

**Recommendations To The**  
**MASTERPLAN**  
**FOR**  
**THE AUGUSTA COUNTY**  
**GOVERNMENT CENTER**  
**VERONA, VIRGINIA**

**March 21, 2001**



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ARCHITECTURE ENGINEERING PLANNING INTERIOR DESIGN CONSTRUCTION SERVICES

RICHMOND, VIRGINIA

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**PURPOSE**

The purpose of this report is to make recommendations to Augusta County's Government Center Masterplan, dated 20 October 1988, based upon the County's desire to locate a Regional Jail and Juvenile Detention Center on County-owned property at the Government Center complex in Verona.

Additionally, the consultants were asked to generally investigate the area needs of the Sheriff's Department to be potentially relocated to the Government Center and to project the future area needs for Circuit, General District, and Juvenile & Domestic Relations Courts.

This document describes the recommendations to the Masterplan and summarizes the assumptions made and alternatives considered during the course of their development.

## EXISTING CONDITIONS

In the 12 years since the creation of the initial Masterplan, the areas identified in the Masterplan as the Executive Office Building and Dock Area of the original Smith's Transfer terminal have been renovated for the County's Administration Building. This building, which contains Administrative offices and some county services, forms the core of the Government Center. The six other existing buildings identified in the Masterplan remain and there has been no new development within the complex.

North and west of the Administration Building, the existing site has been improved to provide staff and visitor parking, and a "front lawn" for the Government Center. No other significant site improvements have been made.

During this period, the County has added to its existing land holdings, with the long-term goal of developing an industrial park on farmland east of the Government Center.

## PLANNING PROCESS

The process of developing recommendations for proposed Courts, Sheriff's Offices, Regional Jail, and Juvenile Detention Center began with a meeting of the Regional Jail Planning Committee and other stakeholders to discuss goals and issues for the Project. Attendees offered and discussed the following:

### a. GOALS

- Desirable location for the Juvenile Detention Center and a reasonable cost for land acquisition.
- A Master Plan for the Government Center that works for the future and is customer oriented.
- Design of Jail and Juvenile Detention Center that is appropriate for the surroundings.
- Have cost estimate for Jail and a financial plan in place for next budget cycle.

### b. ISSUES

- Additional access to site from Technology Drive.
- Perception of Government Center being known for its detention facility.
- Location of Jail and Juvenile Detention Center on site.
- Aesthetics.
- Cost to contract out inmates to other localities.
- Clarify funding for 50% reimbursement of core space for Jail.
- Government Center potentially ends up land locked due to Industrial Park.

## PROPOSED SIZE OF REGIONAL JAIL AND JUVENILE DETENTION CENTER

Regional Jail – At the time the masterplanning effort began in September 2000, the consultants assumed an initial jail capacity of 286 beds and a future capacity of 600 beds. Based on the Virginia Department of Corrections reimbursement formula allowance of 400 square feet of space per inmate, a jail size of 240,000 square feet (600 x 400) was calculated. Since the property will have to accommodate more than just the footprint of the new jail, additional space was incorporated for planning purposes to compensate for building plan irregularities, internal

recreation yards, service yards, etc. A factor of 1.5 was utilized to compensate for these elements, leading to a building footprint of 360,000 gross square feet (240,000 x 1.5) for a one-story jail.

For a two-story jail, 50% of the 360,000 square-foot building area was assumed to be inmate housing which is already tiered and therefore, equivalent to two stories. The remaining 50% was stacked on two equal floors, yielding a footprint of 270,000 gross square feet (180,000 + 90,000) for a two-story jail.

The Jail will require open space around it for security and visibility. Both the one-story and two-story concepts include minimum buffer zones of 100' on three sides and 200' on the fourth side.

The 600-bed assumption proved to be a good one: Based on the latest projections contained in a memo prepared by the Central Shenandoah Planning District Commission, dated December 21, 2000, the new jail should be designed to manage a population of 396 in 2014 and a 20-year projection of 578 inmates by 2024. Programming efforts for the jail are still underway and the final square footage figure is not known at this time.

