

SHERIFF'S HQ/JAIL

STRUCTURAL CONDITION ASSESSMENT
511 South Capitol Street

April 28th, 2023



300 South Clinton Street #200
Iowa City, IA 52240
www.axiom-con.com



PREPARED FOR:
Brad Kunkel – Johnson County Sheriff

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EXECUTIVE SUMMARY

This Structural Property Condition Assessment (PCA) for the Johnson County Sheriff's Headquarters and Jail provides an in-depth analysis of the physical condition of the facility, particularly as it relates to the structural (and by association – architectural elements) of the building. This analysis includes but is not limited to the building components including the foundation elements, flooring, interior walls, ceilings, interior roof, exterior walls, exterior roof, and any other related elements. The assessment is based on a comprehensive walkdown of the facility by our structural engineering staff and includes findings and data therefrom. It also includes some review of historical records and discussions with staff and stakeholders to gather some additional institutional knowledge. The assessment is non-destructive and non-forensic in nature. No demolition or specialty sensing/detection was used during this phase of the investigation to gather information beyond that which can be seen through the investigative methods described.

The PCA is predicated on standard methodology for inspection based on nationally recognized standards detailed later on in this report. It also includes information and inclusions unique to Axiom Consultants that we believe provide additional benefits to the client.

Our assessment reveals that the facility has a number of significant deficiencies, a few of which require immediate (or short-term) attention. These include issues with the exterior wall and façade system as well as signs of initial failure of some of the supporting structural elements. We don't deem these issues to be life threatening in need of immediate repair, but they are critical to address soon as the possibility exists for them to grow in stature at an increased rate. Also, considering the importance of this facility to Johnson County public safety, the need is enhanced.

Overall this structure has been showing signs of age for a significant period of time and three (3) different bond votes to replace the facility have failed. Because of this, repairs have been ongoing and undertaken as needed. Roofing was replaced in 2002 and leaks into the structure from both the roof and upper level plumbing have been fairly frequent. Historical information was provided in the form of some historical plans from repairs since 2010, as well as photo documentation of the original build which were scanned in for delivery to the owner.

The facility continues to serve it's purpose and operations can continue with the current condition in the near-term, but signs of distress are readily apparent and repairs or replacement is advised soon.

This report should not be considered to the "last-word" in terms of Axiom's provided service. Our team is available for additional questions and clarifications as they may arise from the reading and digestion of all that is contained herein. Please reach out to us with those needs as they arise.



ROBERT A. DECKER MSE, CPG, CPII, CDT
Principal – Owner

INTRODUCTION

What Is A Structural Property Condition Assessment?

A structural property condition assessment is a process of evaluating the physical condition of a building or structure to identify any deficiencies or potential problems that could compromise its safety, functionality, or longevity. The assessment typically involves a thorough inspection of the structure's foundation, framing, roof, walls, and other components to assess their structural integrity, durability, and overall condition.

The assessment may be conducted for various reasons, such as to comply with building codes and regulations, to determine the property's market value, or to assess the need for repairs, renovations, or upgrades. It may involve various methods, such as visual inspections, non-destructive testing, and laboratory analysis, to evaluate the structure's materials, systems, and components.

The assessment report typically includes a detailed description of the structure's current condition, including any deficiencies, damage, or deterioration identified, along with simple recommendations for addressing any issues found. The report may also include an estimate of the cost and timeline for any recommended repairs or upgrades, as well as any potential risks or hazards associated with the structure's condition.

Overall, a structural property condition assessment is an important tool for property owners, investors, and real estate professionals to ensure the safety, functionality, and longevity of a building or structure.

Background

In February of 2023, the Chair of the Johnson County Board of Supervisors (JCBS) – Lisa Green-Douglas – received a letter from Delbert Longley, Chief Jail Inspector for the State of Iowa. The letter detailed an inspection by Mr. Longley that was completed on February 13th, 2023 in compliance with Iowa Code Section 253, to ensure compliance with Chapter 210-50. Specific to that request was that “Johnson County shall have a structural engineer review the integrity of the building, providing a written report to Iowa Department of Corrections... no later than August 13th, 2023.” AXC was contacted by the JCBSO to complete a comprehensive Structural-specific property condition assessment to address these items. The inspector noted that *“During the walk through of the jail, several cracks were observed in the walls and ceiling of the cells. A walk around the exterior of the building revealed more cracks, rusty metal supports that were pulling away from the brick exterior. These observations create a concern to the buildings structural integrity.”*

Stakeholders

The stakeholders, specifically as it relates to this report, are as follows:

AXIOM TEAM

Rob Decker – Audit Lead/Engineering Lead
Justine Siglin – Structural Engineering Lead
April Vande Brake – Structural Engineering Associate

JoCo Sheriff Team

Brad Kunkel – JoCo Sheriff
Randy Lamm – JoCo Chief Deputy Sheriff
Dave Curtis – Facilities Manager

Definitions

Some of the following definitions may be utilized (at a minimum) throughout this report:

JoCo: Johnson County
AXC: Axiom Consultants
PCC: Portland Cement Concrete
CIP: Cast-in-Place (concrete)
LVL: Laminated Veneer Lumber
LGS: Light-gauge Steel

JCSO: Johnson County Sheriff's Office
PCA: Property Condition Assessment
HMA: Hot Mix Asphalt
CMU: Concrete Masonry Unit (“cinder block”)
OSB: Oriented Strand Board
JCBS: Johnson County Board of Supervisors

Methodology

PROCESS

The methodology for the overall audit is simple, but provides detailed results. Our general process is straight-forward and deliberate: INVESTIGATE – GATHER – ANALYZE – REPORT. The results of this PCA are based on our specific field observations while on site, investigation of (very limited) existing plans for the facility, and discussions with staff.

GUIDELINES

1. ASTM E-2018-15: “Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process.”
2. Standard and Poor’s: “Property Condition Assessment Criteria.”

FACILITY WALKTHROUGH

On February 27th, 2023 from mid-morning through mid-afternoon, AXC staff including *Rob Decker, Justine Siglin, and April Vande Brake* and were escorted for the majority of the walkdown with JCSO personnel, primarily Sheriff Brad Kunkel. AXC was given access to every possible area of the building with the exception of all of the individual cells due to concerns with safety and access due to facilitation of cell-lockdown procedures. Weather during the inspection was as follows:

Temperature: 55°F max

Precipitation: 1.50" (day was very wet/rainy)

Precipitation Total Prior Week: 1.88" (including day of inspection)

LIMITATIONS

1. Not technically exhaustive: the information gathered from this report is not done so in technically exhaustive fashion. There is a point at which the cost and effort of information obtained outweighs that of the usefulness of the information and the timeliness of its conveyance. Every effort was made to obtain the most amount of information in the most efficient use of time and effort.
2. Not physically destructive: the information obtained for this report was done through non-destructive and non-invasive means. Information was gathered via physical appearance, outward information, available records and institutional knowledge, and other readily available means.
3. Safe and readily accessible: information was obtained via methods that were deemed to be safe and which did not present a risk to the AXC teams or add liability for the client. All attempts were made to get into as many areas as possible and provide the best information with the access that was available at the time. If necessary, AXC teams will provide their own equipment (lifts, ladders, etc...) to access areas which are deemed relevant providing accommodations are made and permission is provided. Outside of individual jail cells, every area of the building was investigated. An individual cell WAS reviewed with assistance from the deputies/staff who locked that cell down during the investigation.

Interviews and Research

STAFF INTERVIEWS

AXC staff interviewed both Sheriff Kunkel and deputies throughout the areas during the walkdown while on site. The following information was gathered during that time:

1. Leaks onto the first floor are common and regular. Both from roof age/issues and from inmates blocking the toilets above.
2. Cracks have been noted all throughout the second floor – many were pointed out on our walk-through. These were located at perimeter walls, on hollow-core ceiling and floor assemblies, along control joints, around doorways, and in a number of other areas.

3. Sheriff/county records show that a roof replacement was completed in 2002. Warranty status unknown but assumedly expired.
4. Sheriff noted that kitchen floor pops up and fails on an annual basis.
5. ACT panels get replaced frequently from leakage above.

EXISTING PLANS

Existing plans from the 1978-79 timeframe were provided to Axiom Consultants via a City of Iowa City query. Some plans also exist for some expansions and rehabilitations that AXC received and scanned into electronic format for the owner. Information on the structural system for the original building was able to be determined via the information provided. Plan sets available include:

1. Original plan set by Wehner, Nowysz, and Pattschull Architects (April 1979.)
2. First Floor Jail Remodel – 2010 (Neumann Monson Architects)
3. Johnson County Jail Security Improvements – 2014

PROPERTY DESCRIPTION

Overview

SITE

ADDRESS: 511 South Capitol Street, Iowa City, IA

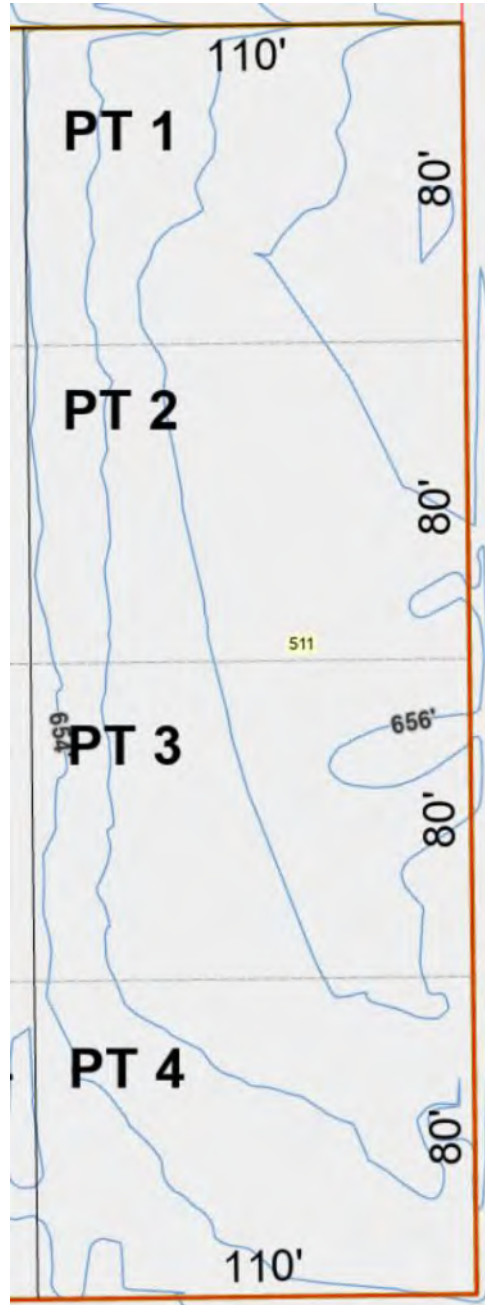
PARCEL: 1015229001

ZONING: C-comm

SEC-TWN-RNG: Section 15; T79N; R6W

LOT: 0.81 acres (35,200 ft²)

CURRENT ASSESSMENT: \$1,056,000 land + \$1,835,210 building = \$2,891,210 total



Site information from Johnson County Property Viewer
(Recorder data is very poor for this site so this is the best plat/property overview available.)

BUILDING

GRADE PLANE ELEVATION: ~656.00 TOP of BUILDING ELEVATION: ~680 (est.) HEIGHT: ~24 ft.
ASCE RISK CATEGORY: IV ASCE 7-22 WIND HAZARD: 120Vmph SNOW LOAD:
72lb/ft²

SQUARE FOOTAGE: 28,500 ft² (estimated – no plans exist: approximately 14,250 ft² per floor)

BUILDING CODE: n/a BUILT IN: 1979-80 (43-44 years old) TYPE: I/IIB

GENERAL DESCRIPTION: two-story commercial office building with a second story jail. Lower level that contains offices, locker rooms, conference room, dispatch center, administrative, storage, restroom facilities, janitorial, IT room, mechanical rooms, records space, and other utility rooms. Upper level includes jail cells in nine (9) cell blocks, commercial kitchen, meeting room, small workout room, library, meeting/video conference room, and some utility/storage rooms.



