**Solicitation Information**
**October 23, 2013**

**RFP # 7529367**
**TITLE: Architectural & Engineering (A&E) Services for Virks Building Renovations, Pastore Campus, 3 West Road, Cranston, Rhode Island**

**Submission Deadline: Wednesday November 27, 2013 at 10:30 am (Eastern Time)**

**PRE-BID CONFERENCE: Yes**
**Date & Time: Thursday November 7, 2013 at 10:00 am (Eastern Time)**
**Mandatory: No**
**Location: Department of Administration**
**2nd floor Conference Room "C"**
**One Capitol Hill, Providence, RI 02908**
***A non-mandatory walk thru is scheduled for November 12, 2013 at 9:00 am at the site:**
**Pastore Campus, 2 West Road, Cranston, RI *(No questions will be answered)***

Questions concerning this solicitation may be e-mailed in word format to the Division of Purchases at **questions@purchasing.ri.gov** no later than **November 13, 2013 at 4:00 pm (Eastern Time)**. Please reference the RFP # on all correspondence. Questions received, if any, will be answered and posted on the Division of Purchases' website as an addendum to this solicitation. It is the responsibility of all interested parties to monitor the Division of Purchases' website for updated solicitation information addenda.

**SURETY REQUIRED: No**
**BOND REQUIRED: No**

**Thomas Bovis**
**Interdepartmental Project Manager**

**NOTE TO VENDORS:**

**Vendors must register on-line at the State Purchasing Website at www.purchasing.ri.gov.**

**Offers received without the entire completed four-page RIVIP Generated Bidder Certification Form attached shall be deemed to be non-responsive.**

**THIS PAGE IS NOT A BIDDER CERTIFICATION FORM**

## SECTION 1 – INSTRUCTIONS AND NOTIFICATIONS TO RESPONDENTS

### 1.1) INTRODUCTION

a) The Rhode Island department of Administration, Division of Purchases, on behalf of the Department of Administration, Division of Capital Projects and Property, hereby solicits proposals from qualified respondents to provide architectural, engineering services for the renovation of the historic Virks Building located the Pastore Campus, 3 West Road, Cranston, RI. This solicitation and any subsequent contract award shall be by the Division of Purchases' Procurement regulations and General Conditions of Purchase (available at www.purchasing.ri.gov).

b) This is a Request for Proposal (RFP), not an Invitation for Bids. Responses shall be evaluated on the basis of the relative merits of the proposal, in addition to price; there will be no public opening and reading of responses received by the Division of Purchases, other than to name those Respondents who have submitted proposals.

c)

Respondents to this solicitation are hereby advised that the respondent selected for award of a contract pursuant to this solicitation, and its affiliated or subsidiary companies (whether partially or wholly owned), shall be ineligible to bid upon any future consulting or construction solicitations which may arise from or relate to the services described in this solicitation. In addition, any sub-consultants or subcontractors engaged by the respondent selected for award of a contract who performs any services arising from this solicitation shall be ineligible to bid upon any future consulting or construction solicitations which may arise from or relate to the services described in this solicitation.

### 1.2) NOTIFICATIONS TO RESPONDENTS:

**a)** Potential Respondents are advised to review all sections of this RFP carefully and to follow instructions completely. Failure to make a complete and accurate submission as described herein shall result in rejection of the proposal.

**b)** In order to submit a proposal, Respondents must register with the Division of Purchases. For information of registering, please see the Division of Purchases' website at www.purchasing.ri.gov under the heading "Vendor Registration Information."

**c)** All proposals should include the Respondent's FEIN or Tax Identification number as evidenced by an IRS Form W-9, downloadable from the Division of Purchases' website at www.purchasing.ri.gov.

**d)** Alternative approaches and/or methodologies to accomplish the desired or intended results of this procurement are solicited. However, proposals which depart from or materially alter the terms, requirements, or scope of work defined by this RFP shall be rejected as being non-responsive.

**e)** All costs associated with developing or submitting a proposal in response to this RFP, or to provide oral or written clarification of its content shall be borne by the Respondent. The State assumes no responsibility for these costs.

**f)** Proposals submitted in response to this solicitation shall be considered to be irrevocable for a period of not less than ninety (90) days following the opening date, and may not be withdrawn, except with the express written permission of the State Purchasing Agent.

**g)** All pricing submitted by Respondents in response to this solicitation shall be considered to be firm and fixed unless otherwise indicated herein.

**h)** Proposals misdirected to locations other than the Division of Purchases, or which are otherwise not submitted to the Division of Purchases prior to the time of opening for any cause shall be determined to be late and shall not be accepted, opened, or considered. The "official" time clock is located in the reception area of the Division of Purchases, 2nd floor, One Capitol Hill, Providence, R.I.

**i)** In accordance with R. I. Gen. Laws § 7-1.2-1401 no foreign corporation has the right to transact business in Rhode Island until it has procured a certificate of authority so to do from the Secretary of State (401/222-3040) www.sos.ri.gov. However, this is a requirement only for successful bidder (s).

**j)** Respondents are advised that all documents and materials submitted to the Division of Purchases for consideration in response to this solicitation shall be considered to be public records, as defined in Title 38 Chapter 2 of the Rhode Island General Laws.

**k)** Respondents should be aware of all applicable MBE requirements, as set forth in R. I. Gen. Law § 37-14.1-1, *et seq*. The State's goal is for a minimum ten per cent (10%) participation by MBE's in all State procurements. For further information, contact the State MBE Administrator at (401) 574-8253 or Charles.Newton@doa.ri.gov, Visit the website http://www.mbe.ri.gov/

**l)** Equal Employment Opportunity-R. I. Gen. Laws § 28-5.1 Declaration of Policy. – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and

non-classified services of state employment. This policy applies in all areas where the state dollar is spent, in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office, at 222-3090 or via e-mail rlambert@gw.doa.state.ri.us

**m)** Subcontractors are permitted for this project, provided that the identity of the proposed subcontractor(s) and scope of the subcontractor's services are clearly stated in the Respondent's proposal.

**n)** The Division of Purchases reserves the right to accept or reject any or all proposals submitted in response to this solicitation, to waive minor irregularities, or to negotiate with any Respondent, as necessary, to serve the best interests of the State.

### 1.3) ARCHITECTURAL / ENGINEERING SERVICES

**a)** Persons or firms practicing architectural and/or engineering services in the State of Rhode Island must be registered with the Rhode Island Division of Design Professionals and possess a current Certificate of Authorization in accordance with Rhode Island General Laws.

**b)** A copy of a current Rhode Island Certificate of Authorization for the firm and current Rhode Island registration(s) for the individual(s) who would perform work on the project must be included behind the front page of each copy of the proposal.

**c)** The Division of Design Professionals can be contacted as follows:

Department of Business Regulation
Division of Design Professionals
1511 Pontiac Avenue (Bldg. 68-2)
Cranston, RI 02920
Tel: 401-462-9530
Fax: 401-462-9532
Website: www.bdp.state.ri.us

**d)** Proposals that fail to include the required current Rhode Island Certificate of Authorization for the firm and current Rhode Island registration(s) for individuals shall be determined to be non-responsive to the solicitation.

## SECTION 2 – SCOPE OF WORK

The State of Rhode Island is seeking a qualified architectural firm to provide design services for the renovation of the interior and exterior of the Virks Building at the Pastore Center in Cranston, RI. This project will be priced based on the development of a Phase I Roof Bid Document and a Phase II Bid Document for remaining work as described below. The State

reserves the right to combine these Phases into one bid contract. The design services shall include programming, and full architectural, structural, mechanical, electrical, plumbing, HVAC, fire suppression and fire alarm, and interior design services including the development of full Construction Documents and Construction Administration Services. Site/civil engineering design services are also required. ADA accessibility related to the building and parking areas is included within the scope of this RFP.

The intent of the renovation project is to provide much needed exterior building envelope repairs, develop flexible office space, and remedy any deficiencies identified in the Existing Conditions Report to be developed as part of this RFP.

It is anticipated that the building will house offices for a department of State Government with as many as five (5) or more related divisions. The existing building will be entirely vacated for renovation. The office use will be general office use and the specific tenant(s) have not been determined at this time. About 10% of the building is to house an executive office suite and have a high level of design consistent with representing a progressive highly visible public agency. The architect will be responsible for the programming of the interior space for general office use.

## 2.1) BACKGROUND

a) **Building Description:**
The Virks Building is located at 3 West Road, at the corner of West and Fleming Roads within the Pastore Government Center in Cranston, RI. It was constructed in 1936, as a hospital building at the state infirmary. It has been continuously used as a state hospital facility since its opening. Originally, the building had multiple wards for patient beds, a morgue, an operating room, a delivery room, and open air verandas and porches.

The building has four floors, with attic space and includes a partial basement. There is a crawlspace under the remainder of the ground floor. The structure consists of cast in place concrete floors, load-bearing exterior masonry walls, an interior steel frame at the corridor and a steel framed roof with wood deck. The total area of the facility is approximately 54,000 square feet, including the crawlspace.

A connecting enclosed corridor links this building with the adjacent structure to the north on the ground floor. A small outbuilding which houses some of the buildings mechanical equipment is located on the northeast corner. A cooling tower is located adjacent to this outbuilding. The building was significantly renovated back in 1977 and had significant mechanical and electrical upgrades in 1990.

For a more detailed description of the building as well as floor plans and elevations, please see the attached Appendix A existing conditions report, completed by Durkee Brown Viveiros Werenfels Architects in 2008.

b) **Historic Significance:**
The building is listed in the Rhode Island Historic Preservation Commission 1989 report on State Owned Historic Properties. It is referred to as the H Building/State Infirmary Hospital. As a result the Rhode Island Historic Preservation and Heritage Commission (RIHPHC) will be involved in design aspects related to the renovation of the building on Historic issues. Please review the report for additional Historic information on the Building by contacting RIHPHC.

c) **Relevant Building Documents in the last 8 years:**

1. As previously stated an Existing Conditions Report was prepared by Durkee Brown Viveiros Werenfels Architects on July 16, 2008, titled "Virks Building Existing Conditions Report, Pastore Center – Cranston, Rhode Island". This is attached for reference only Appendix A.

2. A set of drawings were prepared for the relocation of the Department of Human Services offices, dated December 22, 2008 by Durkee Brown Viveiros Werenfels Architects. A copy for reference only will be made available to the successful Respondent.

## 2.2) REQUIRED DESIGN SERVICES:

a) BUILDING STUDY REPORT:

1. General Building and Historic Background Significance
Architect to develop or include as reference documents relative to the buildings Historic value and elements required to follow the RIHPHC requirements.

2. Existing Conditions
This is an assessment of the conditions of the building, both interior, exterior including structural analysis, electrical/plumbing/HVAC, fire protection, tele/data, and life safety. A code analysis should be included in this section. Plans of the existing building should be developed in CAD, along with a site survey. The successful respondent should utilize the information provided in the 2008 Existing Conditions Report as a starting point.

3. Hazardous Materials
An independent third party consultant should be hired to preform and provide a hazardous materials survey, testing, report and plan should be conducted by a hazardous materials consultant. The architect is to supply and coordinate these services. The hazardous materials consultant should be a sub-consultant to the architect. This work is to be included in the Respondent's fee proposal.

4. Proposed Improvements List

This should be formatted to show immediate repairs required for exterior repair, structural modifications, interior renovation, electrical /plumbing /HVAC, fire protection, tele/data, life safety.

5. Space Programming
   This section is for general office use including furnishings, fixtures and equipment (FF&E). Proposed schematic floor layouts of each building level, with furniture should be included, along with a list of all proposed furniture. Ultimately FF&E will be a separate bid package.

6. Cost Estimate
   For all work as described in the Proposed Improvements List.

A preliminary building study report shall be presented by the architect for review by RIDOA Capital Projects, RIDOA Facilities Management and the Rhode Island Historical Preservation & Heritage Commission (RIHPHC). The Respondent is to provide five (5) hard copies and one (1) electronic copy (CD) of the preliminary report. Similarly, five (5) hard copies and one (1) CD shall be provided by the Respondent of the final report.

Upon acceptance of the Building Study Report and related cost estimate, the successful respondent is to work with the RIDOA Division of Capital Projects to prepare a list of agreed improvements based on priorities. Respondent will proceed with schematic design for those improvements approved by the State.

b) SITE CIVIL ENGINEERING
   This includes: design for underground utilities and connections, site drainage, roof drainage considerations, paved parking and paved driveways, site lighting, looming and seeding, ADA compliant site design, permitting, etc. and comply with any Authority having Jurisdiction (AHJ). Provide an analysis and recommendations for parking, landscaping, drainage, and other environmental considerations.

c) ARCHITECTURAL DESIGN SERVICES
   The Architect shall provide for each Phase of the Project a Schematic Design Phase, Design Development Phase, and 90% Construction Document Phase, if the RIDOA Capital Projects to not combine the two Phases described above. The awarded firm must address comments from the RIDOA Capital Projects for each submission and make revisions as applicable at no additional cost. The design submissions shall include all design disciplines, i.e. mechanical, electrical, etc. The awarded firm must provide full Architectural and Engineering design services for construction bid documents, procurement process assistance, construction administration services and closeout document review and approval.

1. Roof Construction Documents: All work related to the roof consisting of but not limited to gutter replacement, downspouts, soffits, cornice repairs, repointing of immediately adjacent brick areas, etc. The roofing documents should also include an Alternate for slate shingles instead of asphalt shingles, based on RIHPHC approval.

d) Mechanical: Complete building design to provide a fully air conditioned system.

e) Electrical: Complete building design based on Required Code.

f) Plumbing: Complete building design based on Required Code.

g) Full Fire Suppression/Alarm/Life Safety Design and Code Analysis.

h) Code Analysis Sheets to be included in the building Construction Documents based on upgraded improvement.

i) ADA universal access design in consultation with the Governor's Commission on Disabilities is to be provided.

j) Security Design. Positive security control such as through card access, cameras, key pad, motion detectors, etc.

k) Telecommunications/Data and IT cabling layouts and specifications.

l) Audio Visual Equipment specifications and layouts. Audio-visual accommodations are necessary on the first and second floors to allow for meetings with break-out rooms to take place here.

m) FF&E layout and specifications. The successful respondent will provide specialty interior design services as required for coordination of existing Furniture, Fixtures and Equipment (FF&E) to be incorporated into the new facility, assistance with purchasing new furnishings, and services for the design, specification and coordination of finishes. The firm will also provide services to produce all required life safety signage including but not limited to evacuation signs, interior identification and directional signage and site signage.

n) Green Building Act design services. The proposed addition shall be designed meet the requirements of the RIGL Section of 37-24-5. The Design team is to work with the Department of Administration and RISP to determine if based on the scope of work whether or not the project qualifies for LEED certification. The Design team will assist in providing all necessary documentation to make this determination, generating a LEED Checklist for review. Should the project be deemed qualify for LEED certification the design team will provide services for completing design in accordance with LEED certification, including all administrative services, prepare any required applications, submitting any

required documentation, etc., as may be required in the LEED certification process. The design team will be responsible for all aspects of LEED design and certification including coordination with Contractors during construction. Should the project be deemed not qualified for LEED certification the design team will still uphold a level of design standard equivalent to LEED. (LEED Commissioning and Application Fees will part of Reimbursables.)

o) TESTING: Special Inspection Program, Construction Testing/Inspections, Commissioning.

p) Coordination of the State's 1% Art requirement.

q) The successful respondent will prepare documentation for meetings with all AHJ including but not limited to the Rhode Island Building Code Commission, The Rhode Island State Fire Marshal's Office, The City of Cranston Fire Department, The Rhode Island Historical Preservation & Heritage Commission, the Governor's Commission on Disabilities, RIDOA Capital Projects and Facilities Management.

r) The respondent based on findings from the Building Study Report in conjunction with their hired consultant determine the extent and nature of all hazardous materials and provide a plan for the removal of any and all hazardous materials found prior to construction to the authorities having jurisdiction. The respondent's consultant will also be responsible for monitoring the contractor's removal of hazardous materials during the demolition portion of the work. (The cost for the monitoring during construction will be part of Reimbursables.)

s) The successful respondent will maintain a project schedule and budget for all hard and soft costs including design, construction, professional fees reimbursables, allowances, permits, FF&E, Security and Audio Visual, 1% Art etc.

t) Respondent shall be responsible to log and maintain all information related to the Construction Closeout Procedures Document from the start of construction until final issuance of Final payment to the Contractor. It will be the responsibility of the Respondent to make sure that three (3) ***COMPLETE*** Closeout sets get submitted by the Contractor after project completion. All sketches and revisions to drawings should be incorporated into the Construction CAD files as a separate layer for As Built Documentation, to be submitted on CD to the RIDOA Capital Projects.

**2.3) COST ESTIMATES:**

A minimum of four (4) professional independent cost estimates produced by a professional cost estimator are required. These are required at the Building Study

Report Phase (2); Design Development Phase (1); and 90% Construction Documents (1). The cost estimates shall be carried forward to the projected bid date.

## 2.4) DELIVERABLES:

a) Preliminary Building Study Report with cost estimate:
Provide five (5) hard copies plus and one (1) CD in pdf.

b) Final Building Study Report with cost estimate:
Provide five (5) hard copies plus and one (1) CD in pdf.

c) Schematic Design submission. The Architect shall be required to provide one colored exterior perspective drawing and three colored interior perspective drawings. Provide two (2) full size and one (1) CD in pdf

d) Design Development Submission with cost estimate.
Provide two (2) full-size and one (1) CD in pdf, cost estimate to be in MS Excel format.

e) 90% Construction Documents Submission with cost estimate.
Provide two (2) full-size and one (1) CD in pdf, cost estimate to be in MS Excel format.

f) 100% Construction Bid Documents.
Provide two (2) full-size and one (1) CD in pdf, cost estimate to be in MS Excel format.

# SECTION 3 –SELECTION PROCEDURE AND SUBMISSION REQUIREMENTS

## 3.1) RESPONSES:

a) Responses will be evaluated in two parts for a maximum score of 100 points. Part One is a Technical proposal (70 points max) and Part Two is a Professional Fee proposal (30 points max). Both the Technical and Professional Fee proposals are required on the due date listed on page 1 of this solicitation, they are to be submitted in **separate sealed envelopes**.

### Part One – Technical Proposal

The Technical Proposal will be evaluated on the following criteria (All Respondents must receive a minimum score of 55 points on the Technical proposal out of a possible 70 points. Respondents not scoring at least 55 points will not be considered for fee proposal evaluation).

## A. Experience of the Respondent and Project Principals (0-30 points):

Describe the respondent's and the respondent's consultants general experience as well as its specific experience and qualifications for projects of this size, scope and use and demonstrate previous experience in Historical building preservation. List the percentage of work to be completed by the respondent and the percentage to be completed by outside consultants. Include Standard Form 330 (for prime contractor and all sub-contractors) in this section. Indicate the plan for compliance with the State's MBE requirements by listing the RI Certified Minority Business Enterprise(s) and including their current State letter(s) of certification.
Proposals must provide answers to the following questions:

i. What experience does the Respondent have with projects of a similar size, scope and use- has a list of at least three projects completed in the last five (5) years been provided?
ii. Does the Proposal illustrate that the Project Manager and each consultant assigned to the project have the background and experience necessary for a successful renovation project. Are specific project examples included? Is the background provided for at least five years with three or more projects?
iii. Are staff and consultants assigned to this project experienced with projects of similar size, scope and use - have they provided a list of three projects completed in the last five (5) years?
iv. Has an organization chart of the respondent and any sub-consultants been provided for the project, indicating also MBE status for any respondent?
v. Is the cost estimator familiar with projects made up of the use groups defined as to be part of the program?
vi. Does the architectural team appear able to incorporate program goals and criteria into their design work?
vii. Does the Respondent have LEED Accredited Professionals on Staff?

## B. Project Plan (0-30 points):

This section shall describe the respondent's understanding of the State's requirement, including the result(s) intended and desired, the approach and/or method to be employed, and a Work Plan for accomplishing the results proposed. It **must** include a project schedule with personnel assigned to project tasks.

Proposals must provide answers to the following questions:

i. Does the plan illustrate the Respondent has analyzed, interpreted and understands issues presented by this project?
ii. Does the plan provide solutions for the issues presented by the project in a manner likely to meet the needs of the client and other customers and end users?
iii. Does the proposed plan appear sensitive to budget and time constraints?

iv. Does the plan address relevant design and program issues, by providing possible solutions?
v. Does the plan include a discussion of value engineering and LEED standards?
vi. Does the Respondent identify both constraints and opportunities posed by this project?
vii. Is there a project schedule provided by the Respondent and is that schedule achievable (not overly optimistic or needlessly long)?
viii. Is the staff to be assigned to the project, including a project manager, subcontractors, engineers and others, identified including FTE and/or hourly effort?
ix. Does the level of effort for each appear adequate?
x. Does the Respondent describe their current workload and the availability of their personnel to perform the project? Is it feasible?

**C. References (0-10 Points):**

Select a minimum of three and a maximum of five projects and provide principal contacts, including all contact information, for projects of a similar size and scope and use to the proposed project. These individuals may be contacted by members of the selection committee for further information.

Proposals must provide answers to the following questions:

i. Were the references provided related to projects of a similar size, scope and use to the proposed project?
ii. Did the Respondent's final project provide a good design and program fit?
iii. Did the Respondent identify problems and issues in a timely and complete manner?
iv. Were technical, budget and aesthetic issues fairly balanced with a good outcome resulting?
v. Did the projects come in on time and in budget? If yes, what was the budget and what was the number of change orders on the project?
vi. Did the Respondent adequately research relevant design and program issues?
vii. Was the Respondent's design process characterized by effective communication, clear graphic and verbal presentations and appropriate inclusion of all designated stakeholders?

**Part Two – Professional Fee Proposal**

a) Professional Fee proposal will be evaluated (respondents that met minimum of 55 points in the Technical Part) on the following criteria (will represent 30 points max):

i. The Professional Fee proposal shall be submitted in a **separate, sealed envelope.**
ii. The Professional Fee proposal shall be submitted as a Lump Sum price. The price must be provided on the attached **Fee Proposal Form.** This shall be a fixed fee (dollar amount), which includes, as a separate line item, an allowance for expected

reimbursables of $50,000.00 (*See* Section 3.5.g for what expenses will be considered reimbursables).

iii. The Professional Fee proposal shall indicate the number and type of professionals to be employed and the hourly rate, including overhead, for each and shall include full services as listed in this RFP including all deliverables for all phases of the project including but not limited to schematic design, design development, contract documents, specifications and bidding phase, bidding for Furniture/Fixtures and Equipment, LEED® application (if applicable) and verification services, application to utility company for any rebates available, construction administration and commissioning, and close-out phases of work.

iv. The Professional Fee proposal shall include continued probable cost estimates and value engineering and redesign services (including re-submittal of documents) at no additional cost. All fees associated with USGBC should be included as part of the lump sum price.

v. The proposal with the lowest opened Professional Fee proposal shall receive the full **30 points**. The other opened Professional Fee proposals shall be allocated points prorated in correlation to the lowest Professional Fee proposal (e.g. a bid of twice the amount of the low bid will receive 15 points). Professional Fee proposal points are determined by the following formula*:* ***x/n (y)*** **= points awarded**; whereas "*x*" = lowest opened bid, "*n*"= any bid under consideration and "*y*"= 30 points.

b) All services described in this RFP must be included in the proposal, with **<u>no exclusions</u>** and a lump sum fixed fee (dollar amount) must be provided, or the proposal shall be rejected as being non-responsive.

c) The State reserves the right to award based upon the most favorable cost proposal.

d) Notwithstanding the above, the State reserves the right not to award this contract or to award on the basis of cost alone, to accept or reject any or all responses, and to award in its best interest.

## 3.2) TENTATIVE SCHEDULE & DELIVERABLES DATES:

| | |
|---|---|
| RFP Announcement | October, 2013 |
| Pre-Proposal Conference | November, 2013 |
| RFP Question Due to Purchasing | November, 2013 |
| RFP Submission Due to Purchasing | November, 2013 |
| Purchase Order Issued | December, 2013 |
| Project Starts | December, 2013 |
| Project Design Completion | June, 2014 |
| Construction Advertise | July, 2014 |
| Construction Award | July, 2014 |
| Construction Completion | October, 2015 |

Closeout/Move-in December, 2015

*Note if State Chooses to proceed with a Phase I Project this schedule will be subject to change.

## 3.3) PROPOSAL SUBMISSION

a) Proposals to provide the services set forth in this solicitation must be received by the Division of Purchases on or before the date and time indicated on page one of this solicitation. Responses (an original plus five (5) copies) should be mailed or hand-delivered in a sealed envelope marked with the RFP number and "Architectural, Engineering Services: Virks Building Renovations, Pastore Campus".