Juvenile Detention Center - Based on the Revised Planning Study for the Shenandoah Valley Juvenile Detention Center, dated March 22, 2000, the new Juvenile Detention Center should be designed for a population of 50 juveniles, with the ability to expand to 80 in increments of 10 beds.

A previous schematic design for the JDC indicates a 50-bed building area of 31,120 gross square feet, with the expansion to 80 beds yielding a total area of 45,363 square feet (including expansion of core space to accommodate 30 additional beds). For masterplanning purposes, additional space was included to allow a future expansion to 100 beds, which includes approximately 60,000 gross square feet of building area and 20,000 gross square feet for recreation yards, for a planning footprint of 80,000 square feet.

The minimum buffer zones of 100' on three sides and 200' on the fourth side were incorporated into the juvenile center as well for planning purposes.

Sharing of Facilities - In an effort to avoid potential duplication of facilities, the consultants investigated options for sharing space between the Jail and Juvenile Detention Center. Laundry and food service were prime candidates for sharing. Because it is estimated that the juvenile center will come on-line before the jail, that facility will need all support spaces or will have to contract services out until the jail comes on-line. It was the consensus of the Committee that the greatest potential for sharing of services is with operating issues and staff, not bricks and mortar. Medical, purchasing, and maintenance staff are possibilities.

Single-Level Facility vs. Multi-Level Facility - The Regional Jail Planning Committee's consensus was that a one-story jail (with tiered cells) is preferred, space permitting. This preference will need to be revisited as a result of the inmate population forecast, which has risen from 286 to 396.

The juvenile center will be one-story.

Parking – For masterplanning purposes, the following assumptions were made regarding parking:

- Jail: 310 parking spaces for visitors and staff (sworn staff and civilians).
- Juvenile Center: 80 spaces.
- Courts: 350 – 400 spaces.
- Sheriff's Department: 120 spaces.

As planning for the jail has moved forward, it has been determined that the design should provide for the following jail staff and visitor parking requirements:

- 396 beds: Provide spaces for 81 sworn personnel and 100 visitors/civilian staff (181 total spaces).
- 578 beds: Provide spaces for 117 sworn personnel and 147 visitors/civilian staff (264 total spaces).

#### **PROPOSED SIZE OF COURTS AND SHERIFF'S OFFICE**

In order to develop preliminary planning criteria for the Augusta County Sheriff's Department, the consultant team met with the Sheriff and his senior staff at their offices in the current Augusta County Jail in Staunton. Current and future staffing levels for the department were discussed, as were space requirements for effective and efficient operation of the department. The department currently has a total staff of 67 people. Approximately one-half are in the Patrol Division. The balance of the staff comprises the Administration, Court Services, Records, Investigations, and School Services Divisions.

Based on projections developed by the Commonwealth of Virginia, the population of Augusta County can be expected to grow over the next twenty years by at least 30%. This would result in an increase in population from about 65,000 now, to about 85,000 in the year 2020. A corresponding increase in the size of the Sheriff's Department and staff can be expected. While the exact size of the department in twenty years will depend on a number of factors, an increase in staff to a total of 90 to 100 people can easily be expected. Based on a preliminary analysis of the space required for a department of this size, a facility in the range of 30,000 gross square feet will be needed. Ideally, the building would be one-story to facilitate efficient operation and staff interaction; however, a two-story building is also feasible if site constraints require it.

The consultant team also reviewed the situation of the County's Circuit, General District, and Juvenile and Domestic Relations Courts, in order to develop preliminary planning criteria for a new courts facility at the Government Center. Based on current caseloads, court calendars, and future caseload trends projected by the Virginia Supreme Court, it appears that by the year 2020, each court will require two courtrooms, for a total of six courtrooms. While current projections do not indicate that the General District Court will need the use of two courtrooms daily at that time, it appears that the Juvenile and Domestic Relations Court might need a third courtroom on some days. The Juvenile and Domestic Relations Court could share one of the General District courtrooms to accommodate this need.

