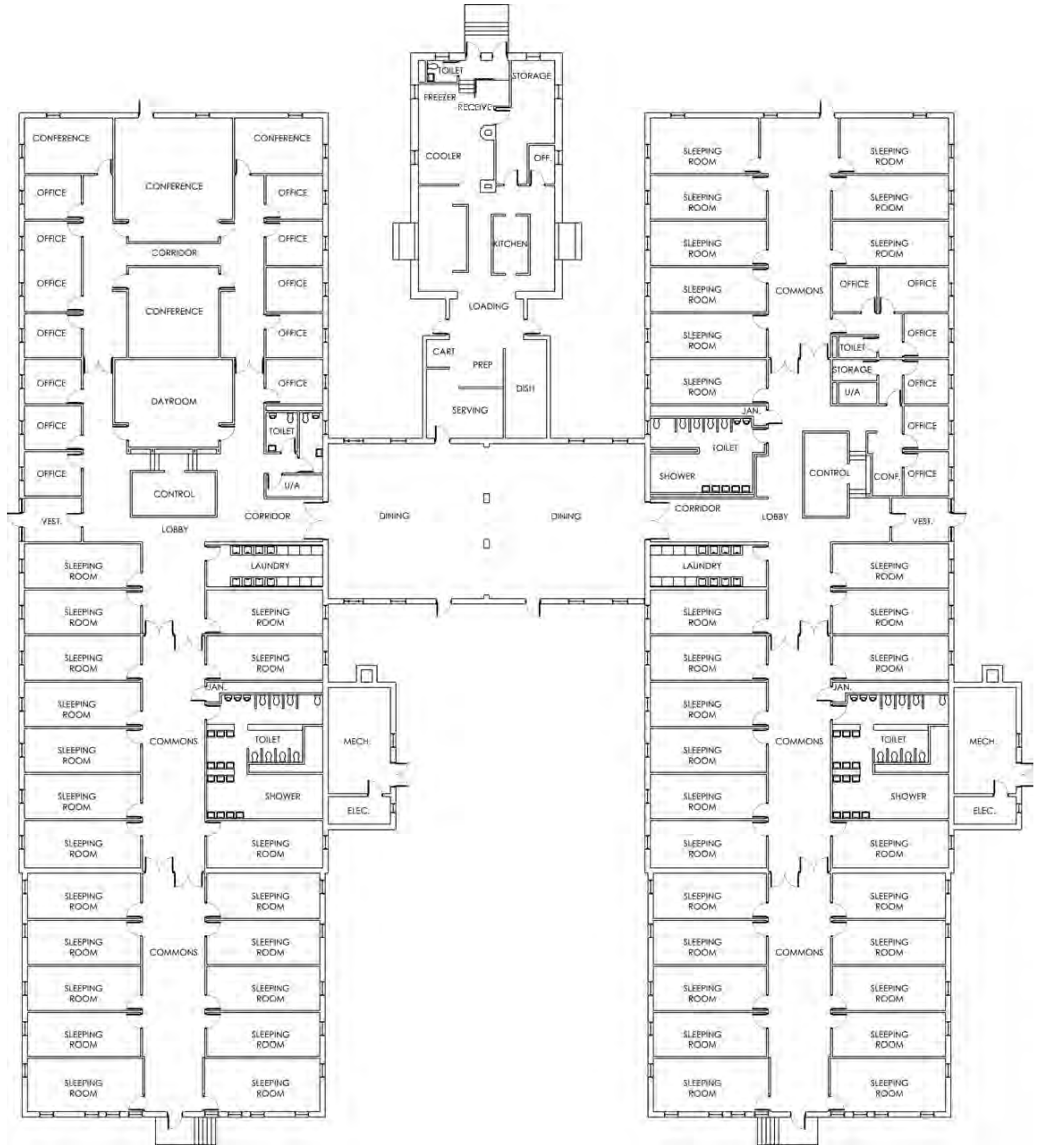
Voice/Data Cabling System
Wiring is General Cable Category 5E routed in a star topography from the Main Distribution Frame (MDF) patch panels to outlet locations. Patch panels are Ortronics Category 5. Cabling lengths are assumed to be 100 meters or less. There is a 12-strand fiber optic cable from the outside world that is currently not being used.

The voice/data cabling system is in good condition and appears to be in compliance with EIA-TIA standards.

Summary

The adaptive reuse of Building 68/69/70 has been successful. While the building lacks sophistication desired from a functional analysis, it serves as a solid housing unit for the near term. The use of a historic structure is an admirable endeavor, but the building frame does not adequately fit the program and as such weakens the structure's support of the mission. Congruently the building's continued need for historically appropriate maintenance will exponentially grow as the building systems near the end of their useful lives. A replacement for this facility should be planned within a ten to fifteen year time frame. At this time the current improvements will be fully expended and additional investment would be contrary to security and function improvement required.

Building 68 / 70 Plans



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Fort Des Moines

1. 65/66 viewed from SE.
2. 68/69/70 viewed from North.
3. Loading at 69.
4. Existing mechanical systems at 68/70.
5. Kitchen storage at 69.
6. Non code compliant railing at kitchen
7. Replacement windows at 65/66 are not historically correct.

1917 Hickman Drive

Architectural

The Women's Residential Facility is located at 1917 Hickman Drive in Des Moines. It is a small 50 bed residential scale facility constructed with residential type materials. Its character is very appropriate for a small community corrections residential facility for women. The facility was built in 1991 and remained unoccupied until 1993 because of water issues.

The building is a light wood framed structure on a poured slab.

The shingle roof is in fair condition. It was estimated to be 17 years old and we are recommending replacement within 5 years.

Windows are aluminum single pane units with storm/screen and are approximately 17 years old. The windows have a poor maintenance history and continue to be a problem with symptoms including condensation, lack of function and lack of security. We are recommending replacement as soon as possible and estimate the energy payback to be less than ten years with a high efficiency window.

Attics have blown-in insulation. Soffits are adequately vented. Roof sheathing is plywood and appeared sound. No areas of water damage were observed.

Wall and ceiling finishes in commons area are painted gypsum board and original plaster. They are generally in fair condition.

Floor Coverings: The major floor covering through out is original VCT and it remains in good condition. The carpet in the units is also in good condition.

Interior doors and trim are in good condition. The metal frames and the solid core doors are appropriate for use and should remain functional for many years.

Code Compliance

The current facility meets most components of contemporary codes.

Accessibility

The current facility meets most components of contemporary codes.

Security/Function

The facility has a center core radiating from which are three housing units or wings developed in linear fashion. The residential facility accommodates probation, work release and OWI offenders. These offenders are mixed among the units and are not segregated by type. The principal housing separation concept that is applied is that all women whose children (under 5 years old) are with them are housed on the same wing of the facility.

As a residential correctional facility this is a very appropriate and functional environment. Its operational deficiencies are principally focused in the program and office areas where more group, community program and small meeting space would be appropriate. Some additional office space would also be useful. The facility lacks adequate storage space and could benefit from the separation of its storage from the mechanical facilities that share the same space with them.

In terms of perimeter security there are some weaknesses particularly with the size and construction of the windows. Further improved perimeter lighting and a more comprehensive set of camera controls would be beneficial.

The biggest long-term flaw of this facility is its lack of expandability. The site is too small and constricted for there to be any significant addition. Therefore, a second new facility at a new site would be required to accommodate expansion or a totally new facility with adequate capacity and expansion room would be required. Given the economies of scale and management, the latter option would be the better of the two for the long-term development of this operation.

Mechanical

Domestic Water
The building is served by a 2-1/2-inch water service that enters from the south. The water service includes a water meter and a 2-1/2-inch reduced pressure zone (RPZ) backflow preventer. The water service is adequate for the current fixture demand in the building.
The domestic hot water is generated by a single water heater located in the south mechanical room. The unit is a State SBT-100, 260 MBH input, 100 gallon storage, gas-fired water heater. The hot water system includes a recirculated loop and pump. The water heater appears to be the original installed in 1991. The water heater should have another 5 to 7 years of expected life.

Plumbing Fixtures
The plumbing fixtures throughout the building are in good condition.

Natural Gas Service
Natural gas service is routed to the domestic hot water heaters and gas-fired furnaces. The service size and pressure is adequate for the current building needs.

Air Handling Systems
The building is served by six residential Trane gas-fired, down flow furnaces. Each unit serves one side of a wing of the building. Each furnace is provided with a direct expansion (DX) cooling coil.
It appears ventilation air is ducted to each furnace at the return air.
The supply air distribution system for each furnace is through underfloor ductwork. Return air is routed through the attic. The systems have issues with adequately heating and cooling. The rooms nearest the furnaces overheat in the winter and overcool in the summer. The most remote rooms do not heat adequately in the winter. It appears the issue would be related to proper balancing of the air flow. It appears the existing floor diffusers do not have an integral balancing damper. The addition of balancing dampers would allow the air flow to be balanced and may help improve the performance of the systems.
The furnace and condensing units are near the end of their typically life and should be scheduled to be replaced.

Duct Systems
The restrooms are exhaust using inline exhaust fans. Additional controls have been added to control the fans with humidistats. Some fans were observed to be off even at high room humidity. Proper operation of the exhaust system should be reviewed to provide adequate exhaust from the restrooms.

Temperature Controls
The building temperature controls are from local programmable thermostats.

Electrical

Power Distribution
Power to the building is fed from a Mid American Energy pad mounted transformer. Primary conductors are fed underground to primary poles at the street. Secondary conductors are routed underground to a Main Circuit Breaker located mounted on the exterior of the building.
The Main Distribution Panel (MDP) is Siemens gear rated at 120/208 volt, 3 phase, 4 wire with a 600 amp main circuit breaker. Branch circuit breakers in the MDP distribute power to Siemens panels located throughout the building.
Emergency power consists of an Onan 100 KW diesel generator rated at 120/208 volt, 3 phase with sub-base fuel tank. An American Midwest Power 600 amp automatic transfer switch rated at 120/208 volt, 3 phase, 4 wire with a 600 amp main circuit breaker connects the generator to power the entire building electrical system.

The electric distribution gear and generator are approximately 1 year old and in good condition.

Lighting
The building lighting is served primarily using T12 fluorescent lamps. The lighting is not energy efficient and light levels appear inadequate in some areas. Exit lighting is LED type.
Site lighting consists of poles for parking lot lighting along and building mounted lights. Lighting fixtures should be retrofitted or replaced with energy efficient lighting as part of any renovation project.

Fire Alarm System
The fire alarm system is a Simplex 4001 4-zone panel. The system includes the main control panel, annunciator panel, smoke detectors, heat detectors, duct detectors, manual pull stations, horns, strobes, and mechanical equipment shutdowns. Layouts appear to be in compliance with Code requirements.
The system is in fair condition and is suitable for continued use. Consideration should be given to upgrading the fire alarm system as part of any renovation project.

CCTV System
The CCTV system consists of digital video recording equipment, video monitor at control station, and 8 cameras.
The camera system is in good condition and is suitable for continued use. The system should be expanded to provide additional coverage.

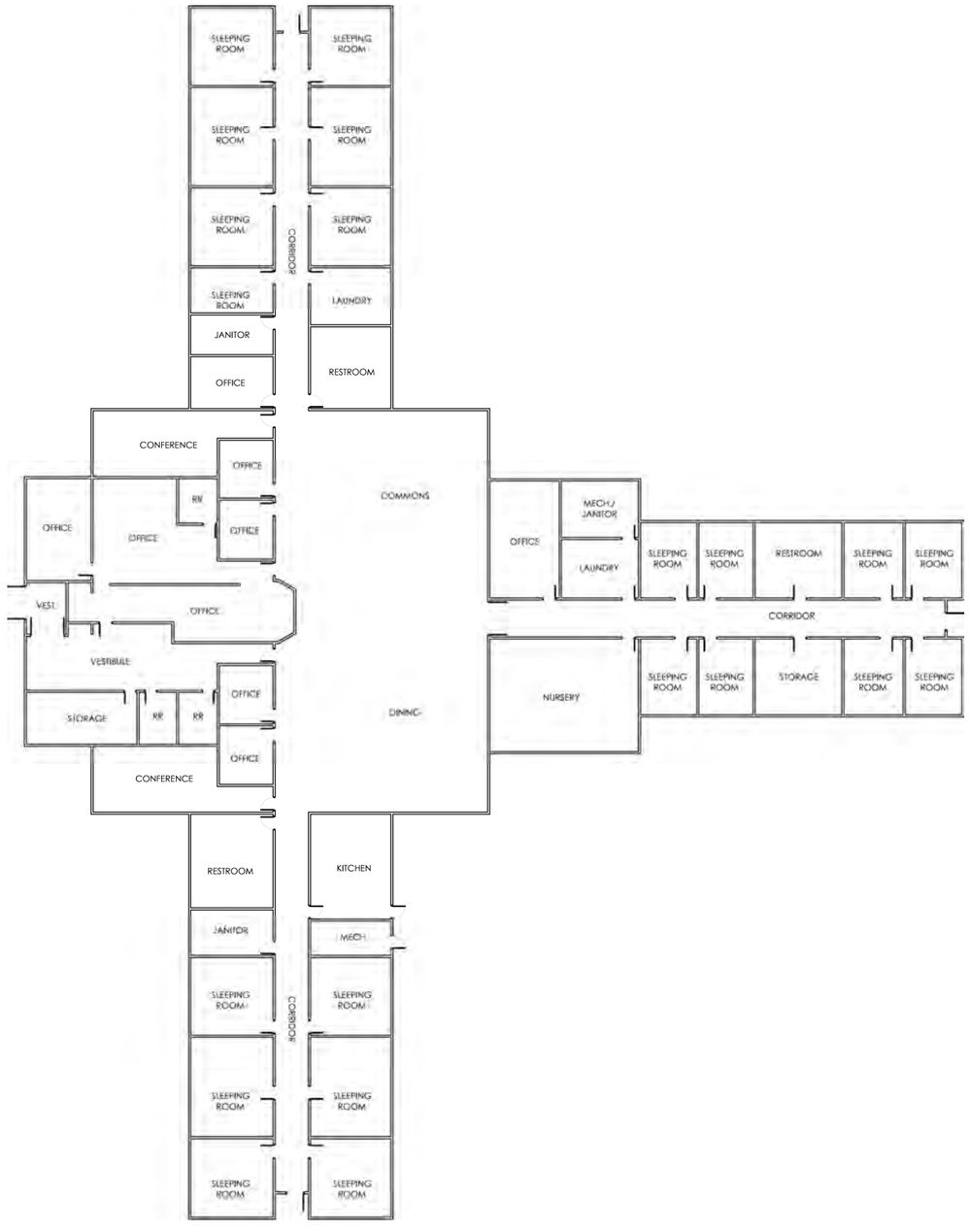
Door Control/Security System
The door control/security system consists of a control panel and electric locks. An Aiphone intercom system is used at the door entry. The systems should be replaced/upgraded as part of a major maintenance or renovation project.

Voice/Data Cabling System
Wiring is Category 5 routed in a star topography from the Main Distribution Frame (MDF) patch panels to outlet locations. Cabling lengths are assumed to be 100 meters or less.
The voice/data cabling system is in good condition and appears to be in compliance with EIA-TIA standards.

Summary

The building has served to be a successful environment for treatment. Much of the success is directly attributable to scale, character and excellent facility management. The building is generally built of inexpensive materials and systems. In consideration of the lack of site space required for future expansion, the facility will likely not continue as a women's facility. A new future expanded women's facility is much more cost effective on one site. The 1917 facility is recommended to house offenders appropriate to the building that will not withstand extreme use. The use must also be appropriate for this quiet site near the Broadlawns Medical Center. With continued proper maintenance and appropriate occupants, the building should function beyond a twenty year time-frame.