**RI Dept. of Administration**
**Division of Purchases, 2nd floor**
**One Capitol Hill**
**Providence, RI 02908-5855**

b) **Reminder**: Proposals misdirected to locations other than the Division of Purchases, or which are otherwise not submitted to the Division of Purchases prior to the time of opening for any cause shall be determined to be late and shall not be accepted, opened, or considered. The "official" time clock is located in the reception area of the Division of Purchases, 2nd floor, One Capitol Hill, Providence, RI.

## 3.4) ADDITIONAL PROPOSAL CONTENTS

a) In addition to the contents described in Section 3.1 proposals must include the following:

i. A completed and signed four-page RIVIP generated Respondent certification cover sheet (downloaded from the Division of Purchases' website http://www.purchasing.state.ri.us)

ii. A completed and signed IRS Form W-9 downloaded from the Division of Purchases' website, should only be included in the "original" copy only.

iii. In addition to the multiple hard copies of proposal required, Respondents are requested to provide their proposal in electronic format (CD-ROM, Diskette, flash drive). Microsoft Word / Excel or PDF for is preferable. Only one (1) electronic copy is requested. This CD or diskette should be included in the proposal marked "Original".

## 3.5) ADDITIONAL TERMS AND CONDITIONS

a) Responses found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The State reserves the right to reject any or all responses submitted and to waive any informality in any vendor's submission.

b) The successful offeror shall be solely responsible for meeting all terms and conditions specified in this RFP, and any resulting contract. The use of any subcontractors or other vendors must receive prior approval by the State. The Division of Purchases reserves the right to clarify the terms and conditions of any proposal submitted. The Respondent recommended for contract award will be notified by the Division of Purchases. A contract, based on standard A.I.A. forms will be developed by the Division of Purchases and Division of Capital Projects which incorporate a final work plan and schedule. The selected Respondent must agree to provide all deliverables by the dates established in the final work plan and schedule.

c) The selected Respondent must complete the scope of services in this RFP within the time frame specified in the final work plan and schedule and shall be required to appoint a representative from their respondent who will act at their project manager and who will be responsible for seeing that all services are performed with the final work plan and schedule. The selected Respondent shall not change its designated representative during the project without prior written consent from the Division of Capital Projects and Property Management.

d) The selected Respondent must comply with all State and Federal statutory, regulatory and ANSI standards. The selected Respondent must cooperate and coordinate with other State agencies, contractors, or entities, as necessary, to successfully complete the project. Rights to data, work products, etc., revert to the State of Rhode Island upon completion of the contract. All information related to vital records and systems must be kept confidential at all times during and after completion of the project.

e) Payment Schedule: Payments shall be made monthly in proportion to services performed so that compensation shall aggregate to the following percentages at the completion of each phase of work per bid packages:

1. Building Study Report, Programming & Schematic Design = 15%,
2. Design Development = 20%
3. Construction Documents = 35%;
4. Bidding Phase = 5%,
5. Construction Administration = 20%
6. Close Out = 5%.

f) All drawings shall be submitted in hard copy as well as CAD (compatible with AutoCAD lite, current edition) and PDF formats.

g) Reimbursable expenses: Only the actual reimbursable expenditure will be paid. When authorized in advance in writing by the Division of Capital Projects and Property Management, reimbursable expenses shall be paid based on approved costs and shall cover on items described in the above RFP such as LEED Commissioning, and Hazardous Material Inspections during construction and document reproductions, postage and handling requested by the Owner beyond the number of reproductions outlined in *Section 2.4 DELIVERABLES*. Reproductions for office use by the selected Respondent and its' consultants shall not be reimbursable. Transportation, telephone expenses and other telecommunication expenses are not considered reimbursable expenses under this RFP.

h) Five percent (5%) retainage shall be held by the State until the satisfactory completion of the above referenced scope of work.

i) If additional subconsultants are required due to changes in scope or unforeseen conditions, when authorized in advance in writing by the Division of Capital Projects and Property Management expenses shall be paid based on approved costs plus a management fee not to exceed four percent (4%) of the subconsultants' proposal.

j) Conflicts of interest: The selected Respondent shall certify that neither the respondent, its employees, nor its consultants have or enter into any contract or business venture with any general contractor or trade sub-contractor who is selected to work on this project. This provision, shall not apply to sub-contractors hired to provide sub-contractor services during the investigation phase.

k) Cancellation for convenience: The State reserves the right to cancel, for its convenience, any and all contracts that are entered into as the result of this award and the selected Respondent shall have no claim to any reimbursement for lost work or profits and shall have only a claim for work done until the date of cancellation for convenience. The State shall provide seven (7) days notice of any cancellation.

l) Alterations to AIA forms-front end documents: The Division of Capital Projects and Property Management shall make available to the selected Respondent modified AIA bidding front end and general conditions documents that will require editing by the selected Respondent to make the documents project specific. The editing is to be completed by the Respondent at no additional cost to the State.

m) Bid review and contractor de-scoping: The selected Respondent shall make the project principals and all key engineering staff and/or consultant(s) available for the de-scoping of up to three potential project contractors. The results of all contractor de-scoping shall be provided in writing to the Division of Capital Projects and Property Management.

n) Value engineering: the selected Respondent shall perform, at no additional cost, any and all value engineering necessary to bring the project into budget after the receipt of

the professional, independent cost estimates. The selected Respondent shall also keep an informal statement of probable costs and provide value engineering corrections on an ongoing basis paralleling project programming and project design work.

o) The professional cost estimator required for construction cost estimates shall NOT be an employee of the selected Respondent and shall NOT be a regular employee of a construction respondent.

END

**PROFFESSIONAL SERVICES FOR ARCHITECTURAL AND ENGINEERING**
**FEE PROPOSAL FORM - RFP# 7529367**

**Date:** October 23, 2013

**To:** The Department of Administration,
Division of Purchases, 2nd floor
One Capitol Hill, Providence, RI 02908-5855

**Project:** A&E Services for the Virks Building Renovations Pastore Campus, 3 West Road Cranston, Rhode Island.

**Submitted by:** Firm Name and Address

_____
_____
_____
_____

(Please include in the firm's legal name, contact name, address, telephone, fax number, contact email address, and license number if applicable)

1. **Phase I: Building Study Report and Roof Improvements Base Price** — $ ___ , ___ , ___ . __

   The fee for this phase includes the Building Study Report and design of a Bid Package as described in the attached RFP to make required improvements to the roof.

2. **Phase II: Remaining Building and Site Improvements Base Price** — $ ___ , ___ , ___ . __

   The fee for this phase includes the design of a Bid Package for the remaining building elements as defined in the attached RFP.

3. **Reimbursables** — $ ___ , 50,000.00

   LEED Commissioning, Hazardous Materials Inspection, Printing, postage and out of state travel not related to visits to project team members.

6. **Total Lump Sum Fee** — $ ___ , ___ , ___ . __

   Includes base prices, allowances, and reimbursables

7. Fee Proposal Form Signature(s)

_____ (Bidder's Name, Title)

_____ (Bidder's Signature and Company Seal)

THE CONTRACTOR SHALL PROVIDE AN AFFIDAVIT THAT THE PERSON WHO HAS AFFIXED HIS OR HER SIGNATURE TO THIS BID FORM IS ACTIVELY AND LEGALLY AUTHORIZED TO BIND THE FIRM CONTRACTUALLY.

**THIS FORM MUST BE SUBMITTED WITH AND AFFIXED TO THE FEE PROPOSAL FORM.**

# Virks Building Existing Conditions Report

## Pastore Center - Cranston, Rhode Island

**July 16, 2008**

**State of Rhode Island**
**Department of Administration**
**Division of Capital Projects and Property Management**

DURKEE BROWN
VIVEIROS WERENFELS
ARCHITECTS

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## INTRODUCTION

In June of 2008, a team comprising Durkee, Brown, Viveiros & Werenfels Architects (DBVW); Yoder + Tidwell, Ltd., structural engineers; Gaskell Associates, Inc., electrical engineers; Creative Environment Corporation, mechanical, plumbing and fire protection engineers and Fuss & O'Neill, civil engineers was hired by the State of Rhode Island for Design Services to accommodate the Department of Human Services and Allied Operations in the Dr. Johannes Virks Building (also known as the Virks Building). As part of this design, an existing conditions assessment was conducted.

The team conducted meetings with various State of Rhode Island staff and also reviewed the drawings from 1936, 1977 and 1990.

The Virks Building is located on West Road, at the corner of West and Fleming Roads within the Pastore Center in Cranston, RI. It was designed by Ambrose J. Murphy, A.I.A. and constructed in 1936, under the federal Works Progress Administration, as a hospital building at the state infirmary. At one point during its history, it was named the "H-Building". It has been continuously used as a state hospital facility since its opening. Originally, the building had multiple wards for patient beds, a morgue, an operating room, a delivery room, and open air verandas and porches.

The building was designed utilizing a neo-classical vocabulary. There are five gabled pediments, one of which forms the monumental center entrance located on the south side of the building. A cast stone carving in the pediment bears the seal of the State of Rhode Island. Four distinctive, round columns signify the original entry set atop a plinth. A grand monumental stair brings visitors from grade up to the second floor.

The building has four floors located above grade and includes a partial basement. There is a crawlspace under the remainder of the ground floor. A full attic space is present above the upper floor. The structure consists of cast in place concrete floors, load-bearing exterior masonry walls, an interior steel frame at the corridor and a steel framed roof with wood deck. The total area of the facility is approximately 50,000 square feet. This figure excludes the crawlspace.

A connecting enclosed corridor links this building with the adjacent structure to the north on the ground floor. A small outbuilding which houses the buildings mechanical equipment is located on the northeast corner. A cooling tower is located adjacent to this outbuilding. The building was significantly renovated back in 1977 and had significant mechanical and electrical upgrades in 1990.

Please refer to the following sections of this report for all civil, structural, mechanical, electrical, plumbing, fire protection and electrical assessments. Preliminary code plans and the exterior elevations assessments are attached to the end of this report.

An assessment of hazardous materials was not conducted by this team. Since the building was originally constructed in 1936 and extensively remodeled thereafter; a complete review by a qualified firm should be pursued prior to any future construction.

## EXECUTIVE SUMMARY

A comprehensive review of existing conditions was undertaken to help define the future scope of work at the Virks Building. This report identifies the required building, accessibility and life safety code upgrades. Based upon our assessment, extensive renovations will be required for its intended new use as offices for the Department of Human Services.

Structural:
The existing building is a four story structure built in 1936. The building has a full basement at the south end, but a crawl space in the remainder. There is a full attic space, accessible from a catwalk, which runs the full length of the attic.

The typical structural framing for each of the floors is a one-way, reinforced concrete joist system utilizing steel pan forms. The floors span from the exterior load bearing masonry walls to two interior steel beam lines. The steel beams are supported by steel pipe columns. The steel beams appear to be encased in concrete. However, it is unknown if any of the steel columns are protected. All interior partition walls are all non-bearing except for the main stair and elevator shaft walls which are 12” thick, cementitious block walls.

The exterior load bearing walls are multi-wythe, composite construction with brick veneer, cast stone elements and cementitious block backup. The perimeter foundation consists of cast in place concrete walls on a continuous concrete spread footings. The interior steel columns are supported on concrete piers and reinforced concrete spread footings.

The roof framing consists of structural wood decking spanning between wood and steel purlins. The purlins are supported by open web, steel trusses that span from the exterior wall to the interior beams. The structure is in very good condition.

Exterior:
The exterior masonry is generally in good condition and requires only isolated repairs. However, the exterior walls around the kitchen, main entrance portico and monumental stairs have significant deterioration due to water intrusion and movement. All exterior sealant has failed and should be removed and replaced.

The area around the kitchen needs to be completely re-built. The monumental stairs and portico are in poor condition. At some point, a waterproof coating was applied to the cast stone veneer. It is unknown if the concrete backup has been affected. Additional testing should be undertaken to further investigate and assess these areas. They may require complete reconstruction.

The roof consists of multiple areas. The sloped roof areas are covered by the original slate shingles, copper flashings and copings. The upper hip area has a built-up tar and gravel roof and modified bitumen on wood deck. Lower roof areas have EPDM and modified bitumen coverings. All of these areas are in need of replacement. The roof hatches and skylights are original and in very poor condition. These items should be replaced.

The window and storefront systems appear to date from era of the 1977 renovations. The windows and storefront systems are generally in fair condition and could be repaired. However, total replacement should be anticipated in the future. The exterior doors are primarily painted hollow metal. The doors are in fair to good condition. A few exterior doors have non-ADA compliant steps down to grade.

Interior:
A local fire suppression system is present in the attic and crawlspace. A standpipe system with fire hose cabinets on each floor is located adjacent to each stair.

Interior walls consist of both original plaster finish on gypsum block walls and plaster on metal lath over metal studs. The walls are in good condition; but will need to be re-configured to house the new offices.

Interior doors are predominantly solid core flush style wood or hollow metal doors. The doors are generally in fair condition; however the hardware is non-ADA compliant. It may be possible to re-use some of the existing doors. New hardware will be required throughout.

The ceilings throughout the original building consist of suspended acoustical ceiling systems below original plaster surfaces. The suspended ceiling systems and lights are in poor condition and should be replaced.

CIVIL and M/E/P:
Please refer to the following sections of this report for all civil, mechanical, electrical, plumbing, fire protection and electrical assessments. Preliminary code plans and the exterior elevations assessments are attached to the end of this report.

Recommendations:
Please refer to the Architectural section of this report for a list of recommendations. Some of the work items identified for Phases 2 and 3 appear to be extensive. The new exterior windows and new mechanical system work should ideally be executed in an unoccupied building. The work will present a substantial inconvenience to any occupants. However, given the constraints of the project budget, this may be unavoidable.

## ARCHITECTURAL

### Building Assessment

### A. Exterior Masonry Walls:

Construction: The building consists of load-bearing masonry walls with an interior steel frame which runs along each side of a central corridor. The floor is constructed utilizing a structural cast in place concrete pan slab which spans between the exterior walls to the interior steel. The exterior walls are constructed of one wythe of exterior face brick keyed into cementitious back-up units.

*1. South Elevation*

The wall varies in thickness as it rises in height. It is approximately 1'-8" thick at the base and reduces to 1'-4" thick at the upper floors. The interior side of the wall has furring with a multi-coat plaster and metal lath finish. In some areas of the upper floor, the original design incorporated open air verandas which had brick veneer as a finish.

Brick: The brick masonry was inspected for cracking, damage and general weather-tightness. Significant cracking was not observed anywhere on the exterior. There were a few locations where damage from the installation of new devices and louvers were observed. There was also minor impact damage at the corner near the chiller outbuilding. Staining was observed adjacent to the roof downspouts. Holes from past devices were also noted. In general, the exterior masonry is dirty and in dire need of a thorough cleaning. The lower walls on the north elevation, around the kitchen and loading dock, have significant cracking, movement and open joints above the window heads as a result from lintel corrosion and continued water intrusion. This area will require reconstruction. However, the original brick appears to be in good condition with the exception of the damaged areas.

*2. North Elevation – Damaged Masonry*

Mortar: The mortar was also inspected around the building. Numerous spot repairs and re-pointing efforts were evident. The newer repairs do not exactly match the original in color or texture. The mortar appears to be mostly intact. The mortar joint under the cast stone band, under the windows at the upper level, appears to be deteriorated. There were other isolated locations observed around the building.

Cast Stone: There are numerous cast stone elements on the exterior of the building. A strong cast stone cornice is present along the eave. The cornice also

carries an internal copper lined gutter. The cornice continues into the gables to form a pediment. There is a continuous chamfered band which wraps around the building at the first floor. Another band is present approximately 2'-0" down from the cornice, at the top of the upper floor window head. Other cast stone details include window sills, keys, columns, rosettes, false gable end windows, brick pilaster capitals and bases. Two cast stone door hoods survive on the north side of the building.

*3. Upper Level Brick Pilasters/Cast Stone*

Most of the cast stone elements retain their original copper flashings. The cast stone appears to be stained from normal weathering. However, there are several areas at the cornice of the building which have significant damage from past water infiltration. Also, the majority of the vertical joints between the sections in the cornice have missing mortar. In general, the decorative cast stone elements appear to be in good condition.

*4. Monumental Stair Curved Cheek Wall*

The main entrance, located on the south side of the building, has an elaborate cast stone pediment, four round columns, four decorative pilasters and a grand monumental stair. A cast stone carving in the pediment bears the seal of the State of Rhode Island. All of the columns and pilasters appear to be in good condition. One column has a visible repair which does not blend in very well with the surrounding material.

Main Entrance: The plinth and monumental stair are constructed of large blocks of cast stone veneer over a cast-in-place concrete substructure. The stair has curved cheek walls. Areas of spalling and joint failure were observed on both the plinth and cheek walls. The original wrought iron railing balusters and posts directly penetrate the cast stone veneer and are presumably anchored into the concrete substructure. This may be allowing water to enter the veneer and concrete substructure.

*5. Plinth*

A waterproof coating has been applied to the entire cast stone stair and entry portico plinth. There is significant evidence of severe water intrusion. The stairs and entry portico have the original bluestone pavers. The stone joints have been heavily caulked to prevent water intrusion. However, the caulk has already begun to fail. The stone also exhibits signs of damage consistent with the use of rock salt during the winter months.

*6. Monumental Stair*

The original perimeter copper flashings are still intact at the face of the adjacent building. The flashings appear to be let into the adjacent masonry. It is unknown if they extend to form a pan beneath the stone. However, based upon the level of deterioration, this seems unlikely.

The columns and pilasters have been retrofitted with bird screen enclosures around the capitals. However, bird droppings were observed on the upper portico.

The screens appear to have been breached, allowing nesting to occur. They detract aesthetically from the original architecture and should be removed. The original exterior plaster ceiling in the portico appears to be in fair condition. The one central light fixture appears insufficient and outdated. The original decorative cast stone window and main entrance door surrounds appear to be in good condition. The original cast iron balcony remains above the main entrance. It appears to be slightly rusted, but is in good condition.

*7. Main Entrance Portico*

The original wrought iron railing system remains at the curved monumental stair and entry portico. There is also a small section present on the north side of the building, near the kitchen. As previously stated above, the balusters and posts at the monumental stair directly penetrate the cast stone veneer. The metal is heavily rusted in these locations. In general, the railings are in poor condition and need to be restored.

An accessible entrance at the ground floor is located at the front of the plinth, between the monumental stairs. The entrance has a much later wooden door hood, flashed into the cast stone. The wood is in poor condition and should be replaced.

## B. Roofs:

The building has multiple roof areas. The upper or main roof form consists of five gables which intersect with a continuous sloped roof which runs in the east-west direction. This upper/main roof is capped by a shallow hip. The sloped roof areas are covered with the original slate shingles and retain their original copper ridge, valley, eave and rake flashings. The east side of the building has been recently re-roofed with asphalt shingles.

A prominent wide copper cap is also present at the gabled pediments. In general, the copper does not appear to be pitted, but some of the seams need repair. The slate is broken in various locations and is covered with tar residue from multiple repair efforts to the upper or main roof shallow hip.

Numerous areas of newer slate shingles are interspersed with the original. The newer slate does not exactly match the original in color. Since the slate is almost 72 years old, it is nearing the end of its useful life. However, it might last two or three more years with proper repairs.

<u>Upper Roof Area</u>: The hip roof is approximately 2/3rds covered by an older built-up tar and gravel roof. The covering is in poor condition. The remaining 1/3$^{rd}$ area is covered with a much newer modified bitumen roof installed over the original built-up roof. This section appears to be in fair condition.

We speculate this area was re-roofed when the new ventilation equipment was installed in 1990. During the repair of this 1/3 of the roof, the existing gravel surfacing from this area was not removed from the building. It was observed deposited in a concentrated area on the older roof section. These deposits should be removed.

*8. Upper Roof Shallow Hip – West Side*

The hip appears to have an adequate slope, from the center out towards the slate roof areas. A continuous copper flashing/drip edge forms the transition between the hip and the slate. The copper has been covered with tar.

There are some loosely laid wires present on top of the existing roof covering. These wires pose a tripping hazard on the roof and should be removed. An abandoned mechanical unit was observed abandoned on the roof. This unit should be removed.

*9. Upper Roof Shallow Hip – East Side*

Gutters and Downspouts: A perimeter internal copper gutter is housed within the cast stone cornice. This could not be closely inspected. However, evidence of past repairs and apparent re-lining on the north side of the building indicate problems may be present. The current pitch or slope of the gutter is unknown. External 3 inch by 4 inch downspouts / leaders exist around the building. They appear to have been recently replaced with 3 inch by 4 inch, brown rectangular corrugated aluminum downspouts.
The tail pieces appear to be original and should be replaced.

*10. Internal Gutter at Pediment and Valley*

There is one remaining original lead coated copper leader located to the east of the front entrance. The leaders discharge at grade; but most do not have splash blocks. They do not appear to adequately direct water away from the building. Originally, the leaders were tied into an underground system which emptied into a cistern. The original drawings depict the cistern at the southeast corner of the property. Cast iron boots are still present in several locations. However, the condition of the underground system is unknown.

Lower Roof Areas: There are two lower roof areas flanking the gables to the east and west. A newer adhered EPDM roof is present on the east roof area. A modified bitumen roof is present on the west roof area. There does not appear to be adequate slope towards the perimeter gutter system on either roof area. It is unknown if the perimeter gutters are functioning properly. The gutters on the west roof have been coated. Both roof areas appear to be in fair condition, but should be replaced since they do not drain well.

*11. Lower Roof Area - East Side*

The wood roof planking appears to be in good condition; extensive water damage was not observed in the attic. A more recent plywood repair area is present on the east side of the gabled roof, under the area of the asphalt shingles. This covers the original skylight opening which was located over the Delivery Room.

Roof Hatches and Skylights: There are two original roof access hatches and skylights present on the hip roof area. The hatches appear to have originally held glass; but have since been modified with plywood and sheet metal infill. The hatches are small and are in poor condition. The original metal framed glass skylights actually provide light and ventilation to the elevator machine rooms below. They do not appear to have safety glass nor comply with current fall protection requirements. A plastic mesh was added over the original steel frames. In general, these units are in poor condition.

*12. Existing Skylight and Elevator Vent*

## C. Windows and Doors:

Windows: The majority of the exterior windows have been replaced over the years. They appear to date from the 1977 renovations and consist of aluminum double hung sash with a fixed bottom unit and upper transom panel. The transom consists of an aluminum glazed-in panel with rigid foil faced insulation on the interior side. The interior suspended ceiling systems meet the mullion just below this transom panel. Typical glazing consists of 5/8" thick insulated glass. Some glazing units are broken and others exhibit signs of condensation. The window and sash weatherstripping is in very poor condition.

*13. Typical Aluminum Window*

Interior mounted security screens are present on most of the windows. Although they are in good condition, these should be removed as part of any renovation work associated with a change of use. They are only required in certain institutional settings. Insect screens are present at the operable sash. However, the screens are in poor condition.

At the time of our observations, a few windows were tested for operability. These windows could not be easily moved; the balances were somewhat uneven and ineffective. The remainder could not be investigated due to the locked security screens. At the present time, it is unknown if all of the windows operate as originally intended.

The door and window openings have partially exposed painted steel lintels with original copper flashing. In general, the exposed steel on the bottom of the lintels is slightly rusted. Also, caulking was observed at the joint between the brick and the flashing. This caulk may be trapping water vapor inside the exterior wall construction.

The exterior cast stone sills have integral lugs keyed into the adjacent brick. The sills appear to slope away from the building. The window sealant has deteriorated and is cracked and pulling away from the window and adjacent masonry. It appears

that the width-depth ratio of the caulking is not sufficient. Water appears to be entering the building at the perimeter.

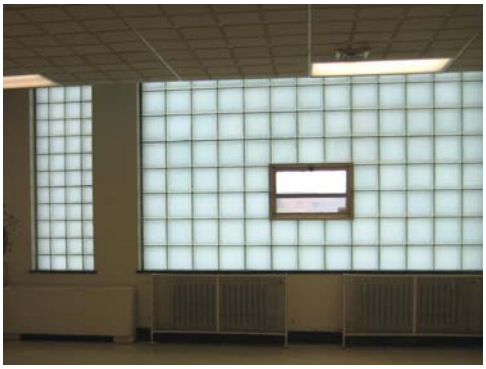
*14. Typical Window Exterior Sill/Jamb*

On the interior of the building, evidence of past repairs at the window jambs and sills was observed. The repairs seem to be confined to the window jambs. A ceramic wall tile finish may have been applied to help prevent future damage. Stone window stools are present throughout the building.

A small expanse of aluminum storefront is present on the first floor, on both the east and west ends. The storefront system encloses the original open porches. It appears to date from the 1977 renovations. Aluminum components hold fixed, insulated glass. There is a single 3'-0" wide, aluminum and glass door located in the center. The assembly also incorporates a planter.

*15. Original Window*

There are also a few original windows present. These windows consist of single pane glass set into steel frames. The windows incorporated operable awning and hopper units. The steel frames are heavily rusted and the window putty is in poor condition. There are two others that have been modified to accommodate louvers and other mechanical devices.