Drone image of overall building – March 2023

History

The Johnson County Sheriff's Office and Jail was constructed in 1979-80 and has been in continuous operation ever since. The facility sits on county-owned land within the legal limits of the City of Iowa City. It is surrounded on the N/W/S sides primarily by land owned by the University of Iowa. It sits along Capitol Street owned by the City of Iowa City and the County owns 3 of the 4 residences across the street – the remaining house is a private residence. Original plans exist and were provided by the City of Iowa City. Examination of available documents on the City of Iowa City permitting portal revealed some additional documents for alterations and permits within the last decade for equipment upgrades, plumbing improvements, and other typical maintenance items. Some photographic information was provided by the JCSO and was scanned into electronic format by AXC. We have included that in the appendix for reference.



1979 photo of footing construction



CIP PCC foundation and footing



Masonry construction of lower floor



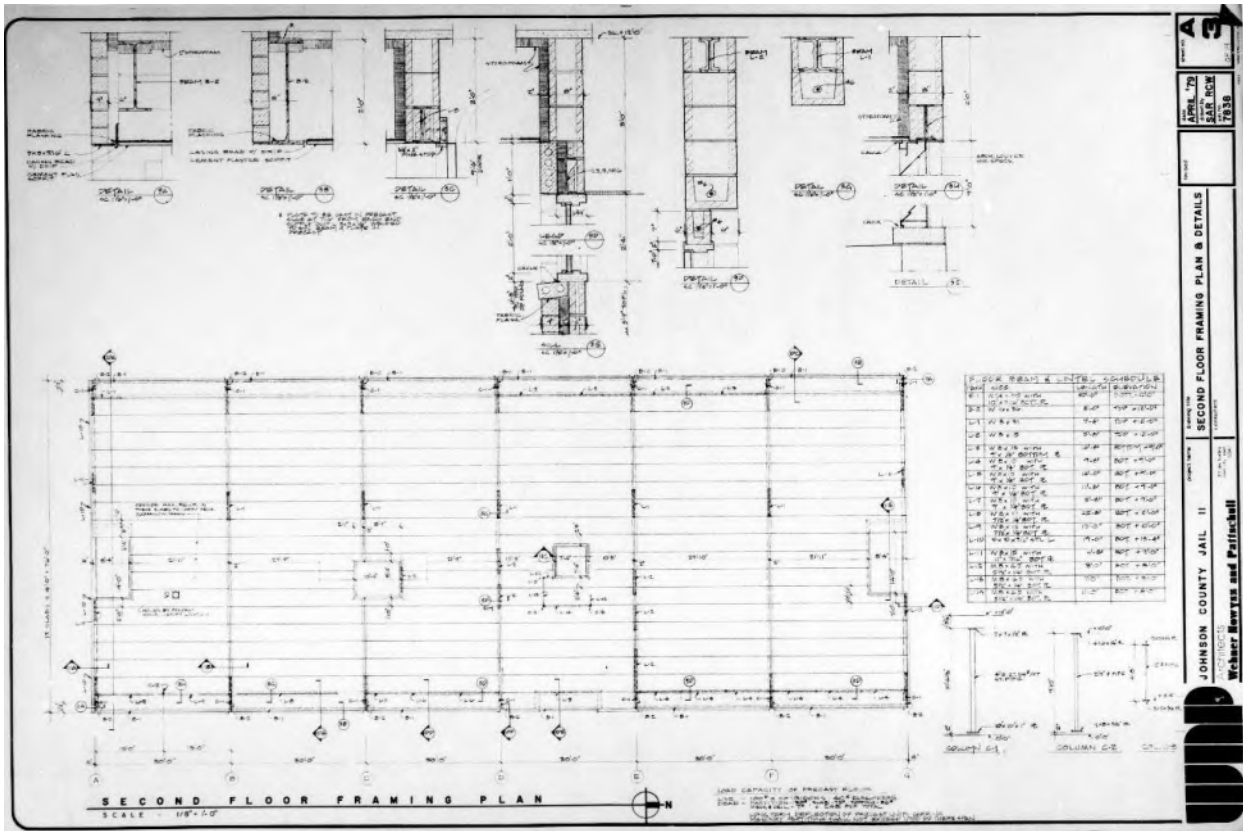
Hollowcore precast second level floor construction



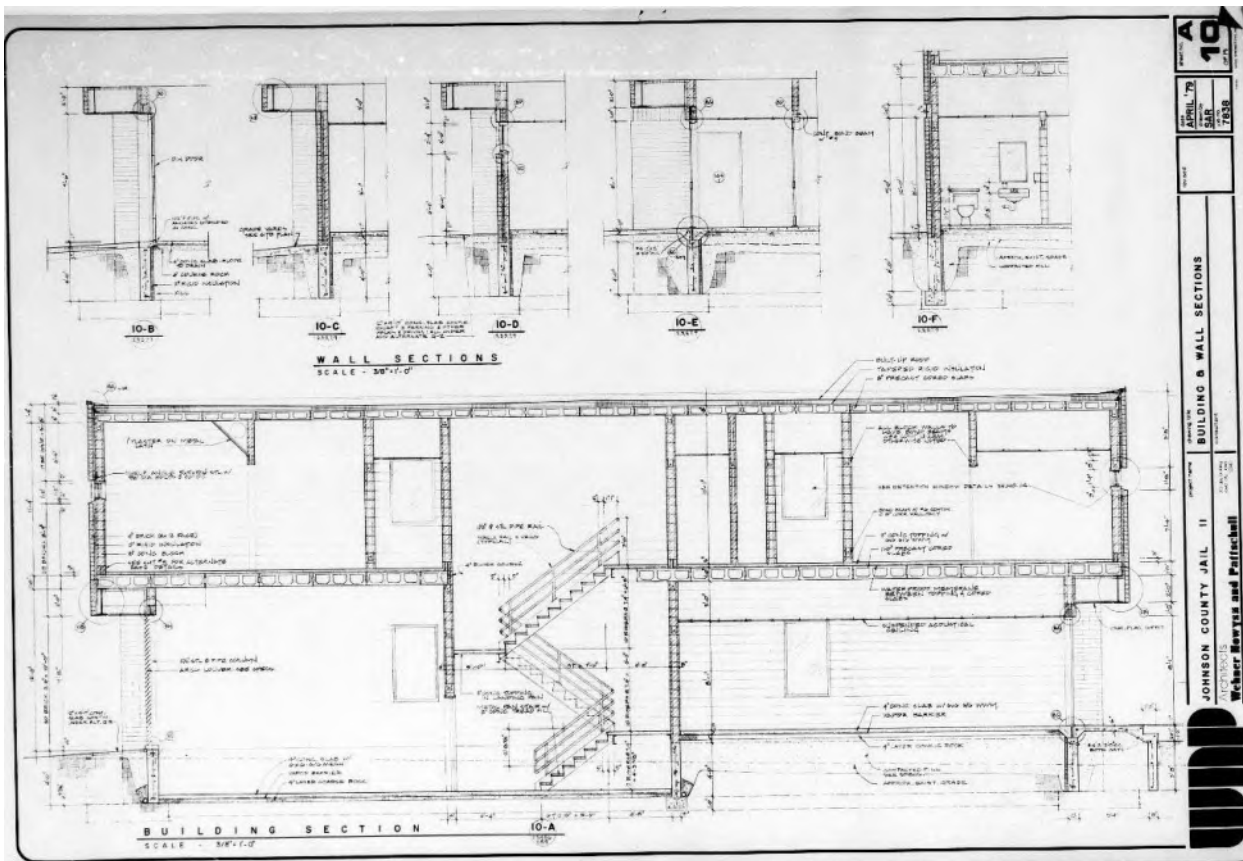
1980 construction of the cantilvered second level edge



Historic photo of the jail shortly after it opened in 1980



Plan page A3 from original plan set showing 2nd floor framing (more information on this later)



Plan page A10 from original plan set showing building and wall sections (more information on this later)

SITE WALKDOWN

Narrative

The following section includes a comprehensive logging of the physical walkthroughs that were performed of each space and well as drone photography for overall site views and inaccessible area evaluation (primarily roof areas.) This walkdown includes the majority of items that were examined and evaluated, particularly those of concern. Some items deemed to be minor, or merely cosmetic in nature, are not generally included. Following this section is a categorization of all items in a simpler summary list for reference. Cross-references will be included in both sections for the user to easily access the items back-and-forth. Our team categorizes items using the following nomenclature/system:

Categorization

CRITICAL

Items that should be corrected as soon as possible. These items represent a critical need and/or possible safety risk. They may require quick repairs or further evaluation to ensure the item is successfully accounted for.

IMPORTANT

Items that should be corrected as soon as is practical for the organization taking into consideration items such as budget, phasing, occupancy, and schedule. These items likely do not represent a current safety or critical risk at the time of inspection. Left unchecked, these items may become critical in nature or exacerbate in terms of extent. These items are best suited for a capital improvement plan/budget.

MONITOR

The items should be placed into a longer-term "to-do" list. These items aren't critical but could become problematic or more extensive in the future. Items should be monitored by maintenance staff for worsening condition. These items may be suited for a capital improvement plan/budget.

NO ISSUES

At the time of inspection these areas/items showed no apparent issues of concern. These areas were looked at during the inspection – potentially in only a cursory manner – but are recorded in the report for the sake of due diligence.




Walkthrough




Items are further categorized into disciplines of practice (for the engineering/architectural discipline that would design/prescribe the repairs for these areas. This report focuses primarily on structural areas per the State of Iowa inspector's request:



STR: includes items related to the structural system or which are structural in nature

ARCH: includes finish items, doors, siding, and other appurtenances (in the case of this report, these items may be indicative or related to structural elements and will be noted as such)


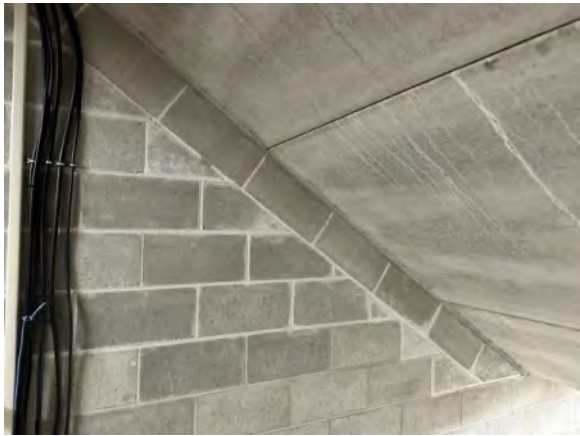

The categorization of a discipline is only done to help sort through and track issues. It is not meant to denote any particular requirements and many issues have many disciplines involved with them as the root cause.



ROOF AREA			
ITEM	TYPE	PHOTO	DESCRIPTION (RATING)
1	ARCH		Ballasted membrane roof system – NE corner of building. Walkway pads present in foreground. Entire roof experiences multiple leaks in various locations due to age.
2	ARCH		Exposed section of membrane roof near the center section of the building. Roof drain appears functional. Pads placed for access to mechanical RTU. Entire roof experiences multiple leaks in various locations due to age.
3	STR		South edge of the roof. This area should be monitored periodically based on findings/issues on the second level exterior. (All exterior roof areas should.)