1917 Hickman Plans



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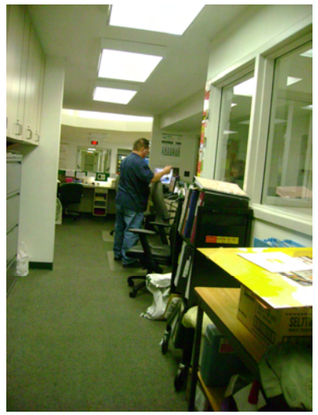

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1917 Hickman Photos

1. The existing structure is an economically constructed wood frame building.
2. Typical sleeping room in a 20 person wing.
3. The central administration area is well positioned and functional.
4. The facility is the only in Iowa that provides opportunity for mothers to be housed with children.
5. Dining area.
6. The systems include back-up power.

910/1000 Washington

The 910/1000 structure is a high quality concrete and steel structure. The buildings were previously a school and a chapel. The adaptive reuse started in 1983 and completed in 1991 with the remodeling of the east entrance and chapel.
As recently as 2004 the 910 basement was permanently evacuated due to water and mold issues. The building is extremely well maintained. The interior materials continue to be functional well past an expected useful life of nearly 50 years.
The building has a EPDM flat roof that is nearing the end of its useful life. It should be replaced in no less than 5 years.

910

Mechanical

Domestic Water
The building is served from the 2-inch water service in the 1000 Washington building. The domestic hot water is generated by a single water heater located in the east mechanical room. The unit is an A.O. Smith DEN-40, 40 gallon storage, 6 kW electric water heater. The hot water system includes a recirculated loop and pump. The water heater was installed in 1991. The water heater is approximately 17 years old and is nearing the end of its normal expected life.

Plumbing Fixtures
The plumbing fixtures throughout the building were updated in 1991 and are in good condition.

Heating Plant
The building is served by a Lattner 120LSS, 120 kW electric boiler. The boiler provided heat for the heat pump loop. The boiler was installed in 1991 and should have an average life of around 15 years. The boiler is just beyond its normal expected life.

Cooling Plant
Cooling for the building is provided with an IMECO fluid cooler that is mounted on grade on the east side of the building. The fluid cooler is utilized to reject heat from the heat pump loop. The average life of a galvanized steel fluid cooler would be in the range of 20 to 25 years. The fluid cooler should provide another 3 to 8 years of service.
There also are a 2-1/2-ton and 3-ton air cooled condensing unit that are utilized for cooling of the basement level.

HVAC Piping/Pumps
The building heat pump loop water is circulated with two Taco 1641, 3 horse power inline pumps. One pump acts as a primary pump and the second pump is back-up. The pumps were installed in 1991 and should remain operational through the life of the fluid cooler.

Air Handling Systems
The building is served by water source heat pumps throughout the building. The main level heat pumps are a combination of vertical units located on mechanical closets and

horizontal units above suspended ceilings. The upper level heat pumps are horizontal units above suspended ceilings. Supply air is ducted from the heat pumps to each respective zone. The return air path is through the ceiling plenum back to each unit on the lower level and ducted on the upper level.
The basement is served by two fan coil units with DX refrigerant coils and electric heat.
The heat pumps and fan coil units should have an additional 5 to 10 years of useful life.

Ventilation
Minimum ventilation air is tempered through an energy recovery unit mounted above the ceiling of the upper level. The energy recovery units utilize the building exhaust air to temper the outside air. An electric duct coil provides additional heating for the ventilation air. The ventilation air is ducted to the return air of the upper level heat pump units. For the lower level, ventilation air is discharge at a single location in the entry lobby. The method for providing ventilation air for the lower level does not assure that adequate ventilation air is provided for each space. Limitations in structural height may have restricted ducting to individual units.

Temperature Controls
The building temperature controls are served by an Andover Direct Digital Control (DDC) system. The DDC controls serve the heat pumps and heat pump loop. The controls for the DX/electric fan coil units in the basement are with stand-alone, programmable thermostats.

Electrical

Power Distribution
The building electric service is fed with underground conductors from three 50 KVA pole mounted transformers at the street to a Main Distribution Panel (MDP) in an electric room in the basement.
The MDP is Square D gear rated at 277/480 volt, 3 phase, 4 wire with a 400 amp main circuit breaker. Circuit breakers in the MDP distribute power to branch panels within the electric room and floors above.
Lighting and mechanical equipment loads are powered from Square D 277/480 volt panels. Square D dry type transformers and 120/208 volt branch circuit panels provide power for small equipment and receptacle loads.
There is no emergency power system in this building.
The electric distribution gear is approximately 16 years old. It is in good condition and suitable for continued use. Expansion of the system to combine it with 1000 Washington would require replacement of the system to accommodate increased loads.

Lighting
The building lighting is served primarily at 277 volts using T8 fluorescent lamps and compact fluorescent lamps. The lighting is controlled with low voltage switching. Light levels generally appear to be adequate. Exit lighting in the basement is not functional and needs to be replaced.
Site lighting consists of building mounted lights.
The lighting is generally in good condition and suitable for continued use.

Fire Alarm System
The fire alarm system is a Simplex 4001 4-zone panel. The system includes the main control panel, annunciator panel, manual pull stations, horns, and strobes. There are no smoke detectors. Layouts are not in compliance with current Code requirements.
A new fire alarm system will need to be installed as part of any renovation project.

CCTV System
There is no CCTV system for this building. A camera system would need to be added to provide this type of security.

Security System
The security system consists of a PerMar control panel, key pads at entries, door contacts, and motion sensors in common spaces. This system would need to be upgraded as part of any renovation project.

Voice/Data Cabling System
The voice/data cabling system is extended from 1000 Washington. See description below.

1000

Mechanical

Domestic Water
The building is served by a 2-inch water service. The water service includes a water meter and a 2-inch reduced pressure zone (RPZ) backflow preventer. The water service is adequate for the current fixture demand in the building.
The domestic hot water is generated by a single water heater located in the west mechanical room. The unit is an A.O. Smith FSG-100-894, 80 MBH input, 100 gallon storage, gas-fired water heater. The hot water system includes a recirculated loop and pump. The water heater appears to be the original installed in 1983. The water heater is approximately 25 years old and has exceeded its normal expected life.

Plumbing Fixtures
The plumbing fixtures throughout the building appear to be original to the building. Water closet and urinal flush valves have been updated. Some modifications to the existing restrooms would be required to meet current accessibility requirements.

Natural Gas Service
Natural gas service is routed to the domestic hot water heaters and steam boiler. The service size and pressure is adequate for the current building needs.

Heating Plant
The building is served by a Burnham V908A steam boiler. The boiler has a firing rate of 1386 MBH and a gross output of 1100 MBH. The boiler burner is a Gordon Piatt, natural gas, on/off burner with a firing rate of 1384 MBH. The boiler was installed in 2007 and should have 20 to 25 years of useful life.

The vacuum return receiver and pump is a Dunham-Bush VRDS101020E and appears to be original to the building. This unit has exceeded its useful life and should be considered for replacement.
Insulation should be considered for the boiler breaching installed as a part of the boiler replacement. This would help reduce the excessive heat in the boiler room. The boiler stack up through the roof is missing the associated weather cap.

Pipe insulation on the steam and condensate return piping may contain asbestos, particularly at the fitting and elbows.
Steam is utilized for perimeter radiators and a steam coil in the upper level air handling unit.

Cooling Plant
Cooling for the building is provided with two Dunham-Bush RCU-020SS air cooled condensing units on the roof. Refrigerant piping is routed to a cooling coil in the upper level air handling unit. The air cooled condensing units appear to have been installed with the building remodel in 1983. The average service life for a commercial grade air cooled condensing unit is approximately 20 years. The existing units have been in service for nearly 25 years. Consideration should be given to replacing these units with new and more efficient equipment.

Air Handling Systems
The building is served by a central station air handling unit that is located above the suspended ceiling in the upper level corridor. The air handling unit location did not allow for access to obtain specific equipment data. The location of the unit makes service of the unit filters, coil, fan motors, and fans nearly impossible.
Controls have been updated on the air handling unit to provide better operation and comfort. A variable frequency drive has been recently installed to control the unit supply fan.
The duct distribution system is a variable air volume (VAV) system. Ductwork is extended to multiple VAV boxes. The VAV boxes provide cooling and ventilation air only. The VAV boxes allow for modulation of the supply air to meet the individual needs of each zone. The lack of heating coils on the VAV boxes makes comfort control difficult. Interior zones without steam radiation tend to overcool even when the VAV boxes close to minimum position.
Ventilation air is ducted to the unit mixing box from a roof intake. With the current controls and lack of reheat on the VAV boxes it is assumed that the current ventilation rates would be below the current ASHRAE standards.
Return air to the air handling unit is from the plenum above the corridor ceiling. Opening in the corridor walls above the suspended ceiling allow for a return air path back to the unit. If the corridors are required to be a rated exit, these corridor wall openings should be infilled and any required fire/smoke dampers be added to the duct system. Return ductwork should be extended out of the corridor to above the offices so the corridor plenum is not used as a return path.
The vintage of the air handling systems is unknown, but it is assumed to be at least 25 years old if not older. The unit is nearly the end of the typical life of such equipment. Planning for replacement of the unit should be considered. When the unit is replaced consideration should be given to relocating this equipment where it can be properly serviced.

Temperature Controls
The building temperature controls are served by an Andover direct digital control (DDC) system. The DDC controls serve the air handling unit and VAV boxes. The DDC system has two different vintages of controls. The air handling unit and the upper level north offices have a recently updated DDC system. The remainder of the building is served by a system dating back to the mid-80s.
The steam radiator controls are provided with manual thermostatic valves at each piece of radiation.

Electrical

Power Distribution
The building electric service is fed with overhead conductors from three 100 KVA pole mounted transformers at the street to electric gear in the basement boiler room. The service is rated at 120/208 volt, 3 phase, 4 wire. There are five main disconnects for building power in the boiler room.
The original main electric service panel is a Kinney distribution panel with a 500 amp main circuit breaker. There are four taps of this panel to Square D enclosed circuit breakers that feed branch circuit panels and air conditioning units. Based on the observed connected load, the service secondary conductors are likely undersized.
Branch circuit panels observed were 1950's vintage Kinney panels and 1980's vintage Square D panels.
There is no emergency power system in this building.
The electric service and distribution panels are in poor condition, cannot be expanded and should be replaced.

Lighting
The building lighting is served primarily using T12 fluorescent lamps. The lighting is not energy efficient and light levels appear inadequate in some areas. Exit lighting and emergency lighting is non-functional in some areas.
Site lighting consists of building mounted lights connected to the 910 Washington service.
Any renovation of the existing building will likely require removal and replacement of the lighting system.

Fire Alarm System
The fire alarm system is extended from 910 Washington. See description above.

CCTV System
There is no CCTV system for this building. A camera system would need to be added to provide this type of security.

Security System
The security system is extended from 910 Washington. See description above.

Voice/Data Cabling System
Data wiring is Ortronics and Mohawk Category 5 routed in a star topography from the Main Distribution Frame (MDF) patch panels to outlet locations. Patch panels are 110 punchdown blocks with patch cords to switches. Cabling lengths are assumed to be 100

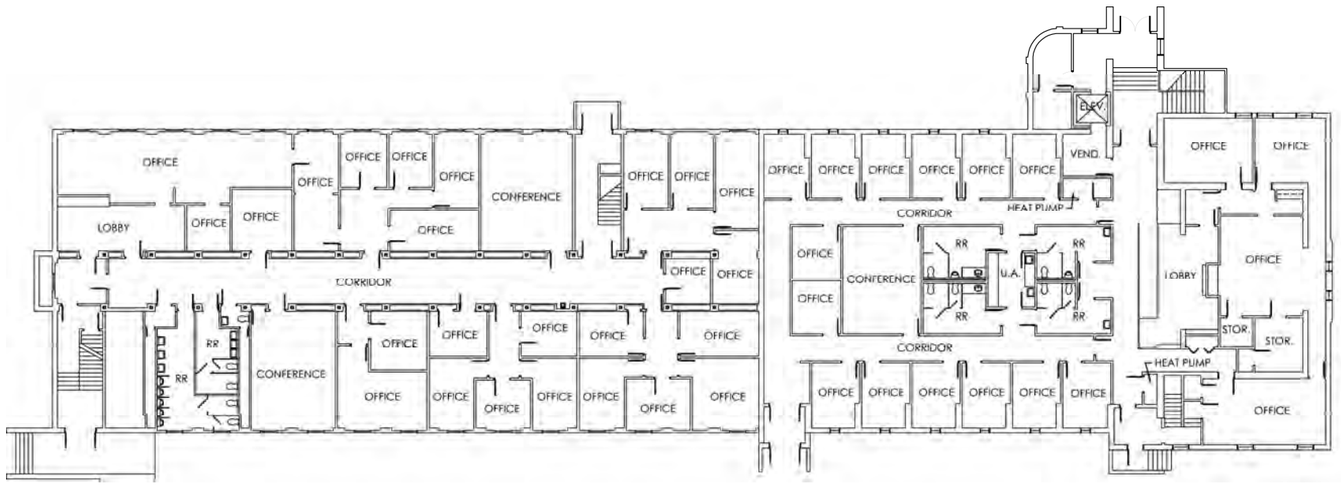
meters or less. There are T-1 lines to the building. There is no fiber optic cable to the building. The data equipment is located in a room with dedicated cooling.

Voice cable has Category 3 riser cables from 110 punchdown block to a rack mounted telephone system. The equipment is located in a closet that has abandoned equipment that should be removed.
The voice/data cabling system is in good condition and appears to be in compliance with EIA-TIA standards.

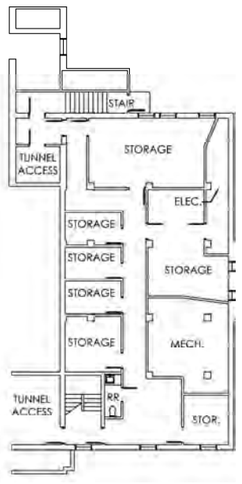
Summary
The facility remains a functional environment for the use of probation and parole offices and related support and group functions. The building is, however, lacking in its ability to separate individuals for security reasons. The staff has suggested that separation by gender and by risk would be appropriate and desired for future facilities. Currently the building is estimated to be short of program space by over 2,000 square feet and there is no room for additional PO's. Currently the Fifth Judicial District of the Department of Correctional Services is understaffed by 38 PO's and there are no vacant spaces in the building to house these personnel.