Also, there is a sizeable expanse of original glass block located on the northwest side of the building, on the upper floor. A large central opening and two flanking panels remain intact. Interestingly, this was the original operating room. An emerald green glass block border runs along the top of the flanking openings. Also, a small, operable steel awning unit is present in the center of the assembly. This unit is in poor condition. The glass block appears to be captured in a perimeter steel frame. The steel is rusting and the caulking is in poor condition.

*16. Glass Block Window*

<u>Doors</u>: The exterior doors and frames around the building have been replaced over the years. They primarily consist of painted hollow metal with narrow glazed vision panels. A few doors do not have a vision panel.

The doors on both sides of the one story connector corridor bind slightly and do not operate freely. These doors should be replaced. All of the doors and frames need to be repainted. In general, the exterior doors appear to be in good condition.

*17. Typical Exterior Door*

The hardware has also been recently updated. Code compliant panic devices with exterior lever style handles and cylinders are present. Butt hinges and continuous hinges have been utilized. The perimeter weatherstripping and sealant are in poor condition.
Most of the exterior doors have a step or series of steps down to grade. As such, they are not currently handicapped accessible. Any new site work should address this situation. Only two accessible entrances exist and they are both located on the ground floor. One is located on the south side, in the entry portico plinth and the other is on the north side centered on the west gable. An original set of steps lead to a blocked up original door opening. The opening retains its original cast stone door hood and wrought iron railing. These elements are in fair to poor condition.

**D. Miscellaneous Exterior Features:**

Decks: There are two wooden decks located on the west and east ends of the building on the first floor. The decks and storefront infill date to the 1977 renovations. Originally, these areas were open, internal porches, framed by the two large cast stone columns and massive lintel. The decks significantly detract from the aesthetic quality of the building. The wood structure appears to be pressure treated.

*18. Deck*

It spans from the original exterior masonry wall to a perimeter beam which in turn rests upon two large concrete piers. Additional supports appear to have been added to pick up the rather large cantilevers. The railing system has missing and broken components. The deck was not able to be viewed at the time of our inspection. In general, the deck and railing are in poor condition and should be removed.

Patio: A large walled patio area is present on the southeast corner of the building. The patio is nestled between the building and a mature group of trees. The patio is accessible from both the interior and exterior of the building.

Approximately half of the patio was an extension as part of the 1977 renovations. This section consists of an elevated cast in place concrete slab with an opening on the east side. Grade slopes away from the perimeter walls on all sides.

The perimeter of the patio is enclosed by a cast in place concrete wall which has a continuous wood rail on top.

*19. Patio*

The perimeter enclosure walls have scupper openings for drainage. In some areas, the pavement has settled causing water to pond behind the scupper. The concrete and wood railing are in fair condition.

Recent additions to this area include segmental concrete block planters set on top of the concrete slab/pavement. The planters are in good condition but do not blend in with the original architecture. At some point, an original window was removed to provide a door and transom connecting the patio to a multi-purpose room on the ground floor.

Loading Platform: There is a small cast in place concrete loading platform located on the north side of the building. It is approximately 2'-0" above the bituminous pavement. The platform is a much later addition to the building. A steel armoring angle wraps the perimeter. The platform is extremely small and too low for accommodating tractor-trailer deliveries.

A small wood framed canopy covers part of the platform. The corrugated plastic panel canopy roof is sloped towards perimeter aluminum gutters. A steel column carries the corner. The roof is in poor condition. A cast in place concrete stair connects the platform and parking area. There is a painted steel handrail on the adjacent wall.

*20. Loading Platform*

Enclosed Connecting Corridor: There is a one story, enclosed connecting corridor which links the Virks building to the adjacent correctional facility. This corridor has been sealed up on each respective end. Egress from the east stair tower actually discharges through a small portion of the corridor. The interior finish ceiling in this area is extremely low. The exterior door to the east has a cast in place concrete ramp with a steel guardrail. The guardrail is not code compliant. It is severely rusted and bears evidence of vehicular damage. It is in poor condition. A newer asphalt shingle roof was observed on the sloped roof areas.

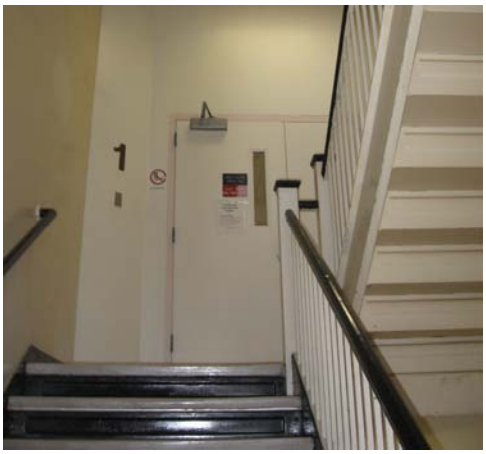
*21. Enclosed Connector Corridor*

Cooling Tower & Outbuilding: A stand-alone cooling tower and a detached metal outbuilding are located behind the northeast corner of the building, adjacent to the one-story enclosed connecting corridor. The cooling tower rests upon steel dunnage secured to concrete piers. All of the required piping enters and exist the building in this area. The metal outbuilding is a free-standing prefabricated structure that was built as part of the 1990 mechanical upgrades. It houses an absorptive chiller and associated mechanical equipment. The door is in poor condition due to vandalism and should be replaced. However, the outbuilding is in good condition. Please refer to the mechanical and electrical portions of the report for additional information.

*22. Cooling Tower and Metal Outbuilding*

## E. Interior:

Stairs: There are two existing egress stairs; one on each end of the building. The existing stair and landing is constructed with steel framing and concrete filled steel pans. A rubber finish covers the risers and treads; VCT occurs on each floor. The stairs are approximately 48 inches wide. The existing guardrail consists of painted square steel balusters, 4 inches on center, with a wood top rail. Posts, with decorative caps, occur and the end of each run. The guardrail system is only 30 inches high above the treads. The stairs appear to have code complaint risers, treads and nosings.



*23. Typical Egress Stair*

Wall mounted handrails are present; but they do not provide 2 ¼" clear between the handrail and the adjacent wall surface. The rails are also mounted at 30" above the treads.

The stair enclosure consists of continuous, fire rated masonry walls with a plaster finish. It extends from the lowest level and up into the attic. An unrated access hatch into the attic is present in the upper level unrated plaster ceiling. However, in the attic, a fire rated door is present in the enclosure, which continues up to the underside of the roof. The door leads to the attic catwalk system. The east stair has a ship's ladder into the attic. A lockable, metal security partition surrounds the ladder. This stair also serves the partial basement level. The west stair has a wall mounted rung ladder with a metal mesh fall guard.

*24. West Stair on Ground Floor*

The stair doors are all 90 minute fire rated hollow metal doors. The 1977 renovations retrofitted the stairs with a pair of 30 inch wide doors in a 60 inch wide opening. Most of these doors have since been modified to provide an active 36 inch door with an inactive solid 24 inch leaf. Most of the doors have a narrow vision panel. The doors are set into grouted hollow metal frames. Closers, knobs and cylinder locks are present on all of the doors. The knobs are not ADA compliant. Currently, the doors remain locked at all times. Hence, they are inoperable in an emergency without the use of a key. The doors do not have panic devices. The hardware should be replaced as part of any new work.

The west stair discharges directly to the exterior. The east stair discharges into the enclosed connecting corridor. It is unknown if this construction is fire rated. There is a non-compliant ramp, without railings, located at the ground floor of the stair. The landing header has been modified to provide headroom. A steep slope also occurs at the basement door. All of these conditions should be addressed as part of any new work. Original steam radiators, with metal mesh covers, are present on the landings and at the bottom of each stair. The radiators do not appear to impede the required stair width. There are no utilities present in the enclosures which do not directly serve the stairs.

Elevators: There are two functioning elevators in the building; one on each end. The existing elevator is a hospital type, front loading traction elevator with a machine room located atop the hoistway. The elevators date back to 1936; but were heavily modernized in 1977.

Painted hollow metal doors and frames occur at the hoistway entrances on each floor. Supplemental, stainless steel corner guards have been placed on the outer corners of the frames. A center opening, approximately 48 inch wide, sliding door is present. The cab measures approximately 54 inches wide by 80 inches deep.

*25. Typical Elevator*

The cab has faux wood grain, plastic laminate wall panels, stainless steel wall rails, moving hooks, VCT floor and an egg crate ceiling. In general, the cab finishes are worn and in poor condition. There are no hall lanterns. Also, the existing cab controls, hall call buttons and floor signs are not mounted at ADA compliant heights. Additionally, the cab can only be operated via a key switch. A fireman's recall key switch has been recently retrofitted on each floor.

We did not inspect the condition of the elevator equipment. However, a brief report was obtained from Otis Elevator, the contracted service company. Elevator #1 is located on the west and Elevator #2 is located on the east. In order to keep the existing elevators operational in the short term, the door operators, tracks hangers and door detector on elevator #1 need to be replaced. This work has already been completed on elevator #2. Also, a new brake needs to be installed on elevator #2. The existing brake is an AC brake which is obsolete and the new brake is DC. The brake has already been changed on elevator #1. The long term solution is to completely modernize the existing elevators with new fixtures, door operators, controllers, wiring and motors.

The elevator machine room is accessible from the attic catwalk system. These rooms house the controller, electrical equipment and traction motor. The cast in place concrete floor of the room is also the cap of the hoistway. A 2 inch high concrete containment curb is located at the door. The hoistways and elevator machine rooms are constructed of fire rated masonry. A fire rated hollow metal door and frame close off the room from the attic. Please refer to the roof section of the report for information about the skylight and ventilators.

Corridors: Each floor consists of a double loaded center corridor. This corridor is approximately 8'-0" wide. It links the two flanking stairs and elevators as well as the adjacent spaces. It has VCT finish flooring with a 6 inch high rubber wall base. There are wall mounted wood crash rails on each side of the hall. A suspended acoustical ceiling system with 2'x4' scored tiles is present. Lighting is accomplished via 1'x4' lay-in prismatic lens fluorescent fixtures. Walls are painted plaster on either metal studs or the original gypsum block partitions. In general, the interior finishes are worn and in poor condition.

*26. Typical*

*Corridor*

A stand pipe system is present which connects to fire department hose cabinets located on each end of the floor, adjacent to the stairs. Fire extinguisher cabinets are located on each end of the corridor. The fire hose and fire extinguisher cabinet mounting heights do not comply with ADA. No inspection was made regarding the capacity, type or condition of the fire extinguishers. There are minimal electrical and data receptacles in the common areas. Please refer to the mechanical and electrical portions of the report for additional information.

The original plaster ceilings remain above almost all of the suspended ceilings. The corridors have curved, vaulted ceilings and the rooms have flat plaster with a slightly raised border. The plaster appears to be in good condition; except for the holes from the suspension wires and duct work attachments. Ductwork was installed as part of the 1977
and 1990 work. Remains of the original gypsum block partitions are evident throughout.
The wall remains appear to be held in tension by the plaster. The stubs should be removed.

*27. Typical View Above Suspended Ceiling*

Doors, Frames and Hardware: The doors are typically clear finish, solid, flush wood doors set into painted hollow metal frames. The frames have hospital type jambs, with stops that terminate approximately 6 to 8 inches above the floor. Some doors have vision panels with wire glass inserts. Most of the doors and frames are in fair condition.

Stainless steel kick/protection plates are present on the bottom of some of the doors. Some doors have integral metal louvers. The doors appear to date from the 1977 renovations. Hardware consists of knob style mortise locks. These are not ADA compliant. It is unknown if a masterkey system is employed in the building.

*28. Typical Door*

There are double doors at the end of each corridor which separate the wings from the main portion of the building. These doors appear to occur in smoke partitions. The doors have magnetic hold open devices; but it is unknown if they are tied into the existing fire alarm system. Older open bar style panic devices are present on the doors. In general, all of the hardware should be replaced as part of any new work.

Typical Rooms: Each room consists of painted plaster walls on either metal studs or the original gypsum block partitions. VCT finish flooring with a 6 inch high rubber wall base is present. Ceilings consist of a suspended acoustical ceiling system with 2'x4' scored tiles. A surface mounted privacy curtain and track divide each bed area. Lighting is accomplished via 1'x4' lay-

in prismatic lens fluorescent fixtures. A call button/intercom station is located at each bed. Electrical and data receptacles are sparse.

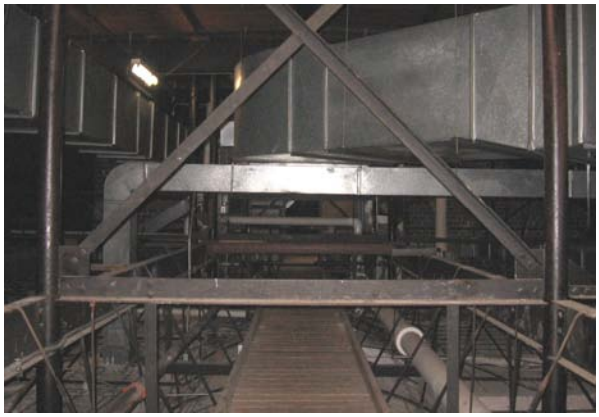
*29. Typical Room*

Typically, the patient rooms share a bathroom. The room has a ceramic tile floor and wall base. The walls consist of painted plaster walls on metal studs.
Ceilings consist of a suspended acoustical ceiling system with 2'x4' scored tiles. Lighting is accomplished via 1'x4' lay-in prismatic lens fluorescent fixture and a wall mounted fixture over the lavatory. Plumbing fixtures include a wall hung vitreous china toilet, lavatory and a fully tiled, built-in shower. The controls for the shower are located outside the enclosure. A floor drain is located adjacent to the shower area. Stainless steel grab bars surround the toilet. A call for aid device is located on the wall adjacent to the toilet. Most of the rooms also have access to an exterior window. It is important to note that the building does not have a large central, shared toilet core.

*30. Typical Bathroom*

An original steam radiator and a newer fan coil unit are located on the exterior wall. The typical radiator enclosures consist of a painted steel angle frame and open metal mesh cover. The steam valves are accessible from a small access opening in the enclosure. The enclosures are bolted to the floor and adjacent wall. The fan coil unit enclosures are rusted, dented and dirty.

Attic: A full attic space is present above the upper floor. The attic is contained under the sloped portions of the gable and hip roofs above. It is accessible from each of the stair enclosures via a wood plank catwalk system. The catwalk is located above the central corridor below. Exposed steel trusses and framing cross over the catwalk, reducing the overhead clearance significantly. A dry sprinkler system is present in this area. Utility lighting is also provided.



*31. Attic*

The original, round, structural steel columns can be seen on each side of the corridor. Steel beams and trusses frame into the columns. Wood roof deck spans between the steel members and wood purlins. Please refer to the structural portion of the report for additional information.

Two air handling units and their associated ductwork are housed in the attic space. The attic does not appear to have any insulation on the interior. Nothing was present on either the underside of the roof structure or at the ceiling of the spaces below. It is unclear whether it is a warm or a cold attic. Also, the space does not appear to have any ventilation.

Basement: There is a partial basement on the east end of the building. The basement is accessed from the east stair enclosure by a separate concrete stair. It is approximately 2,400 square feet in area. There is a large open area with separated rooms for mechanical equipment and electrical. A pair of original double wooden doors lead to an underground tunnel. The tunnel connects this building to the one across the street. The tunnel was not inspected. The main telephone service also is located in this area.

*32. Basement*

The basement has seven exterior masonry openings which originally held windows. Some of the openings have been blocked up and others have been retrofitted with metal louvers. The mechanical room houses the entrance point for the steam service. The main electric room is accessed from the mechanical room. The electrical room houses the main electrical service, emergency electric and main fire alarm panels. Please refer to the mechanical and electrical portions of the report for additional information.

Crawlspace: The remainder of the building has a crawlspace under the ground floor. It varies in height from approximately 9'-0" down to 4'-0" and has a dirt floor throughout. Originally, this space was separated from the partial basement by a concrete foundation wall. It was accessed from the basement via a steel ladder. At some point, this wall and ladder were removed. The original concrete structure is clearly visible in this space. The first floor consists of a cast in place concrete slab with recessed pans.

*33. Crawlspace*

The original metal forms work is still in place; although it is heavily rusted. Please refer to the structural portion of the report for additional information.

The space is extremely moist and does not have any ventilation. There is a remote access hatch and ladder which leads to the floor of a storage room on the west end of the building. A sprinkler system is also present in this space. The domestic water and sewer enters the building in the crawlspace. Please refer to the mechanical and plumbing portions of the report for additional information.

## RECOMMENDATIONS

The recommended scope, location, and extent of each phase of work is based upon the level of existing deterioration. The following priorities are listed in order of importance.

### Phase 1 - Department of Human Services and Allied Operations Offices Project

1. Re-build kitchen/loading dock walls above the windows on the north side.
2. Provide new low-slope roof systems on the kitchen/loading dock, lower flat roofs and upper hip roof areas.
3. Provide new asphalt roof shingles, flashings and re-line existing gutters. The existing copper pediment copings shall remain.
4. Replace the roof hatches, skylights and machine room ventilators.
5. Repair existing windows and storefront, paint exposed steel lintels and provide new exterior sealant.
6. Repair and renovate the existing elevators w/new ADA compliant controls.
7. Provide new electrical, fire alarm, telephone and data infrastructure.
8. Upgrade existing fire protection system.
9. Provide new plumbing infrastructure.
10. Provide limited upgrades to the existing mechanical system.
11. Provide new interior ceilings and walls for new offices.
12. Re-use existing wood doors and provide new hardware.
13. Provide new panic hardware on all interior stair doors.
14. Replace the existing doors in the connector corridor.
15. Remove the existing exterior wooden decks and concrete piers.
16. Rebuild the interior plaster window jambs.
17. Provide new parking area w/drainage improvements.

### Phase 2 – Potential Additions to the Project

1. Provide new fire protection system.
2. Patch holes in existing masonry and mortar.
3. Replace the original steel windows with new to match the aluminum units.
4. Replace the operable hopper unit in the glass block.
5. Provide ventilation in the crawlspace.
6. Provide all new interior doors and hardware.
7. Provide new wall mounted handrails in the stairs.
8. Provide splash blocks at all roof downspouts.
9. Remove the loading platform canopy.
10. Remove bird screen enclosures at the main entrance columns and pilasters.
11. Repair the door at the metal outbuilding.

### Phase 3 – Capital Projects

1. Provide all new mechanical system.
2. Re-build and waterproof the monumental entry stairs and portico.
3. Provide new aluminum windows and storefront throughout.
4. Replace all existing copper pediment copings.
5. Tie the downspouts into an underground piping system.
6. Replace all exterior doors and frames.
7. Clean all exterior masonry.
8. Restore all wrought iron railings and balconies.
9. Replace the light in the entry portico.
10. Replace all remaining interior doors hardware and finishes.

## CIVIL

### A. Parking:

Existing Parking: In order to estimate the parking needs for the Virks building, Fuss & O'Neill observed the parking lot at the Forand building, which is currently occupied by DHS. The observation was made on Monday, July 14 at 9:00 AM and included the parking lots to the north and east of the Forand building. Overflow parking from the nearby Traffic Tribunal building was observed at the southern end of the lot to the east of the Forand building. However, there was a distinguishable are open parking spaces between the Traffic Tribunal overflow parking and parking related to the Forand Building.

**Photo 1.** Existing parking lot and north building elevation.

During our observation, 155 vehicles were parked in the north and east parking areas of the Forand building. This count includes two vehicles and three buses that were marked with the Rhode Island Sherriff's Office insignia, and six vehicles in marked handicapped spaces. It is assumed that the Sherriff's Office vehicles will not be relocating to the Virks Building.

Based on data published in *Shared Parking* by the Urban Land Institute, parking demand for an office land use is at 95 percent of its weekday peak demand at 9:00 AM on a weekday morning. Further, peak parking demand during the month of July for an office land use is typically 5 percent below peak parking demand experienced during many other months, as workers tend to take more vacations during the summer months.

**Photo 2.** Portion of DOC parking lot.

Adjusting the 150 observed vehicles for time-of-day and seasonal variations, we estimate the peak parking demand for the DHS staff that will be relocated to the Virks Building is approximately 166 vehicles.

Additional parking needs that may be required for DHS operations at the Virks building, due to a change in staff needs (e.g. access for persons with mobility impairment) or increase in staff, must be assessed by DHS to determine whether future needs may alter our assessment. DHS should also determine if there were any events that may have resulted in the parking demand for July 14 being either higher or lower than average.
The parking lot located at the north side of the Virks building currently provides parking for approximately 18 vehicles (**Photo 1**). Nearby parking lots serving the Department of Corrections' (DOC) Bernadette building (No. 48) were recently constructed just north of the Virks building parking lot. Our observations at the Virks building site on July 14 indicated that

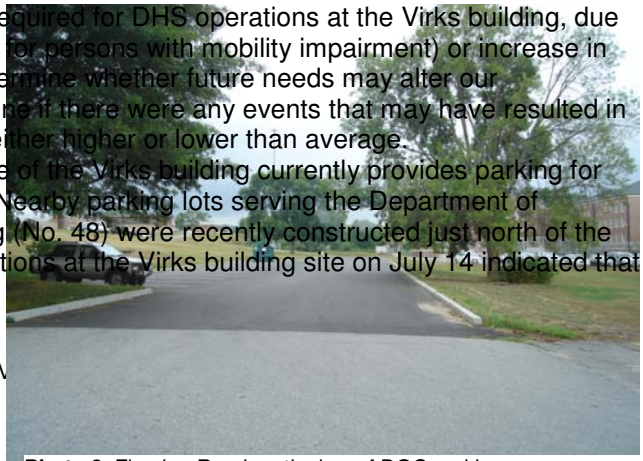


**Photo 3.** Fleming Road north view of DOC parking areas.

approximately 25 spaces within the Bernadette building parking lot were unoccupied and an additional 12 spaces were unoccupied in the 15-space row of parking along the west side of Fleming Road.

Dumpsters, assumed to serve the DOC operation, occupied two of the spaces (**Photos 2 and 3**).

Proposed Parking:

New parking lots must be constructed to satisfy the parking needs for the proposed use of the Virks building by DHS. Constructing sufficient parking capacity adjacent to the Virks building to serve the peak parking demands of DHS would not be cost-effective and would require connectivity with the DOC parking lot and a new parking lot northeast of the Virks building, in the vicinity of the pavilion.

**Photo 4.** Location of proposed parking area north of Virks building.

Both sites have limitations, including existing utilities and the need for storm water management. In addition, shallow bedrock and outcroppings were apparent in the area to the northeast.

The *Schematic Parking Layout* (C1.0) proposes construction of 61 parking spaces in two paved parking areas: the first area is located north of the Virks building with 51 spaces in the vicinity of the current parking lot and lawn (**Photo 4**); the second area is located along Fleming Road and is comprised of two parking bays with a total of 10 spaces.

The proposed parking areas provide convenient access to the Virks building and allow the spaces to be reserved for DHS employees with appropriate signage. Providing an expanded parking area along Fleming Road near West Road is not desirable because of potential traffic issues and the construction challenges associated with existing utilities and topography (**Photo 5**). These issues may be overcome with proper planning and design. However, the costs associated with the design and construction of this alternative are not currently included in the scope of this project.

To satisfy the balance of the anticipated DHS parking demand, alternatives to constructing additional parking lots and drainage facilities to manage the runoff from theses areas should be considered. A large parking lot to the south of the Virks building has been evaluated on several occasions for potential use as a shared parking lot for DHS employees.



**Photo 5.** Slope along the west side of Fleming Road.

This parking lot is shown on *Proposed Shared Parking Lot* (C2.0). The aerial photo in the plan indicates approximately 135 parking spaces within the area of shared parking demarcation with approximately 70 parking spaces occupied, more than observed previously. Assuming the existing 13 parking spaces along Fleming Road can be used by DHS, 61 new spaces can be constructed north of the Virks building and along Fleming Road, and 70 spaces can be used (on average) in the shared parking lot, we project a parking deficit of approximately 22 spaces. Alternative solutions to the parking demand, such as shuttles from other campus lots and other shared parking options, should be evaluated for this project.

A pedestrian route from the shared parking lot can be provided with a short section of walkway from the lot to West Road. There is an existing crosswalk, which must be re-painted) from the northeast corner of the parking lot on the south side of West Road to a sidewalk along the north side of West Road. The sidewalk connects to the south entrance of the Virks building (Alternative 1 on C2.0). Another alternative is to construct a sidewalk along Fleming Road and a crosswalk from the shared parking lot (Alternative 2 on C2.0). The layouts of both alternatives are depicted on C1.0, including an option to Alternative 1, which provides a safer crossing route for pedestrians. Alternative 1A would require the construction of a short section of sidewalk from the shared parking lot and a new crosswalk. The existing crosswalk for Alternative 1 should not be used with either of the other alternatives.