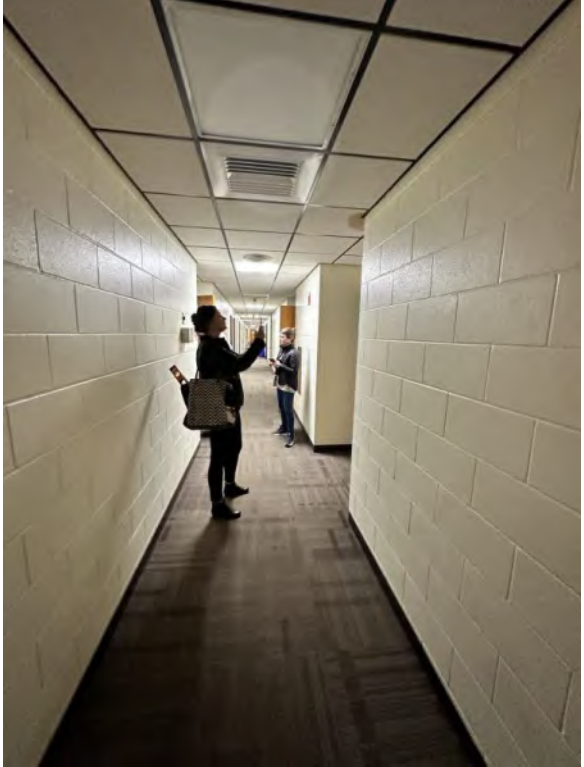


4	STR		<p>Structural stanchion for mechanical lines running on the roof. No issues of note.</p>
5	STR		<p>Mechanical curbs and equipment near the center are of the roof. Entire roof experiences multiple leaks in various locations due to age.</p>
6	STR		<p>Brick exterior stairwell walls at the North section of the roof access. Brick showing signs of cracking/movement (sealed.) This should be monitored as we believe it is tied to movement of the exterior walls on the second level.</p>

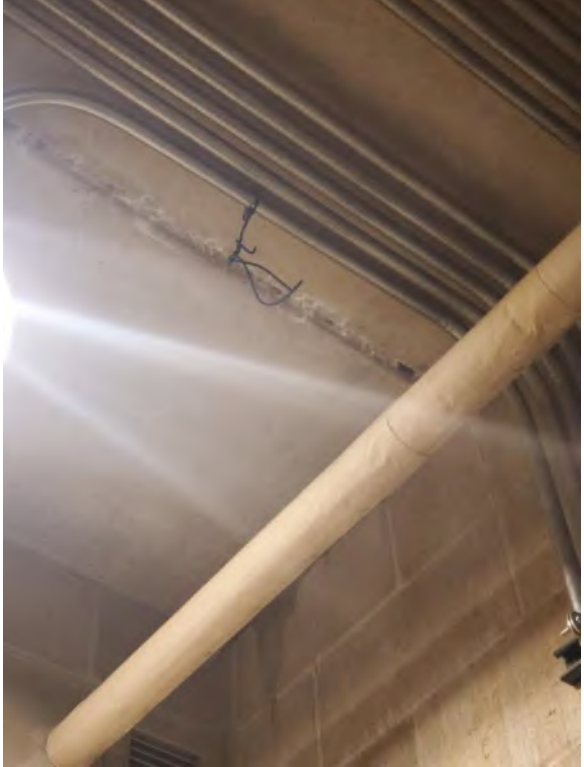


7	STR		<p>Brick exterior stairwell walls at the North section of the roof access. Brick showing signs of cracking/movement (sealed.) This should be monitored as we believe it is tied to movement of the exterior walls on the second level.</p>
8	ARCH		<p>Brick stairwell bump-up on the North end of the roof. No issues noted.</p>
9	STR/ ARCH		<p>Overall view of the roof with the drone. Roof could be periodically monitored fairly quickly and easily with a drone to keep an eye on possible issues related to structure below. Entire roof experiences multiple leaks in various locations due to age.</p>


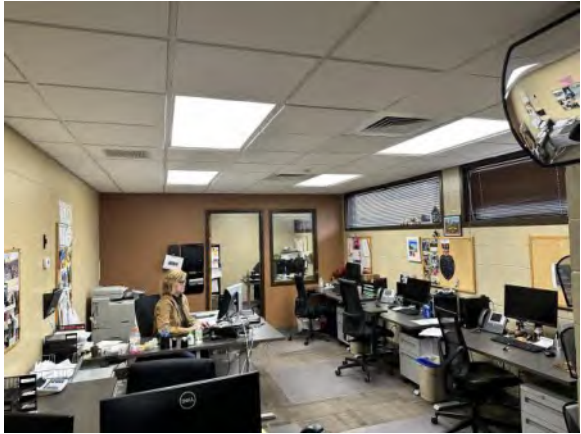

Additional photos for the walkthrough are available. A sampling of items is provided from the walkthrough detailing both typical conditions reviewed as well as call outs for all items of note.



GROUND FLOOR			
ITEM	TYPE	PHOTO	DESCRIPTION (RATING)
1	STR		Masonry around door frame in North stairwell. No issues of note.
2	STR		Hollow-core precast ceiling in the North Stairwell (top) showing signs of pull-out in the precast joint as well as potential moisture infiltration. Monitor for worsening condition(s.)
3	STR		Close-up of a hollow-core precast ceiling joint in the North Stairwell (top) showing significant signs of pull-out in the precast joint. Monitor for worsening condition(s.)



4	STR		<p>CMU wall below hollow-core ceiling joint in the North stairwell. Joint cracking directly adjacent to pulled joint indicating related condition. Monitor for worsening condition(s.)</p>
5			<p>Corner crack and spall in CMU corner within the North stairwell indicating additional stress/shifting. Monitor for worsening condition(s.)</p>
6	ARCH		<p>Exterior doorway threshold and jamb bases on the North edge of the building. Showing extreme water/salt damage and fatigue. Door assembly should be replaced when feasible.</p>

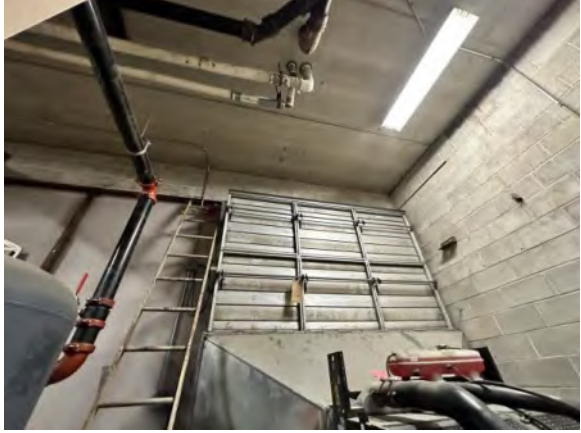


7	ARCH		Interior primary CMU corridor on ground level. No issues of note.
8	ARCH		Ground level conference room CMU walls. No issues of note.
9	ARCH		Exterior picture window on East side of building. Integral with CMU exterior wall. No issues noted.




10	STR		<p>Hollow-core ground level ceiling joint in maintenance area showing signs of moisture infiltration and efflorescence. Monitor situation for recurrence/worsening.</p>
11	STR		<p>Utilities above the first level ceiling near the conference room. No issues of note but personnel did note that leaks and blockages occur frequently so areas should be monitored.</p>
12	ARCH		<p>Main level breakroom. No issues. Noted.</p>

<p>13</p>	<p>STR</p>		<p>Main level storage space. No issues noted but CMU exposed areas like this with hollow-core ceilings should be monitored for changes/cracks.</p>
<p>14</p>	<p>ARCH</p>		<p>Main level administrative space. No issues noted structurally. Multiple ceiling leak locations from prior events.</p>
<p>15</p>	<p>STR</p>		<p>Main level data/storage location. No issues noted but CMU exposed areas like this with hollow-core ceilings should be monitored for changes/cracks.</p>


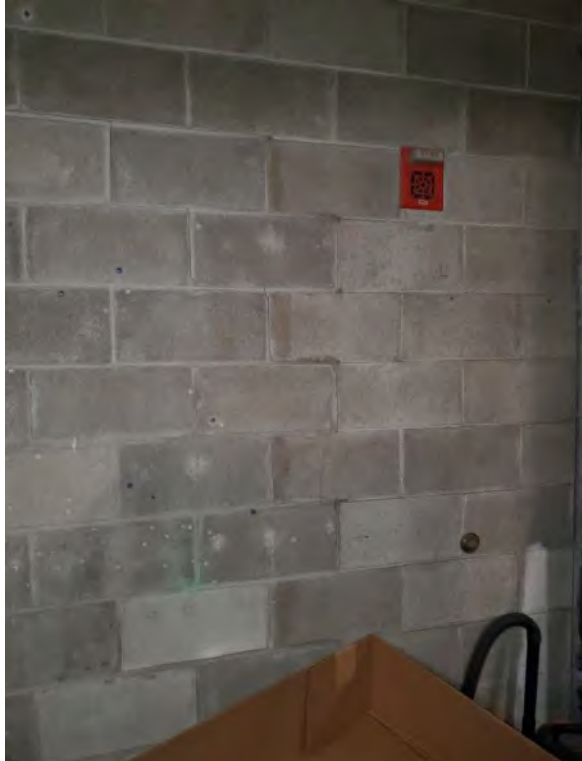
16	ARCH		<p>Main level restroom/locker room. No issues noted in structure.</p>
17	ARCH		<p>Main level locker room. There are, however, some indications through the tile (reflective cracking) of structural movement behind the tile. The fact that the cracks are breaking through the tile itself and not along a joint indicate the issue is likely not simple building movement. This tile should be repaired when feasible and an examination made of the CMU behind it.</p>




18	ARCH		<p>Exterior door assembly and side light on the South side of the building. Showing extreme water/salt damage and fatigue. Door assembly should be replaced when feasible.</p>
19	STR		<p>South side stairwell. No issues noted</p>

20	STR		<p>Generator louvre area within the sub-basement mechanical room. This corner is showing some shifting of CMU and a lintel displacement. Area should be monitored for worsening condition(s.)</p>
21	STR		<p>Lally column in the sub-basement mechanical room. Column is showing signs of distress and should be replaced when feasible.</p>
22	STR		<p>Close-up of lally column fatigue.</p>



23	STR		Shifted lintel near the generator louvre in the sub-basement mechanical room. Monitor for additional cracking/shifting.
24	STR		Wall section near the end of the lintel showing signs of pulling and movement. Cracks and spalling evident. Monitor for worsening condition(s.)
25	STR		North wall of mechanical sub-basement (shared with sally-port) which shows a high amount of moisture buildup and efflorescence. Indicative of poor ventilation and waterproofing. Monitor. Items like this will exacerbate degradation of building elements.



26	ARCH		Booking area hallway. No issues noted.
27	ARCH		Booking area hallway door jambs beginning to show signs of corrosion. Monitor for worsening condition.

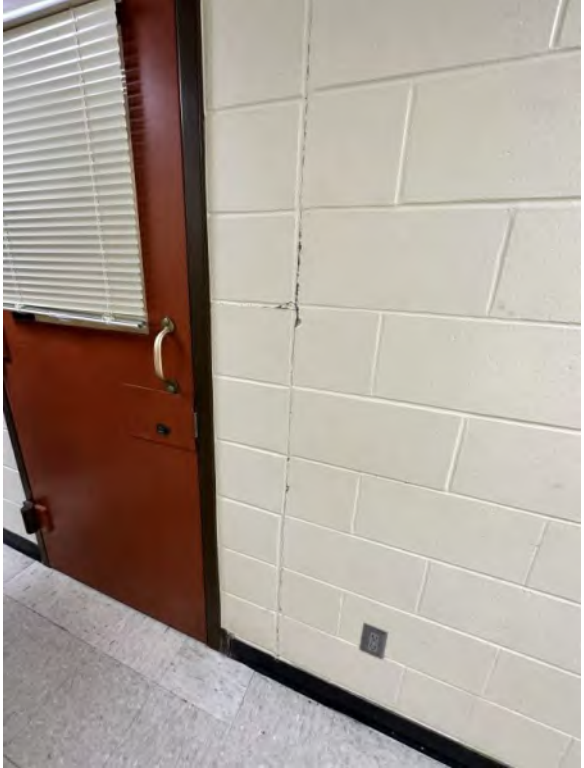

28	STR		<p>Sally port addition area. No items of note. This area is a place where additional issues of pull out/shift COULD be noted so monitor this area for changing conditions.</p>
29	STR		<p>Another area of the sally port showing wall shifting and pull from the areas above. Likely pulling on this CMU (via friction from above) and causing it to crack as the area moves out. Monitor for worsening of cracking/gaps.</p>

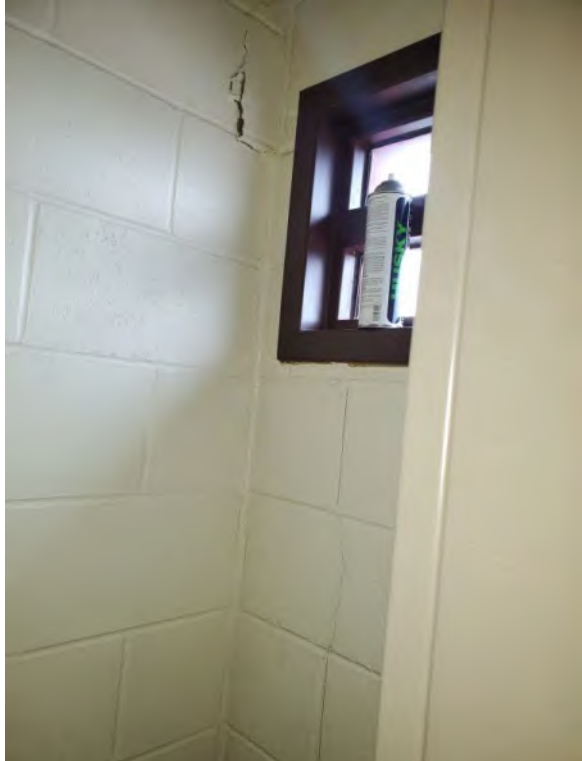
<p>30</p>	<p>STR</p>		<p>Exposed hollow-core slab in ceiling near sally port showing a lot of moisture pass-through and efflorescence. Monitor this situation for worsening conditions.</p>
<p>31</p>	<p>STR</p>		<p>Hallway ceiling near South exterior doorway showing split of hollow-core and buildup of moisture along the CMU/hollow-core seam coming in from outside. Monitor for worsening condition.</p>
<p>32</p>	<p>ARCH</p>		<p>Leaking from assumed plumbing blockage on upper floor. Monitor.</p>

Additional photos for the walkthrough are available. A sampling of items is provided from the walkthrough detailing both typical conditions reviewed as well as call outs for all items of note.