Court facilities recently constructed in Virginia contain an average of 12,000 to 15,000 gross square feet of space per courtroom for a facility which houses the courts, court clerks, Commonwealth's Attorney, Juvenile Probation, Law Library, required detention holding, and security facilities. Thus, in 2020, a facility of between 72,000 and 90,000 square feet would appear to be needed in Augusta County.

In order to provide for appropriate separation of staff, public, and detention circulation systems, a court facility of three stories is envisioned with each court occupying one of the floors, plus a full or partial basement level for central detention holding facilities, mechanical equipment space, and storage. A direct connection between the proposed new jail and the court's central detention holding area will maximize security and safety and minimize costs in moving detainees from the jail to court. If the jail and the courts are to be built in close proximity, connecting the two buildings should be strongly considered, site conditions permitting.

#### **SITE PLANNING CONSIDERATIONS**

In addition to calculating preliminary building areas for the Courts, Sheriff's Offices, Jail, and Juvenile Detention Center, the consultant team, based on their experience, research, and client input, assembled the following list of site planning considerations to guide the preliminary site planning effort:

- Provide sufficient land area to accommodate future expansion of the Courts, Jail, and Juvenile Detention Center. Plan road network to allow adequate space for future expansions without needing to relocate roads or utilities adjacent to roadways. Plan for adequate parking at Courts, Jail and Juvenile Detention Center for staff and visitors.
- Provide sufficient land area to accommodate future construction/expansion of county offices and support facilities, including future expansion of the Administration Building.
- Desirable to locate the Courts Building, Jail, and Juvenile Detention Center close together to minimize movement of detainees between courts and detention facilities.
- Provide separation between general public use and criminal justice facilities.
- Locate Jail and Juvenile Detention Center to minimize their impact on developable land in the industrial park.
- The County desired that all planning concepts show some space for relocation of the School Board offices to the Government Center, possibly as an addition to the south end of the Administration Building.

#### **CONCEPTS**

The consultants initially developed 4 concepts for the jail, with a fifth concept coming later after consultation with County officials. Each concept contained space sufficient for a jail (1 or 2-story, depending on the concept); a 3-story courthouse, capable of handling all courts; a 1-story sheriff's department; and a 1-story juvenile detention center.

The concepts were presented as follows (refer to illustrations at the end of this report):

1. **Concept A:** All buildings located in the proximity of the existing Government Center Complex.
  - a. Pros
    - Minimum impact on industrial park.

- b. Cons
  - Tight site
  - Minimal growth potential for other County functions
  - Criminal justice facilities become dominant building type of Government Center
2. **Concept B:** Similar to Concept A, Juvenile Detention Center located in industrial park area south of Government Center and toward Route 11.
  - a. Pros
    - Creates more space for growth within Government Center
    - Isolates JDC which then has only minimal relationship to jail, courts, and sheriff
  - b. Cons
    - Reduces development area of industrial park
3. **Concept C:** Locates courts and sheriff's department within Government Center. Locates juvenile center in same location as Concept B. Locates jail to remote location in southeast corner of industrial park.
  - a. Pros
    - Locates major criminal justice and regional facilities outside of Government Center
    - Allows for maximum growth and flexibility of other government functions within the Government Center
    - Easily accommodates a large, single story jail with room for expansion
  - b. Cons
    - Eliminates greater extent of industrial park for development
    - Potential negative image of having jail located within park
4. **Concept D:** Very similar to Concept B, locates sheriff's department in closer proximity to courts and the jail.
  - a. Pros
    - Frees up space for other government functions closer to existing Administration Building
    - Keeps criminal justice facilities in closer proximity to one another
  - b. Cons
    - Same as Concept B
5. **Concept A1:** After presentation of the first four concepts, with guidance from the County staff, a fifth concept (Concept A1) was developed which located the juvenile center in proximity to and south of the jail, and showed the Sheriff's Department in the Game and Inland Fisheries Building.
  - a. Pros
    - Minimum impact on industrial park.
    - Keeps southeast corner of the Government Center open for other County functions.



