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EXECUTIVE SUMMARY

WBRC

STV 100  
*Years*

# PENOBSCOT COUNTY JUSTICE CENTER

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The purpose of this study is to evaluate existing conditions at the Penobscot County Justice Center and make recommendations to modernize the existing facilities, improve site access and provide adequate space for each of the stakeholders on campus. The justice center for Penobscot county consists of four buildings: Courthouse, Jail, Annex Building and the Post office building.

WBRC & STV evaluated current space use and interviewed staff to determine a rough order of magnitude program which addresses space needs for each of the eleven departments currently using the spaces in the buildings. The study was conducted in two parts: one analyzed the non-detention spaces and the second analyzed the needs of the jail and site circulation.

The non-detention departments consist of the County Administration, Sheriff's civic functions, District Attorney, Probate Court, Deeds & Records, PRCC, Information Technology, Unorganized Territories and Facilities Management. Most of these departments are located in the Courthouse building and a few are spread between the jail building, the annex building and the post office. site visits and interviews were conducted with each of the stakeholders to come up with several options which address current and near-future space needs. Each option lays out the program in the courthouse building and addresses departmental adjacencies as discussed during the interviews.

The options selected for further development are listed in this document and will be developed as a separate project from the jail.

The second part of the study consists of an evaluation of the current jail and site circulation and recommendations for a facility which addresses the capacity, function and program needs of detention staff as well as inmates.

A walk-through observation of the current jail was also conducted. The existing facility is crowded and does not provide contemporary intake or medical spaces for the inmates. The visiting area is also used as a multipurpose space. Due to space limitations, many inmates have to be sent to other facilities which increases operational costs for the jail.

In order to address these issues, various schemes were studied, including a renovation and expansion of the existing jail, a new 300 bed and 400 bed facility, as well as facilities built in phases over time.

The preferred scheme proposed site circulation which includes rerouting Court Street, providing new parking at the location of the YMCA building and providing a new standalone 300 bed jail which provides an adequate intake facility, medical suite and an increased number of beds to accommodate the increased inmate population. The rough order of magnitude cost for this scheme is \$70.6M.



2

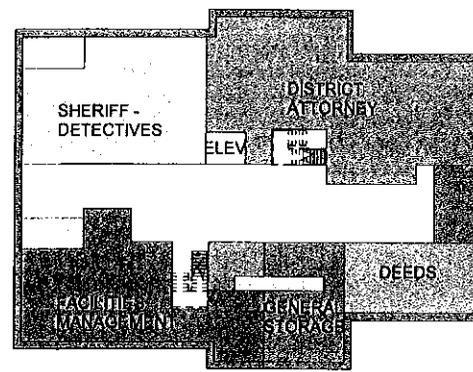
EXISTING CONDITIONS



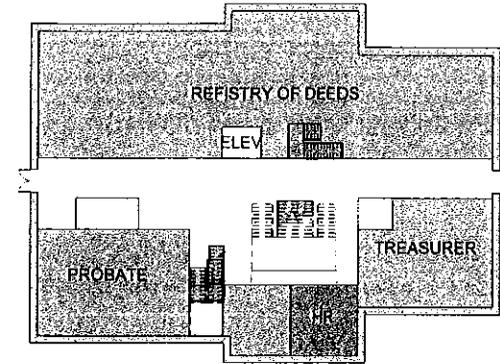
STV 100  
Years

**EXISTING SPACE USE - NON-DETENTION PROGRAM (NET SF)**

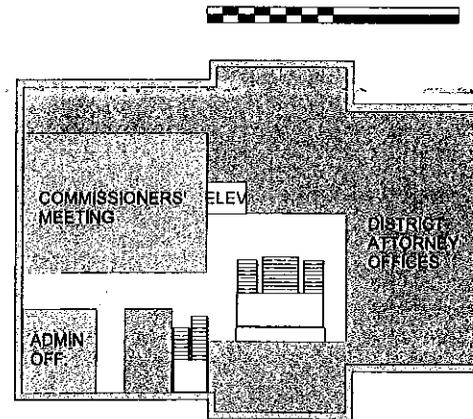
Program Element	Current SF	Current Location
CO - County Administration	719	CH-1
CO - Commissioners Meeting	1,902	CH-2
CO - County Administration	1,253	CH-2
CO - Emergency Management Training	1,452	PO-1
CO - Wellness Office	1,621	PO-1
	<b>6,957</b>	
DA - District Attorney	596	CH-B
DA - DA Office	3,744	CH-2
	<b>4,340</b>	
DE - Detectives	1,152	AN-B
	<b>1,152</b>	
DR - Deed & Records	1,827	CH-B
DR - Deeds & Records - Registry of Deeds	3,419	CH-1
DR - Deeds & Records - Records	1,074	AN-B
	<b>6,320</b>	
EM - Emergency Management	720	CH-3
	<b>720</b>	
FM - Facilities Management	402	CH-B
	<b>402</b>	
GS - General Storage	424	CH-B
	<b>424</b>	
		CH-1
IT - Information Technology	288	JA-2
	<b>288</b>	
MR - Meeting Room	2,510	CH-3
	<b>2,510</b>	
SH - Sheriff's Records	1,867	PO-B
	<b>1,867</b>	
PR - Probate	1,267	CH-1
PR - Probate - Register's Office	878	AN-1
PR - Probate - Records	1,839	AN-1
	<b>3,984</b>	
SH - Sheriff - Patrol Writing Room	637	CH-B
SH - Sheriff - Evidence Storage	430	JA-B
SH - Sheriff's Civil Division	3,032	JA-1
SH - Sheriffs - Executive Admin	868	JA-1
	<b>4,967</b>	
		CH-B
UT - Unorganized Territory Admin	1,033	CH-3
	<b>1,033</b>	
<b>Total</b>	<b>41,585</b>	



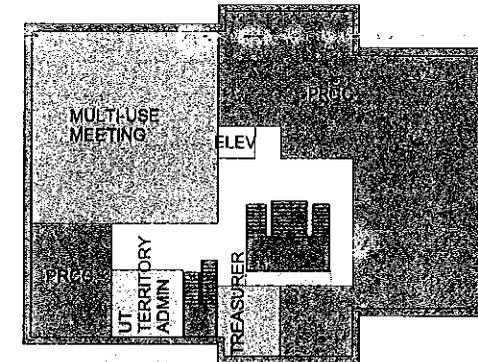
① COURTHOUSE BASEMENT EXISTING



② COURTHOUSE FIRST FLOOR EXISTING



③ COURTHOUSE SECOND FLOOR EXISTING



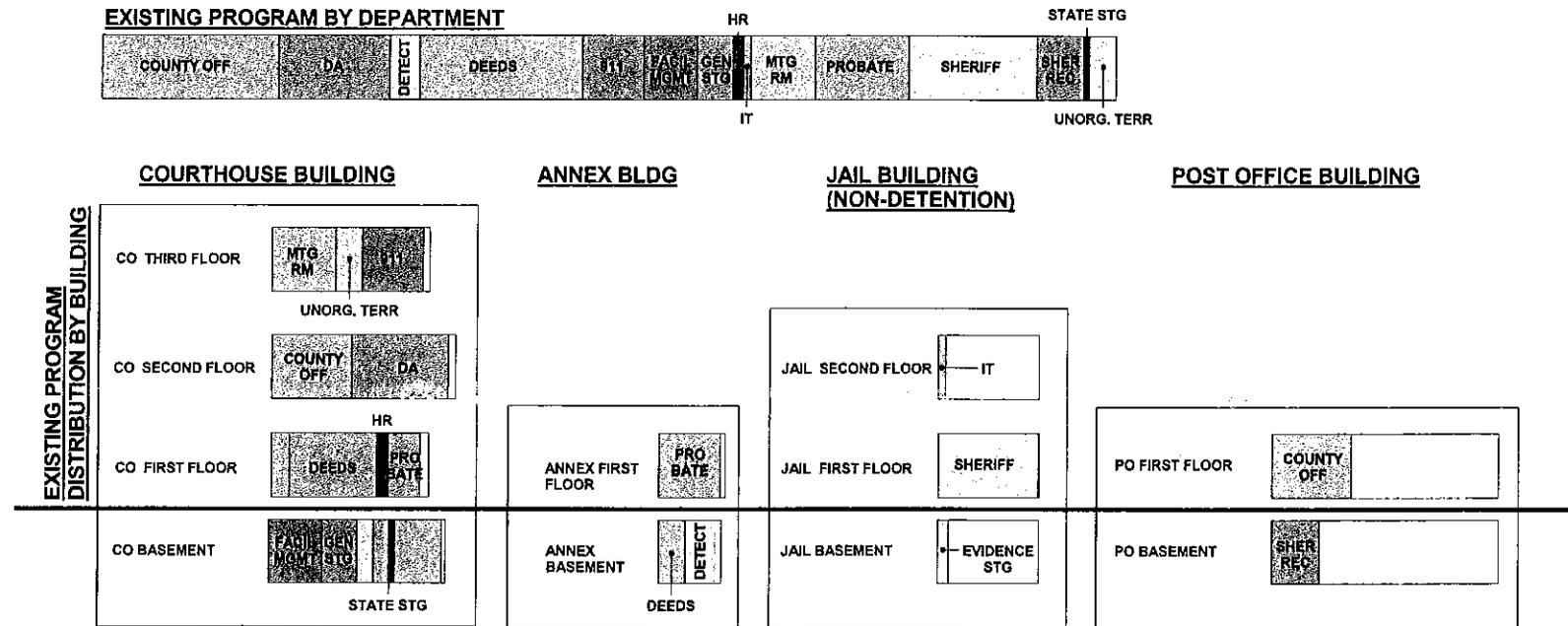
④ COURTHOUSE THIRD FLOOR EXISTING

**EXISTING PROGRAM**



November 5, 2018

# EXISTING PROGRAM



EXISTING PROGRAM



November 5, 2018



3

ROUGH ORDER OF MAGNITUDE PROGRAM



STV 100 Years

# ROUGH ORDER OF MAGNITUDE PROGRAMMING

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## Rough-Order-of-Magnitude Space Needs Program

This study includes a rough-order-order of magnitude (ROM) space needs program for the Penobscot County Justice Center. A ROM program is a high-level look at departmental space needs based on preliminary interviews, initial site observations and the design team's knowledge of the building type and other project precedents. It is an initial program for the purpose of master planning and early decision making; next steps will be to develop a detailed architectural and operation program of requirements at a higher level of detail.

The ROM Program is broken into two principal components:

- Non-detention
- Detention

## NON-DETENTION

The non-detention program was developed through a series of observations and interviews.

The goal is to validate the prior program to verify:

- ✓ Departments and users are accounted for
- ✓ Review current and projected space utilization
- ✓ Review changes in projected staffing or operational needs
- ✓ Review and adjust program allowances to update to current and projected future needs

An initial programming site visit and meetings were conducted on April 5th and 6th. At that time the team was able to view the existing facility and have an initial discussion about program goals and objectives. A subsequent set of programming meetings with each department were conducted on July 19th and 20th. Those meetings focused on:

- ✓ Current utilization
- ✓ Current surplus or shortfall of space needs
- ✓ Projected change in staffing or operation that will impact future space needs
- ✓ Identify major program elements that drive space needs (e.g. the need for high-volume storage or large meeting spaces)

Based on the information gathered during those meetings the design team developed a department level ROM program and preliminary blocking and stacking diagrams looking at several use options for the existing court house and county assets.

## DETENTION

Program Development --Detention (Jail)

The jail program was concurrently developed during the meetings of the non-detention elements. Early discussions included:

- ✓ Historic utilization
- ✓ Projected utilization
- ✓ Projected changes in operation and services
- ✓ Use of outside hosing
- ✓ Project goals and objectives

The rough order of magnitude program is based on the projected beds needs, projected population profile, and comparison to similar facilities to develop space needs projections.