**Photo 6.** Catch basins in lawn area north of Virks building.

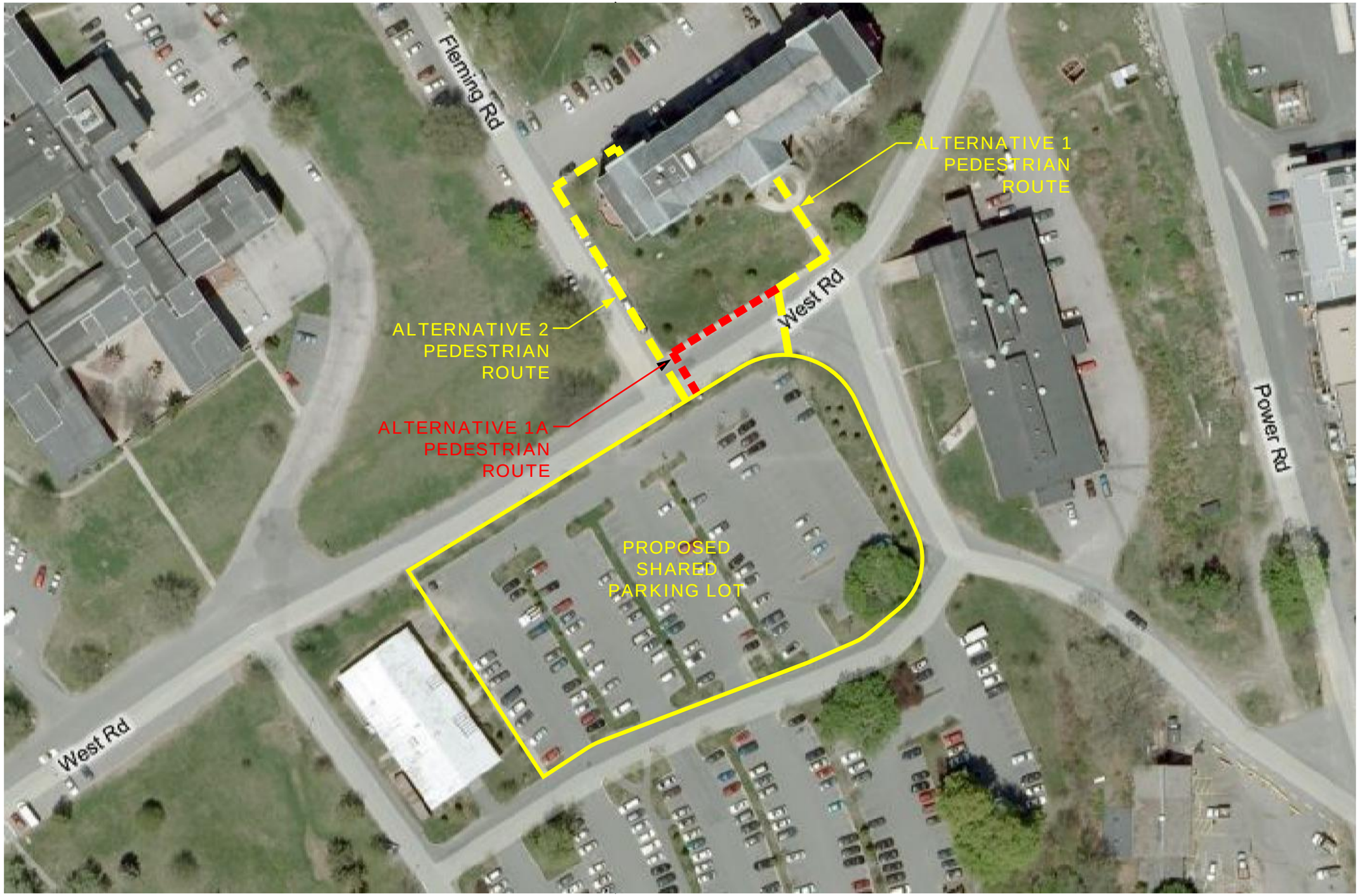
## B. Storm Water Management:

The topography of the proposed parking lot to the north of the Virks building generally slopes down gradient from west to east and south to north. Two catch basins located in a depression near the center of the lawn area (depicted in **Photo 6** and on *Schematic Parking Layout*, C1.0) collect runoff from the lawn area, the Virks parking lot, and at least a portion of the Virks building (evident by roof downspouts along the north elevation). Observations of the drainage structures suggest a connection to a drain manhole on the east side of the Virks building and Bernadette building connection. The connection must be verified prior to proceeding with Design Development documents.

The development of the lawn area as a paved parking lot will require the import of suitable gravel fill to achieve satisfactory grades. A proposed bio-retention basin will provide water quality treatment and attenuation of storm water runoff to conform to RIDEM standards for the design of storm water management systems. The primary function of bio-retention basins is to filter storm water runoff prior to discharging the water to downstream drainage systems or wetlands. The basins are typically planted with water-tolerant species that provide enhanced pollutant removal and aesthetics. Pre-treatment of runoff is necessary prior to discharge to the bio-retention basin; a stone trench (referred to as a stone diaphragm) is planned along the pavement edge for this purpose. An outlet control structure, similar to a catch basin, will release large runoff volumes through its grate top. Runoff that does not exceed the water quality volume will filter through the basin floor or be removed by evaporation and plant uptake. A subdrain below the basin floor ensures complete drainage.

## C. Utilities:

The existing water and sanitary sewer services for the Virks building are anticipated to remain and will not be replaced as part of the scope of this project. Existing utilities are located within the proposed parking areas and include water, steam/condensate, drainage, and perhaps others. We have assumed that the hydrant and post indicator valve in the area of the proposed parking lot north of the Virks building will remain in place. A landscaped island in the parking lot will protect these structures. A steam manhole at the north entrance to the parking lot must be adjusted to final grade during construction. A manhole in the west shoulder of Fleming Road within a proposed parking area must also be adjusted to final grade.

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VIRKS BUILDING
PROPOSED SHARED PARKING LOT
PASTORE GOVERNMENT CENTER
WEST ROAD
CRANSTON RHODE ISLAND

PROJ. No.: 20080573.A10
DATE: JULY 15, 2008

C2.0

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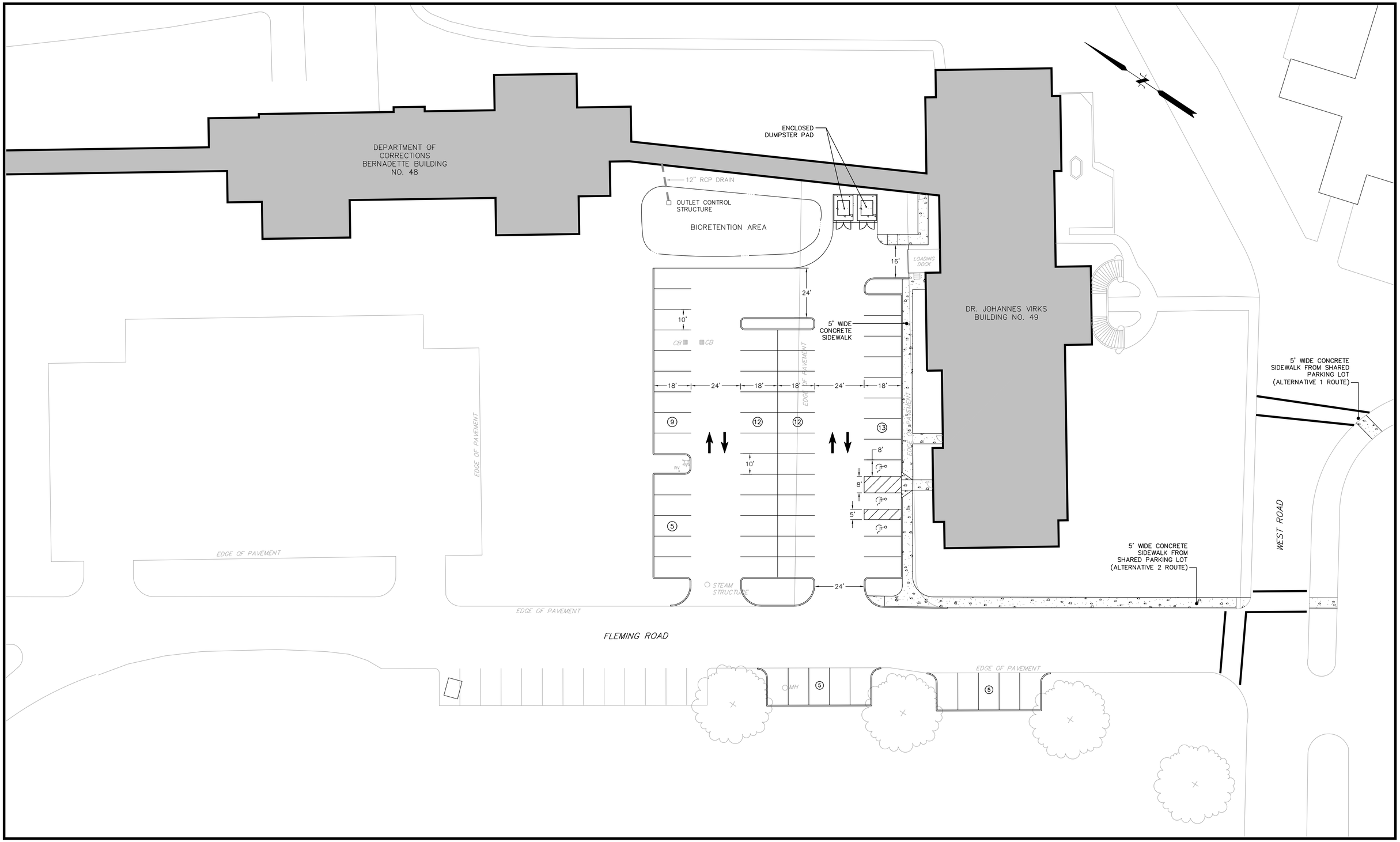


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VIRKS BUILDING
SCHEMATIC PARKING LAYOUT
PASTORE GOVERNMENT CENTER
WEST ROAD AND FLEMING ROAD
CRANSTON RHODE ISLAND

PROJ. No.: 20080573.A10
DATE: JULY 15, 2008

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# STRUCTURAL

## Building Assessment

### A. General

The existing building is a four story structure built in 1936. The building has a full basement over a portion of the south end of the building, but is crawl space for the remaining larger portion. There is a full attic space which is accessible from a catwalk that runs the full length of the attic.

Floors: The typical structural framing for each of the four floors is a one way, reinforced concrete joist system utilizing a steel pan system. The concrete beams span from the exterior load bearing masonry walls to two interior steel beam lines that run the full length of the building inside the central corridor walls. A reinforced concrete slab spans the corridor between beam lines. The steel beams are supported by steel pipe columns so that the interior partition walls are all non-bearing except for the main stair and elevator shaft walls. These shaft walls are typically 12” thick, cementitious block walls.

Roof: The roof framing consists of structural wood decking spanning between wood and steel purlins. The purlins are supported by open web, steel trusses that span from the exterior wall to the interior beam lines.

Exterior Walls & Foundations: The exterior load bearing walls are composite construction with brick exterior and a cementitious block backup. The wall thickness varies from 20” at the ground floor to 16” at the upper floors. The perimeter foundation consists of cast in place concrete walls on a continuous concrete spread footings. The interior steel columns are supported on concrete piers and reinforced concrete spread footings.

### B. Structural Capacities:

A structural analysis was performed of a typical concrete floor beam, corridor slab, and steel girder. The existing flat concrete floor slabs in the corridor have a live load capacity of over 100 psf. The existing typical concrete floor joist pan system also has a live load capacity of over 100 psf. This high load capacity is due in part to the conservative design method for concrete structures that was being used at the time this building was constructed. The current strength design method of analysis for concrete typically yields higher allowable loads than what the original design loads would have been. The steel beams supporting the concrete joist system have a live load capacity of approximately 80 psf. These floor load capacities exceed the minimum requirement for the proposed office use of 50 psf.

Since there is not enough information on the original structural drawings for the roof framing, a structural analysis of typical roof members was not performed. However, based on visual observation, there were no signs of overstressing or any evidence that the roof structure has not been performing adequately.

### C. Observed Deficiencies:

In general, the structural condition of the building is very good. The few structural deficiencies noted during my visit were primarily exterior masonry issues and were for the most part, minor in nature. The only exception to this is the issue relating to the main entrance monumental stair. The assessment of these items relating to exterior masonry, including the main entrance stair, are all addressed in the Architectural portion of this assessment report.

**D. Code Requirements:**

The renovation of this building will fall under Chapter 34 of the current Rhode Island SBC-1-2007 building code. Based on section 3410.4.1 for Change of Occupancy, we need to meet the requirements of Chapter 16. Chapter 16 will require a floor loading for office spaces of 50 psf, 100 psf at lobbies, stairs, and first floor corridors, and 80 psf in corridors above the first floor. The existing floor structure is able to meet this load criteria. Wind loads will also need to be per Chapter 16 which is not an issue given the current plan configuration and construction type. For seismic loads, Section 1614.2 applies. Since the change of use of this building does not result in being classified into a higher seismic use group, we do not need to meet the seismic requirements for new structures. We are actually being classified into a lower seismic risk use group.

**E. Limits of Assessment**

The conclusions and recommendations contained in this report are based on observation of those structural items that were visible at the time of our visit. This report is limited to that which could be reasonably assessed from visual observation alone. The majority of the structural framing is not visible because of finish materials, with the exception of the crawl space and attic.

In terms of the analysis that was done as part of this assessment, typical members were analyzed to determine approximate capacities. The analysis is based on members that are in good structural conditions and not those that have not been compromised by deterioration or other damage.

## HVAC

A. Existing Systems

The building utilizes campus steam to generate all heating and chilled water to heat and cool this building. A 6" low pressure (5Lb.) steam and 2" high pressure (70 Lb.) steam line enter the building in the basement mechanical room. At the steam entrance, a pressure reducing station is present to distribute the required steam pressure to the heating system. A condensate receiver pumps the steam condensate to the campus underground system and then flows back to the central plant. Steam heating piping is distributed throughout the lower level crawlspace and through risers in the building. The building was mainly heated by cast iron radiators until major renovations were completed in the early 1990's. During this renovation, air conditioning was implemented and most of the cast iron radiators were replaced with fan coil units that utilized steam heating and chilled water cooling coils. This renovation included the addition of a new outdoor mechanical room, which currently houses a Carrier Model 16JB018-604, 135 Ton, steam absorption chiller. Along with the chiller, distribution and condenser pumps exist in the same mechanical room. Adjacent to this mechanical room is an open type cooling tower built up on steel. This chilled water system provides the cooling for the entire building.

In the attic exists a large Trane built up air handling unit and three exhaust fans that provide ventilation air to a majority of the building. The original intent of this unit was to provide heating and ventilation to the interior spaces of the building that did not have operable windows. Exterior rooms utilize operable windows for ventilation air and radiators (or fan coil units) for heating. During the 1990 renovation, the unit was retrofit with a chilled water coil and now provides heating, cooling and ventilation to these interior space. Large ductwork is distributed through much of the attic and down centrally located shafts in the building. The ductwork does not appear to be insulated, which poses a problem for using the system for air conditioning. The lack of duct insulation will result in condensation of the ductwork and cause premature failure of building materials and possible mold propagation. We would not recommend using this ductwork as it is currently being used for comfort cooling. Refer to recommendations below.

The existing temperature control system is pneumatic type and is antiquated. The main compressor is antiquated and is unreliable. The major complaints surrounding this system is lack of zoning and difficulty to identify where the leaks occur in the pneumatic tubing lessening the effectiveness of the control system. These complaints are common from building users with pneumatic temperature controls such as this system.

B. Assessment of Equipment and Recommendations

The chilled water plant consists of one chiller, one cooling tower, one distribution pump and one condenser pump. If any of these pieces fail, the whole cooling system is down. It is uncommon to see such a lack of redundancy, which is a concern for the new intent of this building. The existing equipment in this mechanical room appears to be in good working order and appears to receive routine maintenance. The cooling tower has been replaced within the last year and is in good working order. Upon review of the potential cooling load for an office use in this building, the chiller appears to be slightly undersized for the building. Our initial calculations indicate a required load of 150-175 Tons of cooling will be required; the current chiller is capable of 135 Tons. We may need to add additional cooling to this system in the form of split systems with DX cooling. We will further review the loads when a space plan has been developed for the building.

The existing fan coil units and radiators should be removed and replaced with new (where required). The fan coil units are over 15 years old and close to useful life expectancy. Cast iron radiators pose a liability issue, due to high surface temperatures. We would recommend that all fan coil units be replaced as recommended below and that all radiators be removed and replaced with either fin radiation, cabinet heaters or fan coil units.

The attic heating, cooling and ventilation unit and exhaust fans are well passed useful life expectancy. As mentioned above, we do not recommend using this system for cooling due to the uninsulated ductwork. We would recommend using an energy recovery system to provide tempered ventilation air to the building and allow the fan coil units or space heating / cooling system to provide all necessary heating and cooling. We would recommend a thorough duct cleaning and trying to reuse as much of the existing ductwork system as possible. A new exhaust shaft will be required due to plan changes and the elimination of most of the restrooms in the current patient rooms. The energy recovery system shall provide all ventilation and exhaust air for the building with one common ducted system. We recommend a control method using a supply air thermostat set at 72 degrees year-round. This would entail using heating and cooling coils to maintain a discharge air temperature close to ambient air temperature and minimizing the potential for condensation on the ductwork.

The main steam entry into the building will require a rework of the steam entry system. We would recommend adding new main shut off gate valves, an inline dryer, new pressure reducing station, flash recovery tank and a new duplex condensate receiver to this system. From this new PRV station we have two system options for the heating system in this building. Refer to System One and Two descriptions below.

Lastly, we recommend a new direct digital control (DDC) system for the entire building. This system would be tied into the main front end computer operated by the State of Rhode Island and shall be enable with trouble alarms, trending, override and schedule capabilities. This system properly implemented will reduce overall operating cost and better satisfy the dynamic zone requirements of this building.

*System One – Steam Heat / Chilled Water*
Due to budget constraints of the project, we must recommend a reuse of the existing main steam and chilled piping in the crawlspace and risers. First, we must identify any areas of failure for repair and specify a complete re-insulation of all piping that is considered “existing to remain”. The existing piping mains will be adapted to new fan coil units located throughout to maximize space comfort and accommodate the new building layout. The system would be similar to the existing, but catered to the new building usage. The new DDC temperature controls will better the zoning issues that are currently an issue in the building and provide for more individual control. These recommendations are in addition to what has been described above.

*System Two – Hot Water and Chilled Water*
If budget allows, we would recommend a complete removal of the existing steam distribution system. After the proposed new pressure reducing station described above, we would institute a new steam to hot water converter, distribution pumps and piping system. This new system would utilize circulating hot and (the existing) chilled water to new fan coil units located throughout the building. The new heating hot water distribution pumps shall be provided with variable speed drives to reduce operating cost.
Along with the systems described above and a new DDC control system, this building will address all temperature control zoning requirements, as well as increased operating efficiency.

The intent of the new mechanical system has to address code ventilation, comfort and operating efficiency for an office building. The current building is used entirely different as a hospital use, which operates all day and night and all year long. An office building is usually limited to day operation, which allows for the opportunity to save energy while the building is not occupied. The implementation of good zoning, energy recovery and a new DDC control system will improve operating efficiency and greatly reduce operating cost.

## Plumbing

A. Existing Systems

The building is currently used for hospital use and utilizes a series of different piping systems include natural gas, medical gas and waste, water and vent plumbing systems. The oxygen, gas and vacuum medical gas systems have been abandoned and are no longer used. Local oxygen tanks have replaced the bulk storage system that once existed; only an outdoor pad exists where this tank was located. Most of these plumbing systems are antiquated and the system does not employ low water use, conservation type water closets and urinals as required by the recent plumbing code. The 2" incoming water service lacks an RPZ type reduced pressure backflow preventer, which is required by plumbing code. The piping systems are antiquated and show signs of failure. There is an existing 2000-gallon domestic water storage tank in the basement mechanical room, which is antiquated, shows signs of failure and requires replacement. This water heater utilizes the campus steam system to heat the domestic hot water. This storage tank will be oversized for the new building use. The building currently has many bathroom groups, which are required for hospital use. Once this building is converted to office use, most of these bathrooms will not be required and hot water demand will be greatly reduced.

B. Recommendations

Due to the condition of the existing plumbing systems, we recommend all new plumbing systems complete with an RPZ backflow preventer on the incoming service, new distribution piping, new low flow fixtures to accommodate the new architectural layout and a new domestic water storage tank. The new storage tank will require less than 150 gallons of storage and be provided with a new mixing valve station and recirculation system. All abandoned systems shall be removed as much as possible where exposed during this renovation. All new domestic hot, cold and recirculating piping shall be insulated with fiberglass insulation.

## Fire Protection

A. Existing Systems

An independent 6" fire water service enters the building in the crawlspace and rises to a fire service room on the first level. This fire service room houses the main single check valve, dry valve for the attic sprinkler system and the main flow and check valve assemblies. The compressor for the attic sprinkler system is located in the mechanical room in the basement and is antiquated requiring replacement. Standpipes with fire department connection and hose reels exist on each level. The attic is covered by a dry pipe sprinkler system and is the only area of coverage in this building. During our site inspection, we could not identify any means of shut off to this piping system in case of failure.

B. Recommendations

According to the Rhode Island Fire Safety Code Section 38.3.5.1, this building requires an approved system of automatic sprinklers. Due to budget constraints we recommend seeking a variance for this local ruling, since it is not a mandate of NFPA or the RI Building Code; only a local requirement. The system does employ standpipes, a fire department connection and a limited coverage system. At a minimum, the existing system will require the addition of a double check valve assembly, fire department test connections, a new dry system compressor (preferably located within the fire service room), wiring of the flow and tamper switches to the proposed new fire alarm system and a post indicator valve (PIV) for curb shut off of the system in case of failure.

If a variance is not granted for this building, a new wet sprinkler system shall be instituted in accordance to NFPA 13 and 101. The new wet sprinkler system shall provide coverage for the basement, first second and third floor and a dry pipe sprinkler system shall be used in the attic and crawl space. Prior to the design of this new system, a water flow test shall be done to record residual and static pressure at the nearby fire hydrants to determine if there is adequate pressure

in the system to serve this automatic sprinkler system. The 6” incoming service is an indicator that pressure may be an issue and hopefully a fire pump will not be required. The retrofit of a sprinkler system in this building will not be that difficult, since a standpipe riser already exist in the building. Each level will extend distribution from this riser and be provided with individual floor control assemblies. Adequate draining and pitching of the pipe must be accounted for, as well as fire department testing stations. The new system shall include a double check valve assembly, fire department test connections, all necessary dry valves for the attic and crawlspace zones, new flow and tamper switches wired to the new fire alarm system and a post indicator valve (PIV) for curb shut off of the system in case of failure.

# ELECTRICAL

## A. General

The Virks Building is located within the Pastore Center as the corner of West and Flemming Roads. The building was constructed in 1936 and has been used as a hospital facility. The building is approximately 50,000 square feet (excluding basement and crawl space) with four floors, a full attic and partial basement. A crawl space runs under the remainder of the building. An enclosed connecting corridor links the Virks Building with the Correctional Building. A small disconnected Chiller Building is located at the northeast corner.

The electric service went through upgrades in 1977 with a new 800 amp building service and replacement of the emergency distribution panel MDPE.

## B. Electrical Systems Assessment

The Virks Building is served by two power systems; normal power and emergency power. Refer to Electrical Sketches SKE-1 and 2 for the existing distribution system and main electric room.

1. Normal Power Distribution Systems

   The normal power system is fed from the Pastore Center of Electrical Generation and Distribution (PCEGD) transformer vault. A secondary service of 2 sets of 4#400 Kcmil feeders in a 4" PVC conduit runs from the vault to a Westinghouse, 800 amp, 120/208 volt, 3 phase, 4 wire main distribution panel located in the Basement Electric Room. The panel was installed in 1977 and appears to be in fair to poor condition. There appears to be signs of rust on the panel covers and door and according to the facility staff is not operating properly. The panel is also 30 years old and at the end of its life expectancy.

   According to the National Electric Code table 310.16 for cable ampacities, the incoming #400 Kcmil cable is rated for 670 amps, undersized for the 800 amp service presently serving the building. As will be seen from the new service calculations, under the Recommendations heading of the Electrical section of this report, this service is also of inadequate size for the proposed new use of the building.

   This system feeds panels kitchen panels KP and KP1 as well as provide power to the pumps and miscellaneous equipment in the Chiller Building.

   Therefore as part of the construction project, the existing service and associated distribution equipment shall be disconnected and removed. KP and KP1 are to be disconnected and removed; the feed to the Chiller Building will be extended to the new building distribution equipment.

   Note: if deemed so by the utility, general and electrical contractors, the service can remain in place for the source of temporary power during the construction phase of the project. At the end of the project the service can be disconnected and removed.