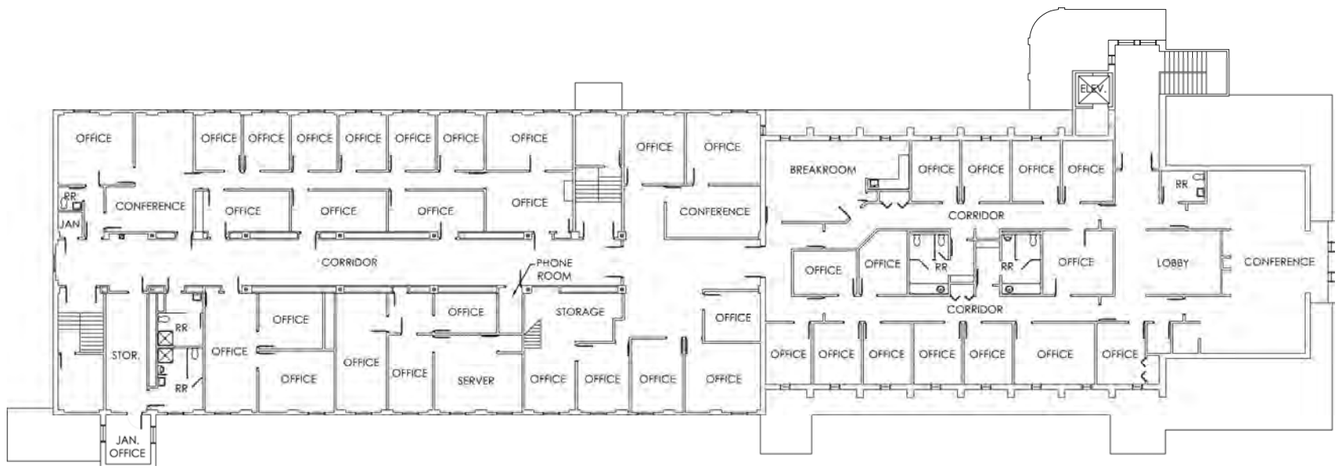
The age of the building and the current and future needs for more staff make expansion a condition of future improvements. The City of Des Moines owns a half block site adjacent to the structure. The Fifth Judicial District of the Department of Correctional Services should begin negotiations with the City to acquire some of the adjacent land for expansion. A phased expansion and replacement of the facility at its existing location is seen as positive due to the central city location that is highly accessible to users.

PO offices are also to be programmed in future housing facilities. This decentralization will aid in providing space prior to any expansion of 910/1000 and will also aid in separation of users as dictated by security concerns.



First Floor Plan





Second Floor Plan

910 / 1000 Washington Plans

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910 / 1000 Washington Photos

1. The facility has a professional appearance.
2. The interior spaces have had excellent care.
3. Existing roofs are near the end of useful life.
4. Existing air handlers are near the end of useful life.
5. The 1991 entry addition requires additional site work to allow for full accessibility.
6. Window replacement has left the building with limited daylight.

Structures Considered for Rehab Photos

Buildings 63/64 and building 71 were reviewed for possible rehabilitation.

1. Building 63/64 is the mirror image of the 65/66 building. Upon touring the building the consultant team saw considerable architectural deterioration of this facility. Even if it were in good condition it would be considered a very poor candidate for renovation in that this building is identical in layout to the 65/66 building. Thus it would lead to the same sort of maze-like, inefficient facility that is the 65/66 building. Additionally, in the consultant's opinion, renovating the facility would require the equivalent of new construction dollars if not more, and still only result in an inadequate layout. The consultant team does not see this as a viable candidate for renovation for expanded residential capacity.

2. Building 71 is identical in layout to the 68/70 building. Therefore, it shares the same basic drawbacks as the 68/70 building in terms of creating smaller units of housing appropriate to programming and treatment needs and providing such basic housing amenities as dayrooms and shower areas. As such, it would not be considered a prime candidate for renovation even if current historic preservation standards allowed it to be renovated to the same extent as the original 68/70 building.

3. SPACE PLANNING ANALYSIS

Function Checklist

The consultant team and a user planning team reviewed the availability and adequacy of programmatic and support spaces for current and future male residential operations. The tool used for this exercise was the consultant's "Function Checklist."

It is important for future estimates of space needs and thus site acreage needs to understand the scale and the range of support facilities that are so critical to the effective operation of a community corrections residential facility. Below appears the checklist and the responses of the user planning team to the subject matter raised. Additionally, the reader will note that there were additions to the list initially presented by the consultants. These additions reflected needs not initially anticipated by the consultant and which needed further elaboration by the user team.

FUNCTION CHECKLIST - Community Corrections

IOWA DOC

OCTOBER 23, 2008

Community Corrections Residential Facility

X X X

			IOWA CCRF	REMARKS/QUALIFICATIONS:
X	X		MALE ADULT HOUSING	See Housing Worksheet
X	X		FEMALE ADULT HOUSING	See Housing Worksheet
			MALE JUVENILE HOUSING	
			FEMALE JUVENILE HOUSING	
X	X		WORK RELEASE HOUSING	See Housing Worksheet
			WEEKENDER HOUSING	
X	X		BOARDING INMATES FOR OTHERS	See Housing Worksheet
			VEHICLE SALLY PORT	N/A
X	X		INTAKE Storage	Intake Contraband Storage (credit cards, contraband, shampoo, some large items); Photo, fingerprint, DNA, property lockers; screening (UA, nurse strip search room)
X	X		INTAKE/DAILY CHECK-IN/OUT	DAILY Lockers (coats, cigarettes, tools, work boots, cell phones); entry lobby (10-20 sitting/queue; lobby feel), locker, checkpoint (metal detector. pat search); boot room/vestibule
			INMATE TRANSPORT OFFICE/STORAGE	
			COURT/TRANSPORT HOLDING	
			ADMINISTRATION	
			CONFERENCE/MEETING	
	X		PUBLIC LOBBY	gun lockers
			MEDIA ROOM/PUBLIC INFO CENTER	
			PUBLIC MEETING ROOM/TRAINING/P.R.	
			STAFF POST/CONTROL	

HAVE	NEED (must have)	WANT, don't have	IOWA CCRF	REMARKS/QUALIFICATIONS:
	X		SEPARATE STAFF ENTRY	Weapons storage (gun lockers)
	X		STAFF LOCKERS	COAT, BOOTS, PURSES, 12" WIDE, FULL-HEIGHT; toilet/sink, showers.
			STAFF BRIEFING	N/A
	X		STAFF TRAINING/MEETING	up to 100 in classroom style; sub-dividable; ROOM FOR 20; ROOM FOR 30.
	X		STAFF BREAK	for lunch/meals, breaks, socialization; sink, microwave, refrigerator, counter, storage, vending,
			STAFF EXERCISE	N/A
	X		OTHER STAFF:	Resource center , internet, periodicals, training tapes; PHYSICAL TRAINING.
X	X		FULL SERVICE KITCHEN	Need this or delivery from other source
			KITCHEN SERVING OTHER AGENCIES	
	X		RECEIVING KITCHEN ONLY	AT FIRST PHASE FACILITY, IF POSSIBLE, DEPENDS ON SITE; storage , late meals, bag lunches
			BULK FOOD STORAGE (extra-normal)	
X	X		INMATE DINING	Shift dining; 2 shifts for 170 (85 each); 2 serving lines
X	X		FULL-SERVICE LAUNDRY	kitchen towels, cleaning rags, mop heads; indigent clothes closet/laundry (chaplain); 2 heavy-duty Laundromat-style washers & dryers; storage for cleaning supplies
			LAUNDRY SERVING OTHER AGENCIES	
			RECEIVING LAUNDRY	
X	X		CONTACT VISITING	Centrally located; visitor bathrooms
			NON-CONTACT VISITING (VIDEO?)	
			NON-CONTACT PRO VISITING	
			FAMILY VISITING	
			OUTDOOR VISITING	
			HEARINGS (PROBATION, ETC.)	

HAVE	NEED (must have)	WANT, don't have	IOWA CCRF	REMARKS/QUALIFICATIONS:
			MEDICAL HEALTH CARE	
			MENTAL HEALTH CARE	
			PHARMACY	
			MEDICAL ISOLATION	
			RESIDENT COMMISSARY	
X	X		EDUCATION	GED, 2 classrooms; 30 people; desk, tables, individualized, computers; teacher office in the classrooms.
X	X		PROGRAMS (170)	General offices: RO supervisors (5), counselor supervisors (3), supervisors clerical/kitchen/maintenance (3), managers (3), director, assistant director, accounting (2), clerical (7), chaplain, contract/interns (4)
			RELIGIOUS	
			VOCATIONAL	
X	X		MULTI-PURPOSE PROGRAMMING	10, 20 PERSON ROOMS; 3 FOR 40; 1 FOR 100, SUB-DIVIDABLE.
	X		INDOOR EXERCISE	Pod/unit affiliated
X	X		OUTDOOR EXERCISE	Centralized
			RECREATION	
			VIDEO COURT	
			VIDEO CONFERENCING	
X	X		ON-SITE MAINTENANCE	
X	X		MAINTENANCE WORK SHOP	
			PARTS/MAINTENANCE SUPPLY STORAGE	
			CENTRAL HOUSEKEEPING	
X	X		OUTDOOR GROUNDS STORAGE	snow removal, lawn mowers (2 now), maintenance shed, truck, attachments, garden tools for garden project
X	X		GENERAL STORAGES	Bio-hazard; re-cyclibles, general bulk paper supplies
X	X		RE-CYCLING	
X	X		STAFF PARKING	Separate from other parking
X	X		WORK RELEASEE PARKING	8-10 NOW; separate from other parking
X	X		PUBLIC PARKING	Separate from other parking
	X		EMERGENCY POWER	
	X		Pick-up driveway	for picking-up and dropping-off offenders with rides from family or friends.
			OTHER:	
			OTHER:	

Categories of Offenders - Housing Needs

The housing area needs of a residential facility are a significant part of the space and site demands for a community corrections residential facility. The consultants conducted an exercise with the user planning team to identify future housing needs. The exercise began by identifying the different types of offenders that had to be accommodated at current and future facilities and then identified the characteristics of housing preferred based on functional, programmatic and security concerns.

Based on the existing buildings at the Fort Des Moines center and the limitations or opportunities they present, the three primary classifications served at present are OWI offenders, probation offenders, and work release offenders. Secondarily, the facility provides bed space for Federal offenders on a per diem basis.

OWI offenders are those who have multiple OWI offenses and are individuals having serious alcohol dependency issues. They are a group that is in need of significant programmatic and treatment services. Probation offenders are sentenced by courts in the Fifth Judicial District to sentences that involve probation on the condition of a stay at the CCRF. The work release group consists of offenders coming out of the state prison system for extended stays at the male CCRF as a transition from prison into the community.

It should be noted that while "work release" is a designation given to just one of the groups described above, all of the offenders at the CCRF have work release privileges.

While discussing the offender classification issue with the user planning group it was established that there was a different set of classifications that much better characterized the offender population based on risk and treatment needs. The following are the classifications of offender important to the development of a new 170 bed facility and a long-term master plan. The users believe that these designations best meet the Vision and Mission of all Fifth Judicial District male residential facilities.

Classifications Selected:
IOWA CCRF

1	Mental Health
2	High Risk
3	Low Risk
4	Treatment (incl. all OWIs)
5	Federals

In order to estimate space needs and thus site and financial needs more fully, the next exercise undertaken by the team was to identify the proportions of population ascribable to each offender housing category. Once those percentages were established the next step was to identify the type of housing most appropriate for those categories, including the 170 additional work releasees which are the primary focus of this study. The table below identifies the proportion of the existing 267 person population at Fort Des Moines broken down among the different offender groups and the amount of average daily population they represent. The worksheet then documents the same information with respect to the anticipated new 170 work releasees. Also identified is the maximum recommended bed capacity for a unit based on the risk and treatment profiles presented by each group of offenders. Finally, the table combines the existing and future sets of data to define a total breakdown for the entire male residential system (267 current and 170 new for 437 total).

HOUSING WORKSHEET #1 **Current Preferred**

PREFERRED Classifications/Distribution based on Current Population
IOWA Community Corrections Residential Center

10/23/08

Current ADP = **317 ADP**
Male = ***84.2%*** ***267.0***
100.00% ***Female =*** ***15.8%*** ***50.0***

	CLASSIFICATION - SEPARATION GROUPS	Fort	Pop %	Pop.	Pop %	Pop.	COMBINED POP.	SUPERVISION - SURVEILLANCE APPROACH	MAXIMUM DENSITY per UNIT or POD	counselors per pod/unit	total counselors	EXISTING FIT?	OCCUPANCY TYPE (single, double, dorm)
	MALE ADP:		**267 CAP**	**267 CAP**	**New 170**	**New 170**	**437**						
A	Mental Health		18.0%	48	25%	43	91	DIRECT	30	2	6		2 + 4 bed sleeping rooms + isolation
B	High Risk (treatment)		15.0%	40	40%	68	108	DIRECT	44	2	6	68/70	2 + 4 bed sleeping rooms + isolation
C	Sex Offender	65/66	13.5%	36	5%	9	45	DIRECT	80	3	3	65/66	2 + 4 bed sleeping rooms + isolation
D	Treatment (incl. all OWIs)	NEW	45.0%	120	30%	51	171	DIRECT	40	3	9	65/66	2 + 4 bed sleeping rooms + isolation
E	Federals		8.5%	23			23	DIRECT	40	2	2		2 + 4 bed sleeping rooms + isolation
											26		
			100%	267	100%	170							

The final step in developing the information needed to do a scope estimate of housing space needs was to identify the types of elements that should be associated with any housing unit in addition to the expected sleeping areas and dayrooms. Below is a table that identifies per inmate category the types of support space required for any given housing unit.

HOUSING WORKSHEET #3

FUNCTIONS TO BE LOCATED AT HOUSING PER CLASSIFICATION

IOWA Community Corrections Residential Center

8/22/08

!	Yes	No

Functions/Features included as part of Housing Unit or Pod

Classification/Unit Type:	DAY-ROOM	TLT SHWRS	Counseling Office	Laundry	Single Room	Personal Visits	PRO contact Visits	Multi-Purp.	Phones	STAFF TLT	Janitor Closet
Mental Health	Yes	Yes	2	Yes				Yes	Yes	Near	Yes
High Risk	Yes	Yes	2	Yes				Yes	Yes	Near	Yes
Low Risk	Yes	Yes	3	Yes				Yes	Yes	Near	Yes
Treatment (incl. all OWIs)	Yes	Yes	3	Yes				Yes	Yes	Near	Yes
Federals	Yes	Yes	2	Yes				Yes	Yes	Near	Yes
			12								

Men's Residential Scope Space Estimates

Below is a table of estimated scope space needs for all of the 437 beds that make up the current and future capacity of the men's residential facility system in the Fifth Judicial District. This computation includes a breakdown of projected housing and support space needs as though new facilities were being created, even though the only new facilities initially contemplated are the 170 beds targeted by the study. However, this overall estimate gives us a better basis for developing the estimate of space needs for the new 170 beds and for estimating long-term master planning and site needs for options where all male residential facilities are combined at one location. Further, a 50% growth factor is applied to the space estimate to establish the space needed for future expansion.