PRELIMINARY PROGRAMMING



November 13, 2018

## ROM NON-DETENTION PROGRAM

Program Element	Existing Departmental SF	Sub Existing Location	Proposed Departmental SF	Proposed Subtotal
<b>COUNTY ADMINISTRATION</b>				
CO County Administrator	400	CH-2	600	
TR Treasurer	880	CH-1/3	700	
TR Records Storage	450		450	
HR HR Office	380	CH-1	300	
CO Commssioners Meeting	1,900	CH-2	1900	
CO County Administration	600	CH-2	1050	
MR Multi-use Large Meeting Room	2500	CH-3	2500	
CO Emergency Management Training	1,460	PO-1	1460	
CO Wellness Office	1,620	PO-1	1620	
<b>SUBTOTALS</b>	<b>10,190</b>			<b>10,190</b>
DA District Attorney	596	CH-B	700	
DA DA Offices	3,744	CH-2	300	
<b>SUBTOTALS</b>	<b>4,340</b>			<b>6,000</b>
DR Deed & Records	1,827	CH-B	1827	
DR Deeds & Records - Registry of Deeds	3,419	CH-1	419	
DR Deeds & Records - Records	1,074	AN-B	1074	
<b>SUBTOTALS</b>	<b>6,320</b>			<b>6,320</b>
EM PRCC (Emergency - 911)	3,240	CH-3	3,240	
<b>SUBTOTALS</b>	<b>3,240</b>			<b>3,240</b>
FM Facilities Management	2,092	CH-B	2,092	
<b>SUBTOTALS</b>	<b>2,092</b>			<b>2,092</b>
GS General Storage (facilities management and supplies)	1,373	CH-B	1,373	
<b>SUBTOTALS</b>	<b>1,373</b>			<b>1,373</b>
IT Information Technology	288	JA-2	450	
IT Disaster Recovery Room	200		200	
<b>SUBTOTALS</b>	<b>488</b>			<b>650</b>
SH Sheriff - Records	1,863	PO-B	2,000	
<b>SUBTOTALS</b>	<b>1,863</b>			<b>2,000</b>
PR Probate	1,267	CH-1	1,267	
PR Probate - Registers Office	878	AN-1	878	
PR Probate - Records	1,539	AN-1	1,539	
<b>SUBTOTALS</b>	<b>3,684</b>			<b>3,684</b>
SH Sheriff - Detectives	2190	AN-1	2800	
SH Sheriff - Patrol	1165	CH-B	1500	
SH Sheriff - Evidence Storage	430	JA-B	800	
SH Sheriff's Civil Division	3,032	JA-1	3500	
SH Sheriffs - Executive Admin	868	JA-1	900	
<b>SUBTOTALS</b>	<b>7685</b>			<b>9,500</b>
UT Unorganized Territory Admin	310	CH-3	300	
UT Storage	not incl		200	
UT Unheated Storage				
<b>SUBTOTALS</b>	<b>310</b>			<b>500</b>
<b>TOTALS</b>	<b>41,585</b>	<b>41,585</b>	<b>48,234</b>	<b>48,234</b>

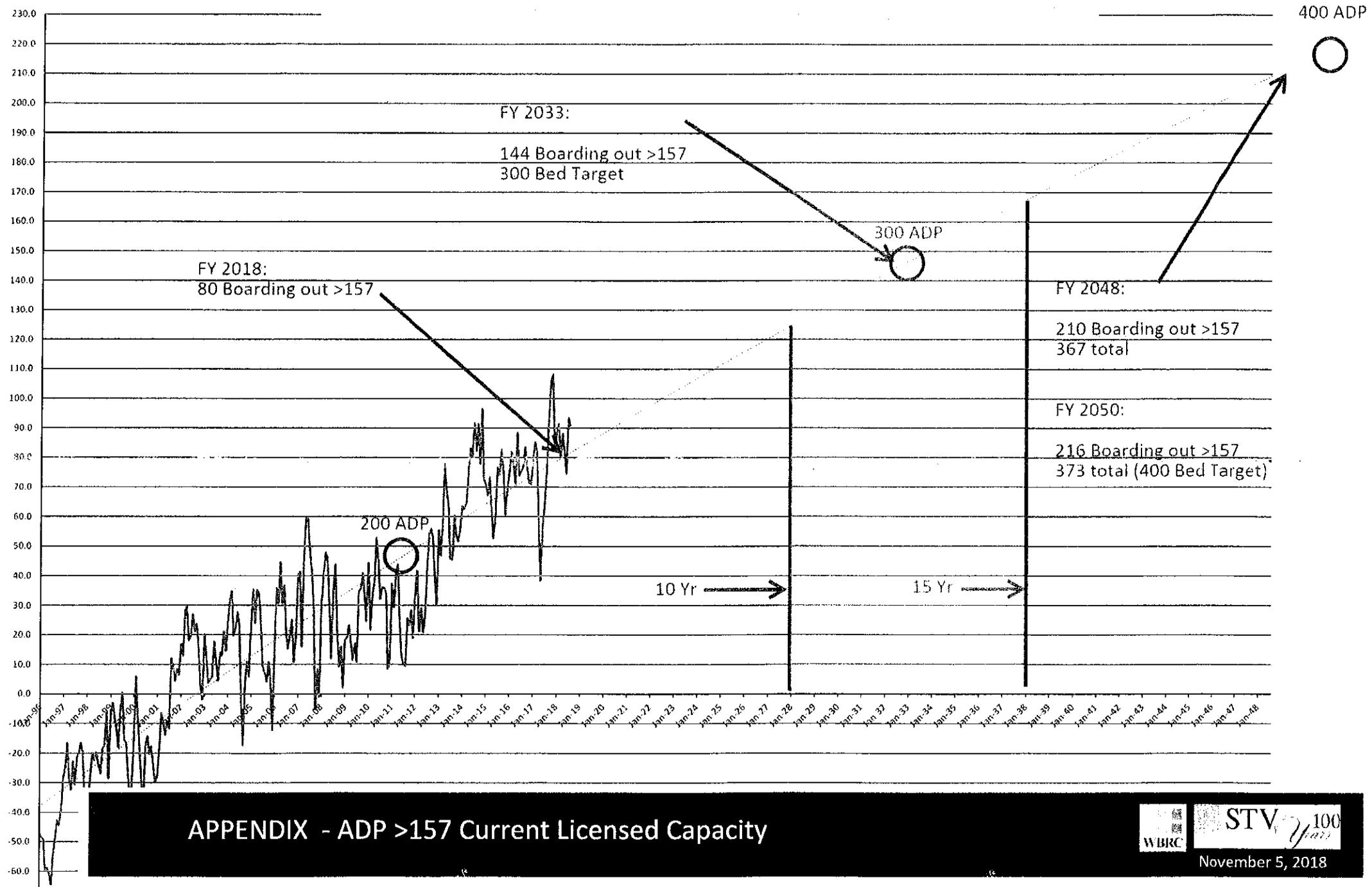
## ROM DETENTION PROGRAM

ROUGH ORDER OF MAGNITUDE DEPARTMENTAL PROGRAM		
<b>SPACE NEEDS PROGRAM - 300 BEDS</b>		
<b>HOUSING</b>	<b>Beds</b>	<b>SF</b>
<b>SPECIALTY</b>		
Medical	12	4,000
Detox	16	4,000
Mental Health	20	7,000
Housing Program Space		-
<b>Subtotal</b>	<b>48</b>	<b>15,000</b>
<b>GENERAL POP MALE</b>		
Reception Housing	48	11,000
GP Min (double cell)	48	11,000
GP Min (double cell)	48	11,000
GP Med (single cell)	24	5,500
GP Max (single cell)	24	5,500
Housing Program Space		-
<b>Subtotal</b>	<b>192</b>	<b>44,000</b>
<b>GENERAL POP FEMALE</b>		
GP Min (double cell)	48	11,000
GP Max(Single Cell)	12	3,500
Housing Program Space		-
<b>Subtotal</b>	<b>60</b>	<b>14,500</b>
<b>TOTAL HOUSING</b>	<b>300</b>	<b>73,500</b>
<b>NON-HOUSING</b>		
<b>INTAKE PROCESSING / MEDICAL</b>		
Intake/Release Processing		12,000
Medical Clinics		7,000
<b>Subtotal</b>		<b>19,000</b>
<b>OPERATIONS</b>		
Administration		4,000
Security Operations		500
Program Services		2,500
Food Service/Laundry		5,500
Maintenance		4,500
Transportation		500
<b>Subtotal</b>		<b>17,500</b>
<b>TOTAL NON HOUSING</b>		<b>36,500</b>
<b>SUMMARY - Detention Components</b>		<b>SF/Bed</b>
TOTAL ALL - HOUSING	73,500	245
TOTAL ALL - NON-HOUSING	36,500	122
<b>TOTAL ALL</b>	<b>300</b>	<b>110,000</b>

## ROUGH ORDER OF MAGNITUDE (ROM) PROGRAM



November 13, 2018



November 5, 2018



4

SITE STUDY



STV 100  
*Years*

# SITE ANALYSIS

## INTRODUCTION

The Penobscot Justice Center is located in downtown Bangor, ME and consists of a historic courthouse, a jailhouse, and an annex. The site is defined by Hammond Street to its south, Court Street to the west, the Kenduskeag Stream to the north, and Franklin Street to the east. Adjacent to the justice center is a post office. A police facility on the site has already been cleared and the YMCA building to the west is to be removed, its site to be incorporated as part of the overall master plan.

## OBJECTIVE

The primary objective of the detention part of the project is to improve operations of the facility - by building a new intake/medical center and providing inmate housing to address current shortfalls and dependence on sending inmates off site, and general housing and programs upgrades. Several strategic approaches are being evaluated: Providing a new 144-bed addition connected to the current facility that would continue to utilize existing; enhance services; a new 300-bed facility that fully addresses all the programmatic needs within a singular, self-sufficient facility; or an expansion of the 300-bed facility that would further enhance services and provide additional needed program spaces. In the latter two scenarios, the existing jail would be re-purposed to non-security, non-detention related programs.

## TOPOGRAPHY

The existing site has varied and extensive grade changes ranging from El 40.0 to the north, to El 69.0 adjacent to the courthouse. Adding complexity, there is only a limited number of points along the property line where the site and adjacent sidewalk align sufficiently to allow for ease of entry/exit onto the site:

- **Hammond Street** – along this street frontage, the differential between the south property line and the adjacent sidewalk varies from 9.0 feet below the sidewalk to the east, to 3.0 feet above the sidewalk at its westernmost point.
- **Court Street** – The western property line, in relationship to the adjacent sidewalk, varies from approximately 3.0 feet below street level, to almost 50.0 feet below Court Street at the north.
- **Kenduskeag Stream** – The frontage between the site and the embankment of the stream is relatively level with a high point near the back of the jail at El 50.0. Further, at the northeast corner of the site, a steep ramp allows for quick exit for cars onto Franklin Street (an approximate drop of 15 feet). Large trucks are precluded FROM using this ramp as they currently cannot negotiate the slope nor turns.

- **Franklin Street** - the vertical change along the east property line varies from a maximum drop of 8.0 feet at its southern corner to 15.00 feet at its northernmost edge along Franklin Street.

## CIRCULATION

Given the significant changes in grade within the site and its surrounds, access points onto the site are limited and challenging to vehicular movement. Further, the site is currently used by multiple concerns including the justice center, the adjacent post office, as well as private cars. These multiple uses of the site compromise areas for future additions and expansion, as well as on the overall security of the facility. The site is dominated by circulation paths, parking, and extensive areas of impervious surfaces contributing to a perceived lack of sense of place and civic presence for the courthouse and associated structures.

To address these challenges, the design looks to make several significant improvements:

- Access and services to the post office will now be localized to the Hammond Street entrance. The site will be modified to allow for 90 degree parking along its western edge and a new road of sufficient width that will allow for two-way traffic into and out of the site for cars and small trucks.
- The introduction of a new addition or new structure onto the site will severely impact vehicular movement around the existing jail and courthouse affecting circulation patterns.
- Providing a new connection onto Court Street north of any potential addition/new building development would entail the implementation of a severe ramp/bridge structure (having to rise approximately 50 feet at a 7% slope) that would negatively impact future utilization of the site as well as be excessively expensive to construct.
- Access to the justice center for both inmate, employee and services will be provided from Franklin Street. It is anticipated that a ramp, not to exceed 7% in slope, would be built to bring cars and trucks onto the justice facility site, with a turnaround provided at the site's most northern limits to allow large service trucks to turn and then exit the site.
- A separate, secured, and dedicated one-way road would allow vehicles and vans to access the intake center and then continue to exit the site.
- The segregation of site access and uses will significantly enhance the security of the overall facility.
- The removal of the Y building will allow for additional parking to be introduced west of Court Street.

## SITE ANALYSIS

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### Civic presence

The buildings that comprise the Justice Center, notably the courthouse and jail, present a historic and civic presence onto Hammond Street and downtown Bangor. This municipal presence should be celebrated through the creation of a defined setting onto which these historic structures can stand proud and denote the social and democratic values of our society. The design looks to achieve this by:

- Changing the topography and site circulation as noted previously to allow for the creation of a civic and social space.
- Introducing a series of slopes and berms that mitigate the grade changes into a unified, landscaped, public realm that is commensurate in scale and execution to its civic presence and public role.
- Reconfiguring Court Street slightly to the west, to meet Hammond Street more directly and to allow more “breathing space” between the street and the courthouse, to the benefit and definition of the new park.
- Landscaping the grade change between the reconfigured Court Street and the enlarged parking area to further the perception of the public park and enhance the scale and setting for the justice center buildings
- Preserving and enhancing on important site corridors from significant vantage points (Court Street looking southeast; Hammond Street looking from east and west; Franklin Street looking west and southwest) to ensure that any development will not obscure current views of the historic structures.

### Siting

Locating the new facility within the site presented challenges. Placement of the building was to respond to several important criteria - site access and circulation, proximity to the existing jail, allowance for future growth, and assurance for optimal fenestration to provide a positive and healthy environment for both staff and inmates:

- Site access and circulation - With site access for the justice center assigned to Franklin Street, it was important that the building be positioned as not to impact vehicular circulation for the staff, services, and facility functions. This consideration was to be effective for all phases anticipated for the new facility, from potentially being an addition to the existing jail, to a free-standing facility with allowances for future expansion.
- Proximity – The designs for the new facility address several potential options: a 144-bed, a 300-bed facility, or an even larger center. The 144-bed facility is to be seen as an addition to the existing jail, reliant on many, though upgraded

services, with a level of relief by offering new intake/medical services as well as additional GP housing in the new structure. It was important that the two buildings be near each other, to be linked by a bridge at their upper levels. Sharing services and facilities invariably lead to more complex operational procedures and may potentially necessitate additional staff to operate efficiently. In addition, the disparity in services and work environment between a new and existing facility will add to the overall effectiveness of the addition.