UPPER FLOOR			
ITEM	TYPE	PHOTO	DESCRIPTION (RATING)
1	ARCH		Central corridor on upper level. No issues noted.
2	STR		Above ceiling plumbing on upper level. No issues noted.



3	STR		Laundry room on upper level. No issues noted.
4	STR		Central corridor CMU walls on upper level show consistent signs of paint failure at the base. This could be due to a number of reasons including movement. Monitor for ongoing issues and/or worsening conditions.




5	STR		<p>Example of door (there are many) in the upper central hallway showing heavy fracturing of CMU adjacent to the door frame. Continuous vertical joint does not appear to be an expansion joint which would indicate that the door was retro-fitted into the opening. This tie-in doesn't look to be stable enough and the very heavy weight of the door is fracturing the adjacent block. These will need to be replaced/repaired at some point.</p>
6	STR		<p>Closeup of damage near door frame to the adjacent CMU.</p>



7	STR		<p>Exterior window in upper level North end accessory room (officers were working on PCs.) This corner joint and frame showing a lot of cracking along the exterior interface which would be indicative of upper exterior wall movement. This should be repaired along with entire exterior wall repair/fascia repair at some point in the future.</p>
8	STR		<p>Another exterior window in upper level North end accessory room (officers were working on PCs.) CMU movement and fracturing here is even worse. This should be repaired along with entire exterior wall repair/fascia repair at some point in the future.</p>

9	STR	 A photograph of a jail cell interior. The walls are made of light-colored concrete masonry units (CMU). On the left, there is a stainless steel sink and toilet. In the center, there is a stainless steel table. On the right, there is a blue mattress on a metal frame. A window is visible on the back wall. The ceiling has a recessed light fixture.	<p>Typical cell condition. Cracks are apparently in many/most – showing primarily on the hollow-core ceiling and in the CMU around the windows and/or on adjacent wall sections. This should be repaired along with entire exterior wall repair/fascia repair at some point in the future.</p>
10	STR	 A close-up photograph of a vertical crack in a concrete wall. The crack is dark and appears to be fresh. The wall is made of light-colored concrete masonry units (CMU). The crack runs vertically through the center of the frame.	<p>Closeup of typical crack on a cell window. Many areas on the upper level show signs of active cracking. The cracks are fresh, clean, and show signs of ongoing movement (this is typical of most all exterior cracks on the upper level.)</p>

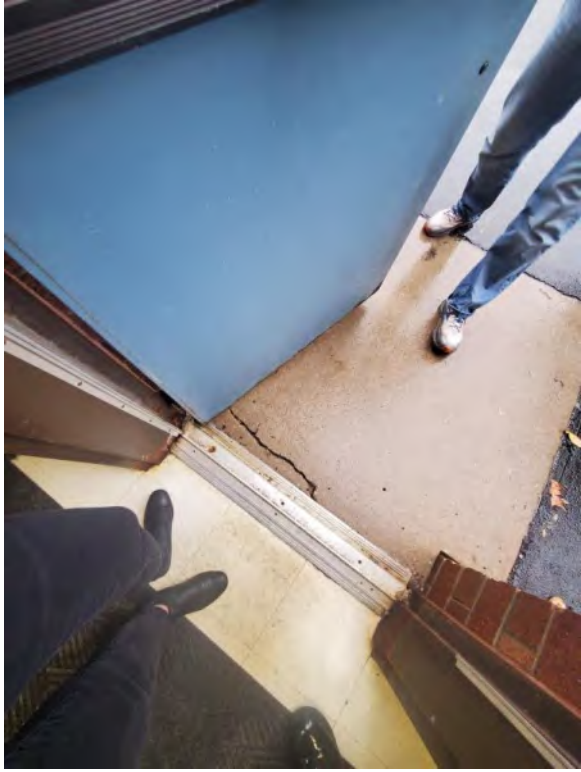

11	STR		<p>Typical ceiling condition within a cell. Readily apparent pulling of the hollow-core and separating joint along with cracks at the exterior wall interface. This should be repaired along with entire exterior wall repair/fascia repair at some point in the future.</p>
12	STR		<p>Closeup of more typical exterior wall cell cracks under a window area.</p>
13	STR		<p>Similar example of hollow-core ceiling and exterior wall cracking. In this example the top course of CMU is beginning to come loose.</p>



14	ARCH		<p>Prior repair area of kitchen floor tile. This area and another one near the center of the kitchen have been repaired multiple times. The tile substrate is getting moisture in it and the tile is buckling up an inch or more. The area will eventually settle back down (partially) but needs to be pulled up and fully dried out to actually repair the damage. This ongoing issue is indicative of water infiltration and we believe it could be related to the exterior damage occurring across this floor. This should be repaired when possible but likely is best once exterior repairs are corrected.</p>
15	STR		<p>Storage near kitchen. Wall cracks and significant pulling/splitting of hollow-core joints in the ceiling. Monitor for worsening condition(s.)</p>



<p>16</p>	<p>STR</p>		<p>Base of wall near kitchen. Wall cracks throughout the area. Monitor for worsening condition(s.)</p>
<p>17</p>	<p>STR</p>		<p>Another example of door cracking around the frame of the door in the upper central corridor. Monitor for worsening condition(s.)</p>
<p>18</p>	<p>STR</p>		<p>Separation of ceiling hollow-core in storage area on the upper floor. Monitor for worsening condition(s.)</p>

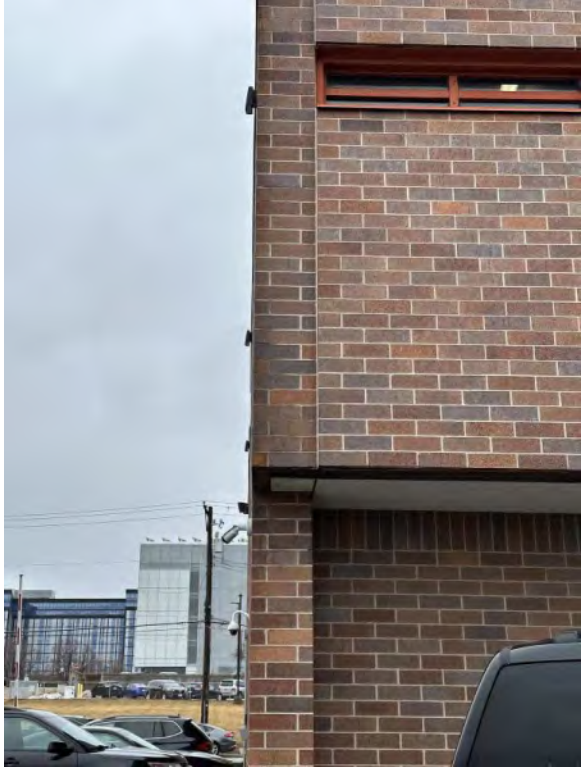

<p>19</p>	<p>STR</p>		<p>Ceiling and wall interface in common area within a cell. This area is on the NE portion of the building and shows fairly significant slippage and cracking. Monitor for worsening condition(s.)</p>
<p>20</p>	<p>STR</p>		<p>South side stairwell. No issues noted.</p>


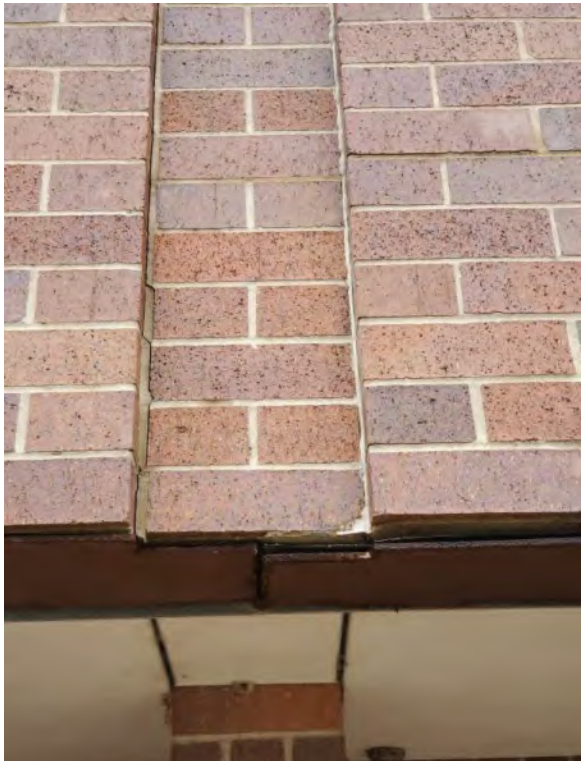
Additional photos for the walkthrough are available. A sampling of items is provided from the walkthrough detailing both typical conditions reviewed as well as call outs for all items of note.


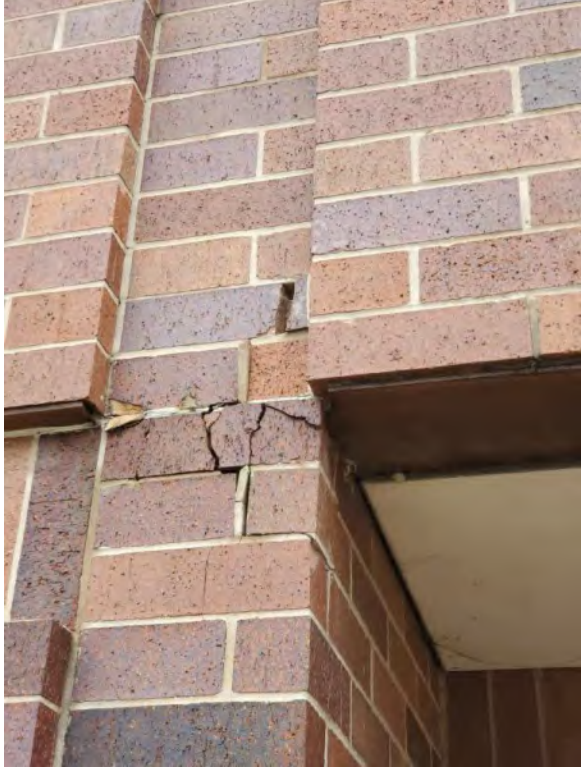
EXTERIOR/GROUNDS			
ITEM	TYPE	PHOTO	DESCRIPTION (RATING)
1	STR		<p>South doorway stoop showing signs of settlement and breaking. Should be repaired or sealed (at a minimum) when time allows to keep stoop from heaving/settling and interfering with door operation.</p>
2	STR		<p>Building corner at SW portion of exterior showing bearing plate separation from the building exterior and poor drainage condition. This area should be repaired soon.</p>