PRELIMINARY SQUARE FOOT ESTIMATE 11/17/08

IOWA CCRF

TOTAL MALE RESIDENTIAL POPULATION (Å 437 BEDS)

HOUSING COMPONENTS:	Pop.	Unit Size	Gross SQ. FT./Unit		UNITS		Gross SQ. FT.
TYPE 1: Up to 30 BEDS UNIT (Mental Health)	91	30	6,800	X	3	=	20,400
TYPE 2: Up to 44 BEDs UNIT (High Risk)	108	***36***	7,600	X	3	=	22,800
TYPE 3: Up to 80 BEDS (Sex Offender)	45	***44***	8,600	X	1	=	8,600
TYPE 4: Up to 40 BED UNIT (Treatment-incl. all OWIs)	171	***44***	8,600	X	4	=	34,400
TYPE 5: Up to 40 BEDS UNIT (Federals)	23	***30***	6,800	X	1	=	6,800
TYPE 6:			0	X	0	=	0
	438						
SUB-TOTAL HOUSING							93,000
BEDS:							

SUPPORT/PROGRAM COMPONENTS:	Factor		Beds		Staff		Gross SQ. FT.
1 INTAKE Storage						=	1,750
2 DAILY CHECK-IN/OUT						=	3,200
3 ADMINISTRATION						=	5,950
4 PUBLIC LOBBY						=	800
5 STAFF ENTRY						=	120
6 STAFF LOCKERS/SHOWERS	15	X			125	=	1,900
7 STAFF TRAINING/MEETING						=	2,200
8 STAFF BREAK						=	360
9 STAFF RESOURCE CENTER						=	320
10 FOOD SERVICE (receiving or full-service)	10	X	437	+	42	=	4,800
11 RESIDENT DINING	12	X	437			=	5,250
12 CENTRAL LAUNDRY						=	1,000
13 CONTACT VISITING (main in dining)						=	300
14 HEALTH CARE (sick call)						=	450
15 EDUCATION						=	1,500
16 PROGRAMS OFFICES	180	X			30	=	5,400
17 MULTI-PURPOSE PROGRAMMING						=	8,850
18 INDOOR EXERCISE (included with housing)						=	-
19 OUTDOOR EXERCISE						=	2,000
20 OUTDOOR GROUNDS STORAGE						=	600
21 GENERAL STORAGES	4	X	437			=	1,750
22 INDIGENT STORAGE (per bed)	1	X	437			=	450
23 PROBATION OFFICES						=	2,700
SUB-TOTAL SUPPORT							51,650

TOTAL COMPONENT GROSS SQUARE FEET: 144,650

OVERALL BUILDING GROSS FACTOR (general corridors, stars, elevators, chases, mechanical, etc.): 1.2

TOTAL ESTIMATED SQUARE FOOTAGE NEED: 173,580

FUTURE GROWTH FACTOR: 1.5

FUTURE ESTIMATED GROSS SQUARE FEET: 260370

Kimme & Associates/Architects Schipper Kastner

Based on discussions with the user planning group, the following is the space estimate for the initial 170 beds to be created as part of this project. For the purpose of planning an expansion of at least 50% beyond the initial 170 beds is calculated. These square footages are used to determine site size needs.

PRELIMINARY SQUARE FOOT ESTIMATE 11/17/2008

IOWA CCRF

***NEW* MALE RESIDENTIAL POPULATION (≈ 170 BEDS)**

HOUSING COMPONENTS:

	Pop.	Unit Size	Gross SQ. FT./Unit		UNITS		Gross SQ. FT.
TYPE 1; Up to 30 BEDS UNIT (Mental Health		30	6,800	X		=	0
TYPE 2; Up to 44 BEDs UNIT (High Risk)		*36*	7,600	X		=	0
TYPE 3; Up to 80 BEDS (Sex Offender		*44*	8,600	X		=	0
TYPE 4; Up to 40 BED UNIT (Treatment-incl. a	*171*	*44*	8,600	X	4	=	34,400
TYPE 5; Up to 40 BEDS UNIT (Federals		*30*	6,800	X		=	0
TYPE 6;			0	X	0	=	0
SUB-TOTAL HOUSING BEDS:							34,400

SUPPORT/PROGRAM COMPONENTS:

	Factor		Beds		Staff		Gross SQ. FT.
1 INTAKE Storage						=	1,750
2 DAILY CHECK-IN/OUT						=	3,200
3 ADMINISTRATION						=	5,950
4 PUBLIC LOBBY						=	800
5 STAFF ENTRY						=	120
6 STAFF LOCKERS/SHOWERS	16	X			49	=	800
7 STAFF TRAINING/MEETING						=	2,200
8 STAFF BREAK						=	360
9 STAFF RESOURCE CENTER						=	320
10 FOOD SERVICE (receiving)	5	X	170	+	16	=	950
11 RESIDENT DINING	12	X	170			=	2,000
12 CENTRAL LAUNDRY						=	1,000
13 CONTACT VISITING (main in dining)						=	300
14 HEALTH CARE (sick call)						=	450
15 EDUCATION						=	1,500
16 PROGRAMS OFFICES	180	X			12	=	2,160
17 MULTI-PURPOSE PROGRAMMING						=	3,500
18 INDOOR EXERCISE (included with housing)						=	-
19 OUTDOOR EXERCISE						=	1,200
20 OUTDOOR GROUNDS STORAGE						=	600
21 GENERAL STORAGES	4	X	170			=	700
22 INDIGENT STORAGE (per bed)	1	X	170			=	170
23 PROBATION OFFICES						=	1,100
SUB-TOTAL SUPPORT							31,130

TOTAL COMPONENT GROSS SQUARE FEET:	65,530
OVERALL BUILDING GROSS FACTOR (general corridors, stairs, elevators, cha:	1.25
TOTAL ESTIMATED SQUARE FOOTAGE NEED:	81,975
FUTURE GROWTH FACTOR:	1.5
FUTURE ESTIMATED GROSS SQUARE FEET:	122,963

Kimme & Associates/Architects Schipper Kastner

Women's Residential Scope Space Estimates

Extrapolating from the work done above, one can estimate the scope of space needs for a future women's residential facility.

A new 75 bed facility would require approximately 33,750 gross square feet of space based on 450 gross square feet per bed, as derived from the space calculation for men above. It is assumed that the facility would not prepare all of its own meals and would have the major meals provided by an outside kitchen.

A future 100 bed facility would require approximately 45,000 gross square feet based on the same measurements.

910/1000 Washington

The current staffing of the facility is 38 personnel less than dictated by case load standards. The current structure of approximately 33,000 square feet requires approximately 2000 square feet of program space and approximately 8500 square feet for programmed PO's.

Staffing Principles

While the object of the report was not to create a detailed staffing pattern for future facilities, there were several staffing principles that were discussed and used to establish space and site needs:

1. Residential officers should be placed in the residential areas, and residential areas should be designed such that staff has a much better ability to view the offenders and the housing areas than they presently have in Building 65/66 and 68/70.

2. There were certain residential officer staff-to-offender ratios that were established during the discussions based on classification shadings within the context of all offenders being work release eligible. They are as follows:
   a) mental health inmates should be clustered based on a staff:offender ratio of no more than a 1:30,
   b) high risk, treatment, and federal offenders should be clustered based on a staff:offender ratio of no more than a 1:40, and
   c) higher ratios might be considered in the clustering of low risk offenders.

3. In future stages as housing designs are developed, it was the team's feeling that housing units should be clustered around a central monitoring station so that observation and safety increases but staffing can be kept at a minimum.

4. For staff efficiency as well as effective program delivery, it was established that the smallest size of any single community corrections residential facility should be 50 beds.

5. In the interest of smoother service delivery, it was established that appropriate field service staff should be housed in the same facility as the community corrections residential facility populations with which they deal. Thus an appropriate amount of field service offices should be integrated into each community corrections residential facility.

6. It was established that for programmatic, security and management reasons it is best to keep the male and the female residential populations separated by site.

7. It was determined that in the interest of staff efficiency, as well as efficient program delivery, all offenders heavily involved in treatment programming should be housed together at the same site.

The next steps in the facility development process, detail space programming and design will provide much greater detail regarding staffing needs such as exact per shift staffing numbers and post descriptions.

4. DEMOGRAPHICS

The consultants obtained a one-day snapshot of the offender population at Fort Des Moines. The purpose of this snapshot was to identify the residency of the offenders at the men's residential facility to form a decision regarding the feasibility of splitting the proposed 170 beds among multiple facilities. The idea was to test the notion of spreading multiple facilities around the Fifth Judicial District to better serve the outlying counties.

The offenders were identified by current status as an OWI offender, a probationer, or a work releasee.

In summary, the consultants identified that 76% of the current residents of the male CCRF at Fort Des Moines were from Polk County and that an additional 9% were from the adjoining counties of Warren and Dallas. This association is made because much of the population from Warren and Dallas are populations that are elements of the Des Moines metropolitan area.

In evaluating residency another critical issue arose in terms of the practicalities of separating populations. It was determined through discussions that for programmatic and treatment reasons as well as reasons of staff efficiency and economy, it was important to keep all inmates in treatment programs in a single facility. While the numbers of those in treatment are not fully identifiable in the snapshot, it is known that all of the OWI offenders are in treatment. Indeed, that is the primary reason they are in the facilities.

Another key issue in determining the feasibility of splitting into two or more facilities was the appropriate scale of a facility needed to attain minimum acceptable levels of efficiency. That is, everyone understood that a 10 bed facility would not likely attain levels of efficiency in terms of operation and maintenance, and most importantly, the efficient staffing. In discussion, the user planning team established that the minimum size for an independent facility should be 50 beds.

Therefore, the analysis of whether or not to split the 170 beds into a second and even a third smaller facility began with three notions; 1) second and third facilities would serve the 13 counties other than Polk, Dallas and Warren, 2) the populations served would be work release and probation offenders, and 3) the threshold to be met was 50 offenders.

In summary, the survey of resident offenders, using the criteria noted above, found that there would be only 17 offenders in residential facilities serving the 13 counties other than Warren, Polk and Dallas. Additionally, on a proportionate basis it was estimated that of the 170 additional work releasees to be added there would only be an additional 11 offenders from the 13 counties. Thus the benchmark total would only be 28 potential residents which is considerably less than the minimum 50 bed efficiency benchmark. As a consequence the consultants recommend that the new 170 beds be in a single discrete facility and that the bed capacity not be subdivided between multiple facilities.

It is also important to note that persons on waiting lists have also been evaluated to test the validity of continuing a Polk County centered system. The current waiting list has 95 pending work release offenders. Of these individuals 78, or 82%, are Polk County residents. The pending probation offenders currently number 89. Of these individuals, 69 are from Polk County. The total number of non Polk, Warren, Dallas, offenders including the waiting list is 32 persons.

Future expansions of capacity might allow the 50 offender threshold to be met. At that point the consultants strongly recommend looking at smaller scale facilities located in closer proximity to the 13 other counties.

The calculation is shown on the table which appears on the following page. Page 41A is the mapping representation of the page 41 table.

IOWA Community Corrections Residential Facility - MALES
POPULATION SNAPSHOT
RESIDENCY DISTRIBUTION
Sample from 10/23/08

OWI UNIT

	POLK	WARREN	DALLAS	MARION	JASPER	CLARKE	UNION	LUCAS	GUTHRIE	ADAIR	MADISON	ADAMS	TAYLOR	DECATUR	RINGGOLD	WAYNE	Other	TOTAL	District, non-Polk	District, Non-Polk, Warren, Dallas
Offenders:	45	3	4	3	2	1		2			1	1	1				2	65	18	11
Percentage:	69%	5%	6%	5%	3%	2%	0%	3%	0%	0%	2%	2%	2%	0%	0%	0%	3%	100%		

POLK:	Des Moines	W.DesMoines	Urbandale
Offenders:	31	6	4
Percentage:	48%	9%	6%

***PENDING* OWI UNIT**

Offenders:	5				1													6	1	1
Percentage:	5%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	17%	17%

WORK RELEASE UNIT

	POLK	WARREN	DALLAS	MARION	JASPER	CLARKE	UNION	LUCAS	GUTHRIE	ADAIR	MADISON	ADAMS	TAYLOR	DECATUR	RINGGOLD	WAYNE	Other	TOTAL	District, non-Polk	District, Non-Polk, Warren, Dallas	District, Non-Polk, Warren, Dallas of 170 new WR
Offenders:	88	7	1	1	1	3	1							1			4	107	15	7	11
Percentage:	82%	11%	2%	2%	2%	5%	2%	0%	0%	0%	0%	0%	0%	2%	0%	0%	6%	100%	14%	7%	7%

POLK:	Des Moines	W.DesMoines	Urbandale
Offenders:	80	1	1
Percentage:	75%	1%	1%

***PENDING* WORK RELEASE UNIT**

Offenders:	78	7	1		1	1	2										5	95	12	4
Percentage:	82%	7%	1%	0%	1%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	100%	13%	4%

PROBATION (Residential Unit)

	POLK	WARREN	DALLAS	MARION	JASPER	CLARKE	UNION	LUCAS	GUTHRIE	ADAIR	MADISON	ADAMS	TAYLOR	DECATUR	RINGGOLD	WAYNE	Other	TOTAL	District, non-Polk	District, Non-Polk, Warren, Dallas
Offenders:	54	3	5	4	1	0	2	1	1	1	0	0	0	0	0	0	3	75	18	10
Percentage:	72%	4%	7%	5%	1%	0%	3%	1%	1%	1%	0%	0%	0%	0%	0%	0%	4%	100%		

POLK:	Des Moines	W.DesMoines	Urbandale
Offenders:	44	2	1
Percentage:	59%	3%	1%

***PENDING* PROBATION UNIT**

Offenders:	70	4	2	3	4			1	3								2	89	17	11
Percentage:	79%	4%	2%	3%	4%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	2%	100%	19%	12%

TOTAL RESIDENTIAL POPULATION

	POLK	WARREN	DALLAS	MARION	JASPER	CLARKE	UNION	LUCAS	GUTHRIE	ADAIR	MADISON	ADAMS	TAYLOR	DECATUR	RINGGOLD	WAYNE	Other	TOTAL	District, non-Polk	District, Non-Polk, Warren, Dallas
Offenders:	187	13	10	8	4	4	3	3	1	1	1	1	1	1	0	0	9	247	51	28
Percentage:	76%	5%	4%	3%	2%	2%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	4%	100%		

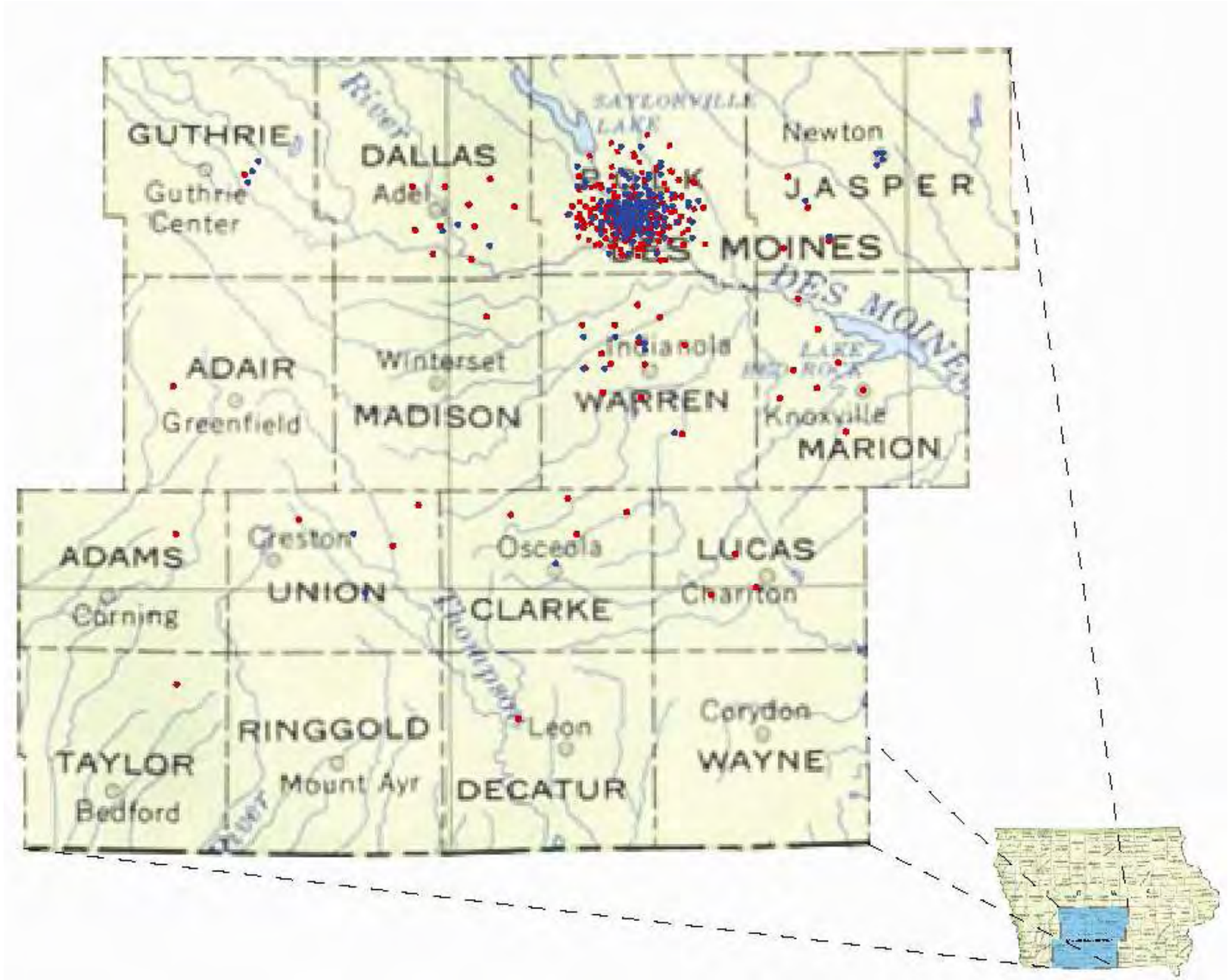
POLK:	Des Moines	W.DesMoines	Urbandale
Offenders:	155	9	6
Percentage:	63%	4%	2%