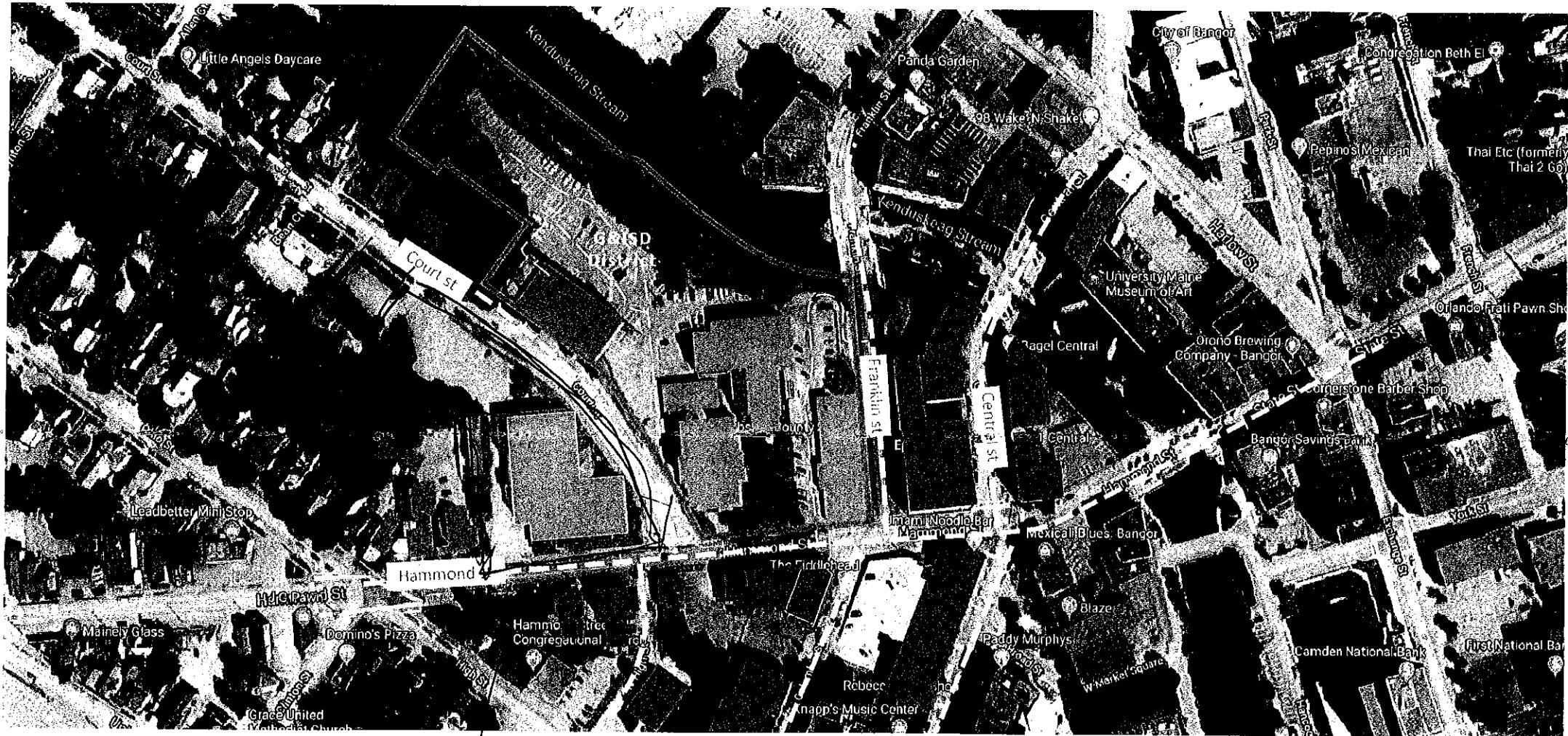
The 300-bed (and larger facility) is to utilize the same building footprint as the 144-bed structure but would incorporate additional program making it no longer reliant on services from the existing building. (The link to the existing jail would no longer be needed). This creates the opportunity to provide a fully modern, state-of-the-art facility designed for optimal operations and for the provision of positive worker and inmate environments. As such, it was decided that the 300-bed alternative would be the one to advance further into design.

- Growth - The orientation/placement of the new structure was not to preclude future growth. Regardless of its initial phase, the site design was to anticipate growth in a way that would have minimal impact on existing operations and use of the site. Growth would be accommodated horizontally and not vertically.

- Fenestration – Positive benefits of allowing natural light into a work or living environment have been documented. Building orientation and the placement of occupiable program spaces should be responsive to maximizing the use of natural light. Positive and humane environments have statistically been proven to increase productivity, a sense of well-being, and a decrease in the rate of absenteeism and recidivism.

The design for the new jail has been developed to meet all the criteria stated. Whether it's for the 144-bed, 300-bed or a larger facility, the comprehensive plan is sensitive to site constraints, vehicular needs, service access, program requirements and adjacencies, and potential expansion. It has been designed to create a positive work and living environment, is sensitive to its surroundings, and works in conjunction with the existing buildings.

It is our intent that this new facility be seen as a positive presence within its community, work within the urban fabric of downtown Bangor, and offer the public a stately and strong civic presence.