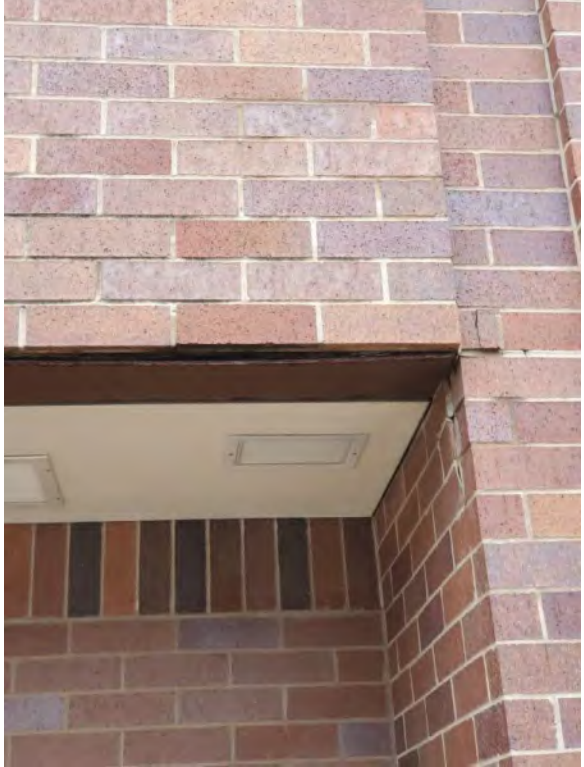


2	STR		<p>Building edge on West side of exterior showing bearing plate separation from the building exterior and poor drainage condition. Joints failing in the masonry façade. This area should be repaired soon.</p>
3	STR		<p>Building edge on West side of exterior showing bearing plate corrosion from poor drainage condition. Joints failing in the masonry façade. This area should be repaired soon.</p>

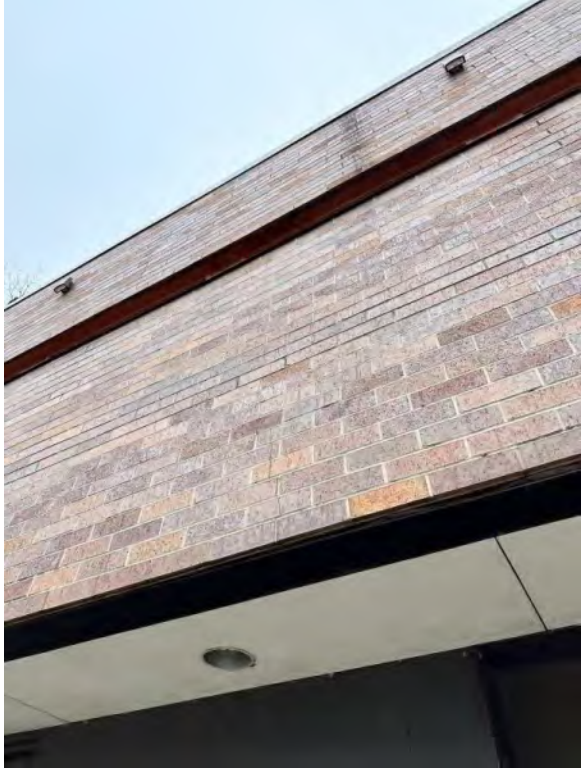

4	STR		<p>Building edge on West side of exterior showing bearing plate corrosion from poor drainage condition. Welds starting to fail as well. Joints failing in the masonry façade. This area should be repaired soon.</p>
5	STR		<p>Sighting down the West edge of the building to check pull-away of masonry façade N-S. Monitor this condition.</p>



6	STR		<p>Sighting down the North edge of the building to check pull-away of masonry façade N-S. Monitor this condition.</p>
7	STR		<p>Brick pop-out on fascia starting to occur indicating likely moisture issues as well as movement in the structure. This condition should be repaired soon.</p>

8	STR		<p>Building edge on NE corner exterior showing bearing plate corrosion from poor drainage condition. Welds starting to fail as well. Joints failing in the masonry façade. This area should be repaired soon.</p>
9	STR		<p>Building edge on E side of structure. Showing similar conditions with the plate and failure of the masonry joints above. This area should be repaired soon.</p>

10	ARCH	 A photograph of a blue exterior door set in a brick wall. The door has a small window at the top and a handle. There is visible wear and discoloration at the bottom of the door and the surrounding brickwork.	<p>Exterior door on E side of building showing similar distress and wear to other doors. This door should be replaced when feasible.</p>
11	STR	 A close-up photograph of a brick wall corner. The bricks are reddish-brown with white mortar. There is significant cracking and crumbling of the bricks and mortar, particularly in a recessed area, indicating structural failure.	<p>Building edge on E side exterior near the sally port. Brick movement and failure are very bad here indicating movement and moisture issues at the recess in particular. This area should be repaired soon.</p>

12	STR		<p>Brick failure, pop-out and rippling showing on the E side of the building. This area should be repaired soon.</p>
13	ARCH		<p>Overview of the sally port door indicating fair condition. Brick rippling can be seen on this face and should be monitored for worsening condition(s.)</p>
14	ARCH		<p>View above the sally port door. Brick rippling can be seen on this face and should be monitored for worsening condition(s.)</p>

15	ARCH		<p>East side brick condition as viewed from public walk. Brick movement, moisture issues, and support angle condition can all be seen. This area should be repaired with other exterior items when possible.</p>
16	STR		<p>Measuring gap on support angle near sally port door – near 1"</p>

17	ARCH	 A photograph showing a section of a brick wall on the second floor. A window is visible, and there is a noticeable dark stain or area of discoloration on the brickwork above and around the window, indicating moisture infiltration. A vertical pipe or downspout is visible to the left of the window.	<p>Brick condition on SE corner of the building around upper window showing moisture infiltration into the exterior façade. Should be repaired when feasible. This condition is indicative of many areas of the exterior brick, particularly on the East face (where we believe the brick likely doesn't dry out as quickly.) Without exploratory investigation it is difficult to verify but we believe there are multiple drainage and structural deficiencies throughout the brick façade on the second floor.</p>
18	STR	 A photograph showing a close-up of a brick support angle. There is a significant gap between the brickwork and the support structure. The bricks appear to be pulling away, and there is visible moisture infiltration. A yellow measuring tape is visible at the bottom of the frame for scale.	<p>SE corner brick support angle. Support angle gap is very large and pulling away. Brick movement evident above and below. Moisture infiltration evident. Should be repaired soon.</p>

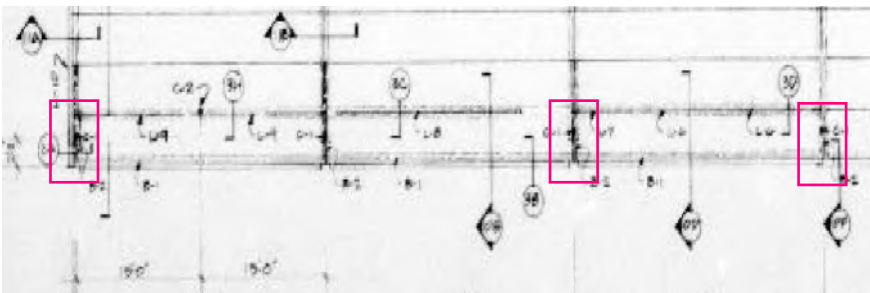
Additional photos for the walkthrough are available. A sampling of items is provided from the walkthrough detailing both typical conditions reviewed as well as call outs for all items of note.

Supplemental Information

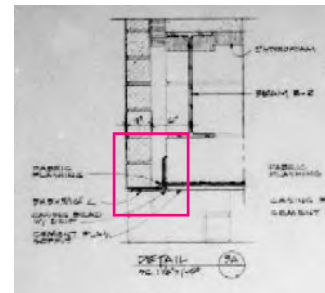
DESIGN DEFICIENCIES

The existing plans show three (3) primary and substantial deficiencies based on our findings.

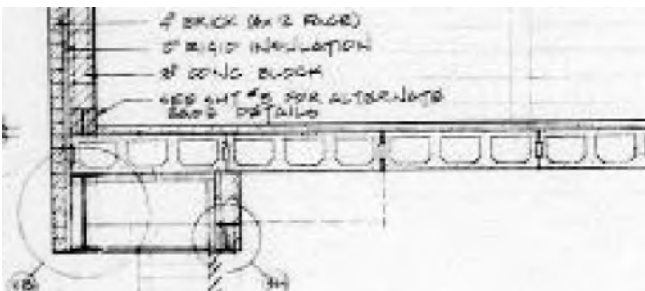
1. The plans were not designed by a Structural Engineer. There are no structural design pages – all structural elements are included on the Architectural pages. In 1979 it would have certainly been typical to have had individual structural engineering pages.
2. The design of the cantilevered second story areas was designed with a very small back-span. In addition, the angle-lintel pieces at the corners of the building extend side-to-side not back into the building. This allows for greater twisting and warping (which is what is currently happening.)
3. The overhang design and soffit construction was very poorly thought-out in terms of water management. The structure isn't well designed to deal with water that undoubtedly enters the exterior wall cavity and drains down to the overhang. There are cotton rope weeps (minimal and not consistently-spaced) and no other apparent method of moisture and water control. A few areas have small vents but the majority of the soffit area is unvented.



E/SE portion of the second story where 4' backspan into the building can be noted.



Angle lintel at building corners



Detail of overhang construction

Johnson County Jail
Iowa City Iowa

Board of Supervisors:
DONALD SEHR CHAIRMAN
LORADA CILEK
HAROLD DONNELLY
DENNIS LANGENBERG
JANET SHIPTON

Sheriff's Department:
GARY HUGHES SHERIFF
DOUG EDMONDS CHIEF DEPUTY

Architects:
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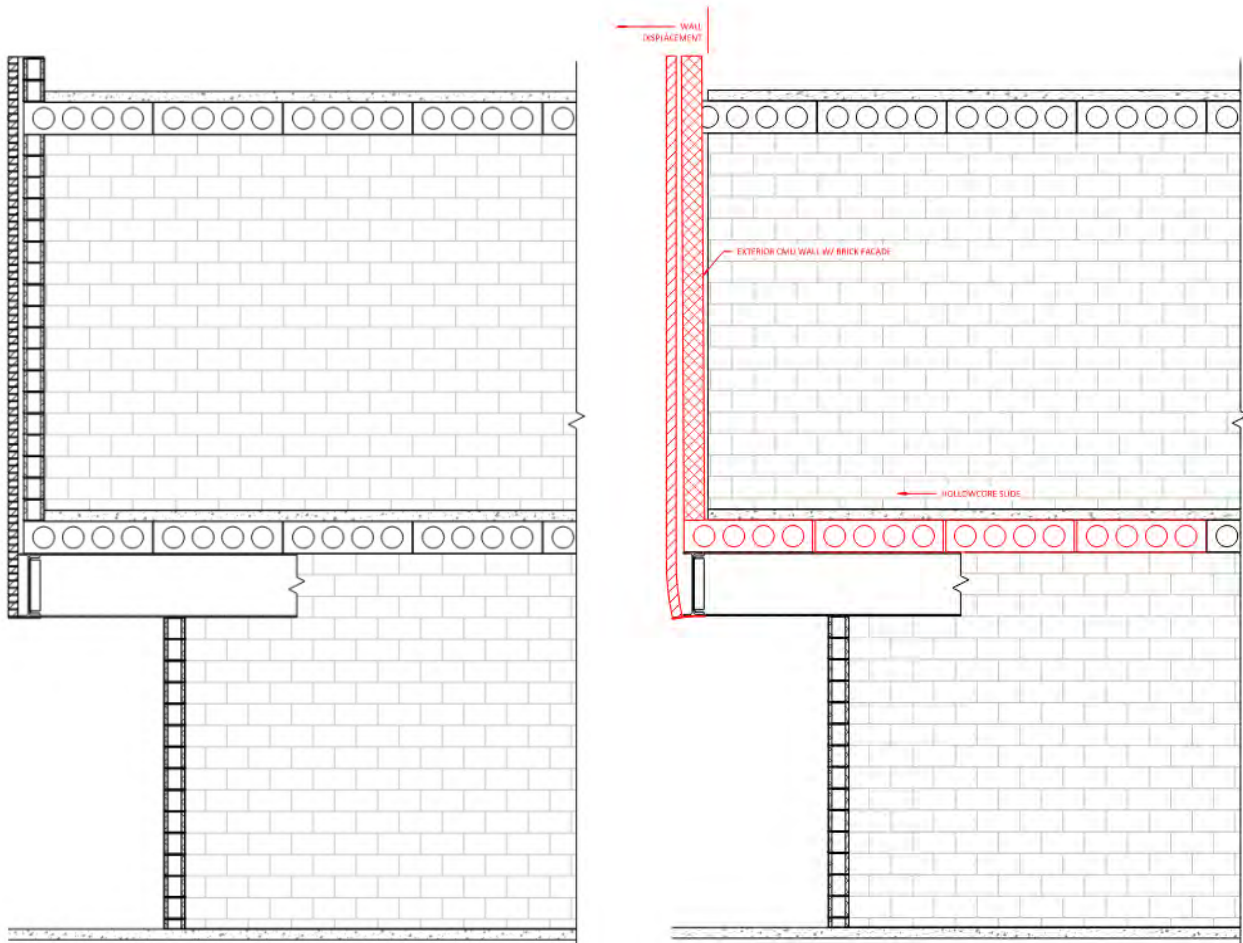
Mechanical/ Electrical Engineers:
MOORE BINGHAM & ASSOCIATES
800 FIRST AVENUE EAST
CEDAR RAPIDS, IOWA 52401
(319) 363-2663