33	17	28	
Non-Polk minus OWI	Non-Polk, Warren, Dallas minus OWI	***Non-Polk, Warren, Dallas minus OWI, incl. the 170 new***	
WITH PENDING OFFENDERS:	32	43	

TOTALS BY UNIT (EXCLUDING PENDING OFFENDERS)

	OWI	WORK RELEASE	PROBATION	TOTAL
Offenders:	65	107	75	247
Percentage:	26%	43%	30%	

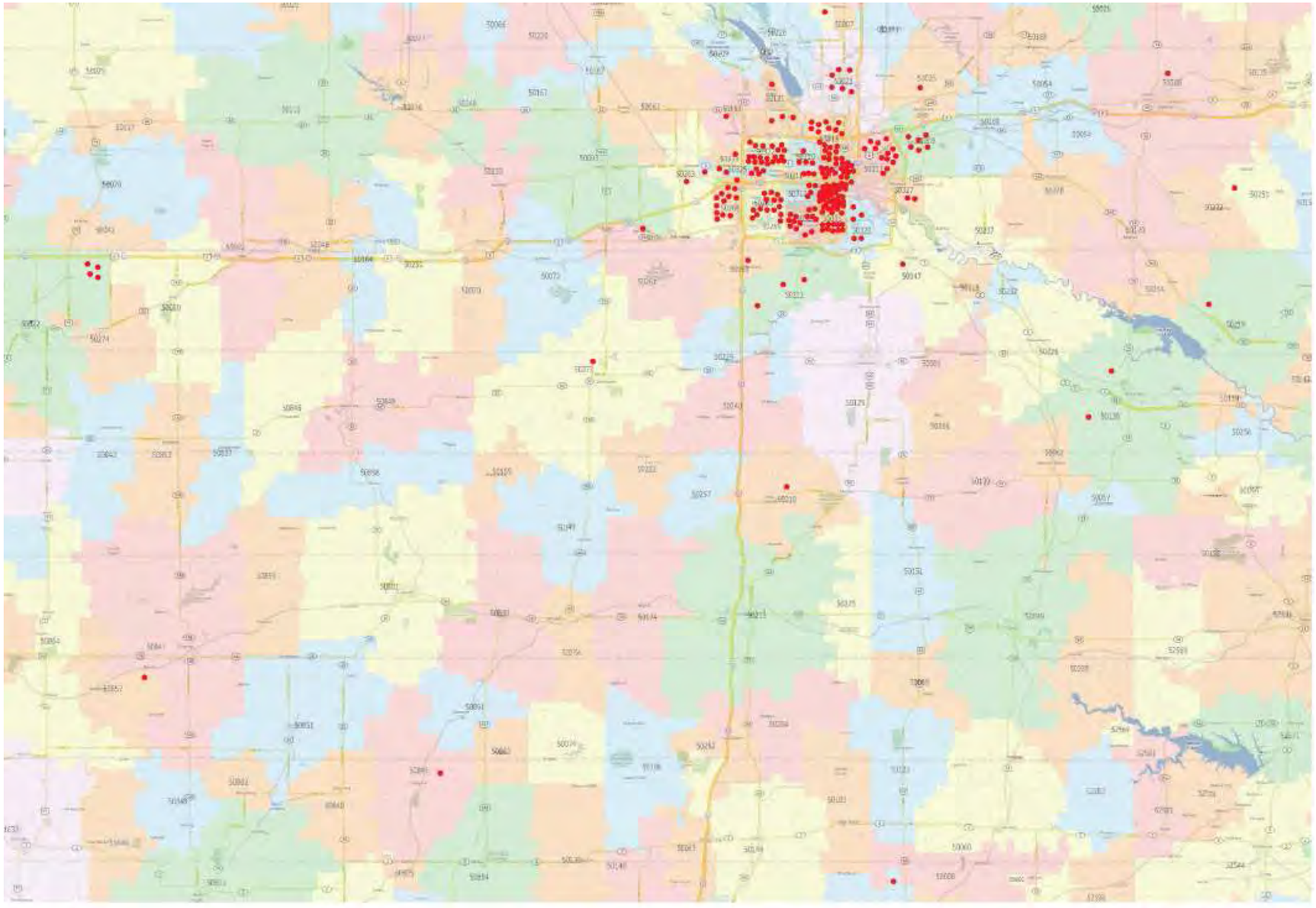
Residency Distribution



Existing Offender Population

Pending Population

Job Location Distribution

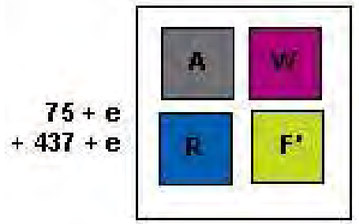


5. MASTER PLAN CONFIGURATIONS

Site Diagrams

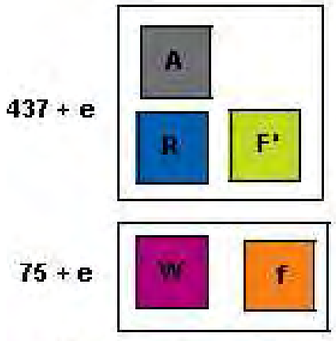
The diagram below conceptually illustrates the building/site master plan concepts examined by the planning team. These concepts describe the larger context into which the 170 new beds might eventually fit. Their importance is in formulating not only initial site requirements for the 170 but long-term site requirements. One notion expressed by all of the concepts is that any residential facility development will be accompanied by appropriate field service offices. The intent is to make field services more efficient and seamless with residential services.

Option 1



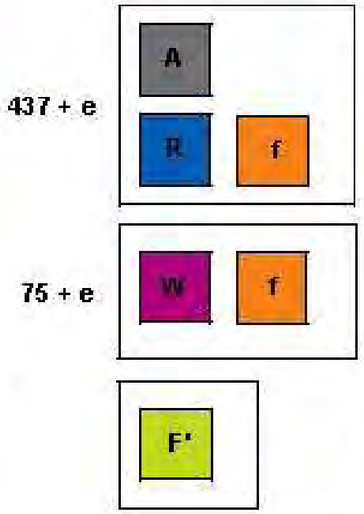
Option 1 contemplates eventually consolidating all male residential, female residential, administrative offices and field service offices on a single site.

Option 2



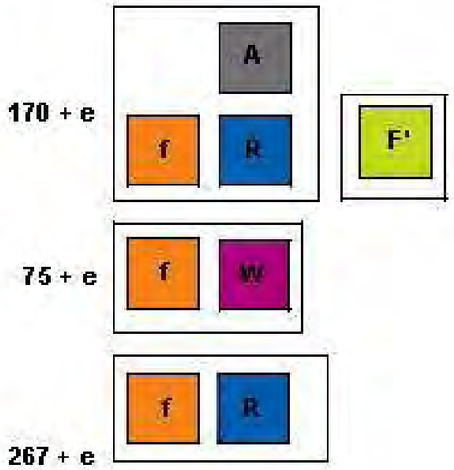
Option 2 envisions a site scenario combining all male residential needs with those of Administration and Field Services. However, the women's residential facilities will be kept on a separate site to retain what staff believes to be a critical programmatic and management separation from male residents.

Option 2A



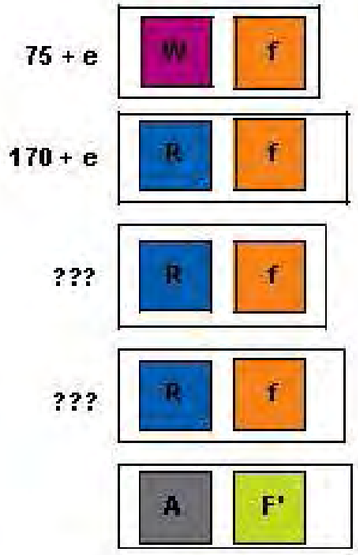
Option 2A is similar to Option 2 except that it creates a third site for the central Field Services offices.

Option 3



Option 3 is like Option 2 except that it creates two sites for male residential housing, principally focusing on finding a new site for the 170 beds plus expansion that are the primary target of this study. The remaining 267 beds would be on another site including a possible future new site. This option also places Field Services on its own site.

Option 4



Option 4 envisions that the male residential facilities would be distributed among multiple sites around the Fifth Judicial District.

The variations on the above options are endless. However, the five shown above capture a reasonable range of possible siting approaches into which the new 170 beds might fit.

After considerable review and discussion, it was determined that Options 3 was the most reasonable and efficient. It provided the best flexibility, the best staff efficiency, and responded best to desires to keep certain segments of the population together for treatment and programming reasons. It also addressed issues of attaining minimum facility scale without creating a mega-complex resembling a prison facility.

ASK STUDIO K&A

Master Plan Siting Concepts

KEY:

- R — Male Residential
- W — Women's Residential
- F' — Central Field Offices
- f — Local Field Office
- A — Administration
- Individual Site

e = expansion

75 = women's capacity

170 = capacity of new male addition

267 = male capacity at Ft. Des Moines

437 = male capacity at Ft. Des Moines + addition

Size of Site

The size of the site needed is driven by four factors:

1) the space needed for initial construction,
2) the space needed for building expansion,
3) the land needed to accommodate parking, and
4) the land needed for parking expansion.

Regarding space, the earlier section on space needs identified the initial and expansion space needs for a 170 bed male residential site, a 437 bed male residential site, and other elements of the site options.

Regarding the parking elements of the equation, the following table shows the estimates made by the consultants. These include estimates for staff parking, resident parking, and visitor parking. Each element should be developed separately and relate to separate entries into the building created.

The staff parking estimates are derived from calculating existing staffing at the Men's CCRF, including estimates of staff needed versus the lower number of staff actually on hand. The "needed staff" number was chosen primarily because it led to a number that the consultants were confident was on the safe side, an important consideration when choosing a site. A key factor in the number of staff parking spots needed was the higher numbers needed when Residential Officers execute shift change.

Once these numbers were calculated the consultants then extrapolated upward for a 437 bed site (the current 267 plus the new 170) and downward for a site accommodating only the new 170 beds. In each case the consultants then allowed for a 50% expansion of all parking needs as a way to safely define site requirement for the future.

The parking calculations along with square foot and acreage calculations appear on the following page.

Page 43A shows site configurations based on one and two story buildings. The diagrams indicate a structure of 82,000 square feet expanded to 123,000 square feet and parking requirements up to 176 stalls. The diagrams do not consider a final building design, but do allow for the mass and “wing” configuration typically found in a monitored housing facility. From these diagrams we can conclude the site to be secured must be a minimum of 5 acres and depending on the program for outdoor space and buffer area, a site size nearing 10 acres would allow ultimate flexibility.

ESTIMATED STAFF PARKING IOWA CCRF Category	AM 12:30 1:30	AM 4:30 5:30	AM 5:30 6:30	AM 6:30 7:30	AM 7:30 8:30	AM 8:30 9:30	AM 9:30 10:30	PM 2:30 3:30	PM 3:30 4:30	PM 4:30 5:30	PM 5:30 6:30	PM 6:30 7:30	PM 7:30 8:30	PM 10:30 11:30	PM 11:30 12:30
267 BED BASE STAFFING:															
Administration					3	3	3	3	3	3	3				
OWI Administration					1	1	1	1	1	1	1				
OWI Coordinators					6	6	6	6	6	6	6				
OWI secretaries					5	5	5	5	5	5	5				
Residential Supervisor					1	1	1	1	1	1	1				
Data Processing Coordinators					11	11	11	11	11	11	11				
Supervisor-Sex Offenders					1	1	1	1	1	1	1				
PPO Supervisor					1	1	1	1	1	1	1				
PPO II					11	11	11	11	11	11	11				
Residential Managers/Adminsitration					4	4	4	4	4	4	4				
Resident Officers (needed)	14	14	14	14	37	23	23	23	35.5	12.5	12.5	12.5	12.5	12.5	12.5
Food Service			3	3	3	3	6	6	3	3	3				
Work Crew & Maintenance Techs					5	5	5	5	5	5	5				
TOTAL NEED @ 267 BEDS:	**14**	**14**	**17**	**17**	**89**	**75**	**78**	**78**	**88**	**65**	**65**	**13**	**13**	**13**	**13**
EXTRAPOLATION TO 437 BEDS:	23	23	28	28	**146**	123	128	128	143	106	106	20	20	20	20
EXTRAPOLATION TO 170 BEDS:	9	9	11	11	**57**	48	50	50	56	41	41	8	8	8	8

PARKING FOR 437 BEDS:

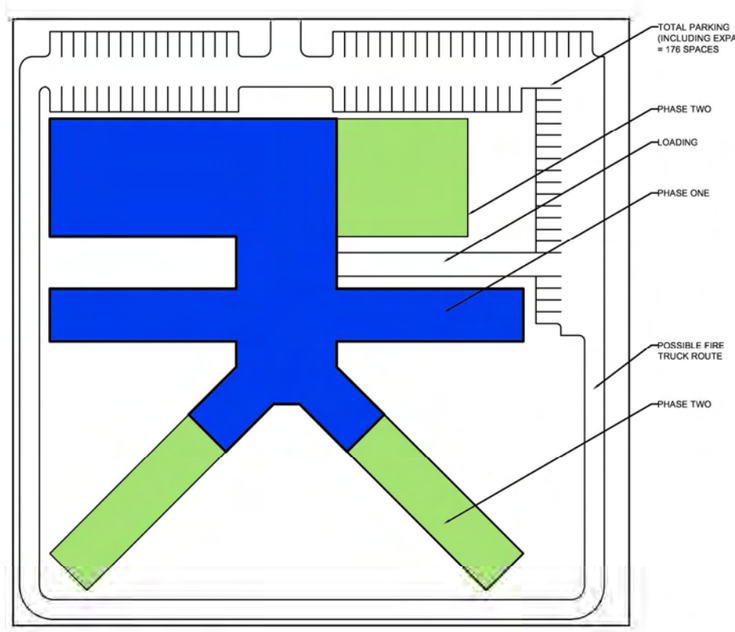
	CARS:		SF/CAR:	SF NEED:
ESTIMATED SQUARE FEET (SF) OF STAFF PARKING NEEDED FOR 437 BEDS =	**146**	X	400 sf =	58,400 sf
ACRES OF PARKING =				1.34
ESTIMATED SQUARE FEET OF RESIDENT PARKING NEEDED FOR 170 BEDS @ 15% =	**66**	X	400 sf =	26,220 sf
ACRES OF PARKING =				0.60
ESTIMATED SQUARE FEET OF VISITOR PARKING NEEDED FOR 170 BEDS @ 15% =	**66**	X	400 sf =	26,220 sf
ACRES OF PARKING =				0.60
ESTIMATED SQUARE FEET OF TOTAL PARKING @ 437 BEDS =	**278**	X	400 sf =	**111,200 sf**
ACRES OF PARKING =				**2.55**
GROWTH FACTOR =				**1.50**
FUTURE ESTIMATED NEEDS WITH GROWTH =	**417**	X	400 sf =	**166,800**
ACRES OF PARKING =				**3.83**