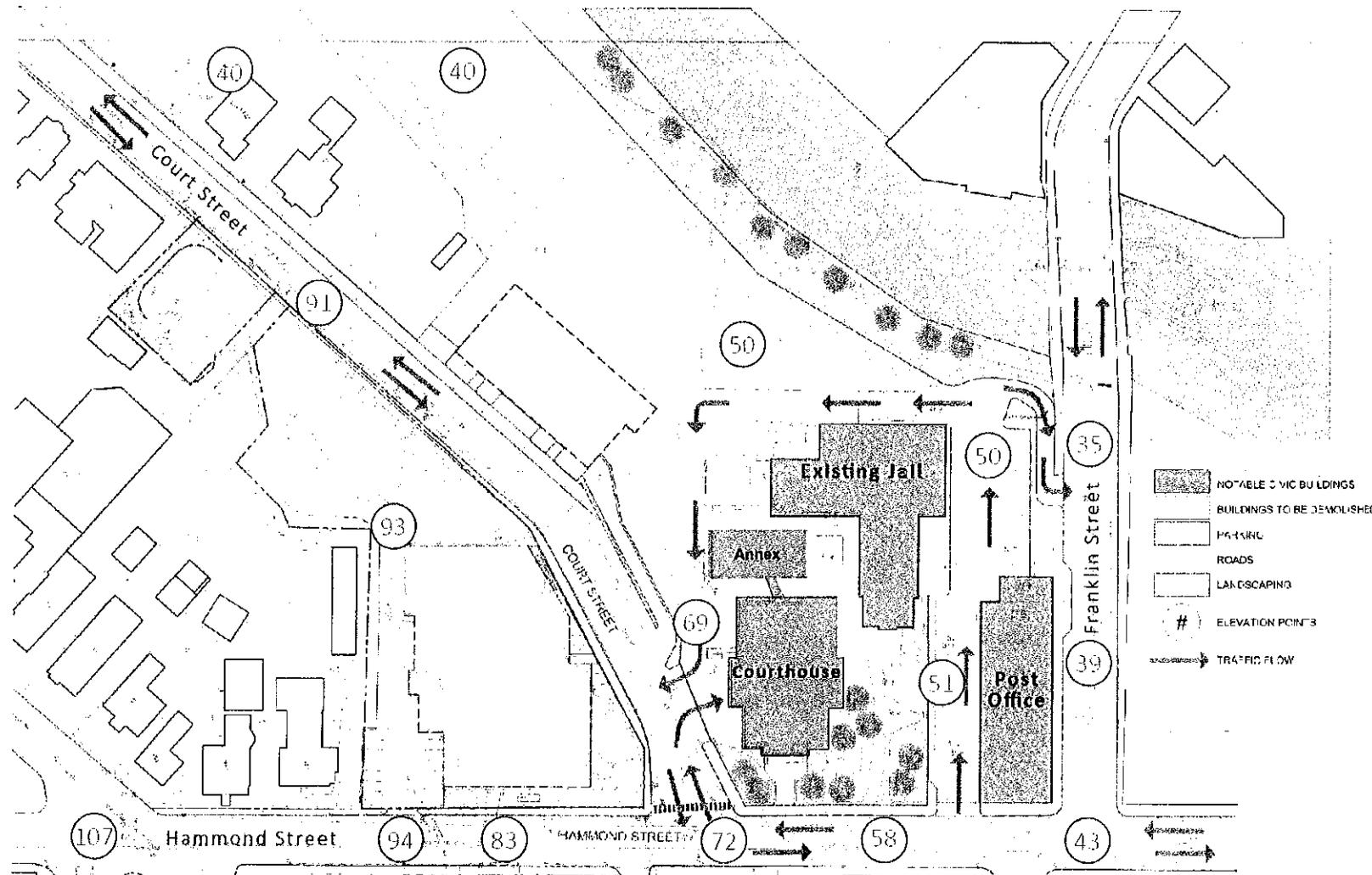


PROJECT SITE



November 5, 2018

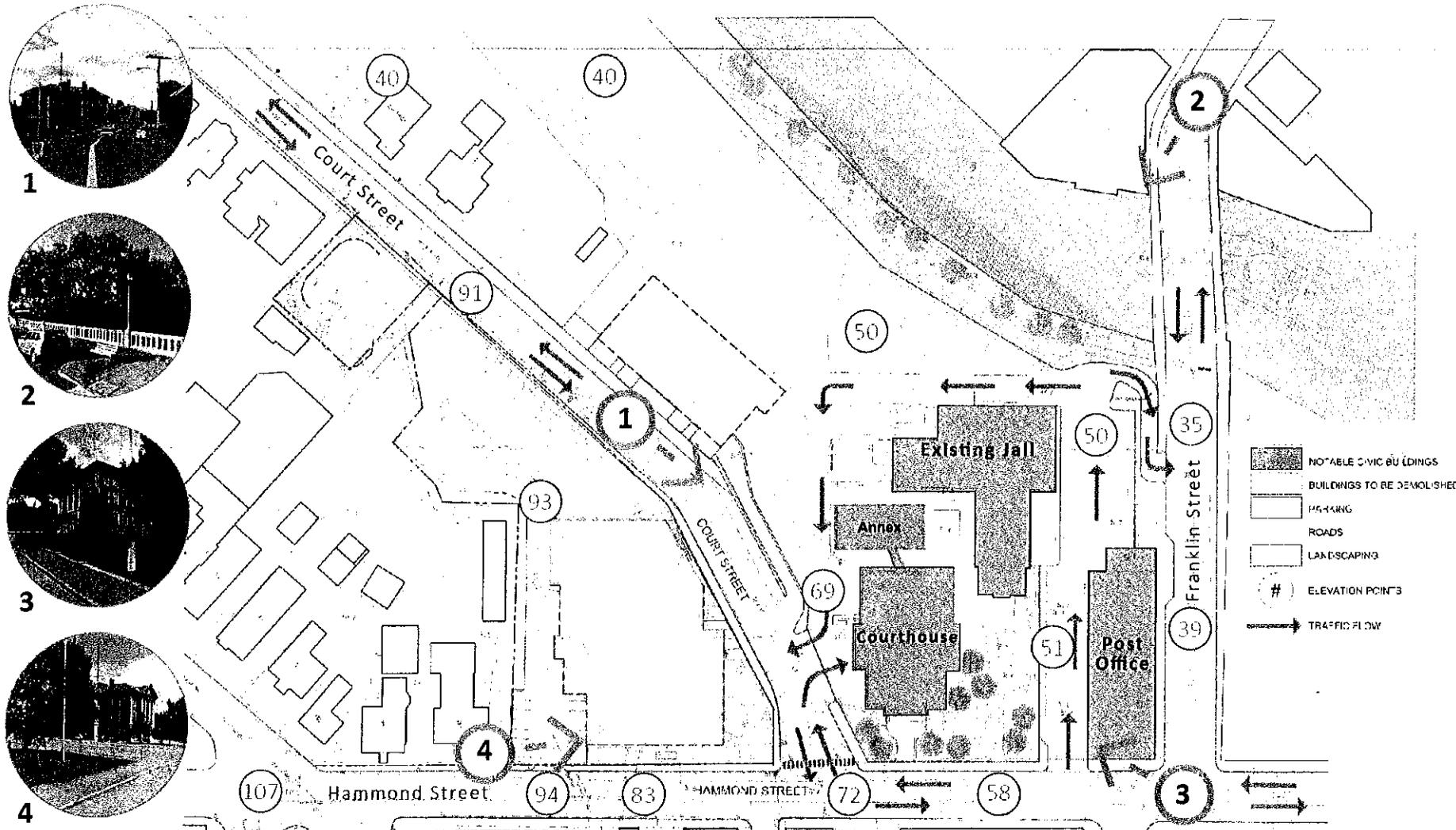
*Former  
YMCA  
Property  
Line*



ANALYSIS: EXISTING



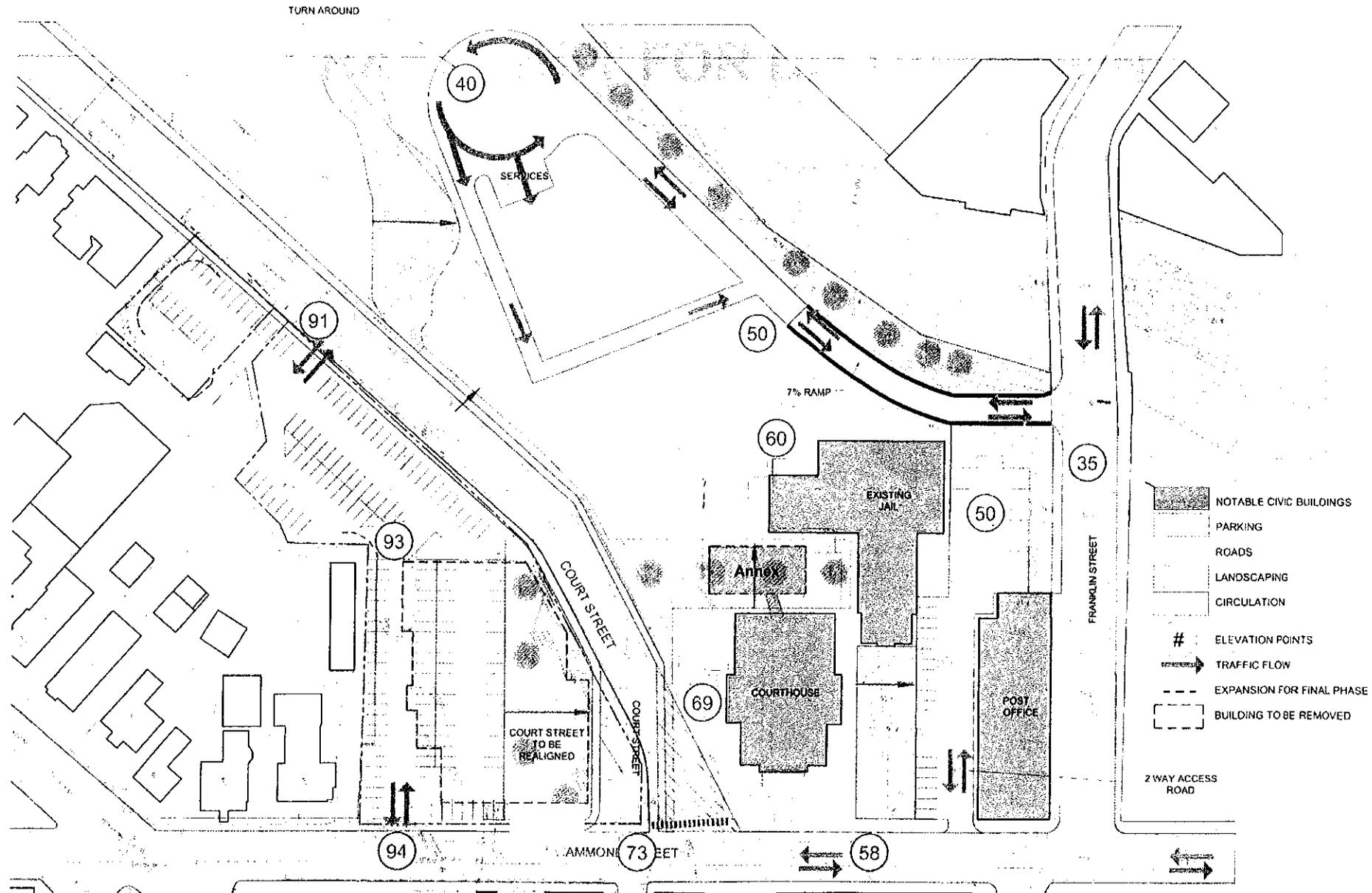
November 5, 2018



EXISTING: NOTABLE SIGHT CORRIDORS



November 5, 2018



PRELIMINARY STUDY - PROPOSED SITE CIRCULATION



November 5, 2018



# 5

## DESIGN CONCEPTS - NON-DETENTION



## DESIGN CONCEPTS

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### NON-DETENTION

**General:**

- These concepts assume re-use of the existing Court House and the existing Post Office non-lease spaces.
- These concepts assume that the Annex will not be re-used. Future concepts will study the impact of retaining the Annex.

**Conclusion:**

- There are multiple options for stacking and re-use of the Court House.
- A final solution will likely be a combination of these and subsequent studies.
- Next steps include identifying priority relationships and phasing for implementation.
- The Court House is not adequately sized to support all of the program growth

### DETENTION

# Concept #1 – Key Study Focus

## Collocating Sheriffs functions and District Attorney.

Concept #1 focuses on keeping the Sheriff's non-detention operations on the first floor and basement and the District Attorney on the second and third floors in the existing courthouse building along with core county administration functions.

This location is adjacent to the jail structure. This concept proposes to locate Probate, Deeds, and the PRCC into one or more different buildings as a county services building.

### LOCATED ELSEWHERE

PROBATE	3,684
DEEDS	6,320
PRCC	4,500
GENRAL ST	1,500
FAC. MGMT	1,600

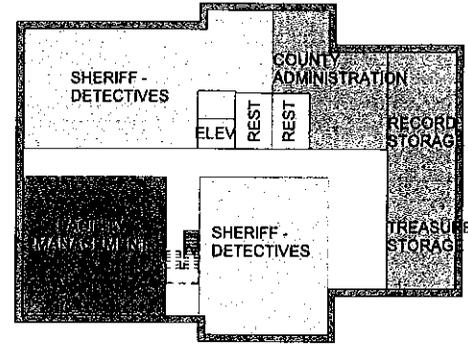
TOTAL 17,604

### POST OFFICE

EMER MGMT TRAINING	1,450
WELLNESS OFFICE	1,620
SHERIFF RECORDS	2,000

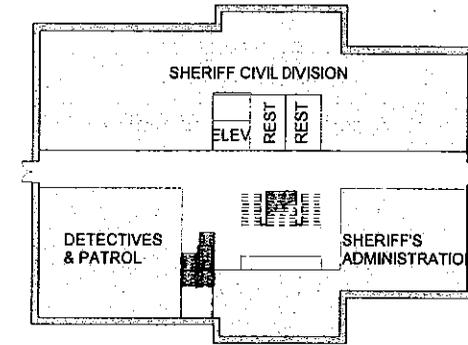
TOTAL 5,070

Program Element	Existing Departmental SF	Sub Existing Totals Location	Proposed Departmental SF	Proposed Subtotal
<b>COUNTY ADMINISTRATION</b>				
CO County Administrator	400	CH-2	600	
TR Treasurer	880	CH-1/3	700	
TR Records Storage	450		500	
HR HR Office	380	CH-1	300	
CO Commissioners Meeting	1,900	CH-2	1,900	
CO County Administration	600	CH-2	1,000	
MR Multi-use Large Meeting Room	2,500	CH-3	2,500	
CO Emergency Management Training	1,460	PO-1	1,100	
CO Wellness Office	1,620	PO-1	1,620	
<b>SUBTOTALS</b>	<b>10,190</b>		<b>10,320</b>	
DA District Attorney	596	CH-B	600	
DA DA Offices	3,744	CH-2	3,744	
<b>SUBTOTALS</b>	<b>4,340</b>		<b>4,344</b>	
DR Deed & Records	1,827	CH-B	1,827	
DR Deeds & Records - Registry of Deeds	3,419	CH-1	3,419	
DR Deeds & Records - Records	1,074	AN-B	1,074	
<b>SUBTOTALS</b>	<b>6,320</b>		<b>6,320</b>	
EM PRCC (Emergency - 911)	3,240	CH-3	3,240	
<b>SUBTOTALS</b>	<b>3,240</b>		<b>3,240</b>	
FM Facilities Management	2,092	CH-B	2,092	
<b>SUBTOTALS</b>	<b>2,092</b>		<b>2,092</b>	
GS General Storage (facilities management and supplies)	1,373	CH-B	1,373	
<b>SUBTOTALS</b>	<b>1,373</b>		<b>1,373</b>	
IT Information Technology	288	JA-2	288	
IT Disaster Recovery Room	200		200	
<b>SUBTOTALS</b>	<b>488</b>		<b>488</b>	
SH Sheriff - Records	1,863	PO-B	1,863	
<b>SUBTOTALS</b>	<b>1,863</b>		<b>1,863</b>	
PR Probate	1,267	CH-1	1,267	
PR Probate - Registers Office	878	AN-1	878	
PR Probate - Records	1,539	AN-1	1,539	
<b>SUBTOTALS</b>	<b>3,684</b>		<b>3,684</b>	
SH Sheriff - Detectives	2,190	AN-1	2,800	
SH Sheriff - Patrol	1,165	CH-B	1,500	
SH Sheriff - Evidence Storage	430	JA-B	800	
SH Sheriff's Civil Division	3,032	JA-1	3,500	
SH Sheriffs - Executive Admin	868	JA-1	900	
<b>SUBTOTALS</b>	<b>7,685</b>		<b>9,500</b>	
UT Unorganized Territory Admin	310	CH-3	300	
UT Storage			200	
UT Unheated Storage	not incl			
<b>SUBTOTALS</b>	<b>310</b>		<b>500</b>	
<b>TOTALS</b>	<b>41,585</b>	<b>41,585</b>	<b>48,234</b>	<b>48,234</b>



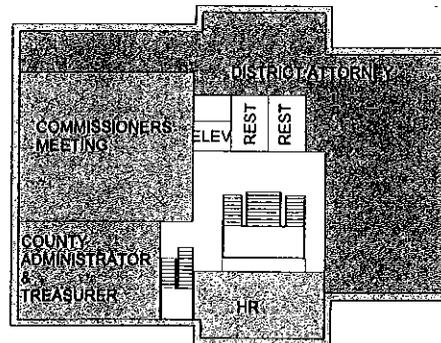
1 COURTHOUSE BASEMENT CONCEPT#1

1/32" = 1'-0" 0' 32' 64'



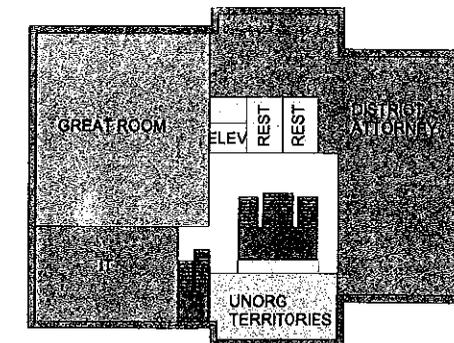
2 COURTHOUSE FIRST FLOOR CONCEPT#1

1/32" = 1'-0" 0' 32' 64'



3 COURTHOUSE SECOND FLOOR CONCEPT#1

1/32" = 1'-0" 0' 32' 64'



4 COURTHOUSE THIRD FLOOR CONCEPT#1

1/32" = 1'-0" 0' 32' 64'

NON DETENTION - CONCEPT #1



November 5, 2018

# Concept #2 – Key Study Focus

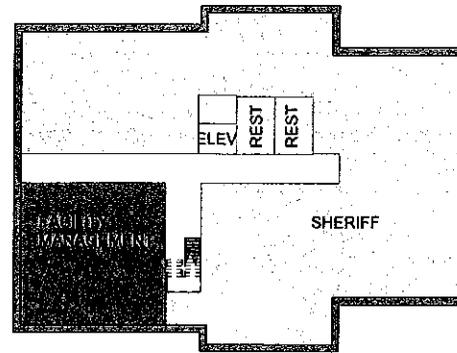
Collocating Sheriffs functions and District Attorney on first floor.

Concept #2 focuses on keeping the Sheriff's non-detention operations and the District Attorney in the existing courthouse building in the basement, first and second floors. The third floor is given entirely to county administrations.

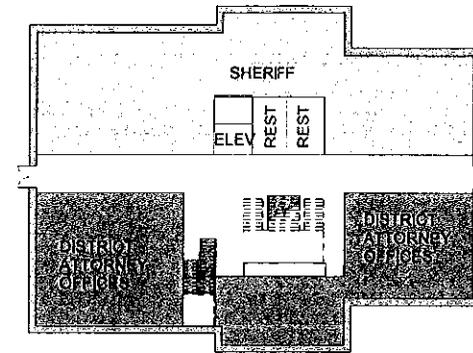
This concept proposes to locate Deeds, PRCC, and ancillary county functions into one or more different buildings as a county services building.

LOCATED ELSEWHERE	
DEEDS	6,320
PRCC	4,500
FACILITY MGMT	1,500
GEN STORAGE	1,500
IT	650
UN TERR ADMIN	500
<b>TOTAL</b>	<b>14,970</b>
POST OFFICE	
EMER MGMT TRAINING	1,450
WELLNESS OFFICE	1,820
SHERIFF RECORDS	2,000
<b>TOTAL</b>	<b>5,070</b>

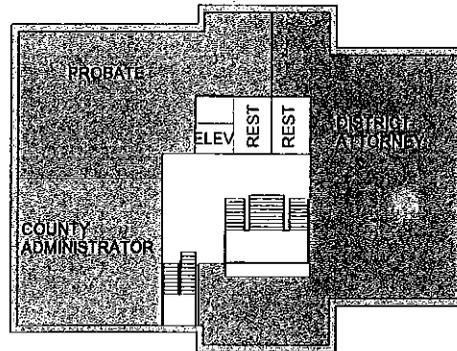
Program Element	Existing Departmental SF	Sub Existing Totals Location	Proposed Departmental SF	Proposed Subtotal
<b>COUNTY ADMINISTRATION</b>				
CO County Administrator	400	CH-2	600	
TR Treasurer	880	CH-1/3	700	
TR Records Storage	450		450	
HR HR Office	380	CH-1	300	
CO Commissioners Meeting	1,900	CH-2	1,900	
CO County Administration	600	CH-2	1,050	
MR Multi-use Large Meeting Room	2500	CH-3	2,800	
CO Emergency Management Training	1,460	PO-1	1,360	
CO Wellness Office	1,620	PO-1	1,520	
<b>SUBTOTALS</b>	<b>10,190</b>		<b>10,880</b>	
DA District Attorney	596	CH-B	600	
DA DA Offices	3,744	CH-2	3,000	
<b>SUBTOTALS</b>	<b>4,340</b>		<b>3,600</b>	
DR Deed & Records	1,827	CH-B	1,827	
DR Deeds & Records - Registry of Deeds	3,419	CH-1	3,419	
DR Deeds & Records - Records	1,074	AN-B	1,074	
<b>SUBTOTALS</b>	<b>6,320</b>		<b>6,320</b>	
EM PRCC (Emergency - 911)	3,240	CH-3	4,000	
<b>SUBTOTALS</b>	<b>3,240</b>		<b>4,000</b>	
FM Facilities Management	2,092	CH-B	2,092	
<b>SUBTOTALS</b>	<b>2,092</b>		<b>2,092</b>	
GS General Storage (facilities management and supplies)	1,373	CH-B	1,373	
<b>SUBTOTALS</b>	<b>1,373</b>		<b>1,373</b>	
IT Information Technology	288	JA-2	288	
IT Disaster Recovery Room	200		200	
<b>SUBTOTALS</b>	<b>488</b>		<b>488</b>	
SH Sheriff - Records	1,863	PO-B	2,000	
<b>SUBTOTALS</b>	<b>1,863</b>		<b>2,000</b>	
PR Probate	1,267	CH-1	1,267	
PR Probate - Registers Office	878	AN-1	878	
PR Probate - Records	1,539	AN-1	1,539	
<b>SUBTOTALS</b>	<b>3,684</b>		<b>3,684</b>	
SH Sheriff - Detectives	2190	AN-1	2800	
SH Sheriff - Patrol	1165	CH-B	1500	
SH Sheriff - Evidence Storage	430	JA-B	800	
SH Sheriff's Civil Division	3,032	JA-1	3500	
SH Sheriff's - Executive Admin	868	JA-1	900	
<b>SUBTOTALS</b>	<b>7685</b>		<b>9,500</b>	
UT Unorganized Territory Admin Storage	310	CH-3	300	
UT Unheated Storage	not incl		200	
<b>SUBTOTALS</b>	<b>310</b>		<b>500</b>	
<b>TOTALS</b>	<b>41,585</b>	<b>41,585</b>	<b>48,234</b>	<b>48,234</b>