   There is also a second 200 amp, 120/208 volt, 3 phase, 4 wire services, which is believed to be the existing system installed in the 1930's, which appears to not service any equipment. This service shall also be disconnected and removed as part of the construction project.

2. Emergency Power Distribution Systems

   The emergency power system is fed from a generator located at the Correctional Building. A 400 amp, 120/208 volt, 3 phase, 4 wire feed is brought from the Correctional Building emergency distribution equipment to panel MDPE located in the Basement Electrical Room.

MDPE is rated at 400 amp, 120/208 volt, 3 phase, 4 wire. The panel was installed in 1977 and appears to be in fair to poor condition. There appears to be signs of rust on the panel covers and door and according to the facility staff is not operating properly. The panel is also 30 years old and at the end of its life expectancy.

Panel MDPE feeds a panel in each the west and east wings per floor. The panels are recessed in the corridor of each wing. Panels are rated for 100 amp, 120/208 volt, 3 phase, 4 wire, 30 circuit. Panels are of insufficient capacity and space for the new use of the building.

The entire system shall be disconnected and removed as part of the construction project.

3. Low Voltage Systems

The fire alarm system is manufactured by Simplex and is 30+ years old. The system is past the end of its life expectancy. The system is hard wired and zoned for each wing and floor. With the age of the unit, parts are no longer available. The entire system shall be disconnected and removed as part of the construction project.

With the change in building programming, the nurse call and paging systems are no longer required and shall be disconnected and removed as part of the construction project.

4. Lighting System

In general the existing lighting system is recessed lensed fluorescent troffers in stalled in the late 1970's. The fixtures consist of T12 lamps and magnetic ballasts. The lighting system no longer meets the current energy codes and LEED standards. Fixtures shall be disconnected and removed as part of the construction project.

5. Tele/Data System

The telephone service runs into the building through the Basement Main Electric Room and runs to a backboard located in the adjacent Storage Room. Pieces of the main cable have been cut away exposing the copper wiring. The cable should be disconnected and replaced with the proper pair count for the new building program.

The main fiber optic cable runs into the building buried in the crawl space and runs to a terminal board located in the Data Closet adjacent Storage Room. It has been determined that the number of strands of the fiber and the adequacy of the cable for the new building program is not adequate for the new program.

## C. Recommendations

The following should be incorporated into the current scope of work for the Department of Human Services and Allied Operations Offices project

Refer to Electrical Sketches SKE-3 through 5 for recommended new work associated with the distribution system and main electric room.

1. Normal Power Distribution System

The project should include a new power distribution system. A new 1600 amp, 120/208 volt, 3 phase, 4 wire secondary service shall be run from a pad mounted PCEGD transformer to a new switchboard located in the Basement Electric Room.

Service size is based on the following square foot design loads. Loads are based on industry design loads for a low rise general office building:

| | |
|---|---|
| Lighting | 3 watts/square ft (w/sqft) |
| Devices | 2 w/sqft |
| HVAC* | 1 w/sqft |
| Misc | 1.2 w/sq/ft |
| Elevator (2) | 1 w/sqft |
| SubTotal | 8.2 w/sqft |
| | X 50,000 sqft |
| Total | 410,000 watts |

$$\text{Amperes} = \frac{\text{Watts}}{\text{Volts} \times \text{Power Factor} \times 1.73}$$

$$\text{Amperes} = \frac{410{,}000}{208 \times .8 \times 1.73} = 1{,}424 \text{ amperes}$$

Therefore the requirement for a new 1,600 amp service.

*Based on building being served from central plant chiller and boiler; fan load only.

The new main switchboard shall be rated at 1600 amp, 120/208v, 3 phase, 4 wire and shall come complete with an isolated ground bar and internal TVSS protection. Switchboard shall serve a series of standard and isolated ground panels through out the building as indicated on riser diagram SKE-3.

The primary service and pad mounted transformer will be furnished by PCEGD.

2. Emergency Power Distribution System

Emergency power shall be provided via a new stand alone, diesel generator. The generator shall be housed in a self contained, exterior mounted, sound attenuated, enclosure with a double walled fuel base tank. The preliminary rating of the generator is 120/208V, 3 phase, 4 wire, 75 KVA. The generator will feed two (2) transfer switches in the building.

Transfer switch 1 will provide power for NEC art 700 emergency loads. These loads include egress lighting and exit signs, fire alarm system, one elevator and telephone PBX. Transfer switch 1 shall be rated at 100 amp, 120/208 V, 3 phase, 4 wire. Transfer switch to be located in the Basement Main Electric Room.

Transfer switch 1 shall feed a 100 amp, 120/208V, 3 phase, 4 wire panel located in the Basement Main Electric Room. A 60 amp, 120/208 volt, 3 phase, 4 wire sub panel will also be provided on the second floor. Feed between the basement panel and second floor panel shall be 2 hour rated.

Transfer switch 2 will provide power for NEC art 702 optional stand-by loads. These loads include IDF equipment and AC for the IDF room and closets. Transfer switch 2 shall be rated

at 100 amp, 120/208 V, 3 phase, 4 wire. Transfer switch to be located in the Basement Main Electric Room.
Transfer switch 2 shall feed a 100 amp, 120/208V, 3 phase, 4 wire panel located in the Basement Main Electric Room.

3. Fire Alarm System

Because of the antiquity of the existing system and the call for removal, the building will require a new fire alarm system. The new fire alarm system shall be equal to the FCI 7200 Series analog addressable, multiprocessor-based fire alarm system.

The system shall meet the following basic codes and standards:

Codes

The fire alarm system in its entirety shall be in compliance with all applicable codes and comply with the requirements of the local Authority Having Jurisdiction.

U.L. Standards

The system shall comply with the applicable provisions of the following U.L. Standards and Classifications:

UL STD 864, Control Units, Fire Protective Signaling Systems
UOJZ, Control Units, System
UOXX, Control Unit Accessories, System
SYZV, Control Units, Releasing Device

NFPA Standards

The 7200 Series system shall comply with the applicable provisions of the following current National Fire Protection Association (NFPA) standards:

NFPA 72, National Fire Alarm Code

NFPA 90A, Installation of Air Conditioning and Ventilating Systems

Life Safety Code NFPA 101, Safety to Life from Fire in Buildings and Structures

General System Operation

Operation of any alarm initiating device shall automatically:

a. Update the control/display
b. Sound all alarm signals throughout the building at the evacuation rate.
c. Turn on all strobe lights throughout the building.
d. Turn on a red alarm zone LED at the fire alarm control panel.

e. Operate the alarm relay contacts to initiate the transmission of an alarm to a central station agency/Fire Department.

f. Operate control relay contacts to shutdown all HVAC units serving the floor of alarm initiation.

g. Operate control relay contacts to return all elevators that serve the floor of alarm initiation to the ground floor. If the alarm originates from the ground floor, operate control circuits contacts to return all elevators to the floor above or to a level as directed by the local fire department.

h. Operate control relay contacts to release all magnetically held smoke doors throughout the building.

i. Visually annunciate the zone of alarm on the remote annunciator panels.

4. Lighting System

The lighting system shall be designed and installed based on the latest fluorescent and LED technologies. The design shall also incorporate control technology eligible for LEED credits to assist in achieving LEED Silver Certification.

5. Telephone / Data System

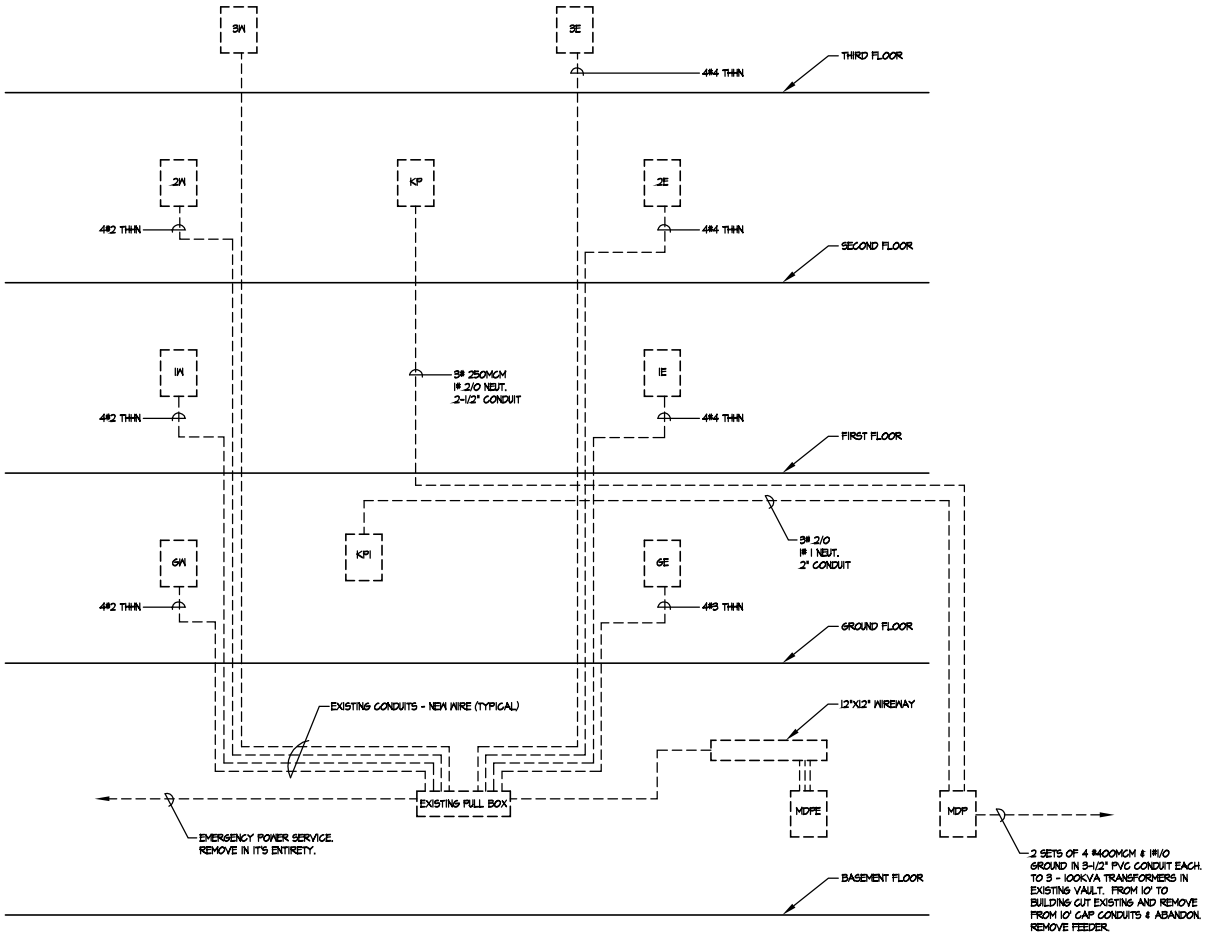
A new 400 pair cable will be brought to the Virks building from the CDC building via existing underground duct system on the Pastore Campus. Cable to be terminated at a PBX unit in the main IDF room located on the first floor. Service work and PBX shall be by DOIT.

System to be distributed from the main IDF room to the satellite closets located on each floor. This work is to be performed by the Contractor.

A new multimode fiber service will be brought to the Virks building from either the Admin Building at 40 Howard Ave or Simpson Hall via existing underground duct system on the Pastore Campus. Fiber to be terminated in the main IDF room located on the first floor. Service work, Room and closet fitout shall be by DOIT.

Multimode fiber cable will be run from the main IDF room located on the first floor to the satellite closets located in each floor. This work is to be performed by the Contractor.

Category 6 cabling will be provided for both telephone and data drops to satellite closets or the main IDF room. This work is to be performed by the Contractor.




# EXISTING DISTRIBUTION RISER DIAGRAM

N.T.S.

NOTES:

1. EXISTING PANELS TO BE DISCONNECTED & MADE SAFE FOR DEMOLITION.
2. ENTIRE ELECTRICAL SYSTEM TO BE REMOVED AS PART OF DEMOLITION PHASE.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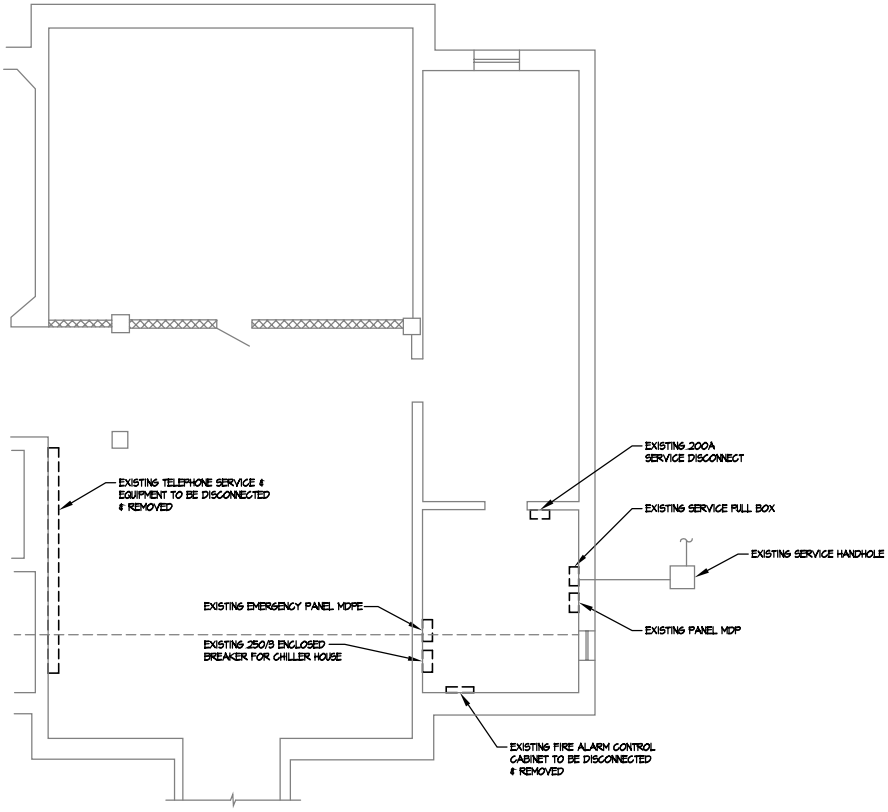
G.A.S. # 080091


JOB: DR. JOHANNES VIRKS BUILDING
EXISTING DISTRIBUTION RISER DIAGRAM

DWN BY: BRS SCALE: N.T.S.

CKD BY: SGD DATE: 7/16/08

SHEET NO.: 1 OF: 5 **SKE-1**




# PARTIAL BASEMENT PLAN - DEMOLITION

1/16" = 1'-0"

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G.A.S. # 080091

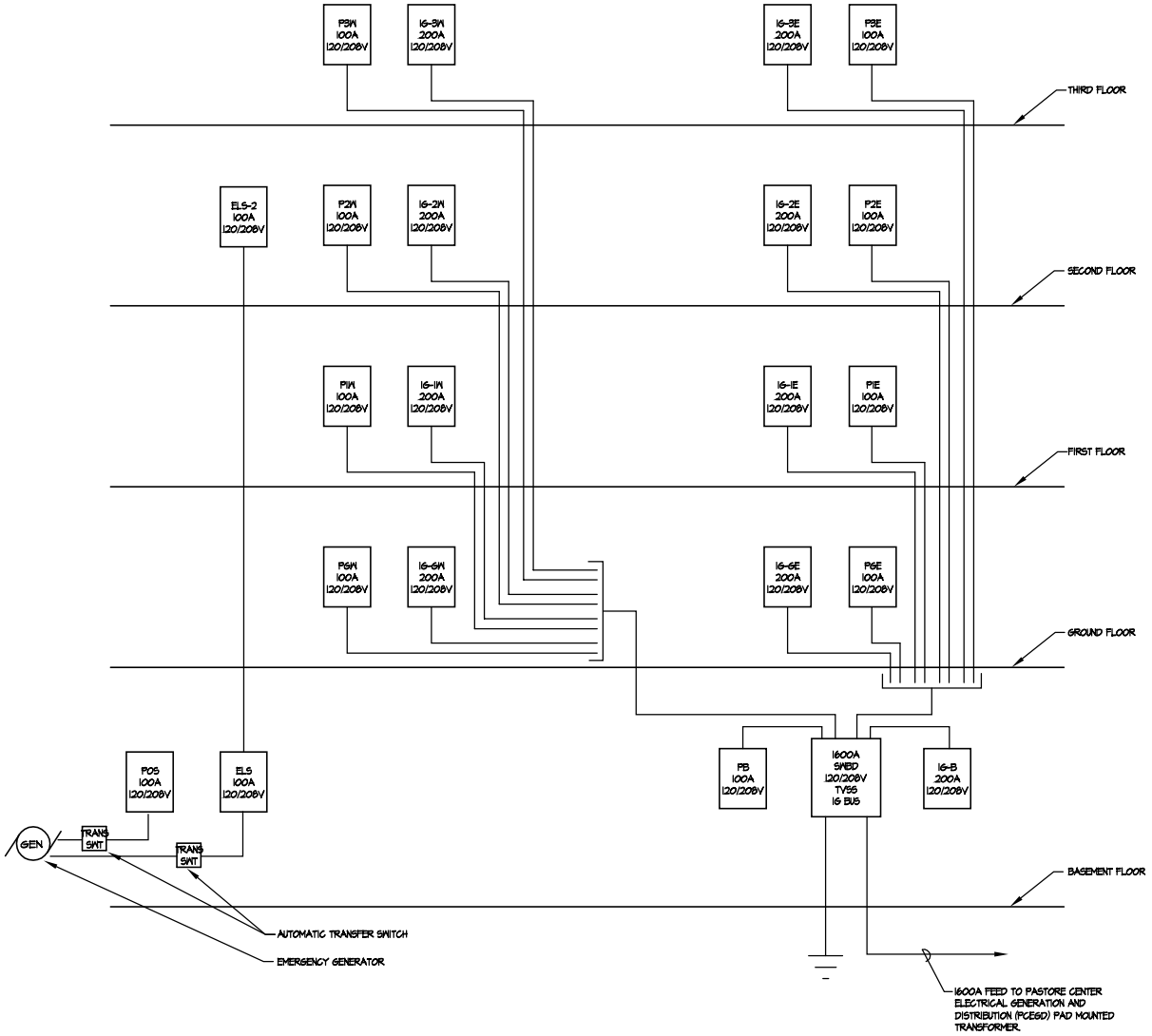
JOB: DR. JOHANNES VIRKS BUILDING
PARTIAL BASEMENT PLAN - DEMOLITION

DWN BY: BRS
SCALE: 1/16" = 1'-0"

CKD BY: SGD
DATE: 7/16/08

SHEET NO.: 2 OF: 5

**SKE-2**




# NEW DISTRIBUTION RISER DIAGRAM

N.T.S.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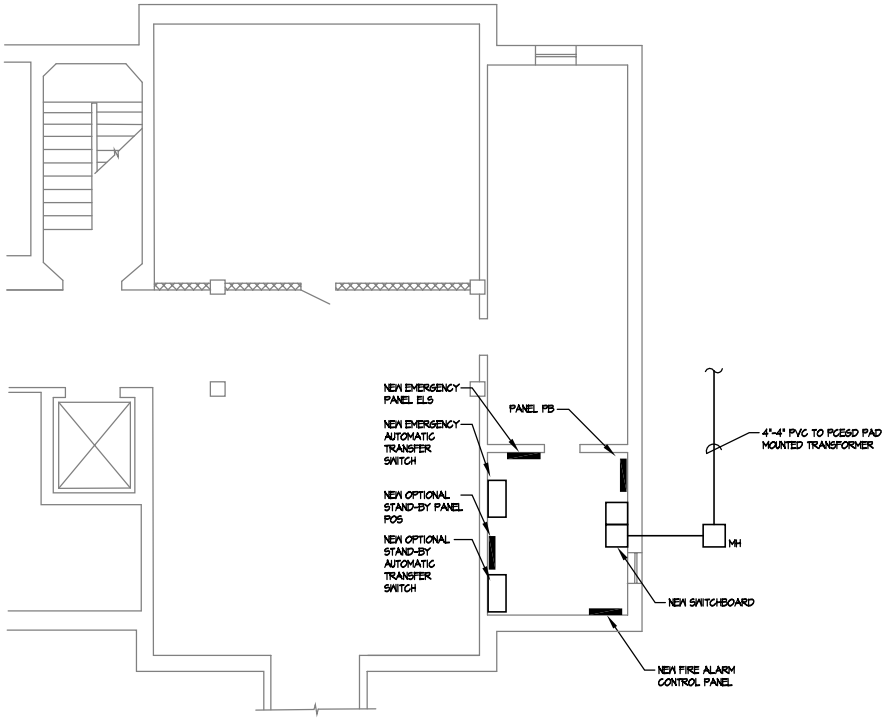
JOB: DR. JOHANNES VIRKS BUILDING
NEW DISTRIBUTION RISER DIAGRAM

DWN BY: BRS SCALE: N.T.S.

CKD BY: SGD DATE: 7/16/08

SHEET NO.: 3 OF: 5

**SKE-3**




# PARTIAL BASEMENT PLAN - NEW WORK

1/16" = 1'-0"

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CRANSTON, RHODE ISLAND 02910
G.A.S. # 080091

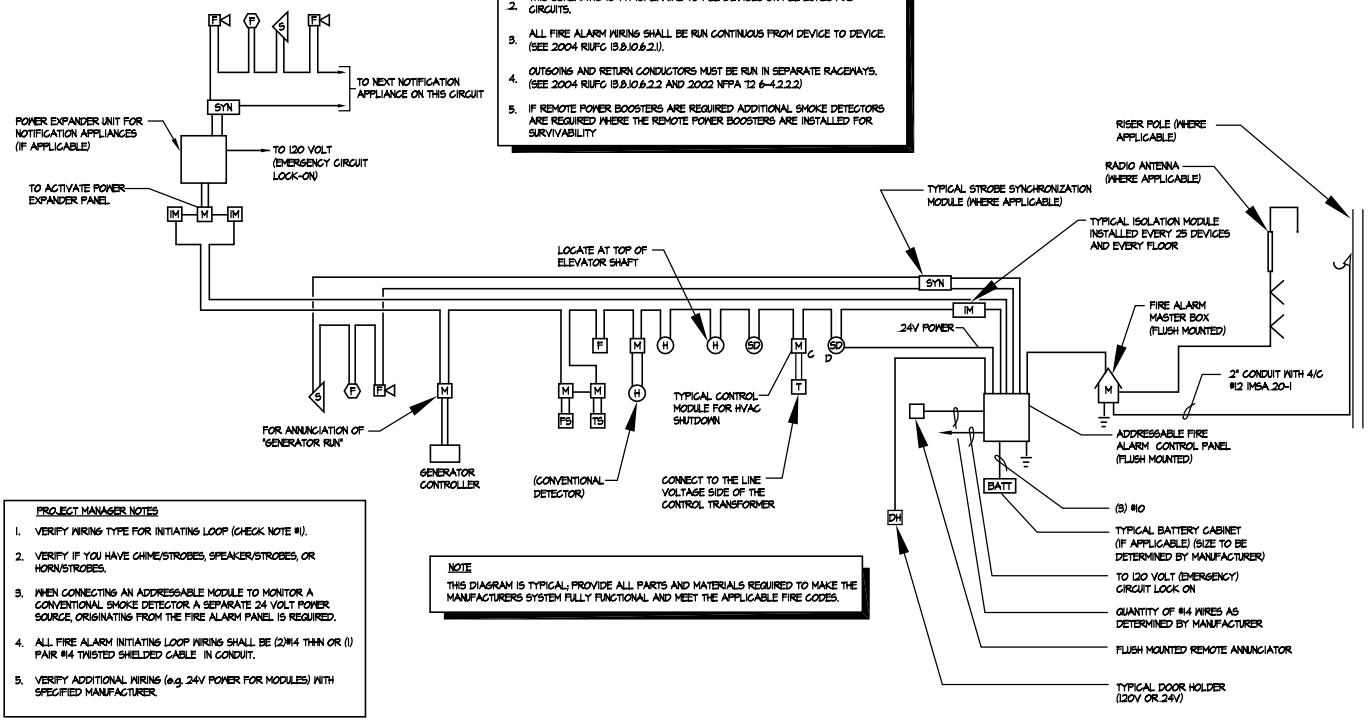
JOB: DR. JOHANNES VIRKS BUILDING
PARTIAL BASEMENT PLAN - NEW WORK

DWN BY: BRS
SCALE: 1/16" = 1'-0"
CKD BY: SGD
DATE: 7/16/08
SHEET NO.: 4 OF: 5

**SKE-4**

NOTE

1. ALL FIRE ALARM WIRING SHALL BE (2) #14 THHN IN CONDUIT EXCEPT AS OTHERWISE NOTED.
2. THIS SCHEMATIC IS TYPICAL. WIRE TO ALL DEVICES ON ALL ZONES AND CIRCUITS.
3. ALL FIRE ALARM WIRING SHALL BE RUN CONTINUOUS FROM DEVICE TO DEVICE. (SEE 2004 RIUFC 13.8.10.6.2.1).
4. OUTGOING AND RETURN CONDUCTORS MUST BE RUN IN SEPARATE RACEWAYS. (SEE 2004 RIUFC 13.8.10.6.2.2 AND 2002 NFPA 72 6-4.2.2.2)
5. IF REMOTE POWER BOOSTERS ARE REQUIRED ADDITIONAL SMOKE DETECTORS ARE REQUIRED WHERE THE REMOTE POWER BOOSTERS ARE INSTALLED FOR SURVIVABILITY




PROJECT MANAGER NOTES

1. VERIFY WIRING TYPE FOR INITIATING LOOP (CHECK NOTE #1).
2. VERIFY IF YOU HAVE CHIME/STROBES, SPEAKER/STROBES, OR HORN/STROBES.
3. WHEN CONNECTING AN ADDRESSABLE MODULE TO MONITOR A CONVENTIONAL SMOKE DETECTOR A SEPARATE 24 VOLT POWER SOURCE, ORIGINATING FROM THE FIRE ALARM PANEL IS REQUIRED.
4. ALL FIRE ALARM INITIATING LOOP WIRING SHALL BE (2)#14 THHN OR (1) PAIR #14 TWISTED SHIELDED CABLE IN CONDUIT.
5. VERIFY ADDITIONAL WIRING (e.g. 24V POWER FOR MODULES) WITH SPECIFIED MANUFACTURER.