PARKING FOR 170 BEDS:

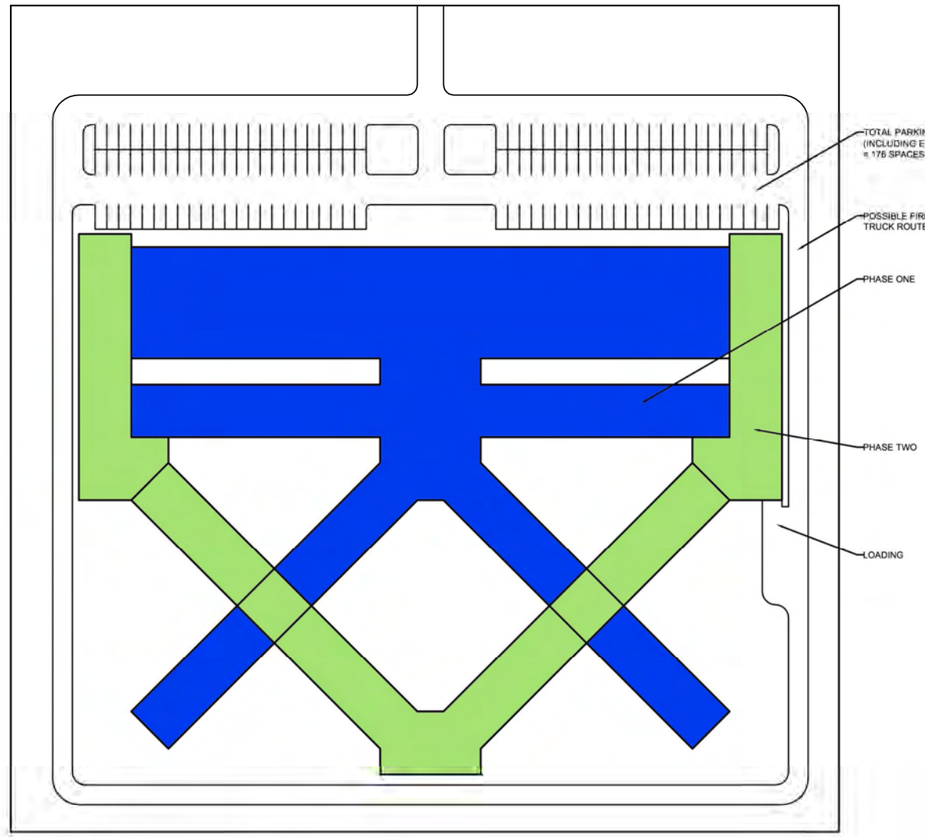
	CARS:		SF/CAR:	SF NEED:
ESTIMATED SQUARE FEET (SF) OF STAFF PARKING NEEDED FOR 170 BEDS =	**57**	X	400 sf =	22,800 sf
ACRES OF PARKING =				0.52
ESTIMATED SQUARE FEET OF RESIDENT PARKING NEEDED FOR 170 BEDS @ 20% =	**34**	X	400 sf =	13,600 sf
ACRES OF PARKING =				0.31
ESTIMATED SQUARE FEET OF VISITOR PARKING NEEDED FOR 170 BEDS @ 15% =	**26**	X	400 sf =	10,200 sf
ACRES OF PARKING =				0.23
ESTIMATED SQUARE FEET OF TOTAL PARKING @ 170 BEDS =	**117**	X	400 sf =	**46,800 sf**
ACRES OF PARKING =				**1.07**
GROWTH FACTOR =				**1.50**
FUTURE ESTIMATED NEEDS WITH GROWTH =	**176**	X	400 sf =	**70,200**
ACRES OF PARKING =				**1.61**

Site Plans

Plans show the minimum site required for a one and two story configuration. The sites are estimated as square geometry. Other geometries will effect the economics of land use.



170 BED ROOMS - 2 STORY
5.00 ACRES
50% EXPANSION



170 BED ROOMS - 1 STORY
7.15 ACRES
50% EXPANSION

6. SITE

Site Evaluation Criteria

The user planning group completed a site criteria worksheet that accomplished three significant goals relative to the siting of a future 170 bed residential facility. First, they identified the criteria by which a site should be judged. Second, they established whether or not a certain criteria is referred to as "threshold" criteria. Threshold criteria are those that a site must meet if it is to be considered at all. Lastly, they established a relative weight to the criteria to insure that the most important criteria had more influence over the site evaluation than did less important criteria.

The table on Appendix sheet A presents the results of the site criteria identification efforts of the user planning team. Threshold criteria are highlighted in yellow and the highest weighted criteria (5) are highlighted in green.

General site areas and regions were determined by logically approaching the central need of public transportation. There are few areas that are readily accessible by MTA buses that have appropriate acreages, zoning and proposed land use. Through research with staff and local planning authorities, a set of five general sites were evaluated.

Scoring of Generic Sites

In a joint meeting between the consultants and the user planning team, five sites were scored based on the criteria established and their weighting. Some sites were specific and others were generic being identified primarily by area. The one known site was the existing Fort Des Moines CCRF site. The generic sites were identified geographically as those being in north Warren County, the industrial area at the center of Des Moines, northeast Polk County and Polk County near the city's north side. Appendix sheet A contains the completed site evaluation worksheet complete with scores and rankings.

Scoring of Specific Sites

The consultant team took the generic scores and began a site search that included specific sites from the most generic areas except the lowest scoring city industrial region. The team also concentrated on finding appropriate sites in the highest scoring area north of the city. A commercial real estate consultant was added to the search team. Finding actual sites would allow for the most accurate screening and scoring. The scores will test and possibly reinforce the generic portion of the study.

Five specific sites were scored by the exact criteria used to define generic preferences and appropriateness. The sites included: 1) Fort Des Moines; 2) 5200 22nd Street, a property adjacent to the Polk County Jail; 3) 6300 22nd Street, a property within the Ankeny city limits north of the Polk County Jail; 4) Highway R63 Property, just south of the existing facility and in Warren County; and 5) 4224 Hubbell Avenue.

The site directly adjacent to the Polk County Jail was the highest scoring site. The second highest scoring site was Fort Des Moines. The scores of the specific sites mirrored the generic site exercise and add credence to the final results and the final recommendations of this report.

FACILITY/SITE Criteria Determination/Valuation Worksheet

Iowa DOC Community Corrections Residential Facility (CCRF)

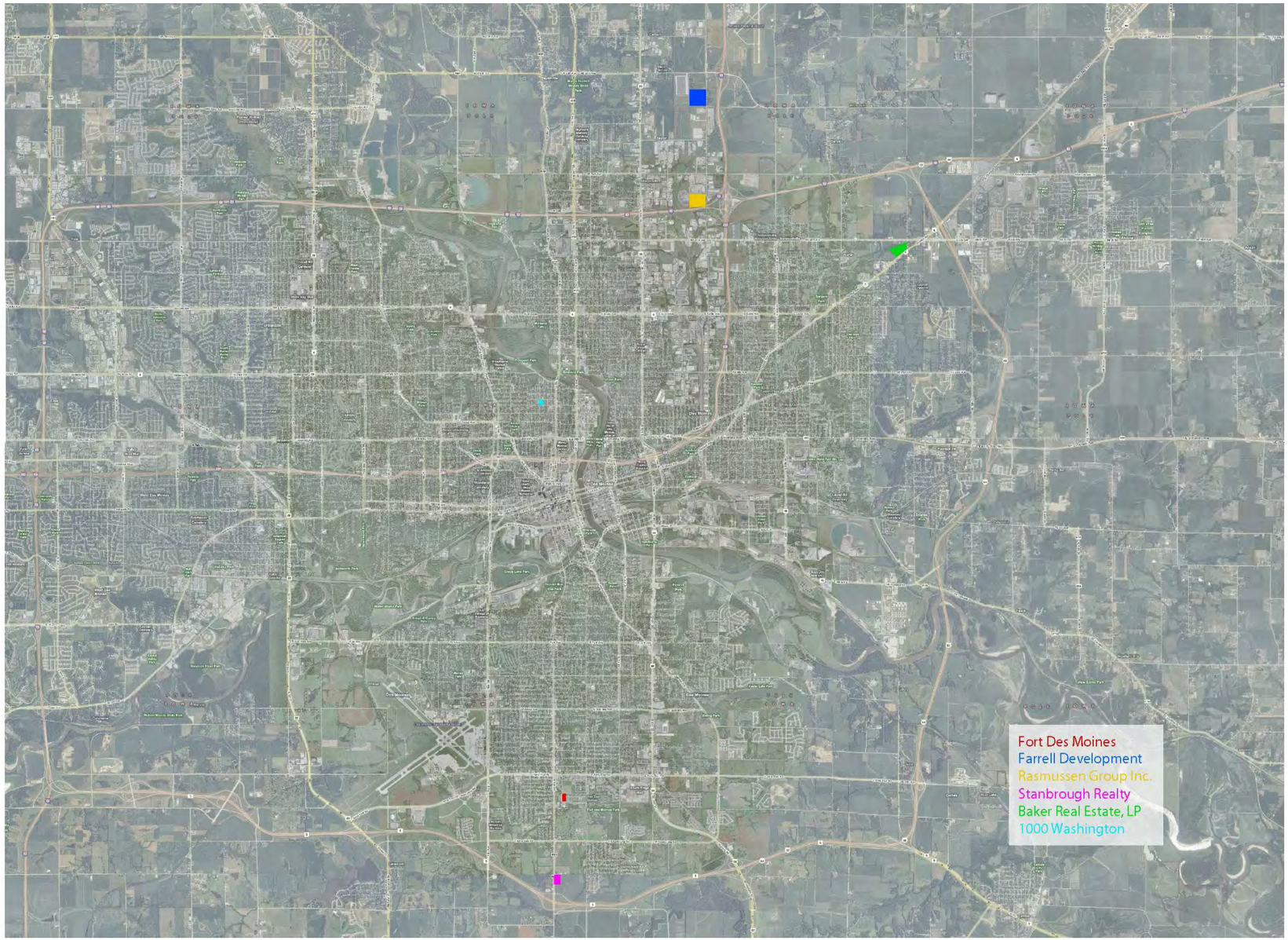
Architects Schipper Kastner/Kimme & Ass

11/6/08

VALUES:

"Threshold Criteria" are those that a site MUST satisfy to even be considered.
""Criteria Importance" is rated from "1" (Not important) to "5" (Very Important)
If one of the listed items does not apply, just skip it, or enter "N/A"

Potential Criteria:	Is this a Threshold Criteria? YES or NO	Value Score: 1 (poor) to 10 (excellent) 1. Ft. DSM	2. 5200 NE22nd	3. 6300 NE22nd	4. HWAY R63	5. 4224 Hubbell	Criteria Weight: 1 (low) to 5 (high)	Weighted Score 1. Ft. DSM	2. 5200 NE22nd	3. 6300 NE22nd	4. HWAY R63	
A. DESIGN/PLANNING ISSUES							3.4					
1 Sufficient Land for Functional, Staff Efficient Design	Y	10	10	10	10	10	5	50	50	50	50	
2 Sufficient Land for Building Expansion	Y	10	10	10	10	10	4	40	40	40	40	
3 Sufficient Land for On-site Differentiated Parking (public from staff, etc.) & Parking Expansion	N	10	10	10	10	10	2	20	20	20	20	
4 Minimal Impact on other government space & Parking Needs	Y	10	10	10	10	10	3	30	30	30	30	
5 Potential for Field and Administration services	N	10	10	10	10	10	3	30	30	30	30	
B. TRAFFIC & ACCESS ISSUES							3.0					
1 Access to Courts	Y	8	8	8	8	6	1	8	8	8	8	
2 Access to County Highways	Y	10	10	10	10	8	5	50	50	50	50	
3 Access by other Law Enforcement Agencies	Y	8	9	8	8	8	2	16	18	16	16	
4 Public Access (including Service providers and other Professionals)	Y	8	6	6	5	6	3	24	18	18	15	
5 On a public transportation (bus) route or site has potential for bus route.	Y	10	9	9	6	6	5	50	45	45	30	
6 Relationship to other District Counties		9	8	8	10	8	2	18	16	16	20	
C. PUBLIC ISSUES							4.7					
1 General Public Acceptability	Y	3	6	4	5	3	5	15	30	20	25	
2 Control of View/Sound/Security Conflicts with adjacent private/public space	Y	4	8	6	5	4	5	20	40	30	25	
3 Compatibility with Existing Neighbors	Y	3	8	5	5	4	4	12	32	20	20	
D. ECONOMIC & TIMING ISSUES							4.5					
1 Site Acquisition & Development Costs (demolition, utilities, etc.)	Y	10	8	6	8	6	5	50	40	30	40	
2 Land Acquisition/Project Development Timeframe	Y	10	8	8	8	6	5	50	40	40	40	
3 Cost of Construction as affected by site conditions (difficulty, aesthetics)	Y	5	8	7	8	8	4	20	32	28	32	
4 Staff Efficiency (design effectiveness, transportation, etc.)	Y	10	10	10	10	10	4	40	40	40	40	
E. TECHNICAL ISSUES							4.0					
1 Geotechnical (soils conditions, floodway, etc.)	Y	8	8	6	8	7	4	32	32	24	32	
2 Utilities Accessibility	Y	9	9	9	8	9	5	45	45	45	40	
3 Environmental Considerations (HISTORIC, ENVIRONMENT)	Y	5	8	7	8	7	4	20	32	28	32	
4 Water Supply Issues	N	6	10	10	6	8	3	18	30	30	18	
F. MISCELLANEOUS/OTHER:							4.0					
1 Law enforcement EMERGENCY response time could be impacted by county location.		9	8	8	7	9	5	45	40	40	35	
2 Court Jurisdiction after Escapes		10	10	10	7	10	3	30	30	30	21	
TOTALS:		195	209	195	190	183		733	788	728	709	
RANK:		2	1	3	4	5		2	1	3	4	



Farrell Development
38.522 acres
$3,081,760.00
$80,000,00 / acre
(some flood plain concerns)

Rasmussen Group Inc.
2 parcels
Lot 3:
6.1 acres
$87,120.00 / acre
Lot 4:
5.91 acres
$87,120.00 / acre

Stanbrough Realty
3 parcels, 10 acres
$100,000.00 / acre

Baker Real Estate, LP
22.2 acres
$659,000.00
$29,685.00 / acre
Not all buildable. Site is very steep over approximately 40% of area.

7. CONCLUSIONS AND RECOMMENDATIONS

It is the recommendation of the consultant team to engage in negotiations for the purchase of property at 5200 NE 22nd Avenue, Des Moines. The sites in the area of most interest are the parcels of 5.9 acres and 6.1 acres. The preliminary price established for these properties is $2.00 per square foot. This cost of $87,120.00 per acre is less than most in the immediate area and comparable to the $80,000.00 per acre paid by Polk County for the 30 acre jail site. While one of these sites will work for the proposed facility, additional land provided by the purchase of both, may allow for greater privacy for neighbors and less perceived connection with the jail facility by both the public and the offenders being housed.