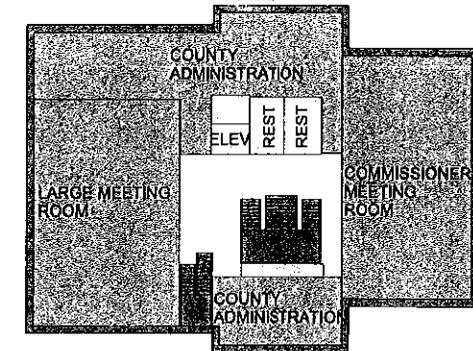
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1/32" = 1'-0" 0' 32' 64'



2 COURTHOUSE FIRST FLOOR CONCEPT#2  
1/32" = 1'-0" 0' 32' 64'



3 COURTHOUSE SECOND FLOOR CONCEPT#2



4 COURTHOUSE THIRD FLOOR CONCEPT#2

# Concept #3 – Key Study Focus

Centralize County Administration, District Attorney, and Deeds in the Courthouse.

Concept #3 explores centralizing County Administration on the third floor, keeping deeds in their current location, locating the District Attorney on the first and second floors and probate on the second floor.

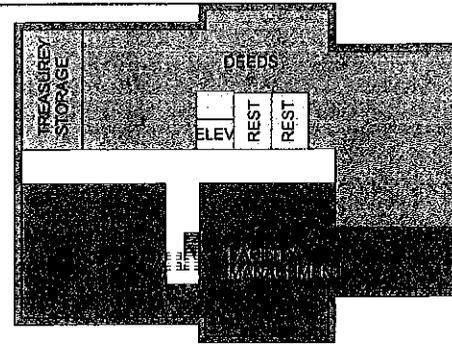
This concept proposes to locate PRCC, Sheriff's non-detention, and ancillary county functions into one or more different buildings.

LOCATED ELSEWHERE	
PRCC	4,500
GEN STORAGE	1,500
IT	650
SHERIFF	9,500
UN TERR ADMIN	500
<b>TOTAL</b>	<b>16,650</b>

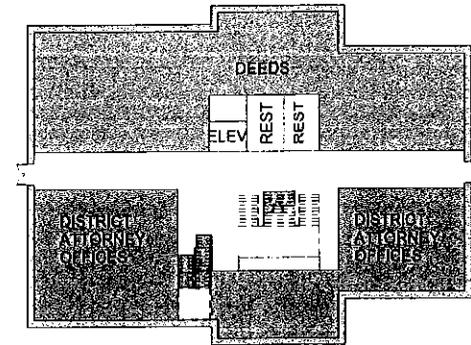
  

POST OFFICE	
EMER MGMT TRAINING	1,450
WELLNESS OFFICE	1,620
SHERIFF RECORDS	2,000
<b>TOTAL</b>	<b>5,070</b>

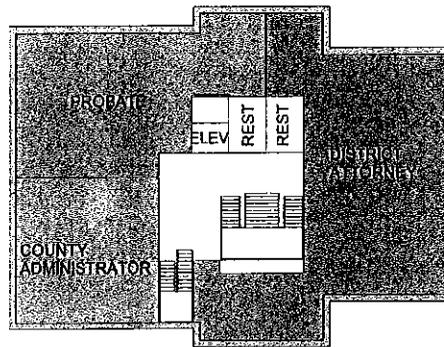
Program Element	Existing Departmental SF	Sub Existing Totals Location	Proposed Departmental SF	Proposed Subtotal
<b>COUNTY ADMINISTRATION</b>				
CO County Administrator	400	CH-2	500	
TR Treasurer	880	CH-1/3	700	
TR Records Storage	450		400	
HR HR Office	380	CH-1	300	
CO Commissioners Meeting	1,900	CH-2	1,800	
CO County Administration	600	CH-2	1,050	
MR Multi-use Large Meeting Room	2,500	CH-3	2,500	
CO Emergency Management Training	1,450	PO-1	1,450	
CO Wellness Office	1,620	PO-1	1,620	
<b>SUBTOTALS</b>	<b>10,190</b>		<b>10,190</b>	<b>10,190</b>
<b>DA DISTRICT ATTORNEY</b>				
DA District Attorney	596	CH-B	596	
DA DA Offices	3,744	CH-2	3,744	
<b>SUBTOTALS</b>	<b>4,340</b>		<b>4,340</b>	<b>4,340</b>
<b>DR DEEDS &amp; RECORDS</b>				
DR Deed & Records	1,827	CH-B	1,827	
DR Deeds & Records - Registry of Deeds	3,419	CH-1	3,419	
DR Deeds & Records - Records	1,074	AN-B	1,074	
<b>SUBTOTALS</b>	<b>6,320</b>		<b>6,320</b>	<b>6,320</b>
<b>EM PRCC (EMERGENCY - 911)</b>				
EM PRCC (Emergency - 911)	3,240	CH-3	3,240	
<b>SUBTOTALS</b>	<b>3,240</b>		<b>3,240</b>	<b>3,240</b>
<b>FM FACILITIES MANAGEMENT</b>				
FM Facilities Management	2,092	CH-B	2,092	
<b>SUBTOTALS</b>	<b>2,092</b>		<b>2,092</b>	<b>2,092</b>
<b>GS GENERAL STORAGE (FACILITIES MANAGEMENT AND SUPPLIES)</b>				
GS General Storage (facilities management and supplies)	1,373	CH-B	1,373	
<b>SUBTOTALS</b>	<b>1,373</b>		<b>1,373</b>	<b>1,373</b>
<b>IT INFORMATION TECHNOLOGY</b>				
IT Information Technology	288	JA-2	288	
IT Disaster Recovery Room	200		200	
<b>SUBTOTALS</b>	<b>488</b>		<b>488</b>	<b>488</b>
<b>SH SHERIFF - RECORDS</b>				
SH Sheriff - Records	1,853	PO-B	1,853	
<b>SUBTOTALS</b>	<b>1,853</b>		<b>1,853</b>	<b>1,853</b>
<b>PR PROBATE</b>				
PR Probate - Registers Office	1,267	CH-1	1,267	
PR Probate - Records	878	AN-1	878	
PR Probate - Records	1,539	AN-1	1,539	
<b>SUBTOTALS</b>	<b>3,684</b>		<b>3,684</b>	<b>3,684</b>
<b>SH SHERIFF - DETECTIVES</b>				
SH Sheriff - Detectives	2,190	AN-1	2,600	
<b>SH SHERIFF - PATROL</b>				
SH Sheriff - Patrol	1,165	CH-B	1,500	
<b>SH SHERIFF - EVIDENCE STORAGE</b>				
SH Sheriff - Evidence Storage	430	JA-5	800	
<b>SH SHERIFF'S CIVIL DIVISION</b>				
SH Sheriff's Civil Division	3,032	JA-1	3,500	
<b>SH SHERIFFS - EXECUTIVE ADMIN</b>				
SH Sheriffs - Executive Admin	868	JA-1	900	
<b>SUBTOTALS</b>	<b>7,685</b>		<b>9,500</b>	<b>9,500</b>
<b>UT UNORGANIZED TERRITORY ADMIN</b>				
UT Unorganized Territory Admin	310	CH-3	300	
UT Storage	not incl		200	
UT Unheated Storage			300	
<b>SUBTOTALS</b>	<b>310</b>		<b>800</b>	<b>800</b>
<b>TOTALS</b>	<b>41,585</b>	<b>41,585</b>	<b>48,234</b>	<b>48,234</b>



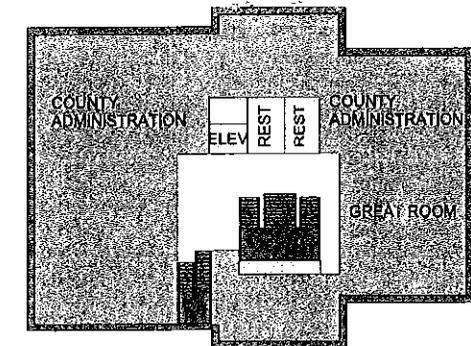
1 COURTHOUSE BASEMENT CONCEPT#3  
1/32" = 1'-0" 0' 32' 64'



2 COURTHOUSE FIRST FLOOR CONCEPT#3  
1/32" = 1'-0" 0' 32' 64'



3 COURTHOUSE SECOND FLOOR CONCEPT#3  
1/32" = 1'-0" 0' 32' 64'



4 COURTHOUSE THIRD FLOOR CONCEPT#3  
1/32" = 1'-0" 0' 32' 64'

# Concept #4 – Key Study Focus

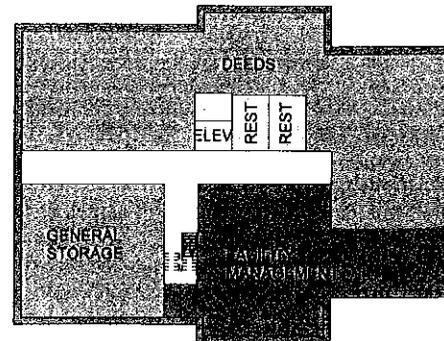
## Centralize County Administration, PRCC, and Deeds in the Courthouse.

Concept #4 explores centralizing County Administration on the third floor, keeping deeds in their current location and locating the PRCC on the second floor.

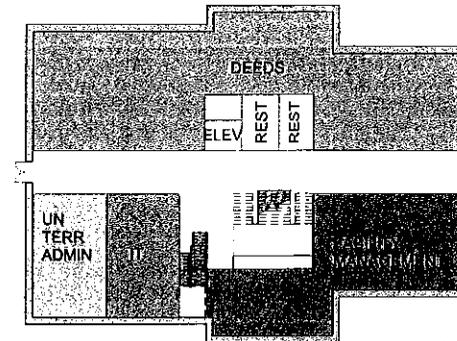
Located elsewhere are the District Attorney, Sheriff's non-detention operations, and Probate.

Program Element	Existing Departmental SF	Sub Existing Totals Location	Proposed Departmental SF	Proposed Subtotal
<b>COUNTY ADMINISTRATION</b>				
CO County Administrator	400	CH-2	400	
TR Treasurer	880	CH-1/3	700	
TR Records Storage	450		450	
HR HR Office	380	CH-1	300	
CO Commissioners Meeting	1,900	CH-2	1,000	
CO County Administration	600	CH-2	10,000	
MR Multi-use Large Meeting Room	2500	CH-3	750	
CO Emergency Management Training	1,460	PO-1	1,460	
CO Wellness Office	1,620	PO-1	1,620	
<b>SUBTOTALS</b>	<b>10,190</b>		<b>16,180</b>	
DA District Attorney	596	CH-B	3,000	
DA DA Offices	3,744	CH-2	3,744	
<b>SUBTOTALS</b>	<b>4,340</b>		<b>6,744</b>	
DR Deed & Records	1,827	CH-B	1,827	
DR Deeds & Records - Registry of Deeds	3,419	CH-1	3,419	
DR Deeds & Records - Records	1,074	AN-B	1,074	
<b>SUBTOTALS</b>	<b>6,320</b>		<b>6,320</b>	
EM PRCC (Emergency - 911)	3,240	CH-3	3,240	
<b>SUBTOTALS</b>	<b>3,240</b>		<b>3,240</b>	
FM Facilities Management	2,092	CH-B	2,092	
<b>SUBTOTALS</b>	<b>2,092</b>		<b>2,092</b>	
GS General Storage (facilities management and supplies)	1,373	CH-B	1,373	
<b>SUBTOTALS</b>	<b>1,373</b>		<b>1,373</b>	
IT Information Technology	288	JA-2	288	
IT Disaster Recovery Room	200		200	
<b>SUBTOTALS</b>	<b>488</b>		<b>488</b>	
SH Sheriff - Records	1,863	PO-B	1,863	
<b>SUBTOTALS</b>	<b>1,863</b>		<b>1,863</b>	
PR Probate	1,267	CH-1	1,267	
PR Probate - Registers Office	878	AN-1	878	
PR Probate - Records	1,539	AN-1	1,539	
<b>SUBTOTALS</b>	<b>3,684</b>		<b>3,684</b>	
SH Sheriff - Detectives	2190	AN-1	2600	
SH Sheriff - Patrol	1165	CH-B	1500	
SH Sheriff - Evidence Storage	430	JA-B	800	
SH Sheriff's Civil Division	3,032	JA-1	3500	
SH Sheriff's - Executive Admin	868	JA-1	900	
<b>SUBTOTALS</b>	<b>7685</b>		<b>9,500</b>	
UT Unorganized Territory Admin	310	CH-3	300	
UT Storage			200	
UT Unheated Storage	not incl		310	
<b>SUBTOTALS</b>	<b>310</b>		<b>500</b>	
<b>TOTALS</b>	<b>41,585</b>	<b>41,585</b>	<b>48,234</b>	<b>48,234</b>