NOTE

THIS DIAGRAM IS TYPICAL; PROVIDE ALL PARTS AND MATERIALS REQUIRED TO MAKE THE MANUFACTURERS SYSTEM FULLY FUNCTIONAL AND MEET THE APPLICABLE FIRE CODES.

# TYPICAL FIRE ALARM ADDRESSABLE SYSTEM SCHEMATIC

N.T.S.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G.A.S. # 080091


JOB: DR. JOHANNES VIRKS BUILDING
TYPICAL FIRE ALARM ADDRESSABLE SYSTEM SCHEM.

DWN BY: BRS SCALE: N.T.S.

CKD BY: SGD DATE: 7/16/08

SHEET NO.: 5 OF: 5 **SKE-5**

DURKEE BROWN
VIVEIROS WERENFELS
ARCHITECTS

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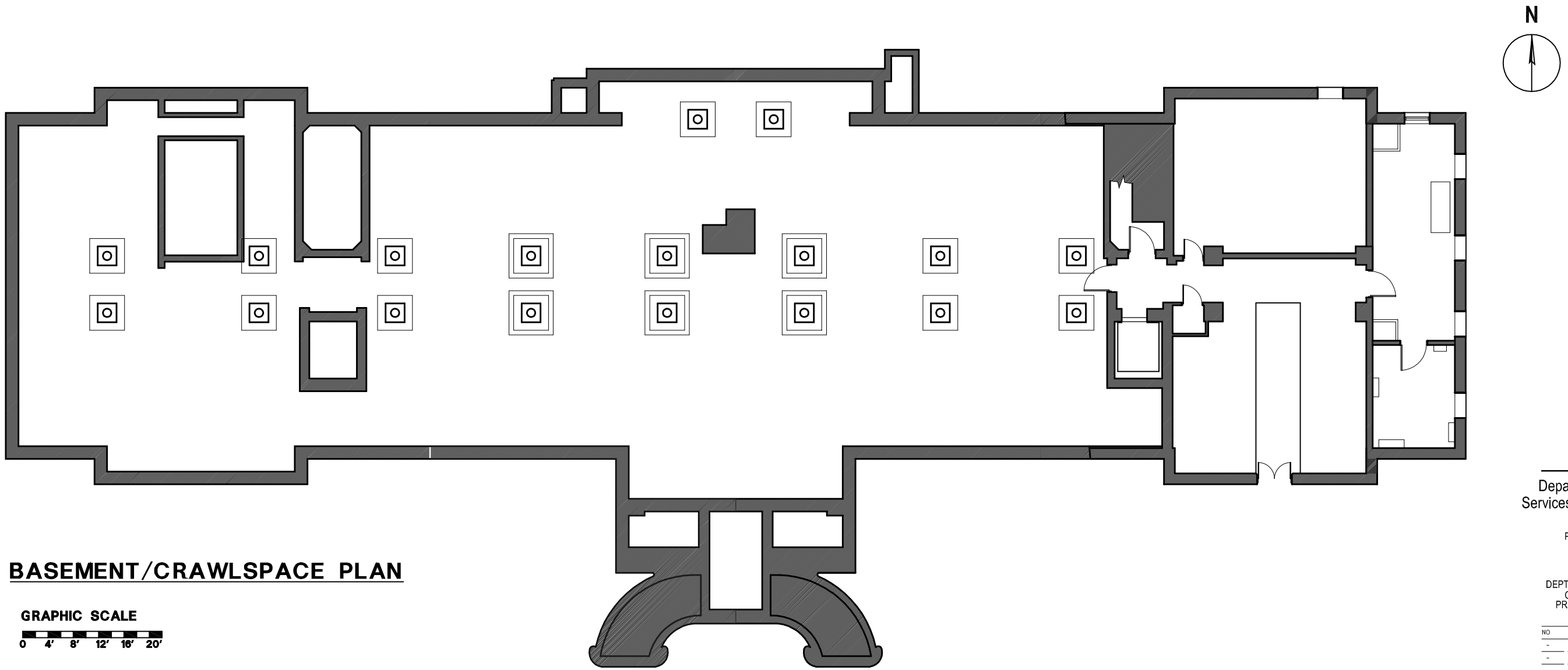


## BASEMENT/CRAWLSPACE PLAN

GRAPHIC SCALE
0 4' 8' 12' 16' 20'

Department of Human
Services & Allied Operations

VIRKS BUILDING
PASTORE CENTER
CRANSTON, RI

STATE OF RI
DEPT. OF ADMINISTRATION
ONE CAPITOL HILL
PROVIDENCE, RI 02908

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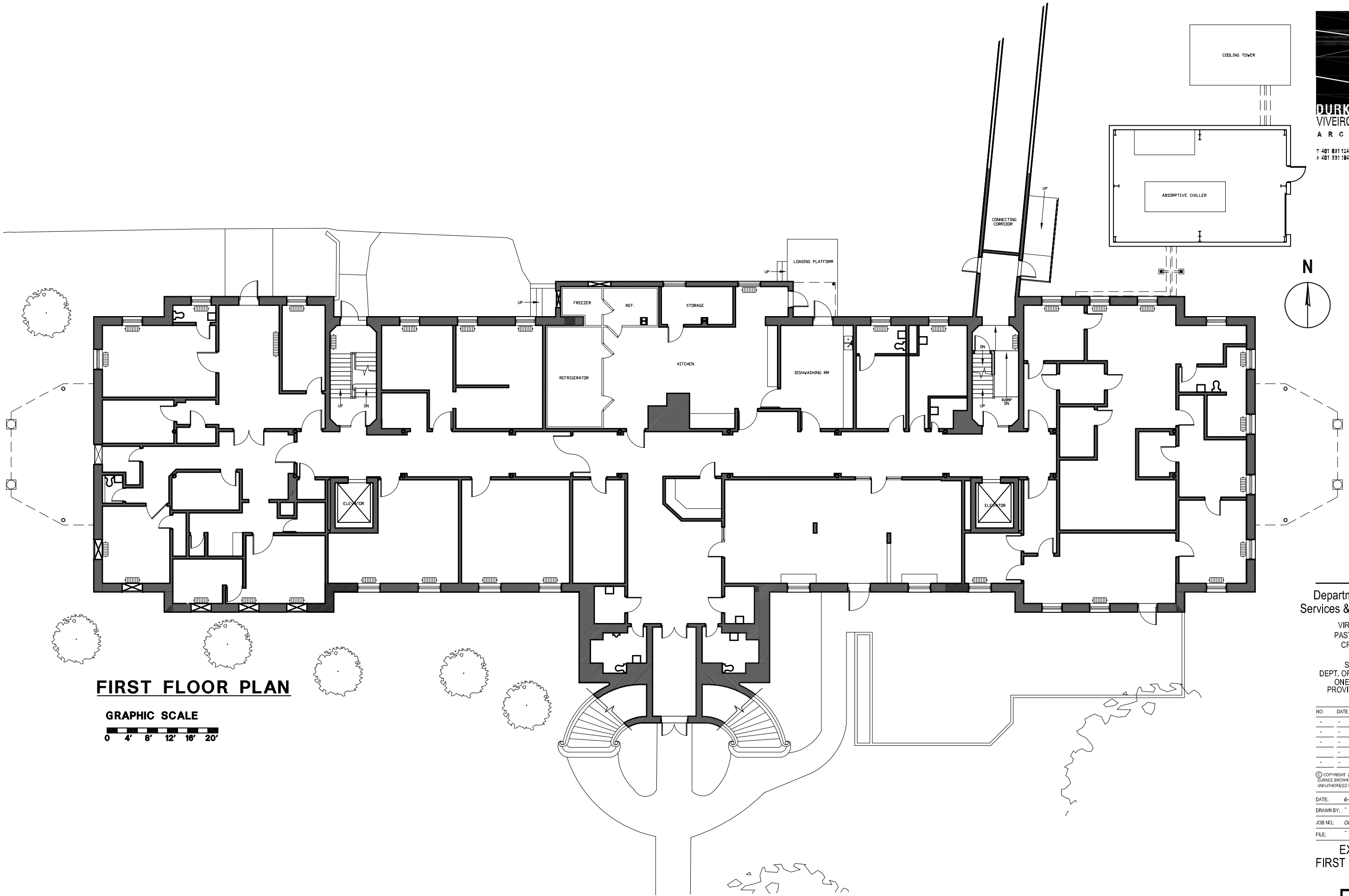
JOB NO.: 0820
FILE: -

EXISTING
BASEMENT PLAN

Ex00




## FIRST FLOOR PLAN

GRAPHIC SCALE

0 4' 8' 12' 16' 20'

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Department of Human
Services & Allied Operations

VIRKS BUILDING
PASTORE CENTER
CRANSTON, RI

STATE OF RI
DEPT. OF ADMINISTRATION
ONE CAPITOL HILL
PROVIDENCE, RI 02908

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EXISTING
FIRST FLOOR PLAN

Ex01

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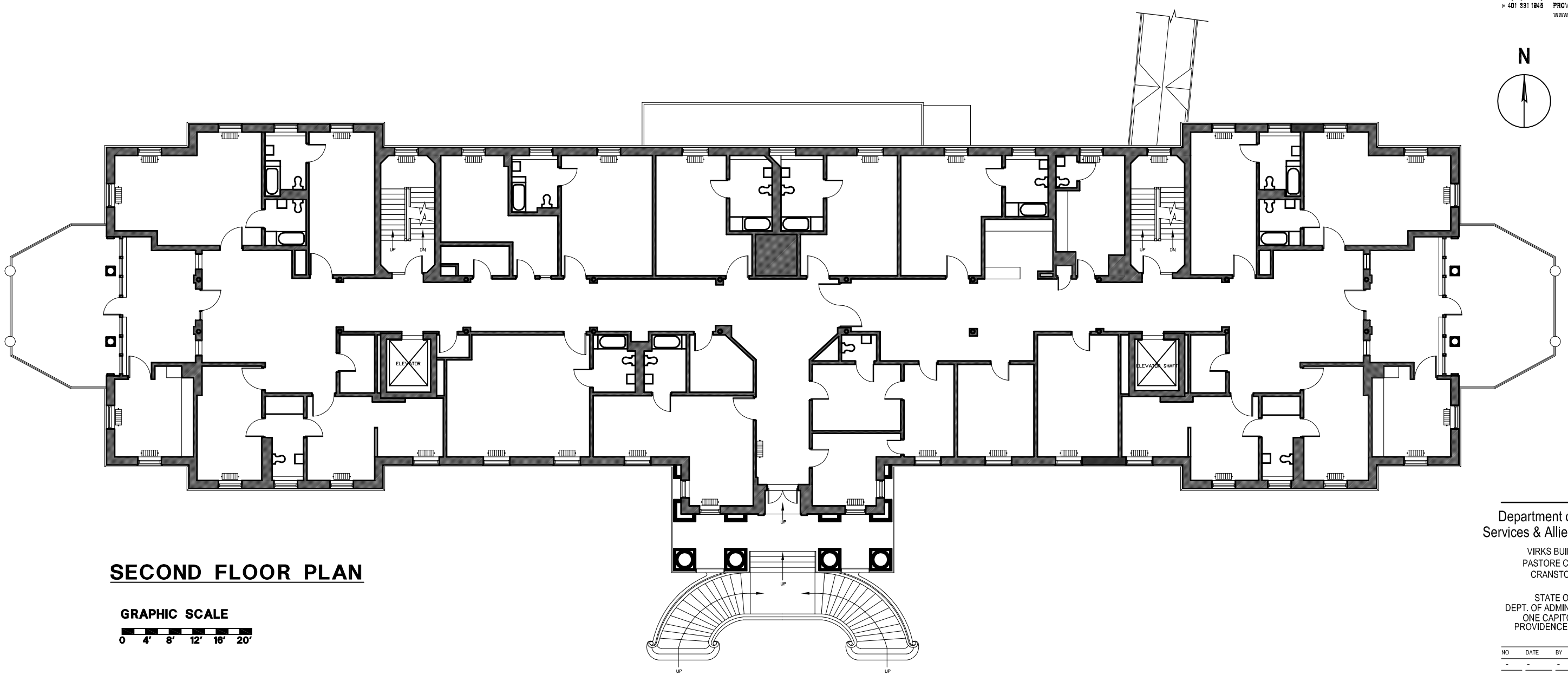


## SECOND FLOOR PLAN

GRAPHIC SCALE

0 4' 8' 12' 16' 20'

Department of Human
Services & Allied Operations

VIRKS BUILDING
PASTORE CENTER
CRANSTON, RI

STATE OF RI
DEPT. OF ADMINISTRATION
ONE CAPITOL HILL
PROVIDENCE, RI 02908

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FILE: -

EXISTING
SECOND FLOOR PLAN

Ex02

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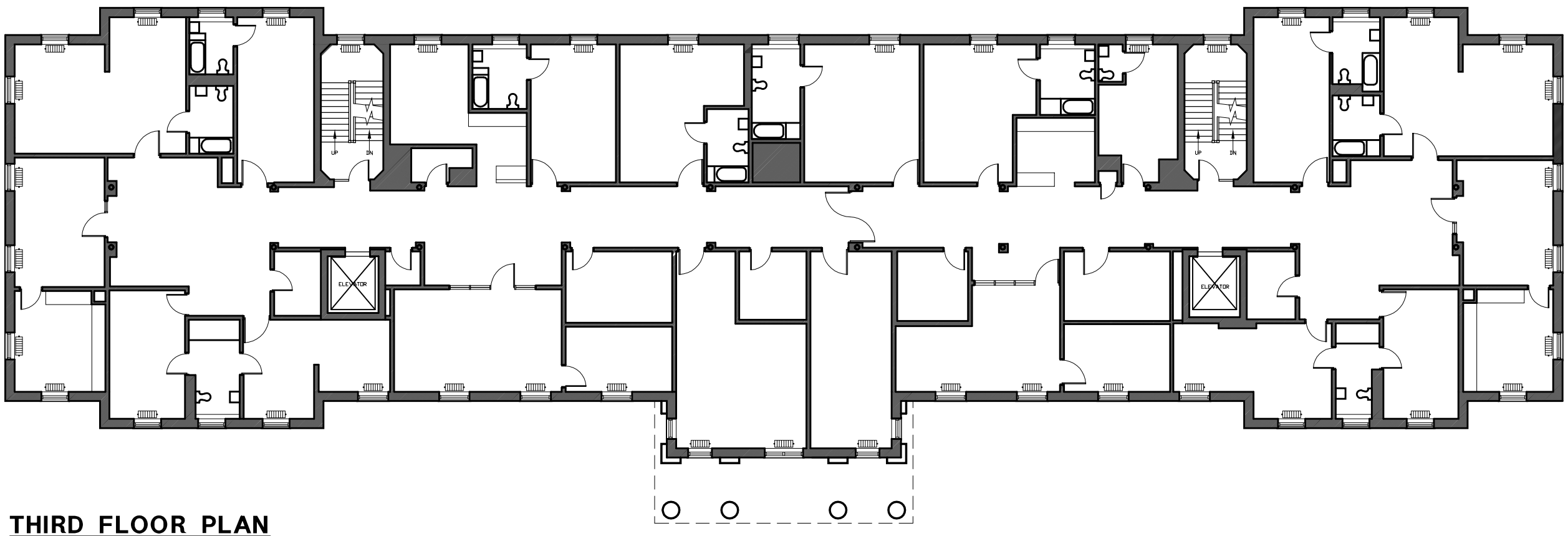


## THIRD FLOOR PLAN

GRAPHIC SCALE

0 4' 8' 12' 16' 20'

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EXISTING
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Ex03

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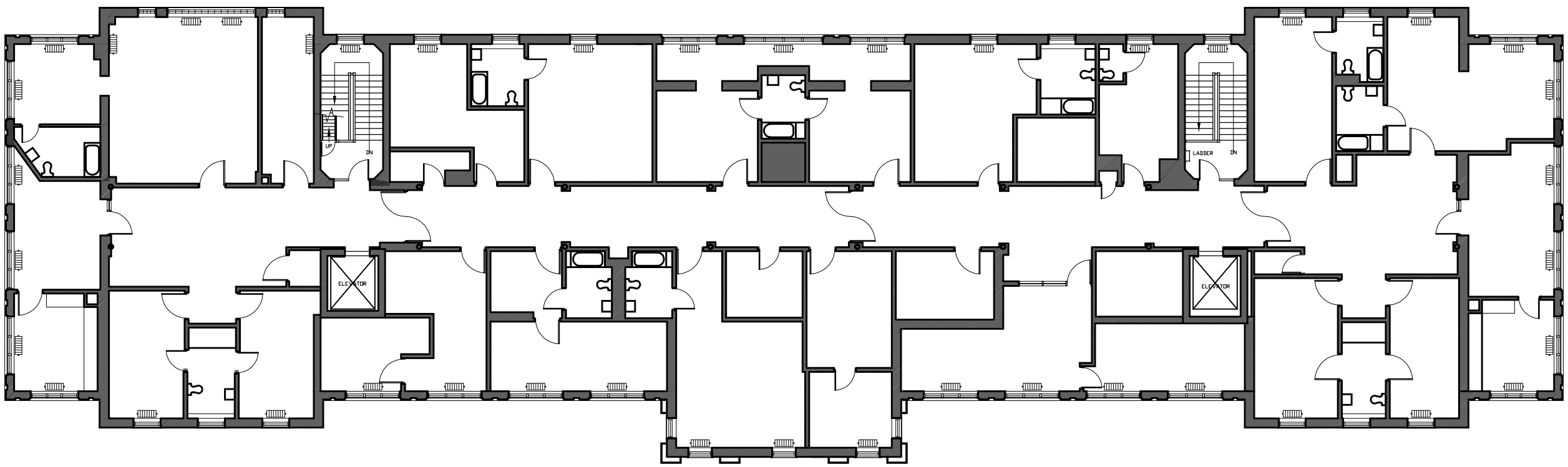


## FOURTH FLOOR PLAN

GRAPHIC SCALE

0 4' 8' 12' 16' 20'

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Ex04

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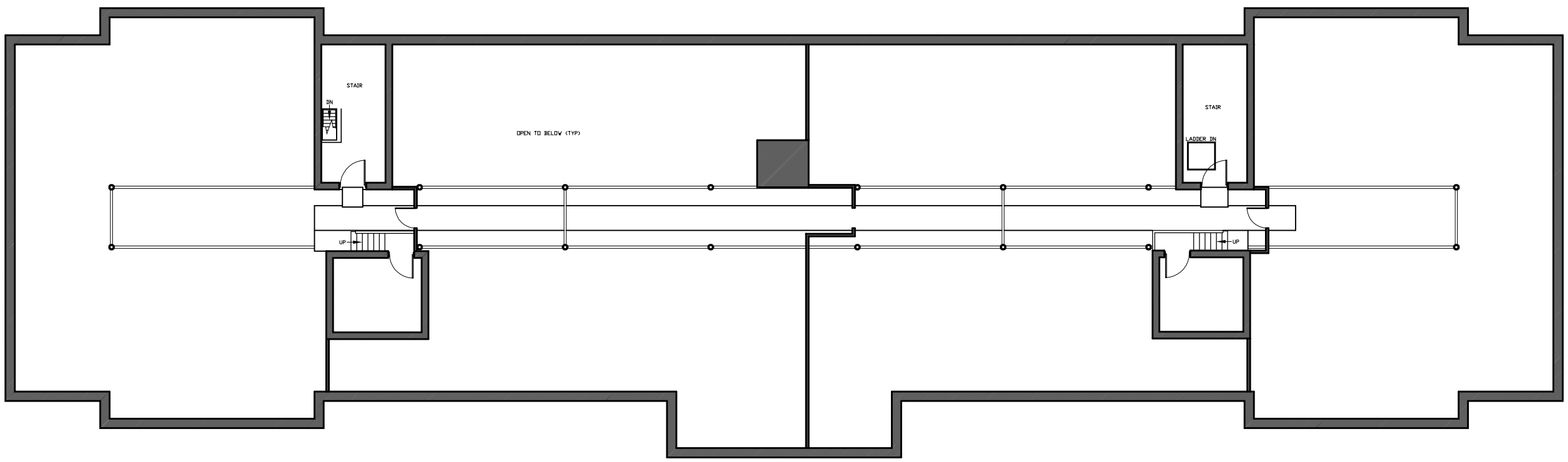


## ATTIC PLAN

GRAPHIC SCALE

0 4' 8' 12' 16' 20'

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EXISTING
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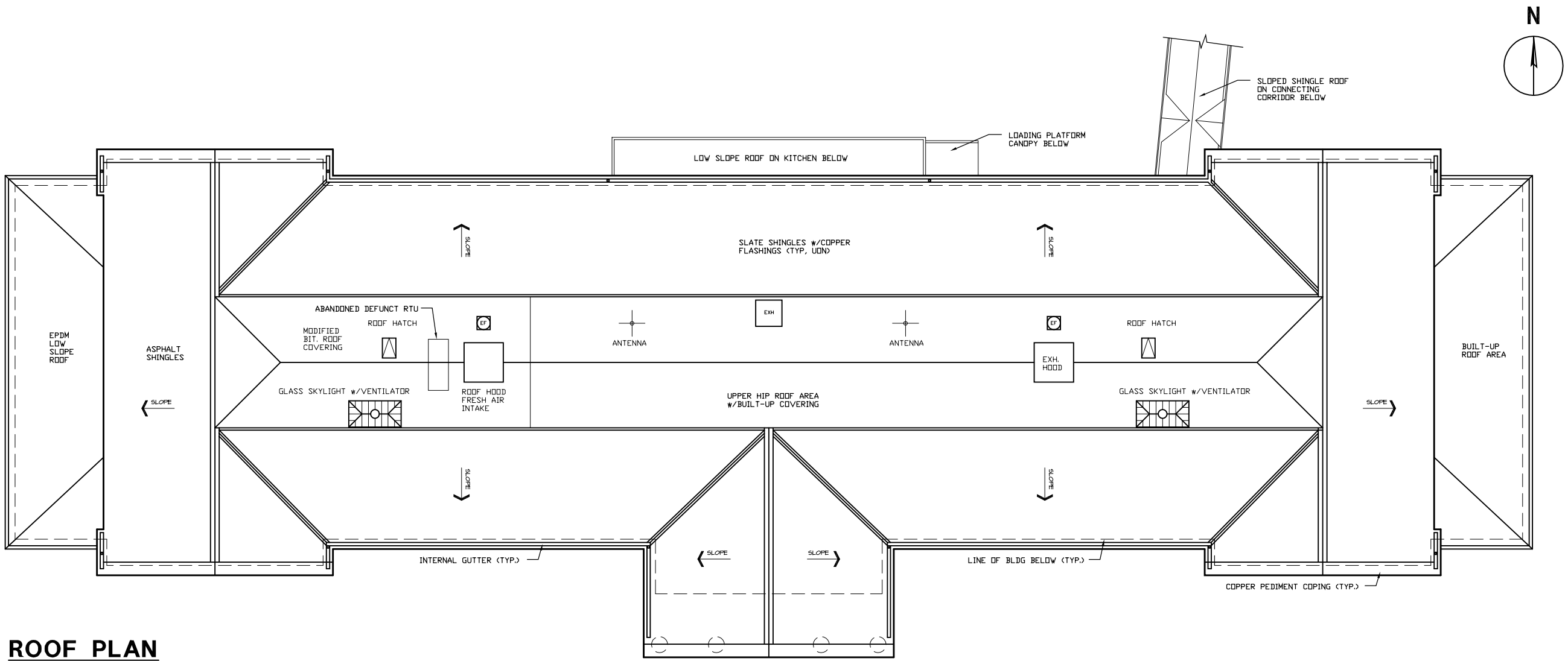