11.25
11.26
11.27

Cover page indicates no Structural Engineer

EXPLANATORY INFORMATION

Our team completed a pair of supplemental and simple details based on information available to us and to attempt to piece together simple sections detailing what we view as the primary structural deficiency with the building that needs to be addressed. Outside of constructing a new facility, this issue seems to require the most immediate attention and signs of distress on the building are indicating that the problem is actively worsening. The two details below indicate a conceptual as-constructed condition as well as a current condition showing the general issue with the wall system/fascia particularly on the second floor:



Estimated as-designed condition

Estimated current condition

As previously stated, the cantilever detail was a poorly conceptualized one and added unnecessary complexity to a building that wasn't "asking for it." A simpler condition of a flush top-to-bottom wall would have eliminated the possibility of supplemental support needs on the upper level, possibility of water infiltration and sag, and provided a bit more square footage – likely for less cost. The cantilever section masonry weeps/drainage are insufficient and there are no stiffeners along the support angles to prevent bending. There are no drip edges designed at the edge of the cantilever. The hollow-core floor/ceiling system as well as the outside wall are slowly shifting outward over time creating gaps in the planks and showing brick fatigue and support angle failures. As these failures occur and gaps open up, the problem will continue to exacerbate, and gravity will begin to work on the condition even more. The condition is minimally present on the ground floor but overhead conditions will begin to affect that over time as well. This condition should be corrected and repaired. It is unknown how quickly the conditions will deteriorate but they are showing significant signs thereof. This will be a significant operation that will affect jail operations and likely require a phased approach.

CAPITAL EXPENDITURE EXPECTATIONS

NARRATIVE

The following section includes a secondary breakdown of the **CRITICAL**, **IMPORTANT**, and **MONITOR** items only. This section is intended to provide a potential remedy description and potential associated costs list for the owner in order to develop a comprehensive capital expenditure outlay moving forward.

COST OPINIONS

CRITICAL DEFICIENCIES

The following table of costs represents deficiencies that AXC believes should be repaired immediately. Items associated with deficiencies are labeled in **ORANGE**. These items include a brief description of a potential remedy along with a conceptual cost. Actual costs should be provided by licensed contractors after repairs are actually detailed and designed. Pricing for this section, as well as the subsequent section is obtained by the following:

- Historical cost data from similar efforts AXC has worked on
- National pricing guide services such as RS Means
- Publicly available bid-tabulation data

#	SECTION	SUGGESTED REMEDY	UNIT	TOTAL RANGE
1,2,5	ROOF	Roof Replacement Will require extensive coordination with HVAC	\$30-50/SF	\$427,500 - \$712,500
2, 3, 4, 7, 8, 9, 11, 12, 16	EXT	Repair Exterior Building Shell/Facade Exterior brick needs to be removed and replaced. Underlying steel support structure needs to be repaired and rebuilt. New façade assembly needs to be designed and constructed including potential in-fill of cantilever.	\$250 - 500/SF (-7,300)	\$1.825 – 3.65M
TOTALS				\$2,252,500 - \$4,362,500

REPLACEMENT RESERVE ANALYSIS

The following table of costs represents deficiencies that AXC recommends should be planned for under a capital expense program for the client. These deficiencies may either be present now (and not critical) and marked in **YELLOW** or they may be minor or not-present now but expected in the future and marked in **GREEN**.

Repairs are categorized with an *Expected Useful Life (E.U.L.)* timeframe based on our professional opinion from information gathered during the creation of this report. Associated cost opinions are then included under the yearly timeframe area of the table and carried to the bottom of the table for time-based totals. We have broken these into four (4) primary categories:

Costs are broken down with associated timeframes. These timeframes can be best understood as a time when AXC estimates that an item may wear out, fail, or become overly problematic. These are only guesses based on our observations in the field and expertise working with these types of items. These timeframes are provided so that the client can develop a more comprehensive outlay of potential expenditures.

Costs are indicated with our estimate of a current replacement as well as a cost (or costs) with calculated interest to show what costs for that item may be if extended into the future versus immediate repair. If an item requires periodic repairs or additional replacements can be expected, multiple instances of cost may be entered. If additional clarification is required AXC can provide more input into our reasoning. Determining replacement costs at this stage of a potential project is extremely difficult. Because of this these numbers should just be used as a potential baseline. Many of these costs represent FULL removal and replacement. For more applicable cost estimation, a General Contractor should be engaged.

ITEMS	LOC	ITEM	EUL (yr)	COSTS NOW	EXTENDED COSTS (year timeframe) – 3% Inflation Assumed					
					1-5	6-10	11-15	16-20	>20	TOTALS
3, 6, 7, 9	ROOF	Roofing Replacement	0	\$250,000					\$451,500	\$451,500
6, 18	GF	Exterior Door Replacement	5	\$40,000	\$46,370					\$46,370
17	GF	Tile Repair	15	\$25,000			\$38,949			\$38,949
21, 22	GF	Lally Column Repair	5	\$5,000	\$5,796					\$5,796
5, 6, 16, 17	UF	Interior Door Replacement	5	\$1M	\$1.159M					\$1.159M
7-13	UF	Interior CMU Repairs	Part of critical item listed above; interior not as pressing as exterior but all tied together							
14	UF	Kitchen Tile Replacement	5	\$50,000	\$57,963					\$57,963
1	EXT	Stoop Replacement	20	\$2,000				\$3,612		\$3,612
R.R.A. TOTALS				\$1.372M	\$1.279M		\$38,949	\$3,612	\$451,500	\$1.763M

Hollow-core repairs weren't evaluated because there isn't really a feasible way to repair these without disassembling the entire building and/or building a new building. The best solution would be to stabilize them from getting worse by correcting the façade and shell issues.

NEW BUILDING COSTS

We estimate new building costs to be in the range of \$300-450/SF for this type of facility. Considering demolition and site work we would estimate construction of a similar size facility to be \$9 - 13.5M.

SUMMARY

Narrative

The following section breaks down our general opinion of the following large-scale areas into simplistic terms for a top-level view by the ownership group. These ratings are meant to provide a very general wrap-up of the details included into the report to establish a general baseline condition for the associate portions of the property. Because these items are used to wrap up large sections of infrastructure, it must be understood that the ratings may refer to the lowest common denominator of an item (e.g. a brand new roof with a hole in it will still be rated POOR, but that doesn't necessarily mean that the entire roof needs replacement.) The nomenclature used is as follows:

CRITICAL: overall condition is of low quality, with poorly to very poorly maintained conditions due to lack of care, damage to the area, or possible neglect. Areas with this ranking are in need of immediate repair. Immediate attention is required to portions of this area.

POOR: overall condition is of below average quality, with moderately neglected conditions that may require an upgrade in maintenance. Areas with this ranking should be repaired relatively soon or undergo a substantial maintenance upgrade. Some significant immediate attention may be required or plans made to improve some items in a relatively timely fashion.

FAIR: overall condition is of average quality, with the area condition being what could be reasonably assumed considering the overall age and conditions of the item. Areas with this ranking need to be maintained as they have been and repairs should be expected within standard time frames. Some immediate attention may be required.

GOOD: overall condition is of above average quality, with well maintained conditions considering the age in question. Areas with this ranking need some attention to repair but probably less than might be expected for the age. Minor immediate attention required.

EXCELLENT: overall condition is of very high quality, either new or fairly new conditions or incredible condition considering the age in question. Areas with this ranking need very little or no attention to repair. No immediate attention required.

ITEM	RATING
Foundation	Good*
Roof	Fair
Shell/Fascia	Critical
Exterior Structure – 2 nd Floor	Critical
Exterior Structure – 1 st Floor	Fair
Interior Structure – 2 nd Floor	Fair
Interior Structure – 1 st Floor	Fair
Doors – Exterior	Poor
Doors – Interior	Fair
Accessory/Basement Area Structure	Fair

*If an item is not-reviewed visually but only estimated by guess, it is marked with an asterisk.

Overall Synopsis

The basis of this inspection was the February 2023 letter from the State Inspector as detailed earlier in this report. It is assumed that the primary impetus for that report was the exterior fatigue the building is beginning to show – which is detailed earlier in this report. Indeed, the masonry fascia of the building – and associated structural elements that are supporting that masonry, is in very poor condition as noted in the original state letter.

While AXC does not have plans for the exact construction detailing utilized for the upper walls and building shell, we believe that we have developed a fair understanding of the support ledges and lintels that are supporting the upper level, which is built on a cantilevered section, projecting out from

the lower level. Much of the problem that is occurring with the building at 44 years of age is due to this problematic design which does a poor job accounting for water management, and which exposes too much of the support for that shell to fatigue-inducing conditions. This fatigue is now quite evident on all sides of the building. Steel support angles/plates are severely rusted, delaminating and scaling, and showing signs of buckling and bowing. Corresponding supported masonry is beginning to fracture and ripple. Additional signs of the upper masonry fascia begging to pull away are evident inside the building where cracks in many of the upper cells are forming, as well as some areas of masonry that are beginning to break and crack. The precast assemblies (hollow-core panels) forming the ground level ceiling, upper level floor, and angled areas of the stairwells, show multiple signs of pulling away from the core of the building with formation of gaps ranging from ~ ¼ to 1" in width. Some cracking on brick areas of the roof also are indicative of this pulling-away.

The upper floor of the building, due to the poor exterior wall/shell design, as well as it's age, is the primary problem with the building as it currently exists. The lower floor shows many signs of age as would be expected in a building of 44 years, but nothing was noted that is of major structural concern.

Additional structural or structural-related items are noted throughout the building including failing door jambs, cracked stoops, water leaks (or evidence thereof) and an aging roof, that are causing (or may cause) additional exacerbation of structural degradation and problems.

Axiom Consultants would not state, at this time, that the building is in danger of imminent structural failures of any sort, but there are concerning signs that should be addressed soon to prevent larger and more costly damage to upper building structure and which may cascade into other problems within the building. Because the primary skeleton of the building is constructed from CIP PCC foundations with a unit masonry core, it is durable and resistant to age related damage in ways many other buildings aren't. However, the unnecessary cantilever feature and associated poor drainage management are creating conditions that allow the upper structure to prematurely age.

Many other factors that are structurally and architecturally intertwined like poor steel door design and construction (along with associated jambs/headers), inadequate cell plumbing and drainage considerations, and obsolete door hardware all contribute to the fact that the building appears to either be nearing obsolescence for Johnson County's needs, or in need of a significant rehabilitation and repair effort.

APPENDICES

Firm Profile

Axiom Consultants, LLC is a fully-licensed engineering firm based out of Iowa City, IA. With offices in Iowa City and Cedar Rapids we provide civil, structural, mechanical, and electrical engineering services across the State of Iowa and Western Illinois. We also provide fully licensed professional land survey and construction staking services, and specialty services including aerial photography and video, 3D scanning, planning, project management/owner's representative, property condition assessments, specialty inspections, and more. Our staff have over 200-years of combined engineering experience and provide unique owner-focused services based on being adept, agile, and communicative in ways that are often overlooked.