- Keeps criminal justice facilities in closer proximity to one another
- Utilizing the Game and Inland Fisheries Building would reduce the cost of relocating the Sheriff's Department and would retain more land within the Government Center for other functions.

b. Cons

- Criminal justice facilities become dominant building type of Government Center
- Sheriff's Department located further from criminal justice facilities
- One-story design indicated takes up more land area than do the other four concepts and limits area available for future expansion.

Development of additional roadways was common to all concepts. A driveway and drop-off cul-de-sac was indicated at the front of the Courts building. An extension of Technology Drive would serve the jail in those concepts where the jail would be located close to the Government Center.

When the Augusta County Government Center Masterplan was developed in 1988, the plan incorporated the County's goal of providing a future roadway, constructed parallel to Route 11, which would connect Route 612 north of the Government Center with Route 275 to the south. Development of an east-west boulevard, running from Route 11 to the new roadway, was included in a future phase of the Masterplan. Considering the County's current plan to develop the property east of the Jail and Juvenile Detention Center for an industrial park, construction of this planned thoroughfare now seems less likely to occur. Therefore, no provisions have been made in the various concept drawings to address a future connection to the proposed road.

The concepts also incorporate stormwater management ponds, which will be required to mitigate the effects of stormwater run-off from the developed areas.

## RECOMMENDATIONS

Architects recommended Concept C as being in best long-term interest of Government Center, but recognized that it has considerable adverse effect on the amount of development for the industrial park.

## COUNTY ACTION

On October 23, 2000, the Augusta County Board of Supervisors unanimously approved Concept A1, subject to satisfactory geotechnical and environmental investigations.

## FOLLOW-UP

Based on the County's approval of Concept A1, the consultant team moved ahead with obtaining geotechnical and environmental reports.

### Geotechnical:

The preliminary geotechnical report, based on proposed building locations in Concept A1, and prepared by Atlantic Geotechnical Services, indicates the following:

- The Courts Building site straddles the existing slope that leads from the relatively flat, developed Government Center complex down to the undeveloped open area on the east side of the property. The boring taken here indicates random fill, presence of organics, and a slight petroleum odor was noted in the lower portions of the fill. Neither footings nor slabs can be supported on the existing fill, but the natural soils beneath the fill appear adequate for the support of footings and slabs. This is consistent with the development of a 3-story courts building with full or partial basement as outlined above.
- The Regional Jail site has natural soils with no significant filled areas. This material appears adequate to support footings and slabs. Rock was encountered at or above estimated footing elevations in several borings at the southwest corner of the site. The presence of rock may mean additional costs for rock removal during construction. As the jail project moves forward, additional borings should be made to better determine the extent of the rock in relation to the proposed floor elevations of the new building.
- The Juvenile Detention Center site contains random fill at the southeast corner – this material will need to be removed. Natural soils present over the remainder of the site appear adequate to support footings and slabs. No rock was encountered near the planned footing elevation.
- Groundwater was found in four borings, two at the Regional Jail site and two at the Juvenile Detention Center site. Depths varied from about 4 to 17 feet below the surface (estimated groundwater table exists at or below elevation 1275 feet). It appears that active de-watering of the shallow footing and utility excavations will be required in these areas during construction.

Environmental:

If any hazardous contaminants are found during construction on any of the building sites, the contaminants will have to be removed and disposed of in accordance with EPA requirements before construction proceeds. This could result in additional costs and construction delays to one or more of the proposed projects.

The results of a subsurface investigation conducted by Draper Aden Associates indicate that a "suspect area" at the south end of the Juvenile Detention Center site contains buried construction debris, which would need to be removed where any portion of the building is placed over it. Alternatively, the debris in the "suspect area" could remain in place if it would not fall within the footprint of the jail building or if the area is used for parking (the parking lot would serve to cap off the debris).