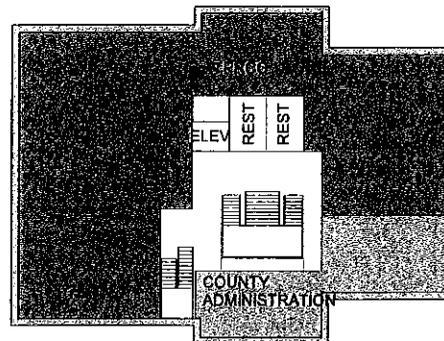
<b>LOCATED ELSEWHERE</b>	
SHERIFF	9,500
DA	6,000
PROBATE	3,684
<b>TOTAL</b>	<b>19,184</b>
<b>POST OFFICE</b>	
EMER MGMT TRAINING	1,450
WELLNESS OFFICE	1,620
SHERIFF RECORDS	2,000
<b>TOTAL</b>	<b>5,070</b>



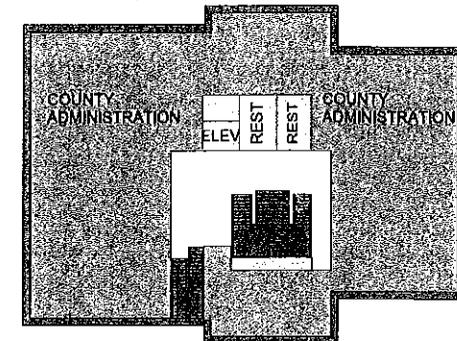
1 COURTHOUSE BASEMENT CONCEPT#4  
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2 COURTHOUSE FIRST FLOOR CONCEPT#4  
1/32" = 1'-0" 0' 32' 64'



3 COURTHOUSE SECOND FLOOR CONCEPT#4  
1/32" = 1'-0" 0' 32' 64'



4 COURTHOUSE THIRD FLOOR CONCEPT#4  
1/32" = 1'-0" 0' 32' 64'



# 6

## DESIGN CONCEPTS - DETENTION



## OPTION 0 - "DO NOTHING"

### "Do-Nothing" Synopsis, 30 year outlook

The "Do-Nothing" scenario assumes that the current 30+ year old existing jail will continue to operate at full capacity, continue an accelerated maintenance and repairs program, and board out inmates exceeding the current 157 bed licensed capacity. Current average daily population (ADP) exceeding 157 ("boarding out") is 80, projected to increase to 208 over the next 30 years. Major cost drivers for a "Do-Nothing" scenario include the cost of boarding out (\$107M), capital improvement (maintenance) costs (\$21.6M), and continued staffing inefficiencies within a facility that does not match the layout or condition of a newly constructed, modern facility. Only boarding out costs and capital costs are discussed below. Operational costs are discussed elsewhere.

### Part 1 – Boarding out cost, Net Present Value (NPV), 30 year, >157 bed capacity

As part of the development of a 30 year, net present value (NPV) for boarding out, the following assumptions were made:

1. Existing jail capacity set at 157. The "effective" capacity may be less due to housing area efficiencies, depending on characteristics of current population. Averaged daily Inmate population exceeding 157 (State Authorized Jail capacity) are considered "boarding out".
2. Boarding out population exceeding 157 will increase from 80 to 208 in thirty years. Source: Best-fit straightline projections, Penobscot County Jail ADP between January 1996 and October 2018. (see ADP>157 graph)
3. Inflation fixed at 2.1% (US Inflation rate, gross), compounded annually.
4. Present cost per boarding-out inmate is \$16,700 per year, averaged.
5. Period studied (30 year), Year 2018 through 2048, to match build new synopsis.

### Calculation:

Boarding costs per inmate will increase from \$16,700 annually (FY 2018) to \$31,091 (FY 2048) due to an annual increase in cost due to a 2.1% inflation rate. \$1.33M in annual boarding costs for 80 inmates (FY 2018) will increase to \$6.4M in annual boarding costs for 208 inmates (FY 2048).

Cumulative thirty-year cost for boarding out is calculated at \$107M. – See attached worksheet.

120

### Part 2 – Capital Improvement Costs – 0-15 years – Corrections and Support Space, Factored Present

#### Value method

The buildings on the Penobscot County Jail Hammond Street campus are predominantly older structures built between 1850 and 1988. This synopsis confines the capital improvements area to corrections program areas only (jail and jail support space) comprising 48,700 GSF. Based upon an abbreviated walkthrough and visual observation of all campus buildings and interviews with maintenance staff, most of the buildings on Campus have or will soon reach their design service life, whether through combination of multiple building systems reaching and/or exceeding the end of their useful service life.

That is not to say the building has not been well maintained. Several (many) building components have already exceeded their design service life through careful attention and preventative efforts by maintenance staff. It is assumed that within the next 15 years, and well within the duration of this 30 year synopsis, significant renovation of nearly all of the buildings would be needed.

#### Examples:

1. Boilers are at end of useful life and will require replacement in 0-5 years.
2. Roof is 10 years old, and will require replacement within 15 years
3. Rooftop chillers are 2 years old and will require replacement in 13-15 years
4. Building exterior masonry will require significant repointing in 5-10 years.
5. Interior and exterior glazing require replacement due to hazing, marking, etc. in 0-5 years.
6. Most of electrical switching is mechanical, failing on a more frequent basis, and replacement parts are becoming difficult to source.
7. Lighting scheduled for full replacement to more code compliant, energy efficient standards.
8. Interior Finishes require comprehensive repair or replacement.

PRELIMINARY STUDY - OPTION 0 - NOT SELECTED



November 5, 2018

## OPTION 0 - "DO NOTHING"

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A factored present value (FPV) was developed by estimating the remaining useful life of major building components (see worksheet). The Factored present value (FPV) for the corrections portion of the campus (48,700 GSF of buildings) was rated at 0.25. When compared to the rating of a "new" structure, this low rating is supported by visual observations of current conditions, reinforced by a marked increase in annual maintenance and repair costs during the most recent 15 year period (years 15-30), compared to the first fifteen year period (years 0-15) that followed a renovation/expansion in 1988.

By calculating the percentage of the total building requiring repairs (1.0 - NPV), the capital needs for the existing facility can be estimated by calculating the building square footage by \$350/SF to achieve like-new condition. A multiplier of 1.4 was applied to the SF cost to account for work occurring in multiple phases, with added difficulty, and within an existing operational facility.

$1.0 - 0.25 = 0.75$ ;  $0.75 \times \$350 = \$262.5$ ,  $\$262.5/\text{SF} \times 1.4 = \$367.5/\text{SF}$ ;  
 $\$367.5/\text{SF} \times 48,700 \text{ GSF} = \$17.9\text{M}$

Swing Space: During a repair period estimated to span 12 months, elapsed, boarding out half of the 157-bed inmate population to enable work to take place (floor by floor) was assumed necessary, at an estimated 12 month boarding out cost of \$18,500, per inmate, at 0-5 years into the study period (FY 2023).

$157/2 = 78.5$  inmates, \$18,500 each for 12 months = \$1.45M

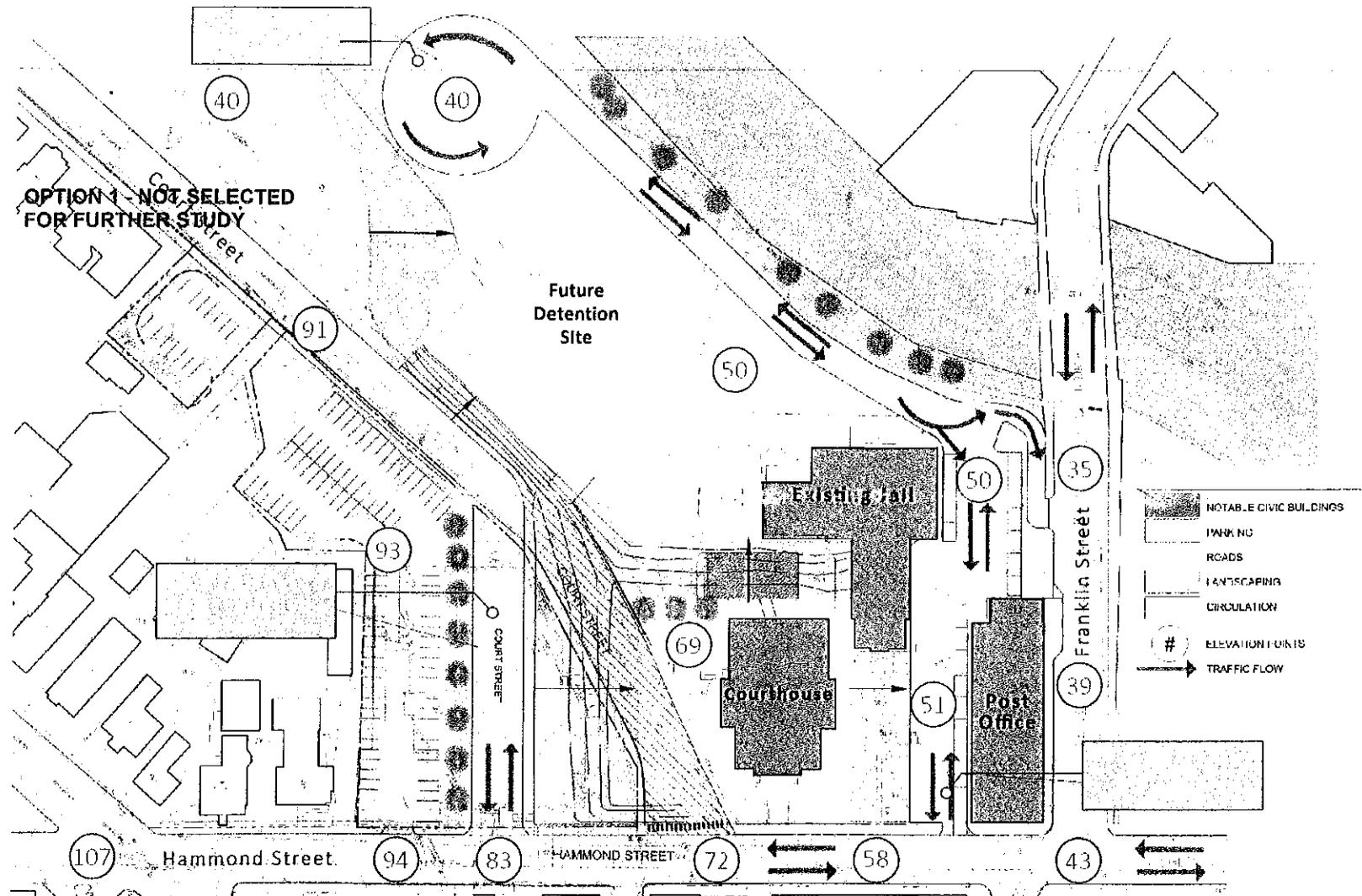
Capital Improvement Costs within next 15 years, FPV method, including swing space costs: \$21.6M

**For additional long-term costs related to the "Do-Nothing" option, refer to Net Present Value (NPV) analysis included in the Appendix.**