## ROOF PLAN

**GRAPHIC SCALE**

0 4' 8' 12' 16' 20'

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EXISTING ROOF PLAN

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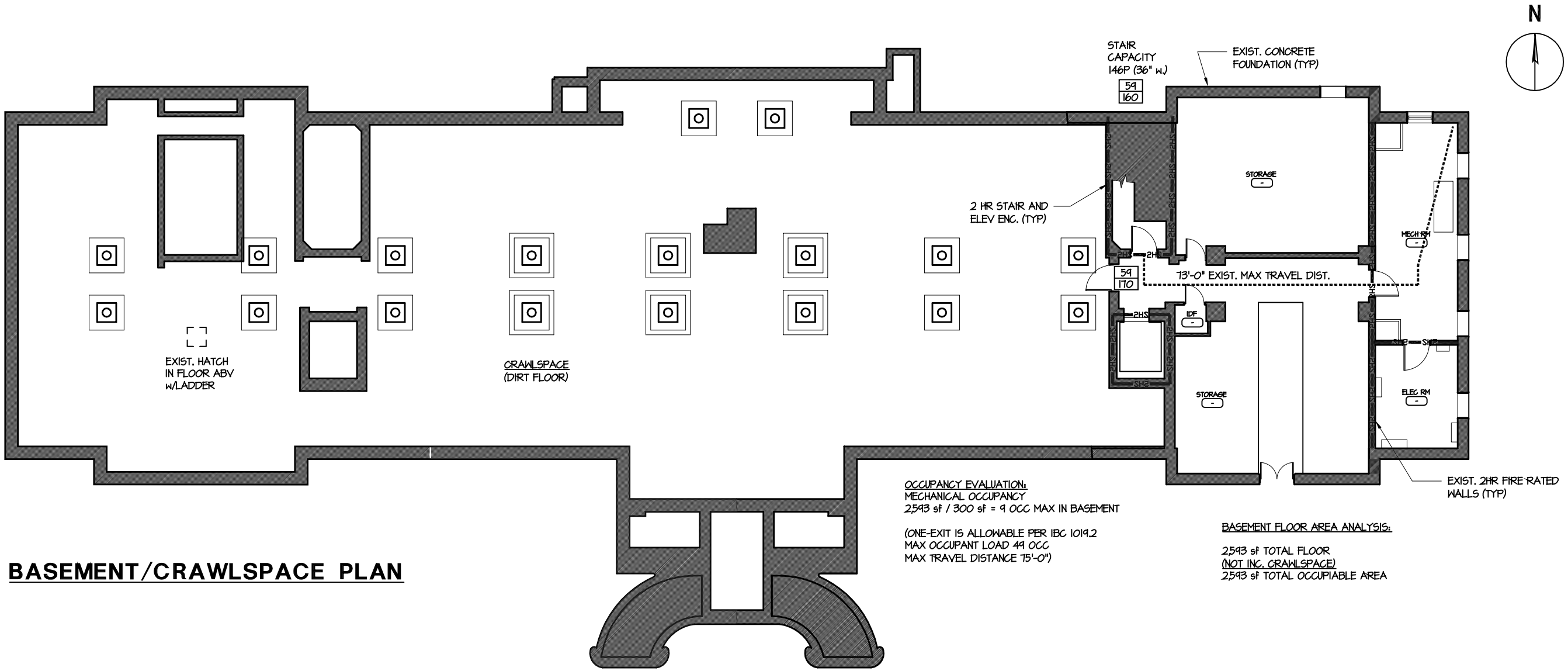


## BASEMENT/CRAWLSPACE PLAN

OCCUPANCY EVALUATION:
MECHANICAL OCCUPANCY
2,593 sf / 300 sf = 9 OCC MAX IN BASEMENT

(ONE-EXIT IS ALLOWABLE PER IBC 1019.2
MAX OCCUPANT LOAD 49 OCC
MAX TRAVEL DISTANCE 75'-0")

BASEMENT FLOOR AREA ANALYSIS:

2,593 sf TOTAL FLOOR
(NOT INC. CRAWLSPACE)
2,593 sf TOTAL OCCUPIABLE AREA

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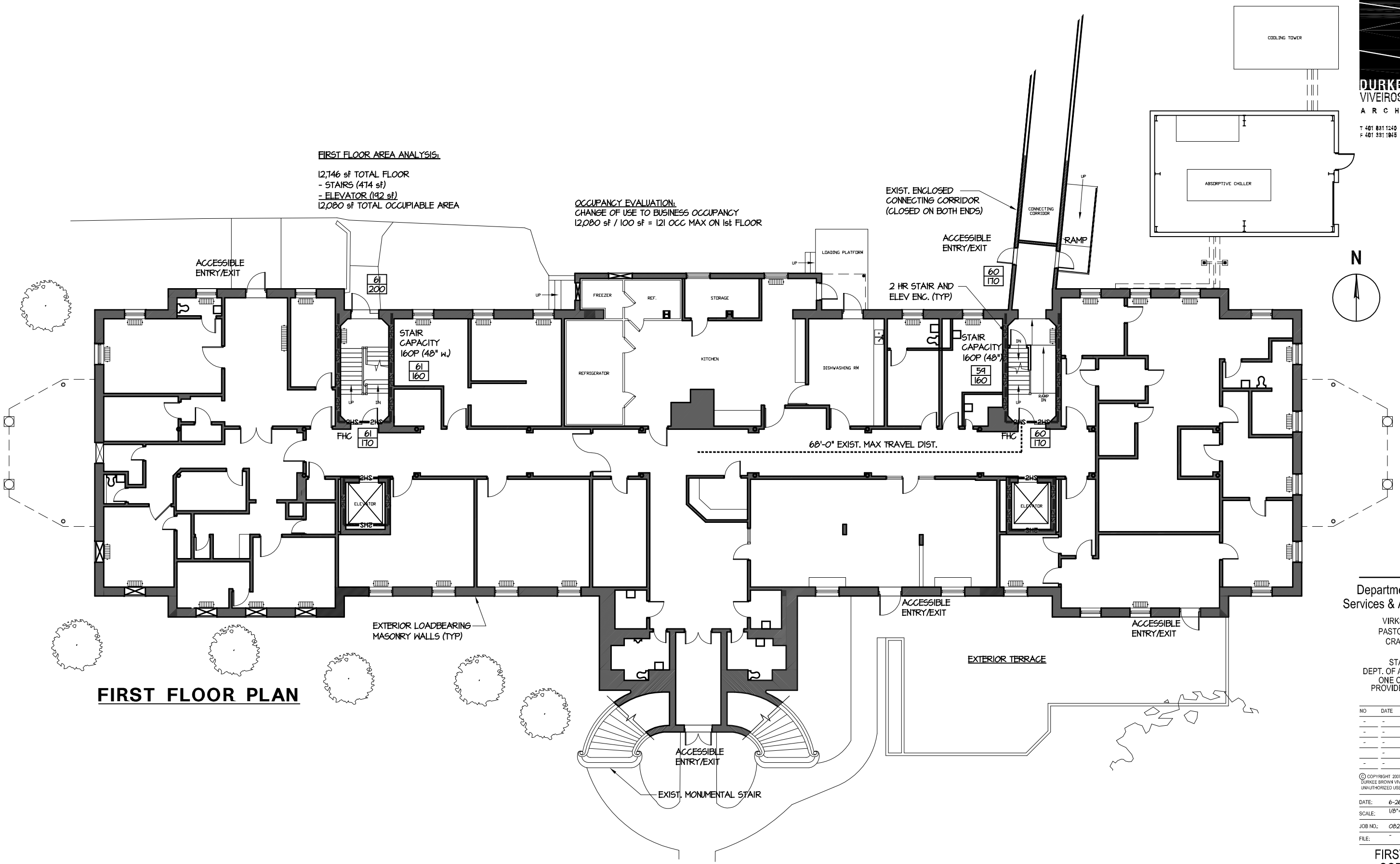
BASEMENT
CODE PLAN

A00




# FIRST FLOOR PLAN

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FIRST FLOOR CODE PLAN

A01

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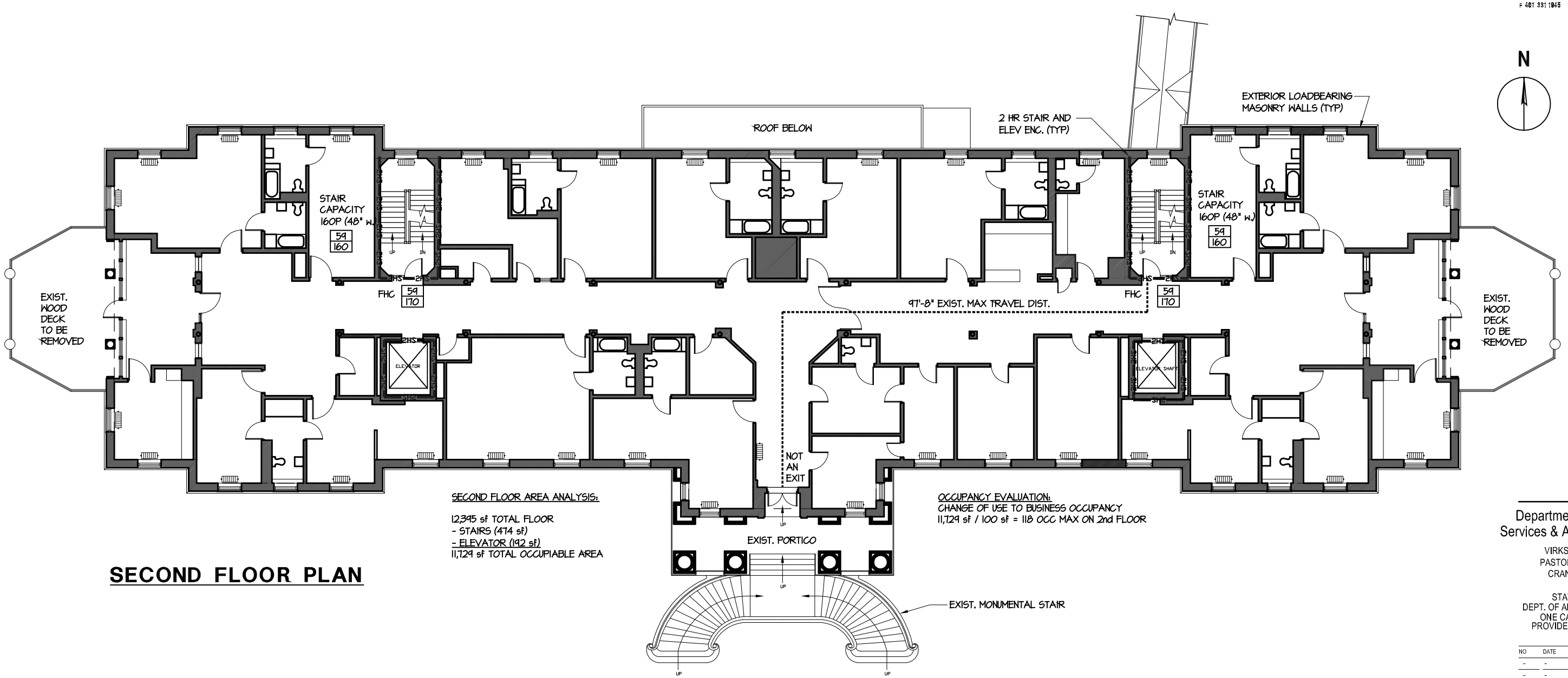


SECOND FLOOR AREA ANALYSIS:

12,395 sf TOTAL FLOOR
- STAIRS (474 sf)
- ELEVATOR (192 sf)
11,729 sf TOTAL OCCUPIABLE AREA

OCCUPANCY EVALUATION:
CHANGE OF USE TO BUSINESS OCCUPANCY
11,729 sf / 100 sf = 118 OCC MAX ON 2nd FLOOR

# SECOND FLOOR PLAN

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SECOND FLOOR
CODE PLAN

A02

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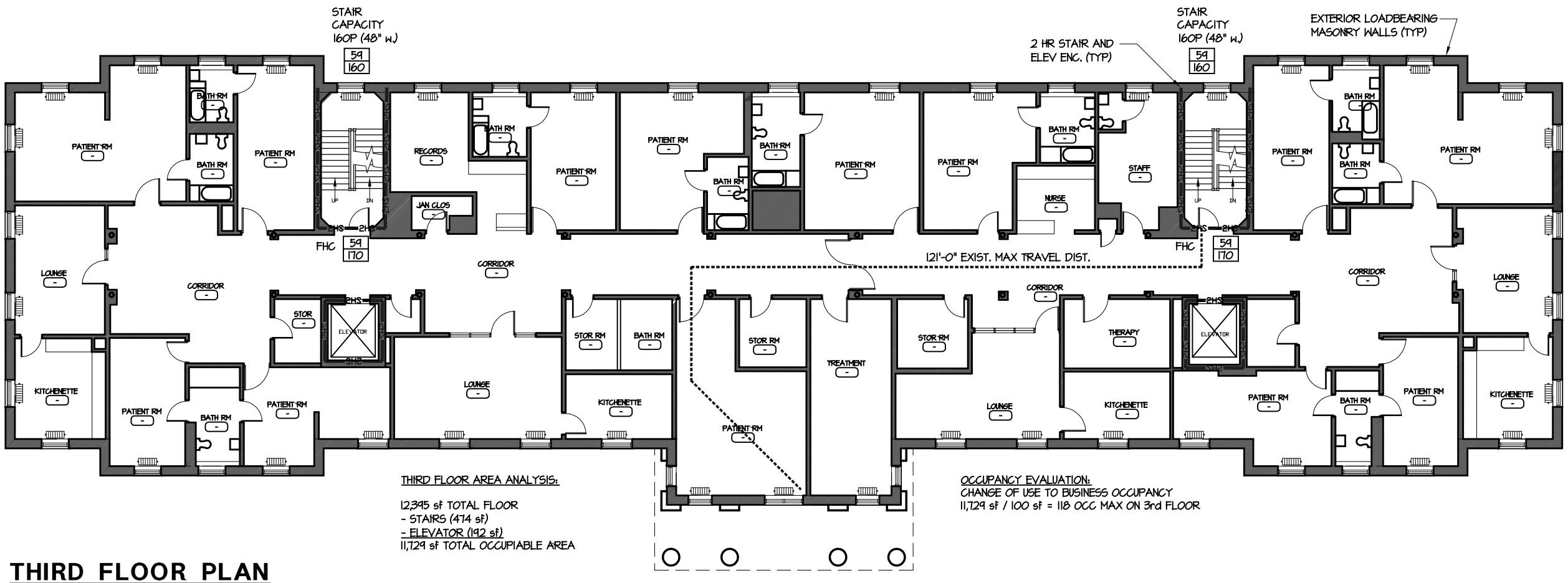


THIRD FLOOR AREA ANALYSIS:

12,345 sf TOTAL FLOOR
- STAIRS (474 sf)
- ELEVATOR (192 sf)
11,729 sf TOTAL OCCUPIABLE AREA

OCCUPANCY EVALUATION:
CHANGE OF USE TO BUSINESS OCCUPANCY
11,729 sf / 100 sf = 118 OCC MAX ON 3rd FLOOR

# THIRD FLOOR PLAN

N

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THIRD FLOOR
CODE PLAN

A03

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N

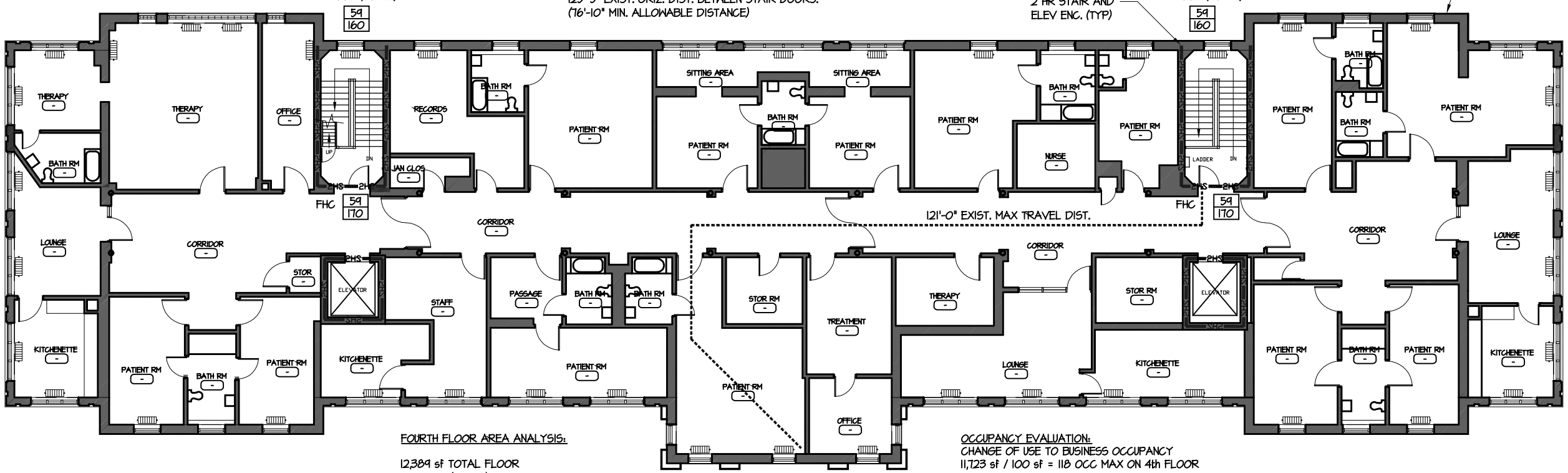
STAIR
CAPACITY
160P (48" W.)
59
160

NOTE: REMOTENESS OF STAIRS IS ACCEPTABLE.
232'-8" EXIST. DIAGONAL FLOOR DIMENSION.
125'-5" EXIST. ORIZ. DIST. BETWEEN STAIR DOORS.
(76'-10" MIN. ALLOWABLE DISTANCE)

2 HR STAIR AND
ELEV ENC. (TYP)

STAIR
CAPACITY
160P (48" W.)
59
160

EXTERIOR LOADBEARING
MASONRY WALLS (TYP)




FOURTH FLOOR AREA ANALYSIS:

12,389 sf TOTAL FLOOR
- STAIRS (474 sf)
- ELEVATOR (192 sf)
11,723 sf TOTAL OCCUPIABLE AREA

OCCUPANCY EVALUATION:
CHANGE OF USE TO BUSINESS OCCUPANCY
11,723 sf / 100 sf = 118 OCC MAX ON 4th FLOOR

# FOURTH FLOOR PLAN

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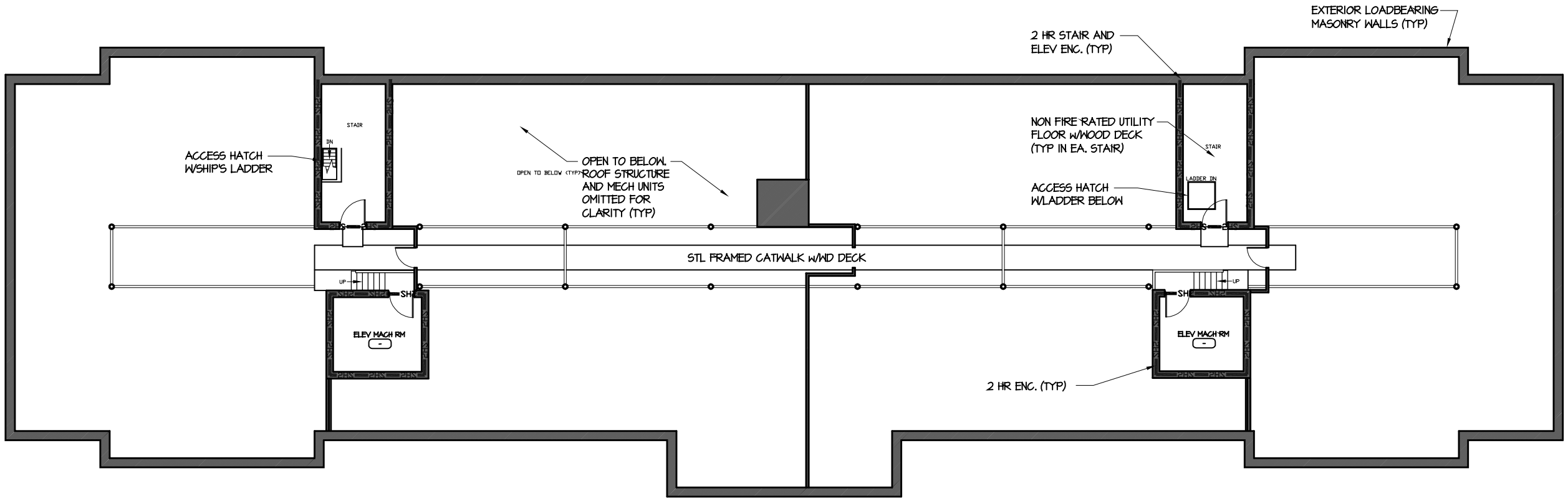
FOURTH FLOOR
CODE PLAN

A04

# ATTIC PLAN

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## BUILDING CODE SUMMARY

### APPLICABLE CODE(S)

THE BUILDING SHALL COMPLY AND/OR CONFORM WITH THE FOLLOWING CONSTRUCTION CODES, STANDARDS & GUIDELINES:

- RHODE ISLAND STATE BUILDING CODE, SBC-1-2007 (IBC 2006)
- RHODE ISLAND STATE REHABILITION BUILDING AND FIRE CODE, SRC-1-2002
- RHODE ISLAND STATE LIFE SAFTEY CODE (NFPA 101, 2003)
- RHODE ISLAND STATE FIRE CODE
- RHODE ISLAND STATE FIRE ALARM CODE - CHAPTER 13 (NFPA-1, 2003)
- RHODE ISLAND STATE ACCESSIBILITY CODE, CHAPTER 11
- RHODE ISLAND PLUMBING CODE, SBC-3-2007
- RHODE ISLAND STATE MECHANICAL CODE, SBC-4-2007
- RHODE ISLAND ELECTRICAL CODE, SBC-5-2006
- RHODE ISLAND ELEVATOR CODE, CHAPTER 30
- NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS
- NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS

### USE AND OCCUPANCY CLASSIFICATION

| | CODE REFERENCE |
|---|---|
| USE CLASSIFICATION: CHANGE OF USE | IBC SECTION 304 & 308 |
| EXISTING INSTITUTIONAL HOSPITAL (I-2) TO BUSINESS (B) | |

### CONSTRUCTION TYPE

| | |
|---|---|
| CONSTRUCTION CLASSIFICATION: 3B ASSUMED FOR HEIGHT AND AREA CALC ONLY. | IBC SECTION 602 |

### BUILDING HEIGHT AND AREA

| | | |
|---|---|---|
| BUILDING HEIGHT (STORIES/FEET) | 4/40' | |
| ALLOWABLE (W/ AUTOMATIC SPRINKLER SYSTEM INCREASE) | 5/60' | IBC TABLE 503 & SECTION 504.2 |
| BUILDING FLOOR AREA (SQUARE FEET) | 13,512 | |
| ALLOWABLE (W/OUT FRONTAGE & AUTOMATIC SPRINKLER SYSTEM INCREASE) | 19,000 | |

### PLUMBING FIXTURES

| | | | |
|---|---|---|---|
| MAXIMUM BUILDING OCCUPANCY = 350 P (175 M & 175 W) | | | |
| MINIMUM FIXTURES REQUIRED: | MEN | WOMEN | IBC PLUMBING CODE TABLE 403.1 |
| WATER CLOSETS: | 1/25 | 1/25 (FIRST 50) + 1/50 NEXT 50 = 3 REQ'D | |
| LAVATORIES: | 1/40 | 1/40 (FIRST 50) + 1/80 NEXT 50 = 2 REQ'D | |
| SERVICE SINK: | 1 REQ'D | | |
| FIXTURES PROVIDED: | MEN | WOMEN | |
| WATER CLOSETS: | 3 | 3 | |
| LAVATORIES: | 2 | 2 | |
| SERVICE SINK: | 1 PER FLOOR | | |
| (1 PRIVATE TOILET PROVIDED IN ADDITION TO ABOVE) | | | |

### FIRE RESISTANCE RATED CONSTRUCTION

| | | |
|---|---|---|
| STRUCTURAL FRAME | | |
| INCLUDING COLUMNS, GIRDERS, TRUSSES | 0 HR | IBC TABLE 601 |
| BEARING WALLS | | |
| EXTERIOR | 2 HR | |
| INTERIOR | 0 HR | |
| NON-BEARING WALLS AND PARTITIONS | | |
| EXTERIOR | 0 HR | |
| INTERIOR | 0 HR | |
| FLOOR CONSTRUCTION | | |
| INCLUDING SUPPORTING BEAMS AND JOISTS | 0 HR | |
| ROOF CONSTRUCTION | | |
| INCLUDING SUPPORTING BEAMS AND JOISTS | 0 HR/CLASS C | IBC TABLE 601 & 1505.1 |
| FIRE BARRIERS | | |
| CORRIDORS: | 0 HR | IBC TABLE 1017.1 |
| EXIT ENCLOSURES: | 1 HR w/sprinklers | IBC SECTION 1020 |
| | 2 HR w/out sprinklers | |
| SHAFTS: | 2 HR | |

### FIRE PROTECTION SYSTEMS

| | |
|---|---|
| FIRE PROTECTION SYSTEMS: | |
| SUPERVISED AUTOMATIC SPRINKLER SYSTEM - PARTIAL BUILDING | IBC SECTION 904.2 & 906.0, NFPA 13 |
| SUPERVISED AUTOMATIC FIRE ALARM SYSTEM W/ AUTOMATIC FIRE DETECTION | NFPA 72 |
| PORTABLE FIRE EXTINGUISHERS | NFPA 10 |

* THE BUIDLING IS CURRENTLY EQUIPPED WITH LOCAL SPRINKLER SYSTEMS IN THE ATTIC AND CRAWLSPACE. STANDPIPES ARE LOCATED OUTSIDE EACH STAIR WITH FIRE DEPT. HOSE CABINETS ON EACH FLOOR. A VARIANCE SHOULD BE SOUGHT IN LIEU OF FULL COMPLIANCE W/RHODE ISLAND FIRE SAFTEY CODE CHAPTER 38, SECTION 38.3.5.1. THIS SECTION REQUIRES A FULL COVERAGE SPRINKLER SYSTEM IN BUILDINGS WITH MORE THAN TWO STORIES ABOVE THE BASEMENT AND WHICH IS NOT CONSTRUCTED OF BETTER THAN TWO HOUR FIRE RATING.