An area of concern at the Regional Jail site is potential pollution from the wastewater treatment plant. This structure will need to be demolished prior to construction of the new jail. It appears that excavations for the proposed jail and courts building may encounter petroleum-impacted soil and groundwater in the vicinity of the plant. (No tests or subsurface investigations were conducted in these areas as part of this study). Draper Aden estimates that additional construction costs for transportation and disposal of approximately 325 tons of petroleum-impacted soil would be in the range of \$22,000 – \$30,000, and that the cost of managing petroleum-impacted groundwater would be in the range of \$5,500 - \$10,000 (cost includes temporary on-site storage, water sampling, and discharge to the sanitary sewer system on-site), for a total additional cost of approximately \$40,000.

## SUMMARY

After reviewing County needs for Courts, Sheriff's Offices, Jail, and Juvenile Detention Center, the consultant team arrived at preliminary area requirements for each, and documented County goals and issues for site planning and design. The consultant team then prepared and presented 5 concept drawings illustrating different approaches to incorporating these four facilities into areas adjacent to the Government Center complex.

Concept A1 was selected by the Augusta County Board of Supervisors as the plan to proceed with. Subsequent geotechnical and environmental investigations based on Concept A1 building locations yielded some issues to investigate further as these projects move forward (presence of rock and random fill, petroleum odor in soils at the Courts Building site, presence of groundwater, etc.).

The recommendations to the Masterplan take into consideration the County's projected needs for Courts, Sheriff's Offices, Jail, and Juvenile Detention Center for the next twenty years and refines the Masterplan to respond to the County's current thinking about the development of the Government Center and adjacent industrial park.

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MASTERPLAN FOR THE  
AUGUSTA COUNTY  
GOVERNMENT CENTER**

**VERONA, VIRGINIA**

**Graphics**

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- **APPROVED CONCEPT A1**
- **ALTERNATIVE CONCEPTS  
(A,B,C, and D)**

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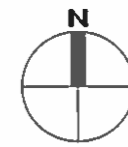
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**Approved Concept A1**

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SHERIFF'S  
OFFICE  
23,750 SF  
1 STORY

FUTURE  
ADMIN OFFICES

FUTURE  
SCHOOL  
BOARD  
OFFICES

DEMOLISH  
BUILDING

COURTS  
PARK'G  
375 SP

COURTS  
BUILDING  
82,500 SF  
3 STORY

JAIL  
360,000 SF  
1 STORY

JUV. DET. CTR.  
80,000 SF  
1 STORY

APPROX.  
7.5 ACRES

JAIL / JDC  
PARK'G 425 SP

APPROX.  
19.2 ACRES

SWM

SWM

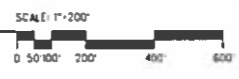
HOUSE

MOSELEY  
HARRIS &  
MCCLINTOCK

AUGUSTA / STAUNTON / WAYNESBORO  
REGIONAL JAIL  
AUGUSTA COUNTY, VIRGINIA

CONVERSION NO.  
420040  
DATE  
MAY 16, 2000  
REVISIONS  
DRAWN BY  
ENL/AUB  
CHECKED BY  
SEC/JAY

CONCEPT  
A1



PLOT DATE: 08 MAR 2001 DESIGN FILE: m:\400540\concept\color\cshwplb.dgn

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**AUGUSTA / STAUNTON / WAYNESBORO  
 REGIONAL JAIL**  
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 AUGUSTA COUNTY