The selection of a site on the north side of Des Moines will aid in the desire to keep facility size at a more residential scale and alleviate any burden on services in any one area of the community. The choice of this site also limits additional investment in the Fort Des Moines site and will give the Fifth Judicial District Department of Correctional Services an opportunity to move from that site at the end of the useful life of the existing facilities.

Prior to any land purchase additional meetings with the DART will be required to obtain assurances of viability of the Orange Route and the need for additional early morning stops to facilitate a common work schedule for potential offender riders.

This site represents the only site in the study without a residence within one half mile. It also represents a best use for land near the new Polk County Jail.

FACILITY/SITE Criteria Determination/Valuation Worksheet

Iowa DOC Community Corrections Residential Facility (CCRF)

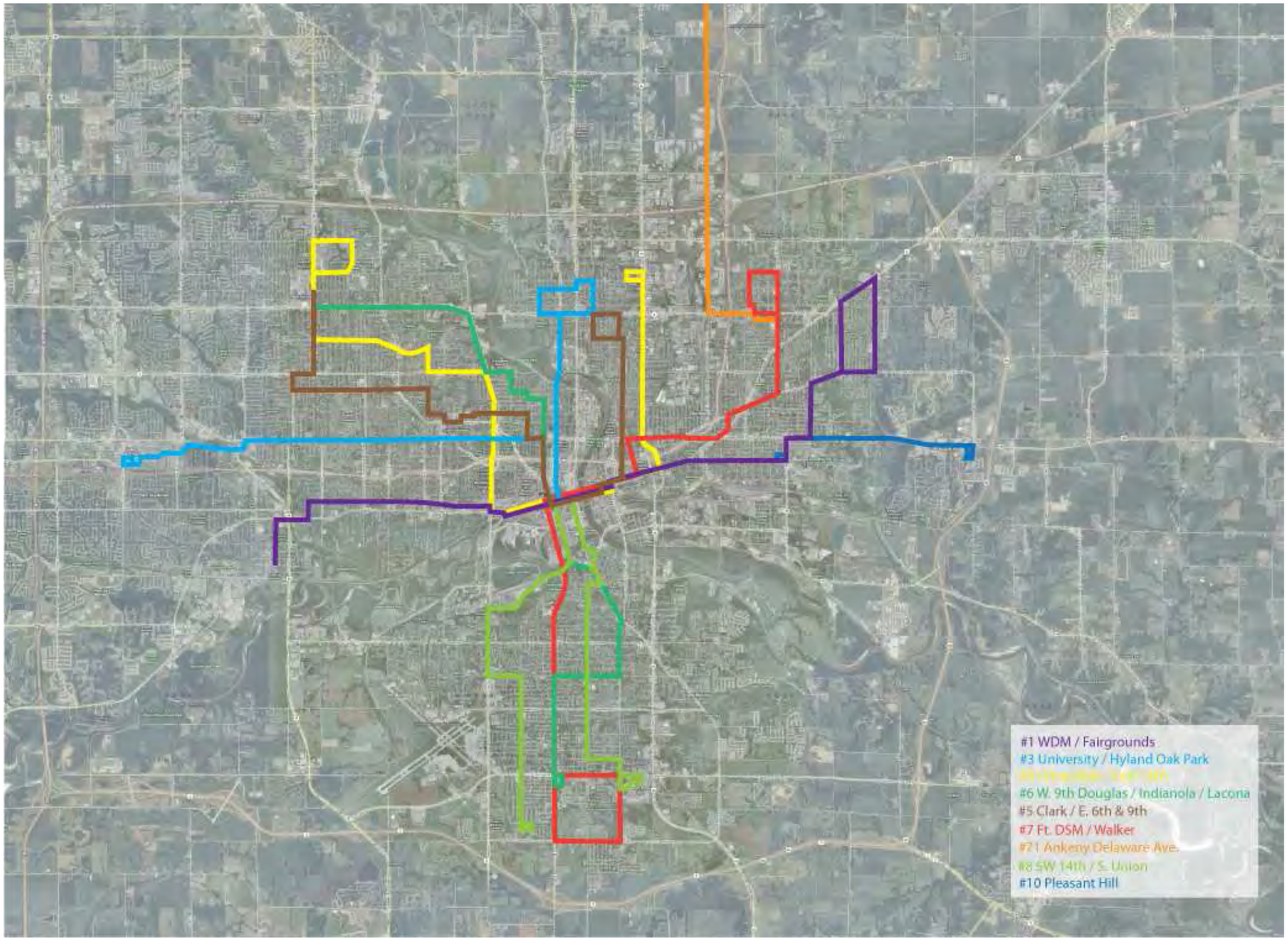
Architects Schipper Kastner/Kimme & Associates

11/6/08

VALUES:

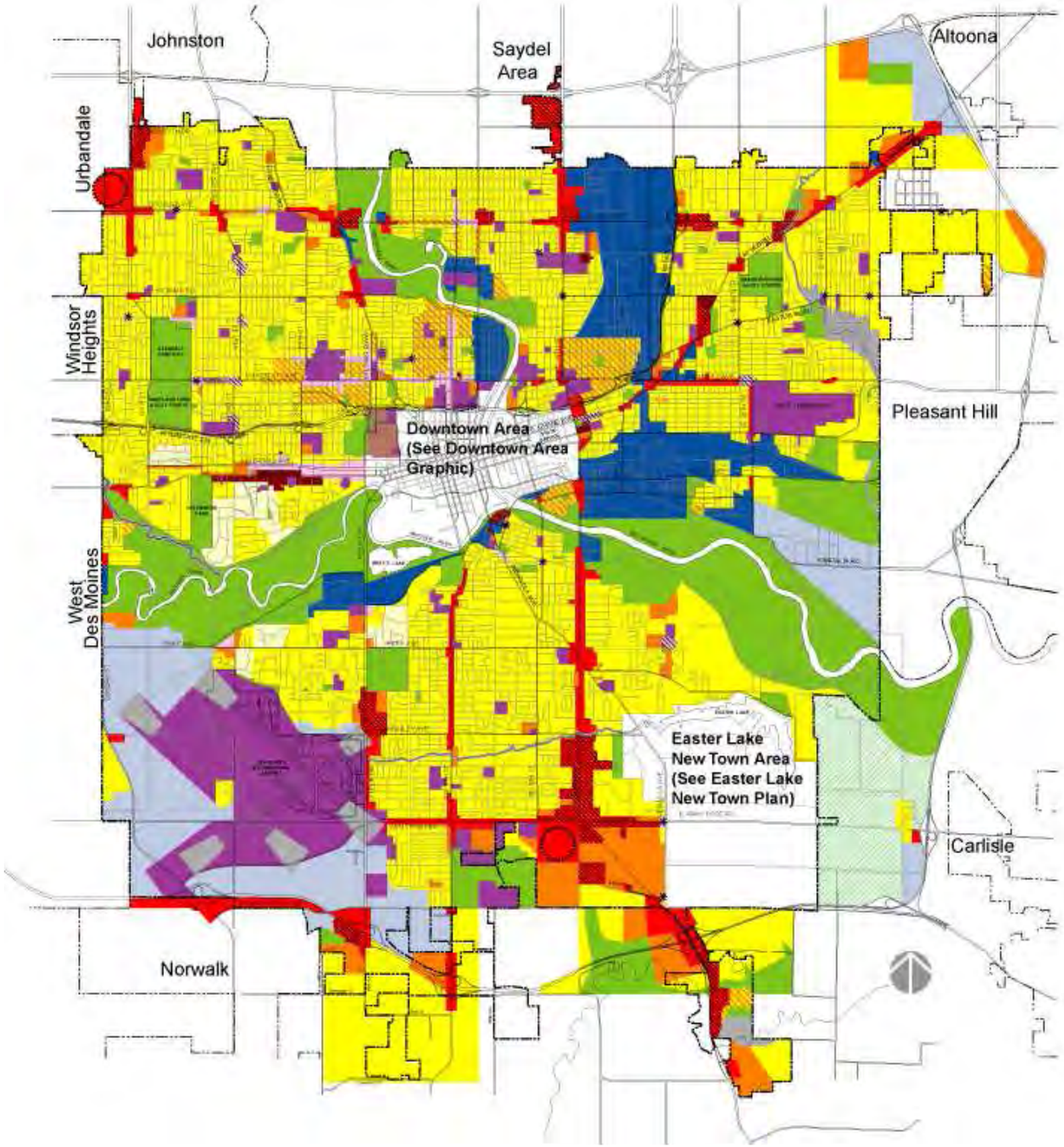
"Threshold Criteria" are those that a site MUST satisfy to even be considered.
"Criteria Importance" is rated from "1" (Not important) to "5" (Very important)
If any of the listed items does not apply, just skip it, or enter "N/A"

Potential Criteria:	Is this a Threshold Criteria? YES or NO	Value Score: 1 (poor) to 10 (excellent) I. Ft. Des Moines	II. North	III. N. Warren	IV. City Industrial	V. NE Polk	Criteria Weight: 1 (low) to 5 (high)	x	Weighted Score I. Ft. Des Moines	II. North	III. N. Warren	IV. City Industrial	V. NE Polk	=
A. DESIGN/PLANNING ISSUES							3.4							
1. Sufficient Land for Functional, Staff Efficient Design	Y	10	10	10	10	10	5		50	50	50	50	50	
2. Sufficient Land for Building Expansion	Y	10	10	10	5	10	4		40	40	40	20	40	
3. Sufficient Land for On-site Differentiated Parking (public from staff, etc.) & Parking Expansion	N	10	10	10	5	10	2		20	20	20	10	20	
4. Minimal Impact on other government space & Parking Needs	Y	10	10	10	5	10	3		30	30	30	15	30	
5. Potential for Field and Administration services	N	10	10	10	10	10	3		30	30	30	30	30	
B. TRAFFIC & ACCESS ISSUES							3.0							
1. Access to Courts	Y	8	8	8	10	6	1		8	8	8	10	6	
2. Access to County Highways	Y	10	10	10	10	10	5		50	50	50	50	50	
3. Access by other Law Enforcement Agencies	Y	8	10	6	10	8	2		16	20	12	20	16	
4. Public Access (including Service providers and other Professionals)	Y	8	6	6	10	8	3		24	18	18	30	24	
5. On a public transportation (bus) route or site has potential for bus route	Y	10	9	8	9	8	5		50	45	40	45	40	
6. Relationship to other District Counties		9	8	10	7	8	2		18	16	20	14	16	
C. PUBLIC ISSUES							4.7							
1. General Public Acceptability	Y	3	6	7	5	4	5		15	30	35	25	20	
2. Control of View/Sound/Security Conflicts with adjacent private/public space	Y	4	8	8	5	4	5		20	40	40	25	20	
3. Compatibility with Existing Neighbors	Y	3	8	5	7	4	4		12	32	20	28	16	
D. ECONOMIC & TIMING ISSUES							4.5							
1. Site Acquisition & Development Costs (demolition, utilities, etc.)	Y	10	8	5	6	8	5		50	40	25	30	40	
2. Land Acquisition/Project Development Timeframe	Y	10	8	6	7	7	5		50	40	30	35	35	
3. Cost of Construction as affected by site conditions (difficulty, aesthetics)	Y	5	8	8	5	8	4		20	32	32	20	32	
4. Staff Efficiency (design effectiveness, transportation, etc.	Y	10	10	10	6	10	4		40	40	40	24	40	
E. TECHNICAL ISSUES							4.0							
1. Geotechnical (soils conditions, floodway, etc.	Y	8	8	7	8	7	4		32	32	28	32	28	
2. Utilities Accessibility	Y	9	9	7	9	8	5		45	45	35	45	40	
3. Environmental Considerations (HISTORIC, ENVIRONMENT)	Y	5	8	7	8	7	4		20	32	28	32	28	
4. Water Supply Issues	N	6	10	6	10	8	3		18	30	18	30	24	
F. MISCELLANEOUS/OTHER:							4.0							
1. Law enforcement EMERGENCY response time could be impacted by county location		9	9	4	9	9	5		45	45	20	45	45	
2. Court Jurisdiction after Escapes		10	10	7	10	10	3		30	30	21	30	30	
TOTALS:		195	211	185	186	192			733	795	690	695	720	
RANK:		2	1	4	5	3			2	1	5	4	3	



Des Moines Area
Bus Routes

Public transportation is a threshold criteria and one of the most important components of site selection.



DES MOINES' 2020 COMMUNITY CHARA CTER PLAN

LEGEND

RESIDENTIAL

INTOWN ESTATES RESIDENTIAL
Areas developed with large lots, up to 2 units per acre

LOW-DENSITY RESIDENTIAL
Areas developed with exclusively single family and duplex (legal as of Dec. 31, 1996, up to 6 units per net acre

LOW/MEDIUM DENSITY RESIDENTIAL
Areas developed with mix of single family, duplex and small multi-family units, up to 12 units per net acre

MEDIUM-DENSITY RESIDENTIAL
Areas developed with multi-family units including those over 6 units, up to 17 units per net acre

MIXED USE AND DENSITY RESIDENTIAL
Areas developed with a mix of densities and some limited retail and office. Encourages mix of single family, duplex, small multi-family as well as developments over 17 units per net acre

HIGH-DENSITY RESIDENTIAL
Areas developed with High-Rise and Mid-Rise Buildings over 17 units per acre

COMMERCIAL: PEDESTRIAN-ORIENTED
Site orientation is balanced between the needs of the pedestrian and the convenience of the motorist. The development is compact and walkable connections to adjacent areas exist via public streets and sidewalks.

NEIGHBORHOOD NODE
Small-scale commercial serving primarily adjacent neighborhood. Cumulative building total of 25,000 to 50,000 sq. ft.

NEIGHBORHOOD COMMERCIAL CENTER
Small-to-moderate scale commercial serving adjacent neighborhood and specialty retail/services. Cumulative building total of 75,000 to 100,000 sq. ft.

COMMERCIAL CORRIDOR
Small-to-moderate scale commercial in a linear pattern that serves adjacent neighborhood and passing motorist. Building sizes range from 2,000 to 35,000 sq. ft.

COMMERCIAL: AUTO-ORIENTED
Commercial in which the site orientation is primarily focused on the needs and convenience of the motorist. In the future, developments will have a strong orientation to motorists with necessary accommodations on site for pedestrians.

SMALL-SCALE STRIP DEVELOPMENT
Small-to-moderate commercial in a linear pattern that serves the passing motorist. Individual building may be over 35,000 sq. ft. with individual modules from 2,000 to 20,000 sq. ft.