Staff Roles and Qualifications



ROB DECKER, MSE, CPG, CPII
PRINCIPAL – OWNER
Building Services Manager

M.S. - Engineering (Structural and Geotechnical)
The University of Wisconsin (Platteville)
B.S. – Geoscience
The University of Iowa

Mr. Decker is the owner and founder of Axiom Consultants located in Iowa City and Cedar Rapids. On a practical level he serves a variety of roles including managing the Building Services division of Axiom. He serves as the lead for the majority of Axiom's building-related projects and has a long history working on facilities designs for GreenState CU. Rob is an expert in civil, structural, mechanical, and electrical engineering and has worked on a variety of projects from small tenant improvements to large multi-million dollar facilities. He works closely with owners and architects to deliver sound design and project management services and is known for being a level-headed problem solver.

phone 319.519.6221

email rdecker@axiom-con.com



JUSTINE SIGLIN, PE
SENIOR STRUCTURAL ENGINEER
Structural Division Lead

B.S. – Civil Engineering (Structures)
Iowa State University

Ms. Siglin leads the Structural Division for Axiom Consultants. She manages complex designs of primarily commercial projects while also working on residential and industrial efforts as the need arises. She has a versatile skillset in design of steel, concrete, masonry, and wood structures and effective use of BIM and structural modeling software. Her team of structural engineers and designers works in tandem with architects on a daily basis to complete full structural plans and specifications on everything Axiom does. Ms. Siglin has great familiarity with forensic investigations, ACI, AISC, and ASCE code, and continually expands and enhances her and her teams' skillset through continuing education and outreach.

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email jsiglin@axiom-con.com



APRIL VANDE BRAKE, EIT
STRUCTURAL ENGINEERING ASSOCIATE

*B.S. – Civil Engineering (Structures)
The University of Iowa*

Ms. Vandebrake works in the Structural Division for Axiom Consultants and executes many of the building designs that Axiom undertakes. Her meticulous nature and excellent attention to detail are welcomed on every job. She has excellent BIM and structural analysis skills that she utilizes on a daily basis and she is continuing to enhance and develop her field skills. Ms. Vande Brake works on many forensic efforts for Axiom Consultants helping to analyze and investigate the structure in question.

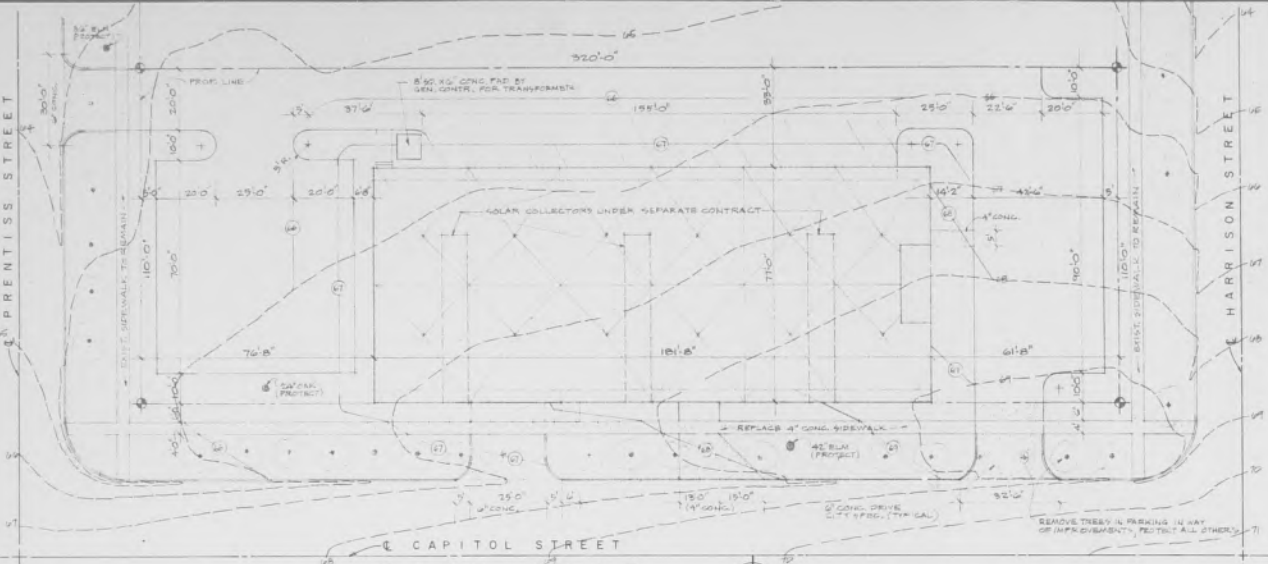
phone 712.395.1807 email avandebrake@axiom-con.com

Additional Included Materials

1. Drone imagery
2. Digital scans of historic photos
3. Original building plans

Disclaimer

This structural PCA is provided solely for the use of Johnson County personnel in the evaluation efforts of the facility located at 511 South Capitol Street. It is not intended to serve as a design document or construction guide. The accuracy and completeness of the information provided is based on assumptions, limitations, and available data as detailed herein. Existing document-based information on the facility is very limited and no original data exists for plans or specifications. Construction records are limited only to a few original photos. The behavior and performance of the building is analyzed based on the limited information we have and this document should not serve as a certification or endorsement of the structural integrity or safety of the building by AXC. AXC reserves the right to amend or alter its position related to conclusions or assumptions in this report based on additional information that is discovered or later provided. Any provision of cost or cost-related items is estimated and is the opinion of AXC only. This information should be verified and confirmed with a general contractor or subcontractor to establish actual values for construction costs. If more specific knowledge is required for areas that can't be viewed or analyzed, remote detection equipment or destructive analysis may be required to further understand the internal workings of the structure. No repairs or corrections should be undertaken without development of plans and specifications for such work.



SITE PLAN
SCALE - 1" = 20'-0"

FINISH 2ND FLOOR - ELEV. 80'11" (215')
 FINISH 1ST FLOOR - ELEV. 80'0" (213')
 TOP OF FOUNDATION - ELEV. 77'6" (236')
 FINISH GRADE - 78'
 EXISTING GRADE - 75'
 ALL UTILITIES IMPROVEMENTS ARE UNDER A 4" CONC. DRIVE FOR CONCRETE & CEMENTATION.
 BENCHMARK AT THE NORTH BOLT FIRE HYDRANT 3 NE CORNER CORNER AT 1st & 2nd ST. ELEV. 81'6" (248'6")



Materials Key

- STUD PARTITION
- RIGID INSULATION
- BLANKET INSULATION
- WOOD
- STEEL
- BRICK
- CONCRETE BLOCK
- CONCRETE
- COARSE ROCK
- SAND
- EARTH

Johnson County Jail
Iowa City Iowa

Board of Supervisors:
 DONALD SEHR CHAIRMAN
 LORADA CILEK
 HAROLD DONNELLY
 DENNIS LANGENBERG
 JANET SHIPTON

Sheriff's Department:
 GARY HUGHES SHERIFF
 DOUG EDMONDS CHIEF DEPUTY

Architects:
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 800 FIRST AVENUE EAST
 CEDAR RAPIDS, IOWA 52401
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- A3 SECOND FLOOR FRAMING PLAN & DETAILS
- A4 ROOF FRAMING PLAN & DETAILS
- A5 FIRST FLOOR PLAN & ROOM FINISH SCHEDULE
- A6 SECOND FLOOR PLAN & ROOM FINISH SCHEDULE
- A7 FIRST & SECOND FLOOR REFLECTED CEILING PLANS
- A8 ROOF PLAN, DOOR & FRAME ELEVATIONS & DETAILS
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- A19 DETENTION EQUIPMENT DETAILS
- U1 UTILITIES SITE PLAN
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- M7 HVAC - SECOND FLOOR PLAN
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- M9 MECH. - ENLARGED KITCHEN & MECH. ROOM PLANS
- M10 MECH. - LOOP WATER PIPING SCHEMATIC
- M11 MECH. - DETAILS & SCHEDULES
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- M13 MECH. - DETAILS & SCHEDULES
- E1 LIGHTING - FIRST FLOOR PLAN
- E2 LIGHTING - SECOND FLOOR PLAN
- E3 POWER WIRING - FIRST FLOOR PLAN
- E4 POWER WIRING - SECOND FLOOR PLAN
- E5 SPECIAL SYSTEMS - FIRST FLOOR PLAN
- E6 SPECIAL SYSTEMS - SECOND FLOOR PLAN
- E7 ELECTRICAL - ROOF PLAN
- E8 ELECTRICAL - ENLARGED KITCHEN & MECH. ROOM PLANS
- E9 ELECTRICAL - DETAILS & SCHEDULES
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- E11 ELECTRICAL - DETAILS & SCHEDULES
- E12 ELECTRICAL - DETAILS & SCHEDULES
- SR1 ELECTRONIC SECURITY - PANELS & CABINETS
- SR2 ELECTRONIC SECURITY - SCHEDULES & DIAGRAMS
- SR3 ELECTRONIC SECURITY & RADIO COMMUNICATIONS



JOHNSON COUNTY JAIL

Sheet No. **A**

Date: **APRIL '79**

Drawn by: **SAR RCW**

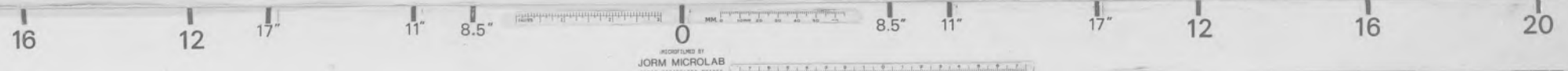
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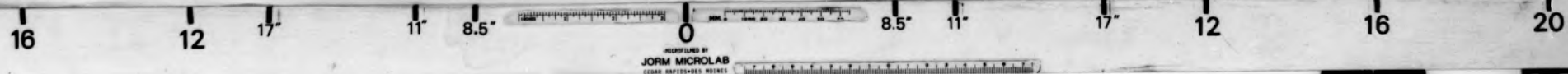
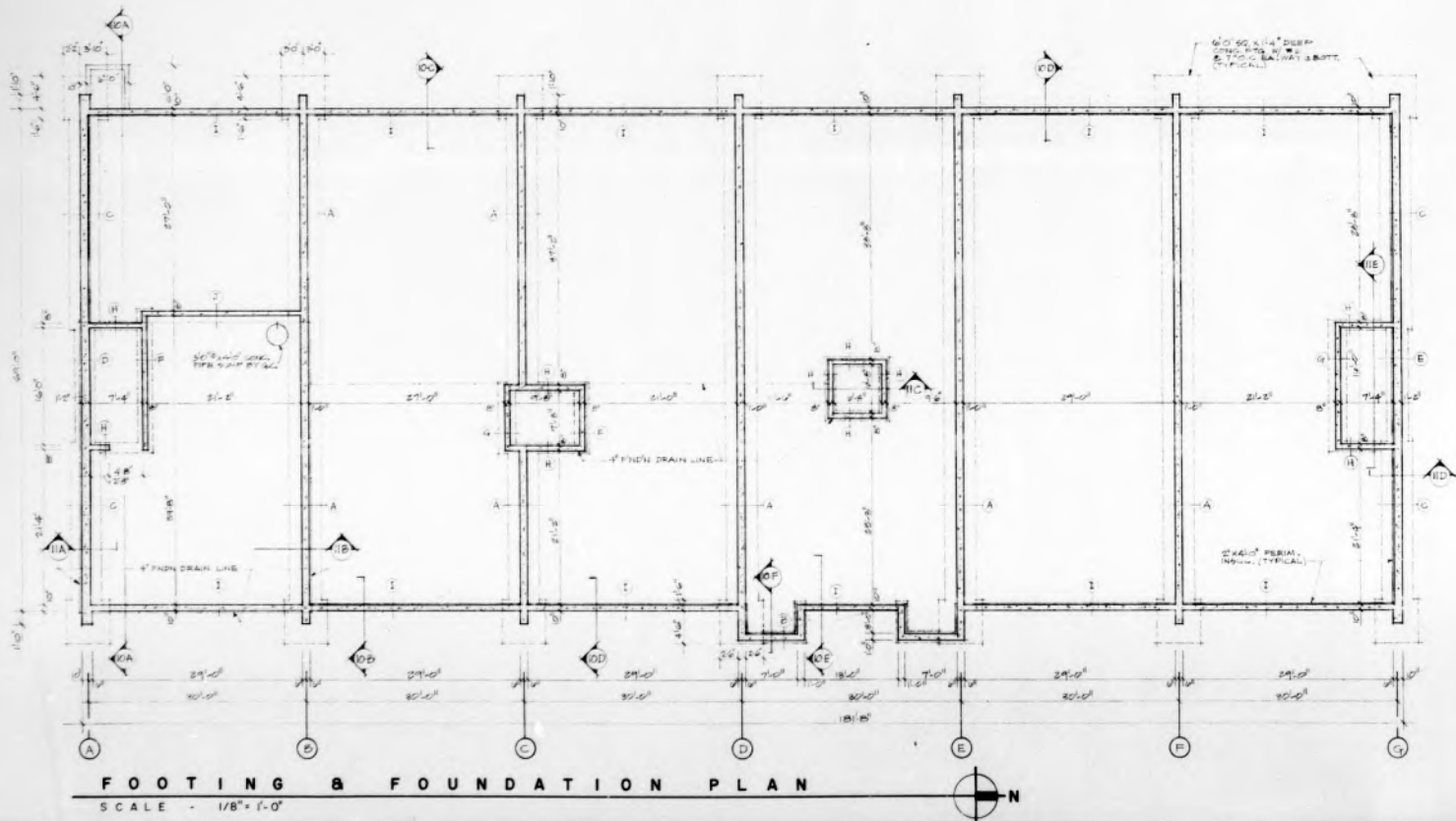
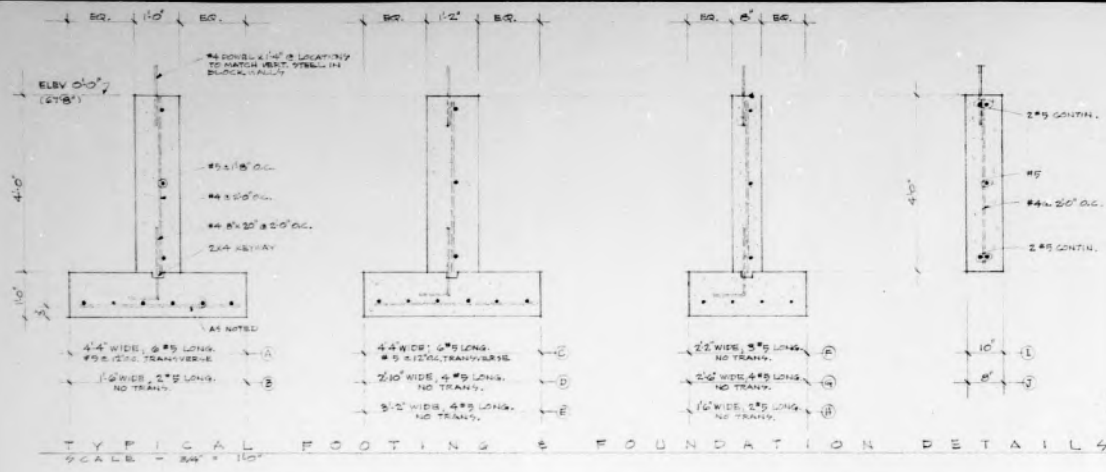
Project Name: **JOHNSON COUNTY JAIL II**