PRELIMINARY STUDY - NOT SELECTED



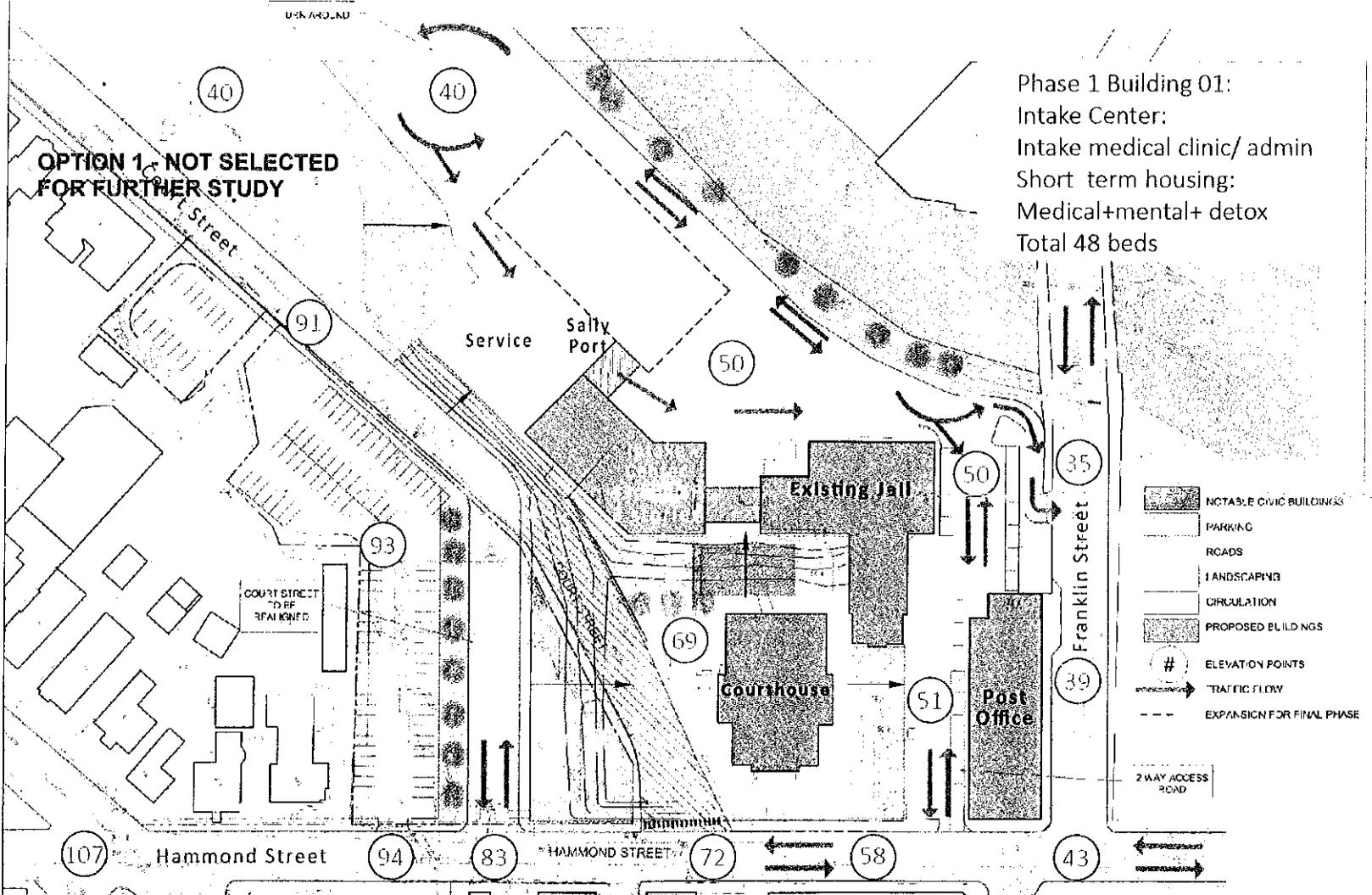
November 5, 2018



**OPTION 1 - SITE CIRCULATION - NOT SELECTED FOR FURTHER STUDY**



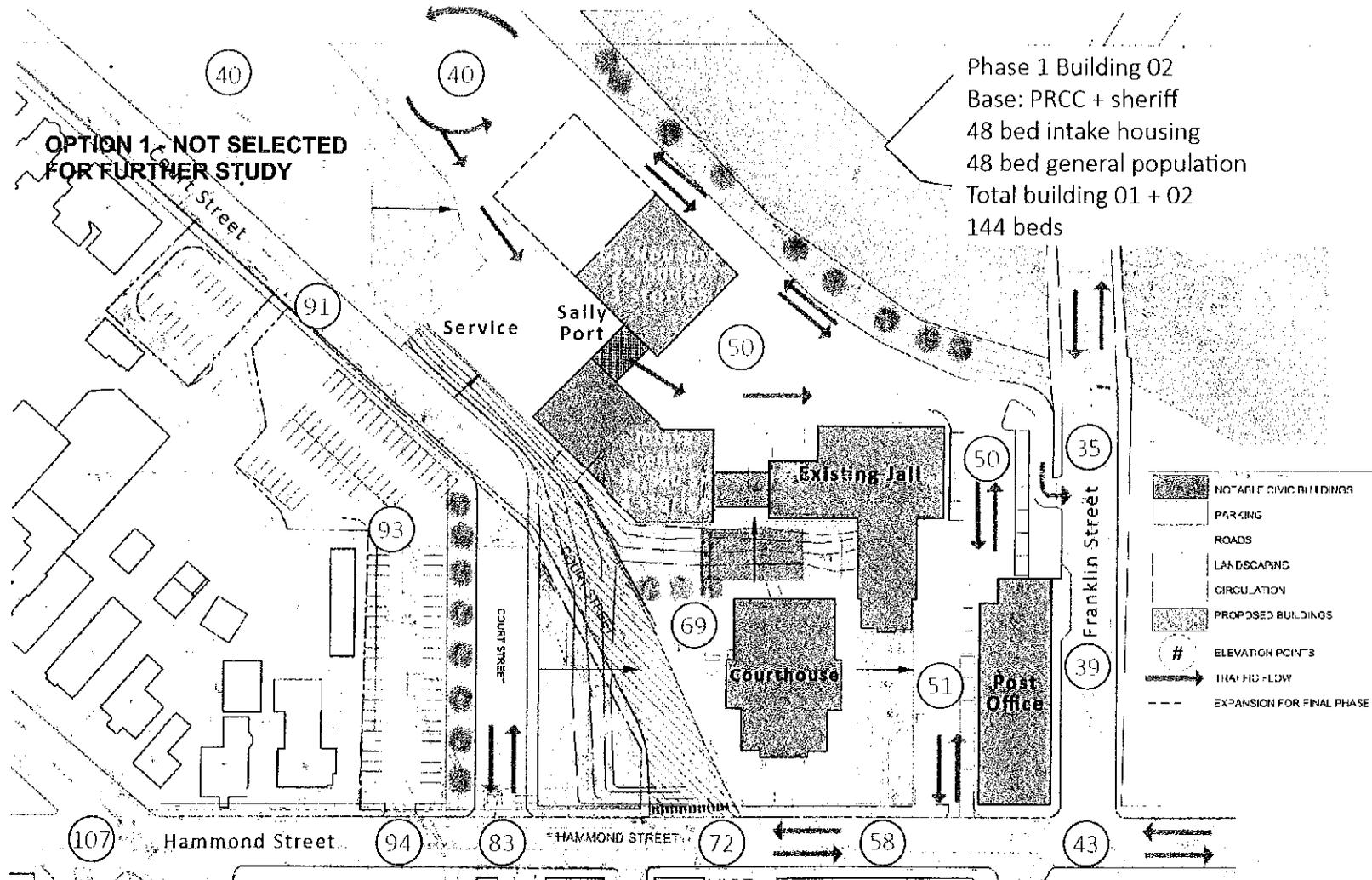
November 5, 2018



**PHASE 1 - BUILDING 01**  
**OPTION 1 - NOT SELECTED FOR FURTHER STUDY**



November 5, 2018

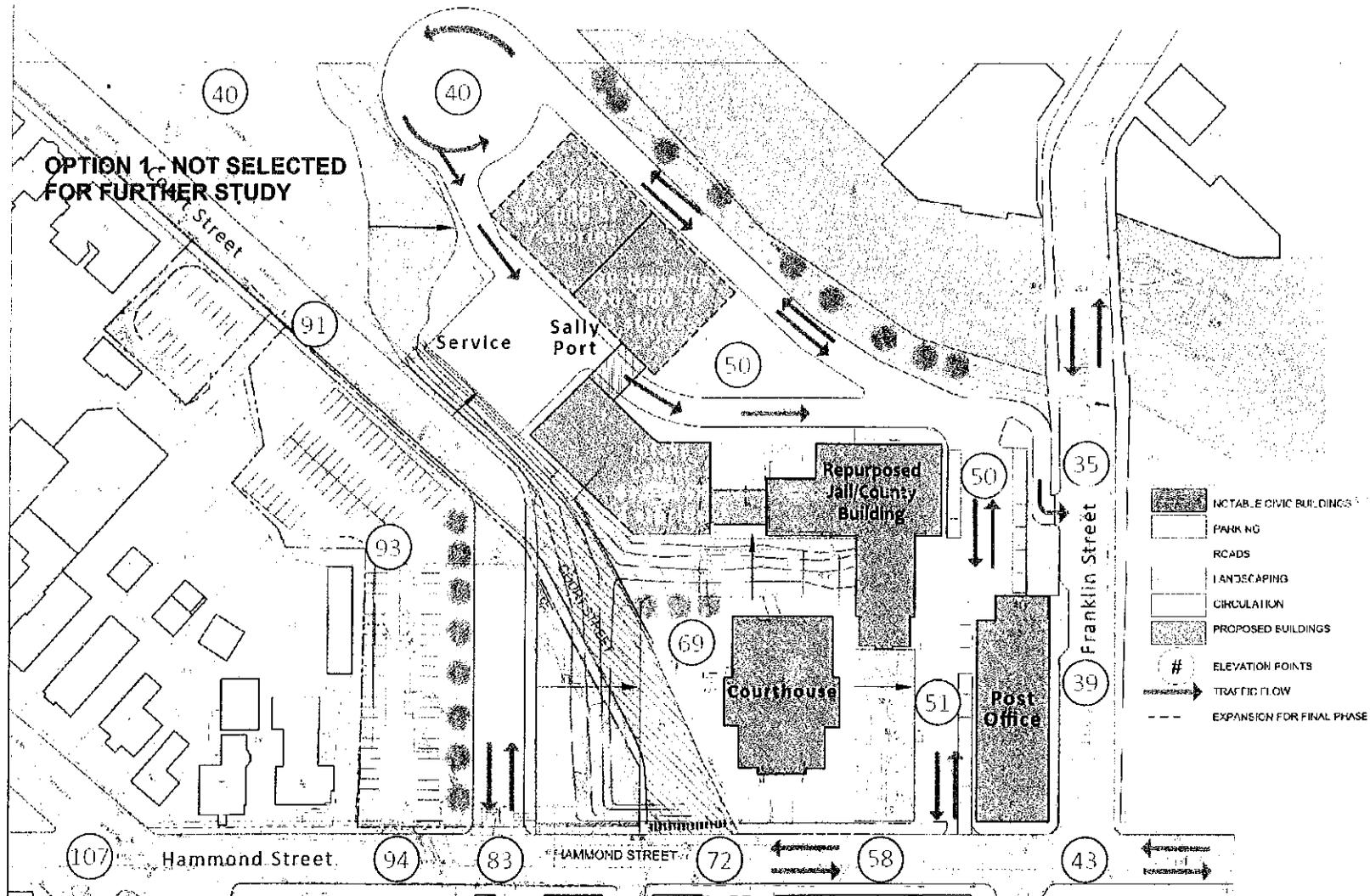


**PHASE 1 - BUILDING 02**

**OPTION 1 - NOT SELECTED FOR FURTHER STUDY**



November 5, 2018

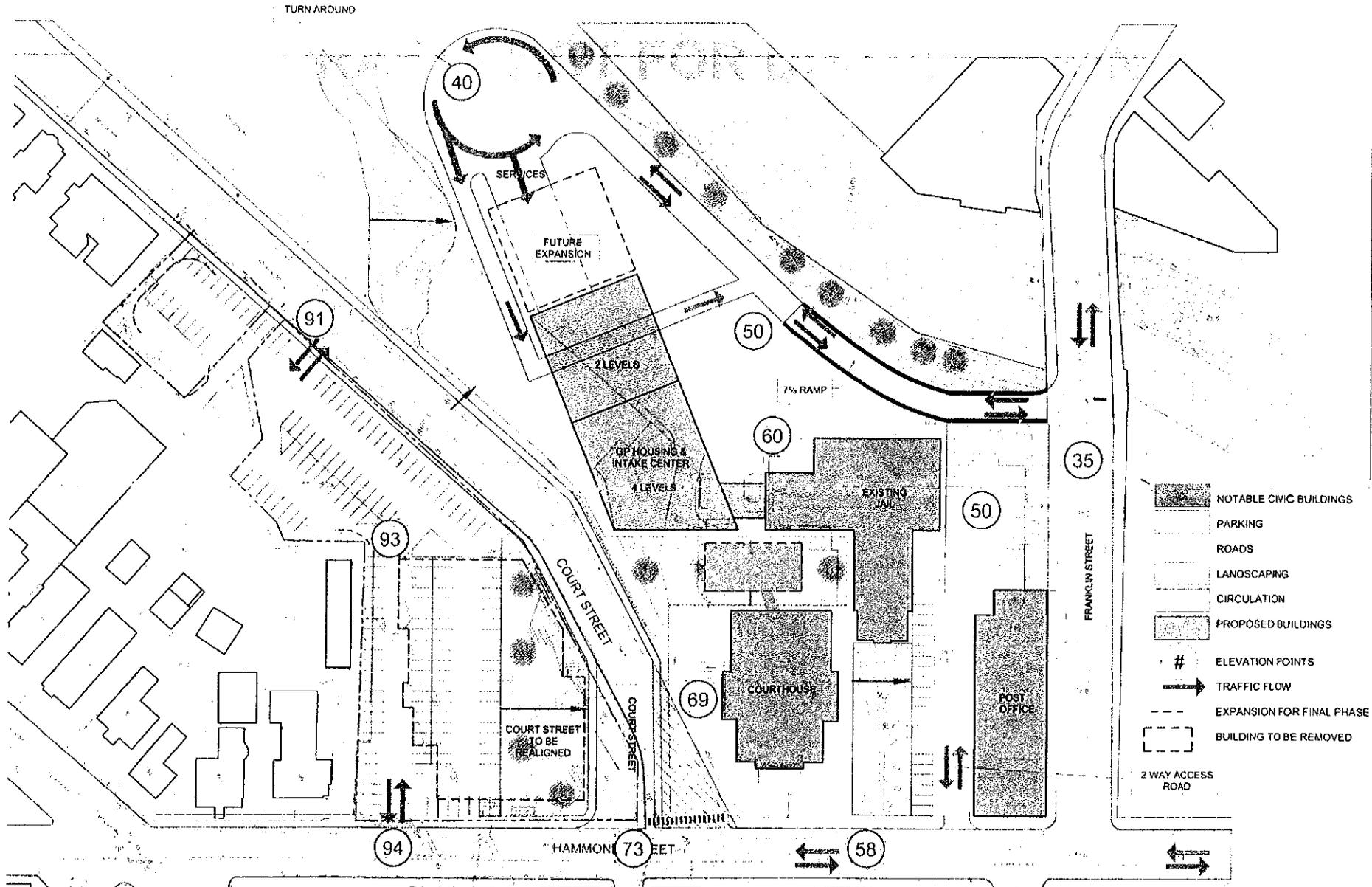


**OPTION 1 - NOT SELECTED FOR FURTHER STUDY**

**PHASE II - Final Construction**  
**OPTION 1 - NOT SELECTED FOR FURTHER STUDY**



November 5, 2018

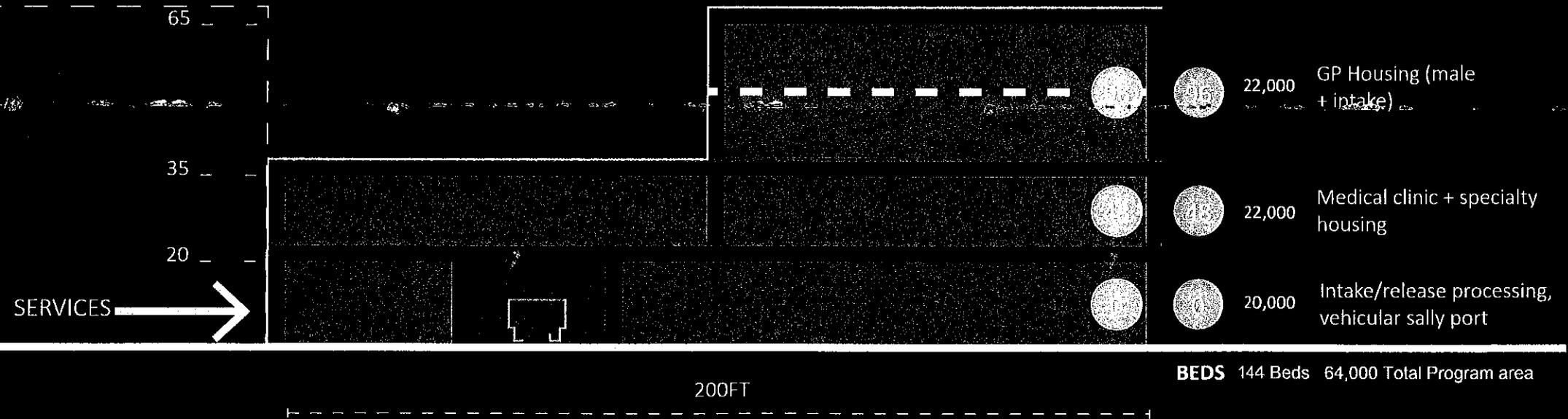


OPTION 2 - 144 BED ADDITION TO EXISTING JAIL



November 5, 2018

FUTURE EXPANSION



OPTION 2 - 144 BED ADDITION TO EXISTING JAIL



November 5, 2018

4210.10

**PCJ Programming and Feasibility**  
77 Hammond Street  
Bangor, ME

New Per Bed allocation: 444 SF (244 of 06, 454 of 21, 234)  
Reno Per Bed allocation: 516 SF  
New ABI per bed allocation: 0 SF

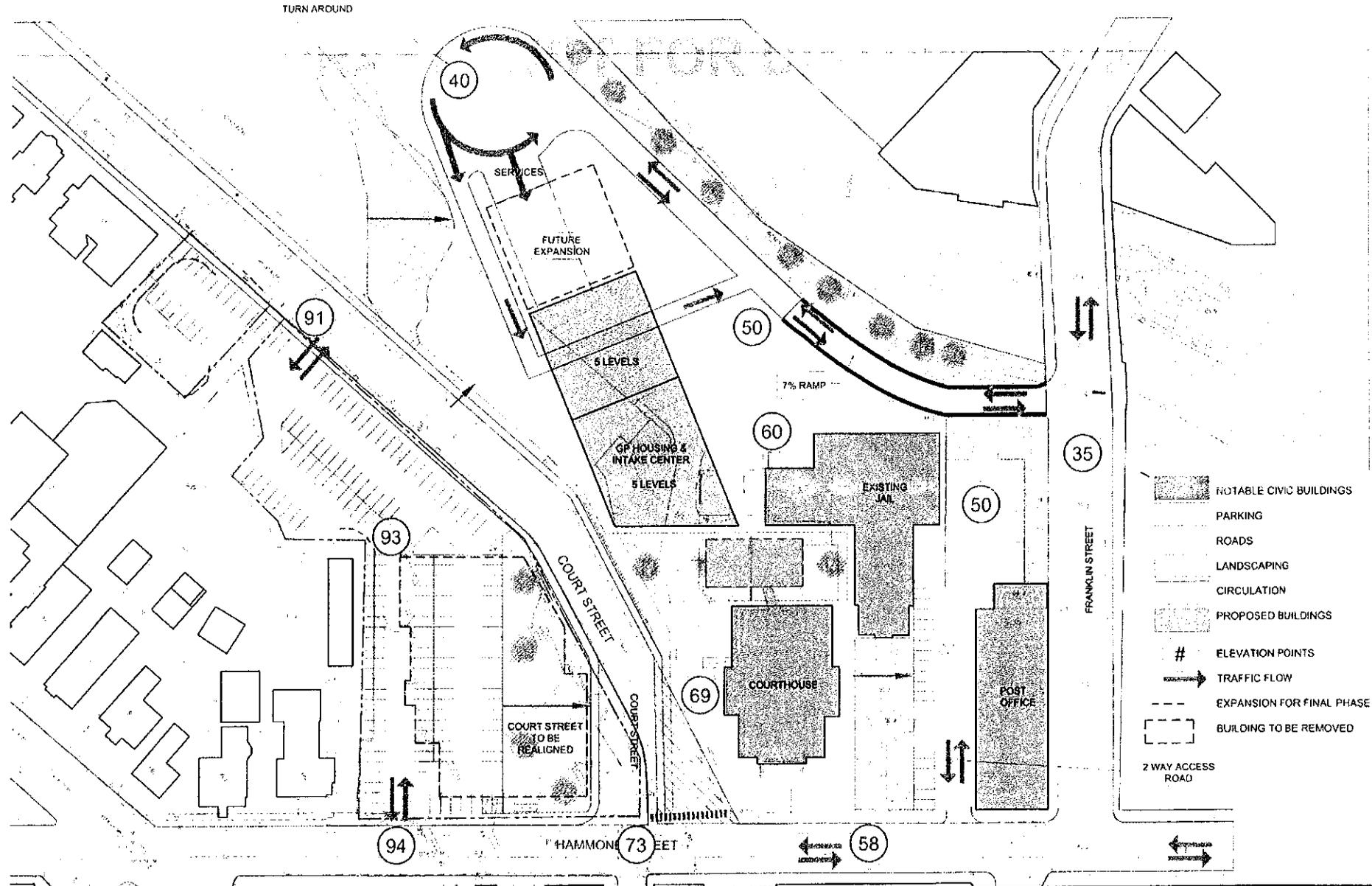
		Bed	Ft <sup>2</sup>	\$ per ft <sup>2</sup>		TOTAL
<b>A CONSTRUCTION COSTS</b>						
1a	Sheriff and PRCC - New Construction		10,240	\$ 300.00	SF Estimate	\$ 3,072,000
1b	Courthouse Admin - Renovation		-	\$ 100.00	SF Estimate	-
1c	Jail - New construction*	144	63,936	\$ 350.00	SF Estimate	\$ 22,377,600
1c	Jail - Renovation (to state of good repair)	0	40,000	\$ 180.00	SF Estimate	\$ 7,200,000
1d	Jail - Reno. Kitchen and Laundry (Expansion)	0	7,250	\$ 350.00	SF Estimate	\$ 2,537,500
2	Site Development	11%		LS	Lump Sum Estimate	3,500,000
3	Court Street relocation			LS	Lump Sum Estimate	750,000
4	Escalation (5.1% per year to midpoint)	13.3%	2.5	YR	Estimate	5,257,779
5	Design & Phasing Contingency	10%			Lump Sum Estimate	3,943,710
<b>Subtotal Section A</b>						<b>\$ 48,638,589</b>
* (Kitchen, Support space partially remains in ex						