COMMUNITY COMMERCIAL
Large-scale commercial development located on or at the crossroads of a major transportation corridor. Parcel size may be up to twenty to twenty five acres with 150,000 to 250,000 sq. ft. of building coverage

REGIONAL SHOPPING MALL
Multi-use building with over 1,000,000 sq. ft. of retail space

PLANNED BUSINESS PARK

GENERAL INDUSTRIAL

PARK/OPEN SPACE

PUBLIC/SEMI-PUBLIC
Uses such as government facilities, schools, and hospitals

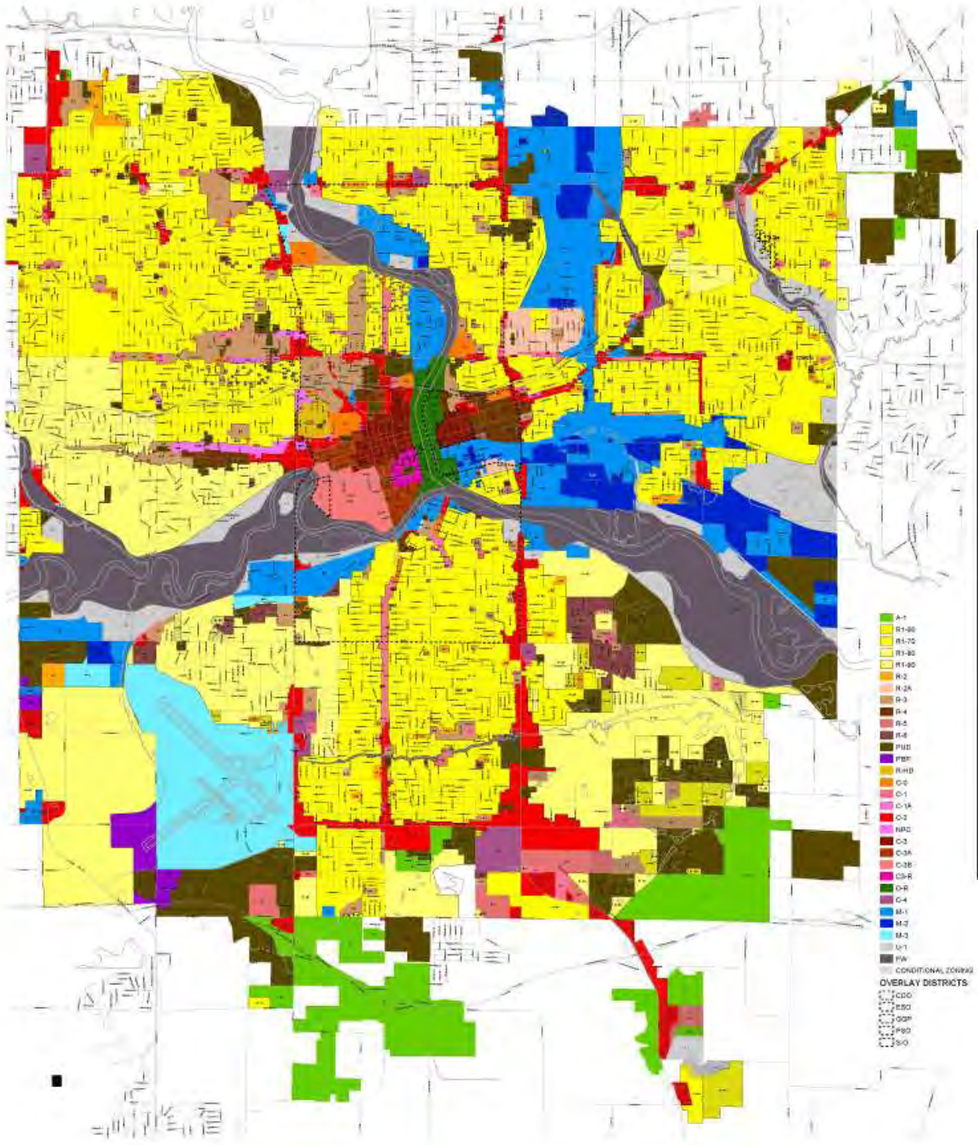
CLEAR ZONE/DEVELOPMENT CONTROL ZONE

AGRICULTURAL

Adopted by: Des Moines City Council
Roll Call Number: 00-3281
Dated: August 7, 2000
Amendments:
Map has been revised per amendments through November 15, 2000

Prepared by
Des Moines Community Development Department, Planning and Urban Design Division

CITY OF DES MOINES ZONING MAP



ZONING DISTRICT CLASSIFICATIONS

A-1 AGRICULTURAL DISTRICT
R1-60 ONE-FAMILY LOW-DENSITY RESIDENTIAL DISTRICT
R1-70 ONE-FAMILY LOW-DENSITY RESIDENTIAL DISTRICT
R1-80 ONE-FAMILY RESIDENTIAL DISTRICT
R1-90 LARGE LOT ONE-FAMILY RESIDENTIAL DISTRICT
R-2 ONE & TWO-FAMILY RESIDENTIAL DISTRICT
R-2A GENERAL RESIDENTIAL DISTRICT
R-3 MULTIPLE-FAMILY RESIDENTIAL DISTRICT
R-4 MULTIPLE-FAMILY RESIDENTIAL DISTRICT
R-5 MOBILE HOME RESIDENTIAL DISTRICT
R-6 PLANNED RESIDENTIAL DEVELOPMENT DISTRICT
PUD PLANNED UNIT DEVELOPMENT DISTRICT
PBP PLANNED BUSINESS PARK DISTRICT
R-HD RESIDENTIAL HISTORIC DISTRICT

C-0 COMMERCIAL-RESIDENTIAL DISTRICT
C-1 NEIGHBORHOOD RETAIL COMMERCIAL DISTRICT
C1-A NEIGHBORHOOD COMMERCIAL REUSE DISTRICT
C-2 GENERAL RETAIL AND HIGHWAY-ORIENTED COMMERCIAL DISTRICT
NPC NEIGHBORHOOD PEDESTRIAN COMMERCIAL DISTRICT
C-3 CENTRAL BUSINESS DISTRICT
C3-A CENTRAL BUSINESS DISTRICT SUPPORT
C-3B CENTRAL BUSINESS MIXED USE DISTRICT
C3-R CENTRAL BUSINESS DISTRICT MIXED-RESIDENTIAL DISTRICT
D-R DOWNTOWN RIVERFRONT DISTRICT
C-4 SHOPPING CENTER COMMERCIAL DISTRICT
M-1 LIGHT INDUSTRIAL DISTRICT
M-2 HEAVY INDUSTRIAL DISTRICT
M-3 LIMITED-INDUSTRIAL DISTRICT
U-1 FLOOD PLAIN DISTRICT
FW FLOODWAY DISTRICT

OVERLAY DISTRICT CLASSIFICATIONS

PLEASE CONSULT THE COMMUNITY DEVELOPMENT DEPARTMENT OF THE CITY OF DES MOINES FOR OVERLAY DISTRICT INFORMATION.

S-O STUDY OVERLAY DISTRICT
CDO CAPITOL DOMINANCE OVERLAY DISTRICT
GDP GAMBLING GAMES PROHIBITION OVERLAY DISTRICT
ESO ENTERTAINMENT SIGN OVERLAY DISTRICT
PSO PEDESTRIAN ORIENTED SIGN OVERLAY DISTRICT

CONDITIONAL ZONING

PLEASE CONSULT THE COMMUNITY DEVELOPMENT DEPARTMENT OF THE CITY OF DES MOINES FOR CONDITIONAL ZONING INFORMATION.

City of Des Moines, Iowa
Ordinance Number 7,226
Adopted July 12, 1960

This map was produced utilizing electronic mapping software. Please consult the City of Des Moines' Community Development Department for more precise information and for possible changes to this document since the date listed at the bottom.

Current as of November 1, 2006
City of Des Moines, Community Development Department

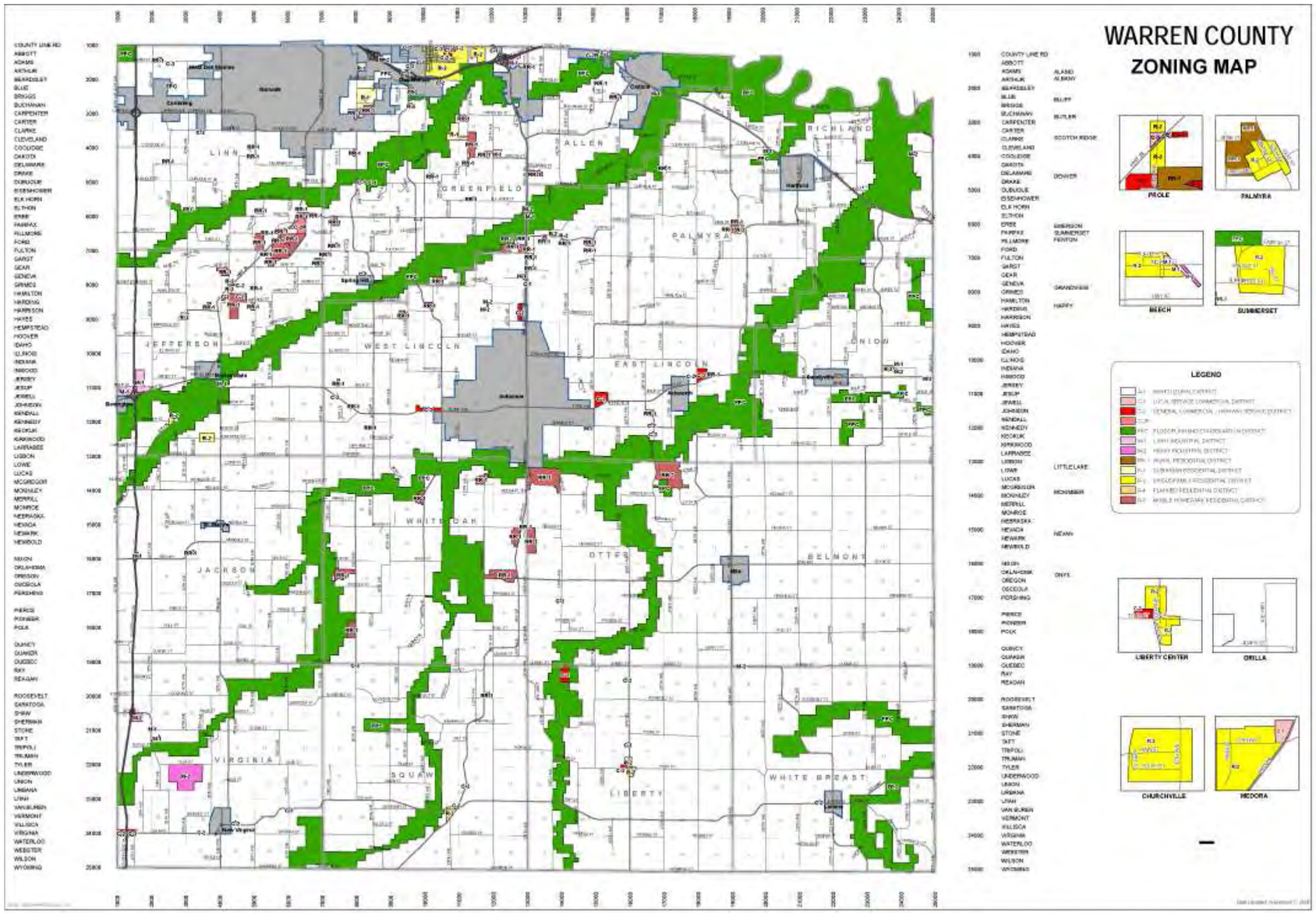
A-1
R1-60
R1-70
R1-80
R1-90
R-2
R-2A
R-3
R-4
R-5
R-6
PUD
PBP
R-HD
C-0
C-1
C-1A
C-2
NPC
C-3
C-3A
C-3B
C3-R
D-R
C-4
M-1
M-2
M-3
U-1
FW
CONDITIONAL ZONING

OVERLAY DISTRICTS

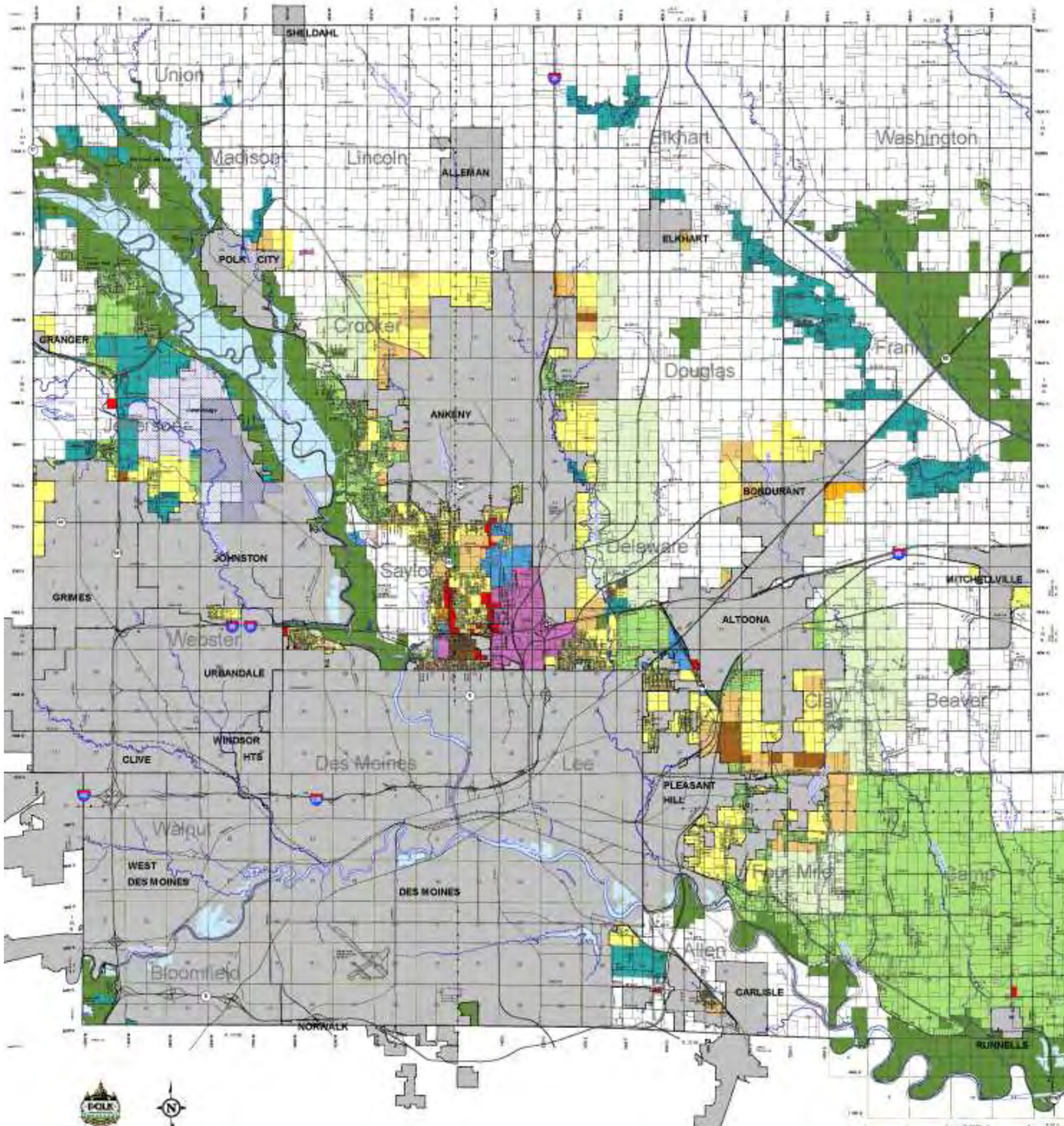
CDO
ESO
GDP
PSO
S-O

Des Moines Zoning Map

Warren County
Zoning Map



Official
Zoning Map, Polk County, Iowa



Zoning Districts

- AG - Agricultural District
- AT - Agricultural Transition District
- ER - Estate Residential District
- OS - Open Space District
- RR - Rural Residential District
- LDR - Low Density Residential District
- MDR - Medium Density Residential District
- HDR - High Density Residential District
- MH - Mobile Home Park District
- MU - Mixed Use District
- NB - Neighborhood Business District
- GC - General Commercial District
- LI - Light Industrial District
- HI - Heavy Industrial District