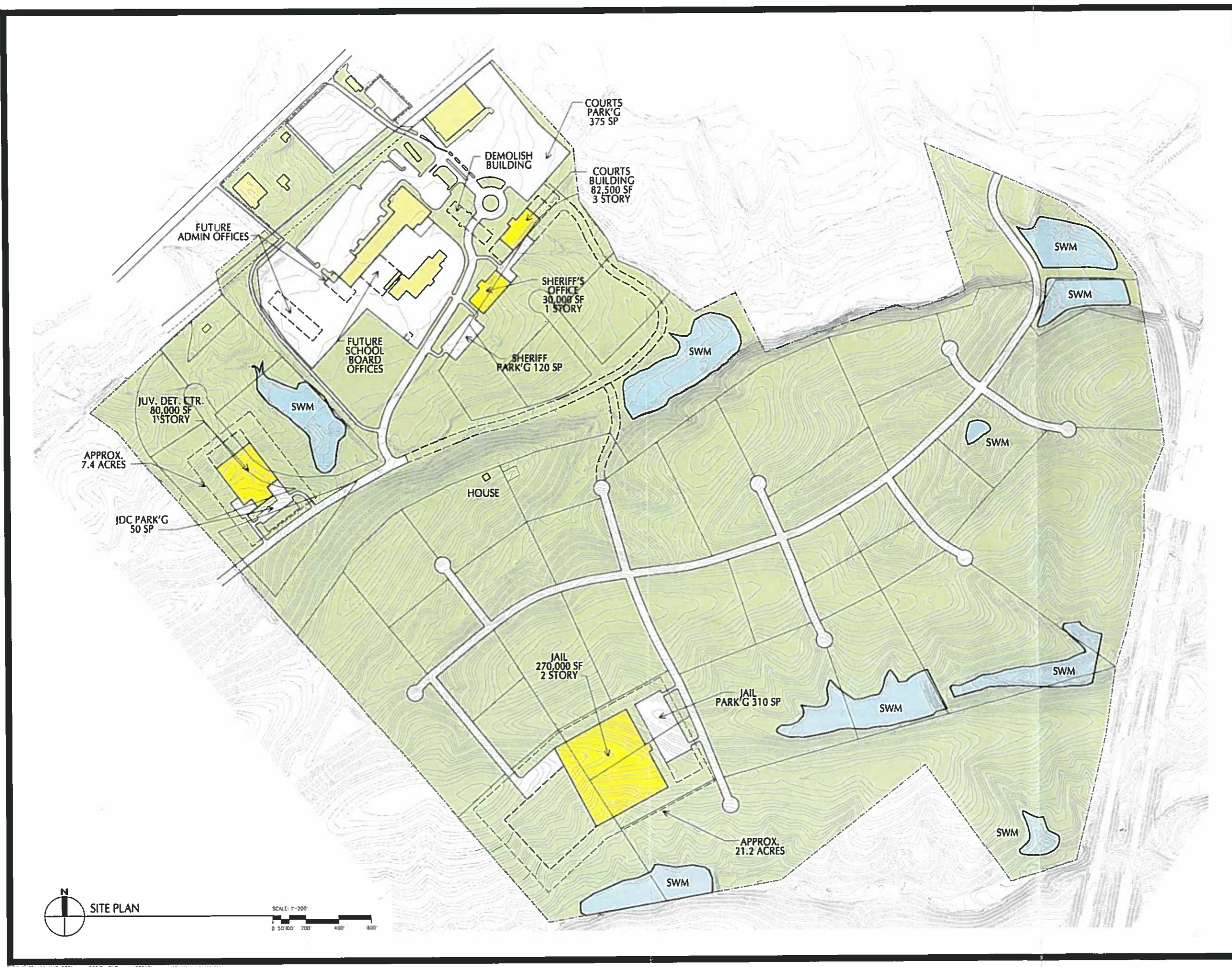
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ISSUED	NOV. 16, 2000
REVISED	
DRAWN BY	E.W./A.J.B.
CHECKED BY	S.H./A.J.B.

CONCEPT  
**B**

AUGUSTA / STAUNTON / WAYNESBORO  
REGIONAL JAIL  
AUGUSTA COUNTY, VIRGINIA

CONVERSION NO.	
DESIGNED BY	EWL/JLB
DATE	NOV 16, 2000
REVISIONS	SEC2/JAT
DRAWN BY	
CHECKED BY	

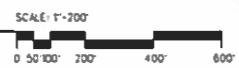
CONCEPT  
C



N  
SITE PLAN

SCALE: 1"=200'  
0 50' 100' 200' 400' 800'





COMMISSION NO.	
DATE	NOV 6, 2000
REVISIONS	
DRAWN BY	EWL/JAB
CHECKED BY	SCG/JAB