<b>B ADMINISTRATIVE COST &amp; RESERVE</b>						
6	Land (assumed equal to sale of existing building and property)				\$	-
7a	Moveable Equipment - Jail				6.0%	1,774,656
7b	Moveable Equipment - Admin				6.0%	184,320
8a	Technology - Jail				3.0%	887,328
8b	Technology - Admin				3.0%	92,160
9	Advertising / Insurance / Legal				Lump Sum Estimate	35,000
10	Bid Contingency				5.0%	2,431,929
11	Construction Contingency				5.0%	2,431,929
<b>Subtotal Section B</b>						<b>\$ 7,837,323</b>
<b>C FEES AND SERVICES</b>						
12a	Architect/Engineer - Detailed Programming (\$200k jail, \$50k non-jail)				LS \$	250,000
12b	Architect/Engineer - SD (+/- \$45M total Master Plan, complex design type)				0.9% \$	405,000
12c	Architect/Engineer - DD thru CA (+/- \$45M, complex design)				5.1% \$	2,480,568
13	A/E Reimbursable				Lump Sum Estimate	45,000
14	Fire Marshall Permits				Lump Sum Estimate	15,000
15	Topo and Utility Survey				Lump Sum Estimate	3,500
16	Geo-tech and Materials Testing				Lump Sum Estimate	86,000
17	Special Structural Inspections per Chapter 17 of the IBC				Lump Sum Estimate	12,000
18	Utility Connection Fee				Lump Sum Estimate	-
19	Clerk of Works				Lump Sum Estimate	250,000
<b>Subtotal Section C</b>						<b>\$ 3,547,068</b>
<b>D TOTAL OF Sections A, B, and C</b>						<b>\$ 60,022,980</b>



**OPTION 2 - COST ESTIMATE -144 BED ADDITION TO EXISTING JAIL**



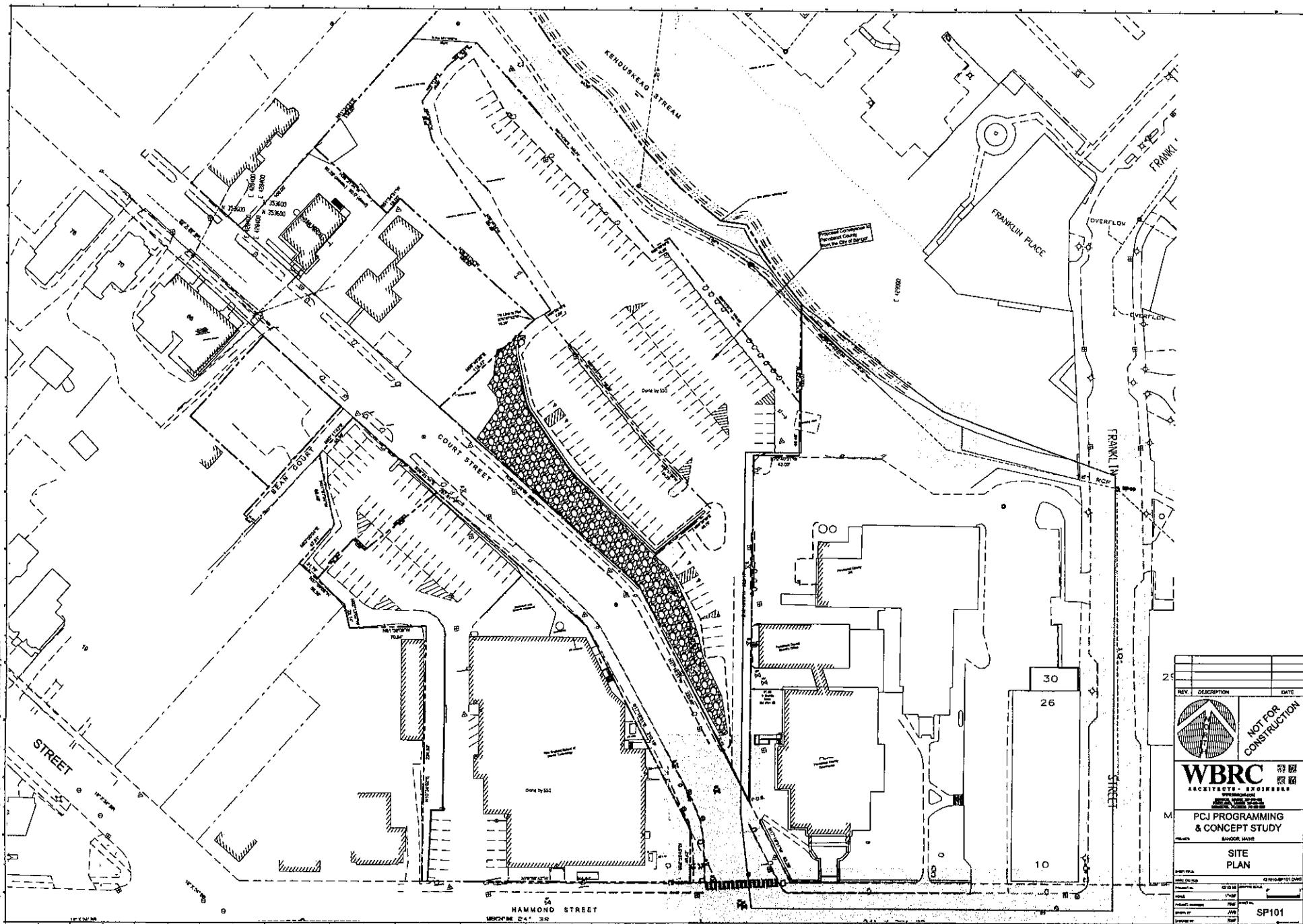
November 5, 2018



OPTION 3 - 300 BED FACILITY



November 5, 2018



REV.	DESCRIPTION	DATE

**NOT FOR CONSTRUCTION**

**WBRC**  
ARCHITECTS - ENGINEERS  
INTERNATIONAL

PCJ PROGRAMMING  
& CONCEPT STUDY

SCHOOL, WARE

**SITE PLAN**

DATE: 02/10/10	SCALE: 1/8" = 1'-0"
DRAWN BY: JAW	CHECKED BY: JAW
PROJECT NO: 101	SHEET NO: 101
DATE: 02/10/10	SCALE: 1/8" = 1'-0"

SP101

THE CITY OF KENOSHA AND THE CITY OF RACINE HAVE REVIEWED THIS PLAN AND APPROVE THE SAME FOR THE CITY OF KENOSHA AND THE CITY OF RACINE.