### INTERIOR FINISHES

| | |
|---|---|
| MINIMUM FINISH CLASS (SPRINKLERS) | IBC TABLE 803.5 |
| EXITS: CLASS B | |
| CORRIDORS: CLASS C | |
| ROOMS: CLASS C | |

### MEANS OF EGRESS

| | | |
|---|---|---|
| REFER TO FIRE SAFETY PLANS FOR: | | |
| ROOM OCCUPANT LOADS | | |
| NUMBER, LOCATION AND CAPACITY OF EXITS | | |
| MAXIMUM TRAVEL DISTANCE | | |
| OCCUPANT LOAD FACTORS: | OCCUPANT/SQUARE FEET | IBC TABLE 1004.1.1 |
| BUSINESS OCCUPANCY | 1/100 GROSS | |
| ACCESSORY MECH & STORAGE: | 1/300 GROSS | |
| CONFERENCE ROOMS: | 1/15 NET | |
| OCCUPANCY LOAD/FLOOR | OCCUPANTS | REFER TO CODE PLANS |
| EXIT CAPACITY/FLOOR | OCCUPANTS | REFER TO CODE PLANS |
| MINIMUM REQUIRED NUMBER OF EXITS/FLOOR | | IBC TABLE 1019.1 |
| BASEMENT: | 1 | |
| FIRST LEVEL: | 2 | |
| SECOND LEVEL: | 2 | |
| THIRD LEVEL: | 2 | |
| FOURTH LEVEL: | 2 | |
| MAXIMUM ALLOWABLE TRAVEL DISTANCE: | 300' FEET w/SPRINKLERS | NFPA 101 - TABLE A.7.6 |
| | 200' FEET w/OUT SPRINKLERS | IBC TABLE 1016.1 |
| MAX COMMON PATH OF TRAVEL: | 100' FEET w/SPRINKLERS | |
| | 75' FEET w/OUT SPRINKLERS | |
| DEAD END CORRIDOR | 50'-0" w/SPRINKLERS | |
| | 20'-0" w/OUT SPRINKLERS | |
| EGRESS WIDTH: | INCHES/OCCUPANT | NFPA 101 - TABLE 7.3.3.1 |
| DOORS: | 0.2 | |
| STAIRS: | 0.3 | |
| CORRIDORS: | 0.2 | |
| OTHER EGRESS COMPONENTS: | 0.2 | |

NOTES:

1. THE EXISTING BUIDLING EGRESS COMPONENTS (STAIRS, CORRIDORS AND DOORS) WERE EVALUATED TO DETERMINE CAPACITY AND ARRANGEMENT. A CHANGE OF USE TO BUSINESS IS CONTEMPLATED. IT IS ANTICIPATED THAT THE NEW BUSINESS USE WILL REQUIRE RE-WORK OF THE INTERIOR LAYOUT BUT NOT THE EGRESS COMPONENTS.

2. THE EXISTING BUILDING CONSTRUCTION CLASSIFICATION WAS ASSUMED TO BE TYPE 3B FOR PURPOSES OF DETERMINING ALLOWABLE HEIGHT AND AREA. HOWEVER, THE MAJORITY OF THE CONSTRUCTION IS TYPE 2 OR BETTER. THE EXTERIOR WALLS CONSIST OF LOADBEARING MASONRY RANGING FROM 1'-4" TO 1'-10" THICK. THE FLOOR CONSTRUCTION IS A CAST IN PLACE CONCRETE PAN SYSTEM WHICH SPANS FROM THE EXTERIOR WALLS TO INTERIOR STEEL FRAMING. THE STEEL RUNS PARALLEL TO BOTH SIDES OF THE EXISTING CENTRAL CORRIDOR. THE STEEL BEAMS ARE ENCASED IN CONCRETE. SINCE THE COLUMNS ARE LOCATED WITHIN THE CORRIDOR WALLS, IT IS UNKNOWN IF THEY ARE PROTECTED. THE ROOF CONSTRUCTION CONSISTS OF UNPROTECTED STEEL BEAMS, COLUMNS AND TRUSSES. STEEL AND WOOD PURLINS SPAN BETWEEN THEM WHICH IN TURN SUPPORT A WOOD PLANK ROOF DECK. ALL OF THE STEEL LOCATED IN THE ATTIC IS UNPORTECTED.

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A05

## SOUTH ELEVATION

## NORTH ELEVATION


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EXISTING
EXTERIOR
ELEVATIONS

E-01

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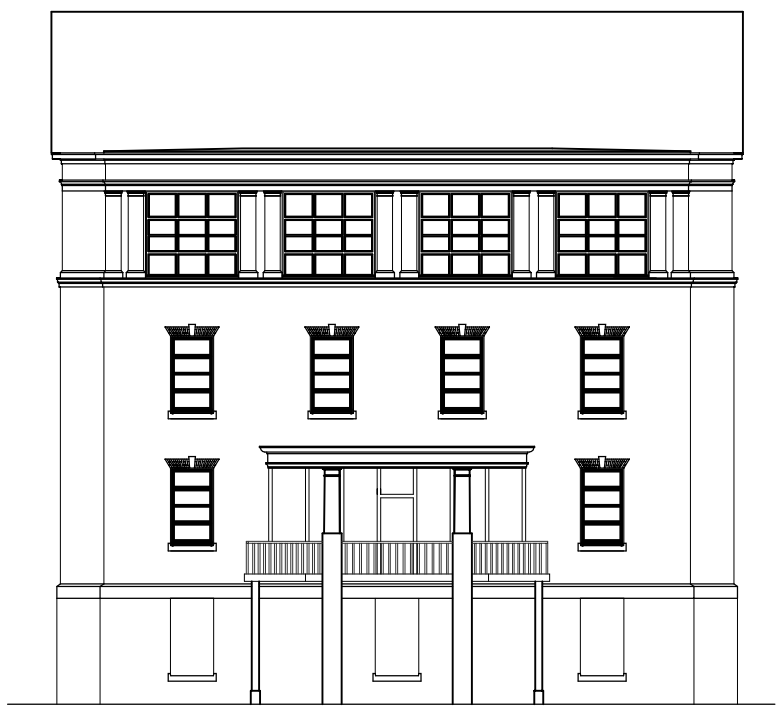

**WEST ELEVATION**

**EAST ELEVATION**

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CRANSTON, RI

STATE OF RI
DEPT. OF ADMINISTRATION
ONE CAPITOL HILL
PROVIDENCE, RI 02908

| NO | DATE | BY | DESCRIPTION |
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DATE: 6-26-08
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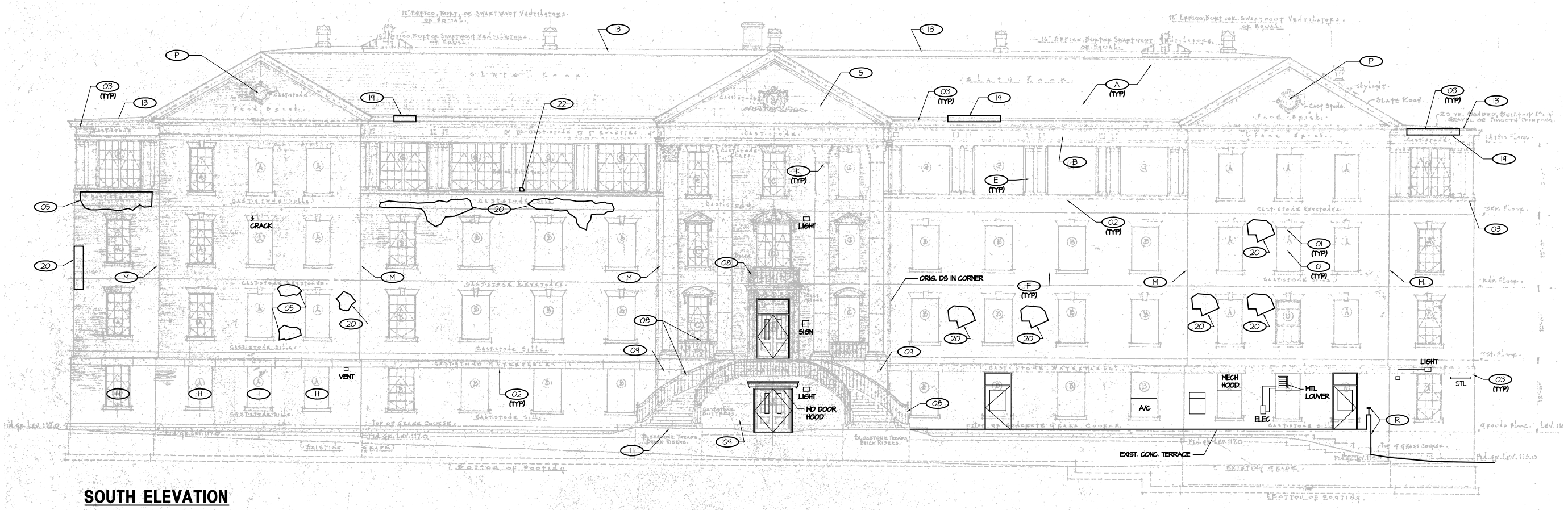
JOB NO.: 0820
FILE: -

EXISTING
EXTERIOR
ELEVATIONS

E-02




## SOUTH ELEVATION

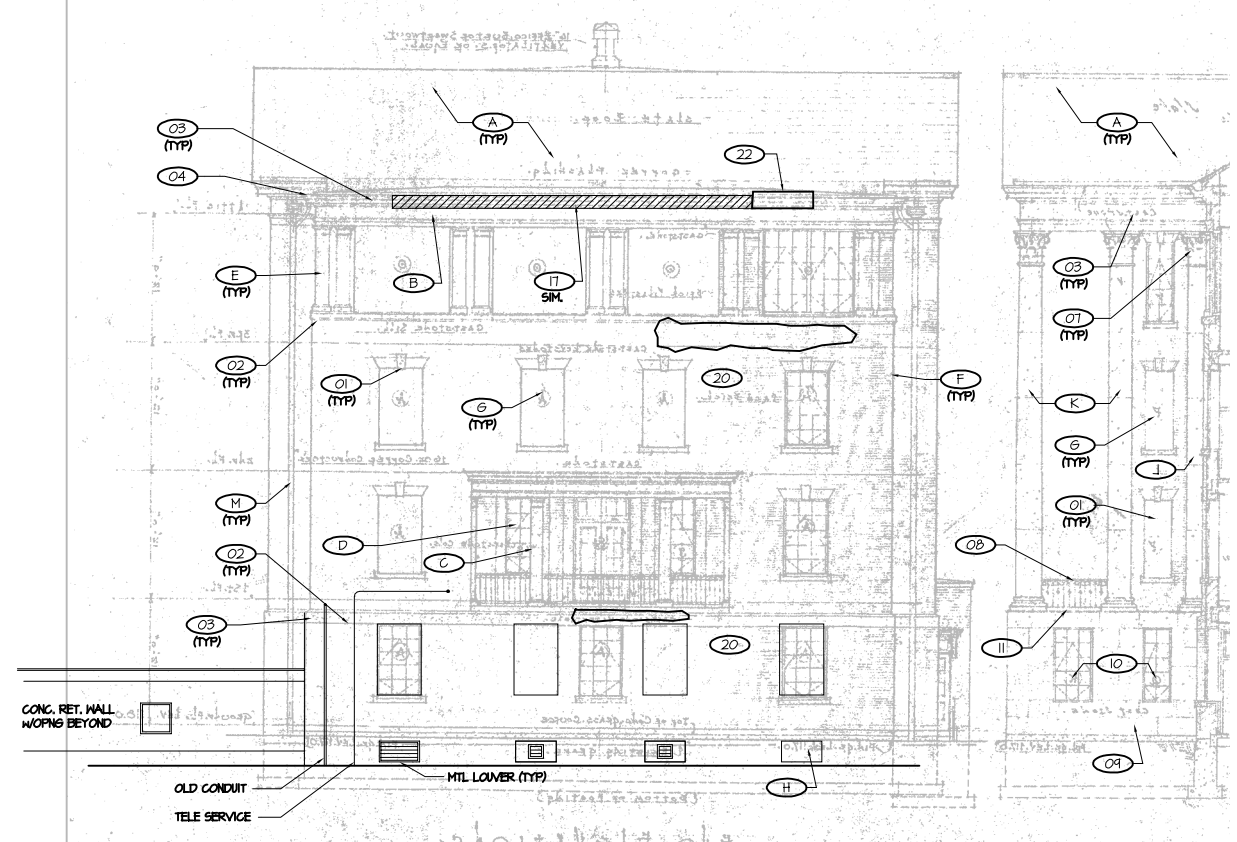
## KEY NOTES:

- 01 REMOVE ALL CAULK AT THE JOINT BETWEEN THE ORIGINAL COPPER FLASHING AND STEEL ANGLE LINTEL. STL MUST BE SCRAPED AND RE-PAINTED. (TYP)
- 02 HORIZ. BED JOINT AT THE CAST STONE BAND IS IN POOR CONDITION. (TYP)
- 03 OPEN VERTICAL JOINTS AT CAST STONE CORNICE AND WATERTABLE BAND (TYP)
- 04 ORIG. COPPER FLASHING ABOVE CAST STONE HAS LIFTED.
- 05 DAMAGED BRICK MASONRY
- 06 EXIST. HOLE IN MASONRY
- 07 EXIST. BIRD SCREEN COLUMN CAPITAL ENCLOSURE.
- 08 EXIST. HEAVILY RUSTED WROUGHT IRON RAILING.
- 09 DETERIORATED CAST STONE VENEER PORTICO BASE AND MONUMENTAL STAIR CHEEK WALLS.
- 10 IN-FILLED ORIG. WINDOW OPENING IN PORTICO BASE.
- 11 DETERIORATED STONE PAVERS ON ENTRY PORTICO & STAIRS.
- 12 DETERIORATED MTL FRAMED GLASS SKYLIGHT & GRAVITY VENT.
- 13 DETERIORATED LOW SLOPE ROOF AREA.
- 14 DETERIORATED FLASHING, CAST STONE COPING AND BRICK PARAPET.
- 15 DETERIORATED ORIG. CONC. STEPS, CHEEK WALL AND WROUGHT IRON RAIL. VINES ARE ALSO COVERING THIS CORNER OF THE BLDG.
- 16 BROKEN LIGHT FIXTURE
- 17 WATER STAINED BRICK AT DOWNSPOUT/LEADER (TYP)
- 18 EXIST. CONC. LOADING PLATFORM W/DETERIORATED WD FRAMED CANOPY, CORRUGATED PLASTIC ROOF AND STEEL COLUMN.
- 19 HEAVY WATER STAINING ON CAST STONE W/EFFORLORESCENCE ON BOTTOM.
- 20 DETERIORATED MORTAR.
- 21 IMPACT DAMAGED BRICK AT CORNER.
- 22 DAMAGED CAST STONE.

- A EXIST. SLOPED ROOF W/ORIG. SLATE SHINGLES AND COPPER RIDGE, VALLEY AND PEDIMENT CAP FLASHINGS IN POOR CONDITION.
- B EXIST. BRICK SPANDREL
- C ORIG. CAST STONE COLUMN (TYP FOR 2)
- D KITT ALUM STOREFRONT SYSTEM, PLANTER, DECK AND CONC. SUPPORTS ARE NOT SHOWN.
- E EXIST. BRICK PILASTER W/ CAST STONE CAPITAL AND BASE (TYP)
- F EXIST. BRICK VENEER (TYP, UON)
- G KITT ALUM WINDOW IN ORIGINAL OPENING. (TYP)
- H BRICK IN-FILLED ORIG. WINDOW OPENING.
- J PLYWOOD & GLASS PANEL ABV ORIG STEEL WINDOW
- K EXIST. ROUND CAST STONE COLUMN W/CAPITAL & BASE.
- L EXIST. CAST STONE PILASTER W/CAPITAL & BASE.
- M ALUMINUM ROOF LEADER/ DOWNSPOUT (TYP)
- N CAST STONE DOOR HOOD
- O ORIG. GLASS BLOCK WINDOW W/STL FRAME.
- P ORIG. CAST STONE MEDALLION PANEL.
- Q ORIG. STEEL WINDOW.
- R CONC. RETAINING WALL AND WOOD HANDRAIL AROUND TERRACE.
- S CAST STONE PEDIMENT W/ STATE SEAL.

NOTES:

1. ORIGINAL COPPER FLASHINGS ABOVE THE CORNICE, ON THE PILASTER CAPITALS, AND THE WINDOW HEADS ARE INTACT (TYP)




## EAST ELEVATION

DURKEE BROWN
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Department of Human Services & Allied Operations

VIRKS BUILDING
PASTORE CENTER
CRANSTON, RI

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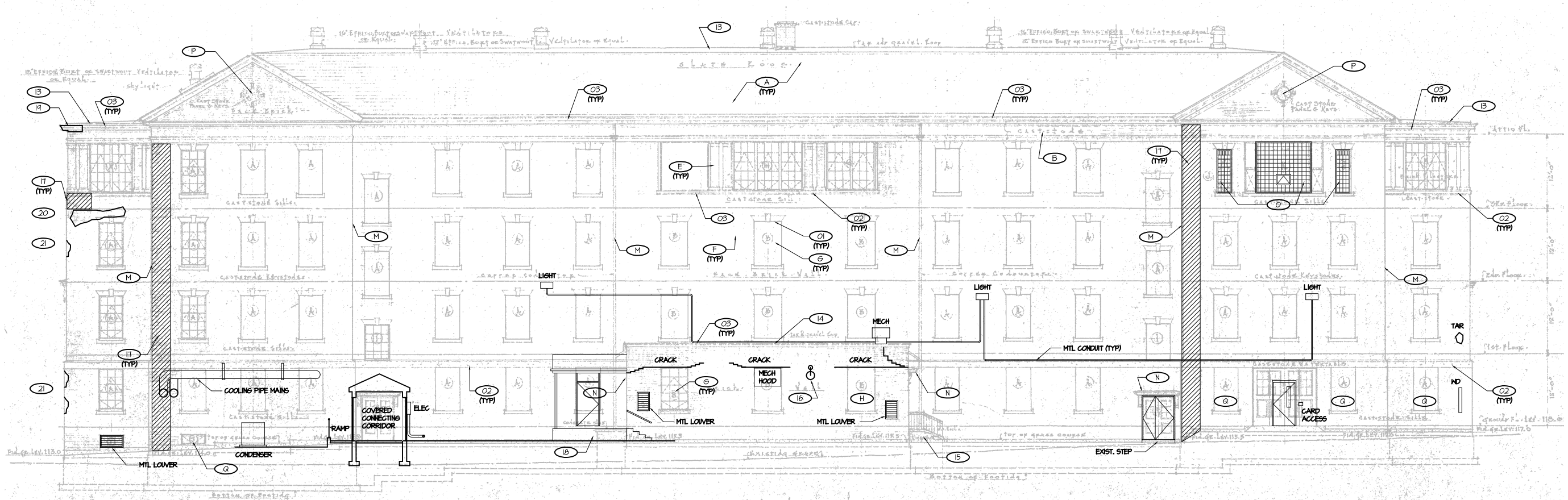
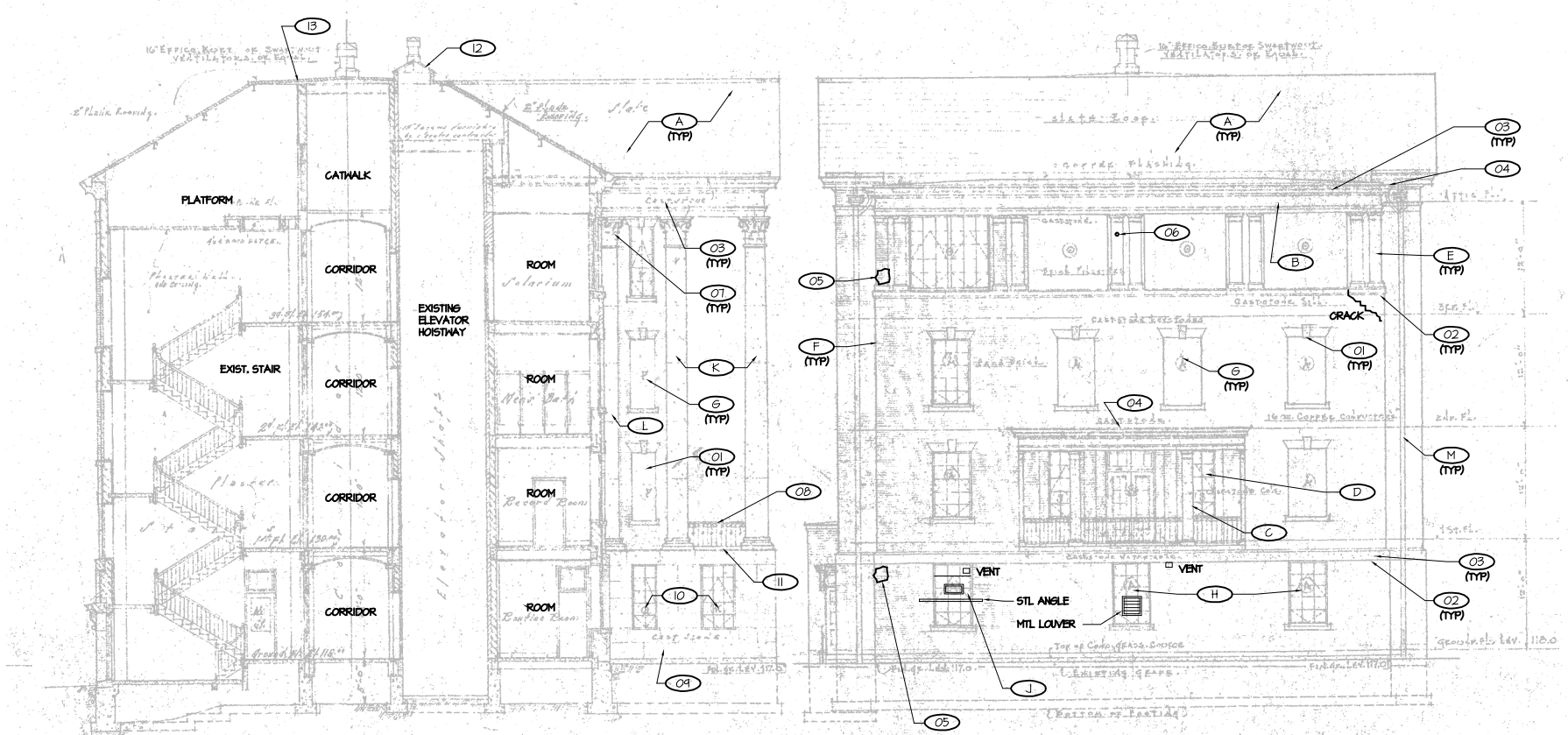
EXISTING EXTERIOR ELEVATION ASSESSMENT

# EL01




## NORTH ELEVATION




## WEST ELEVATION

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EXISTING EXTERIOR ELEVATION ASSESSMENT

# EL02