Site Plan

Architects: **Webner Nowysz and Pattschull**

Consultant: **Sill S. Capito**





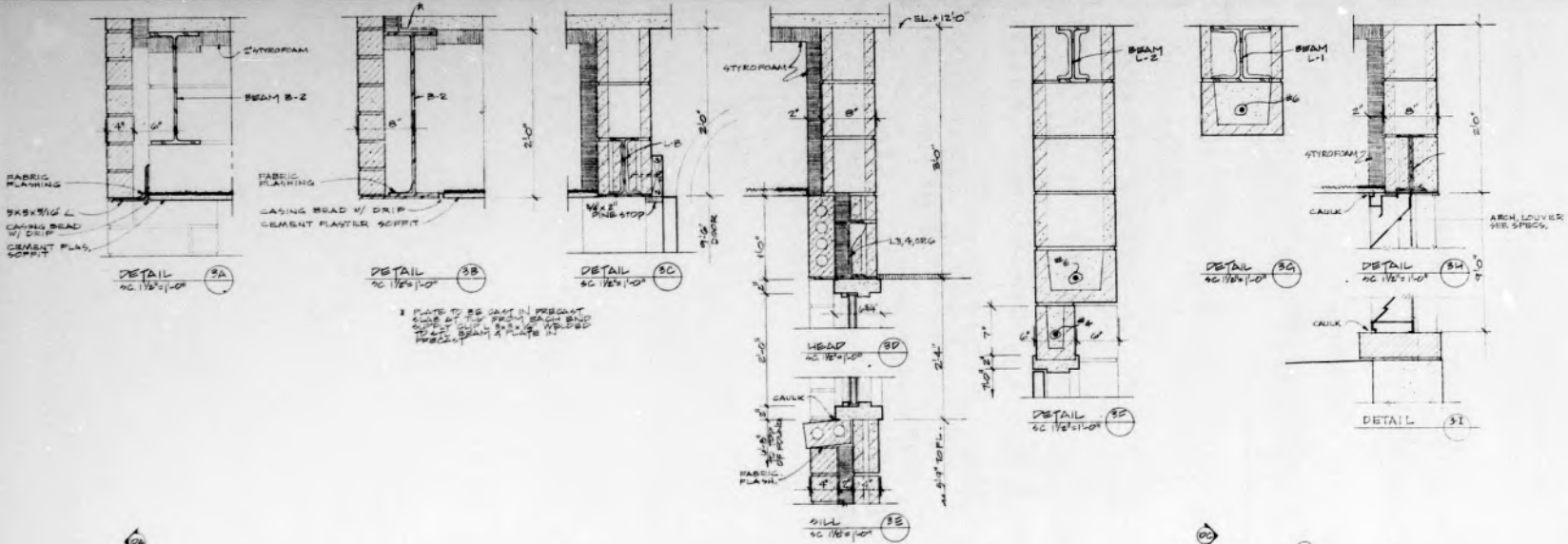
JOHNSON COUNTY JAIL II
 ARCHITECTS: Wehner Neuwys and Pattschell

PROJECT NAME: JOHNSON COUNTY JAIL II
 DRAWING TITLE: FOOTING & FOUNDATION PLAN
 CONSULTANT

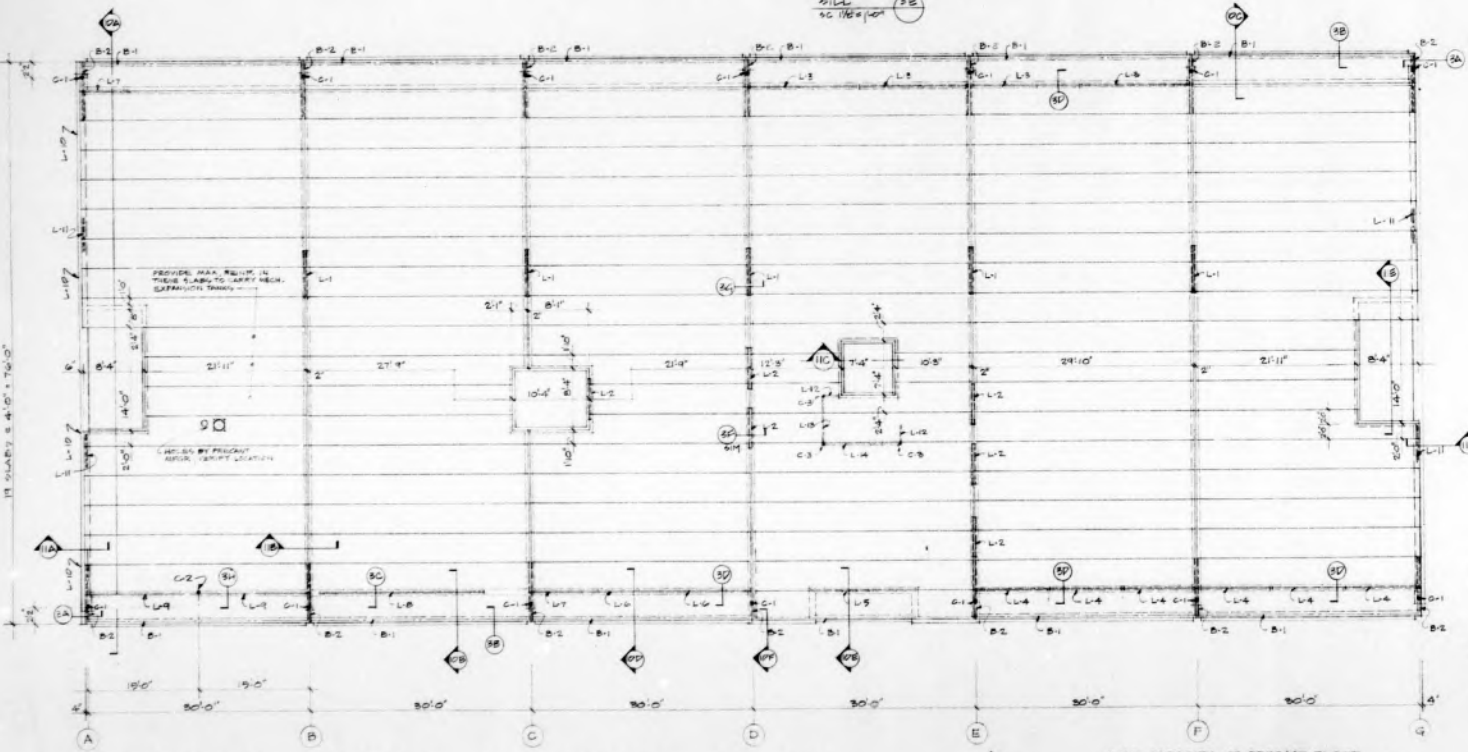
DATE: APRIL '79
 DRAWN BY: SAR RCW
 CHECKED BY: SAR RCW
 JOB NO.: 7838

REVISIONS

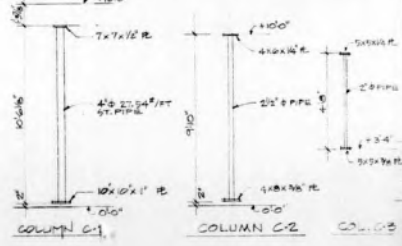
PROJECT NO. A 2
 SHEET NO. 0119



1. FLOOR TO BE CAST IN PRECAST SLAB AT JOINTS. EACH END OF BEAM SHALL BE REINFORCED WITH 2# BARS. SEE SPEC. FOR DETAILS.

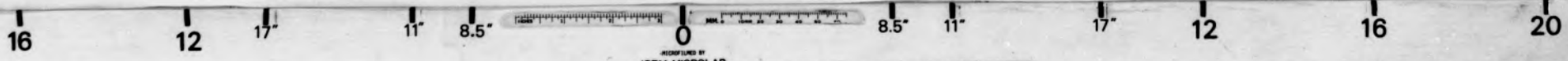


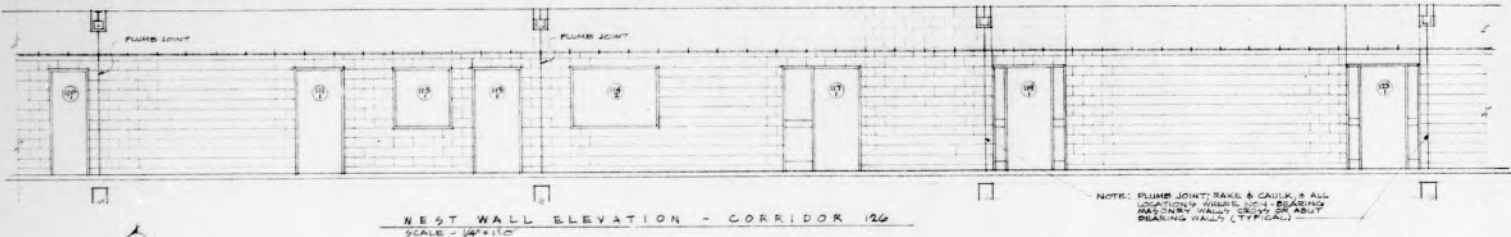
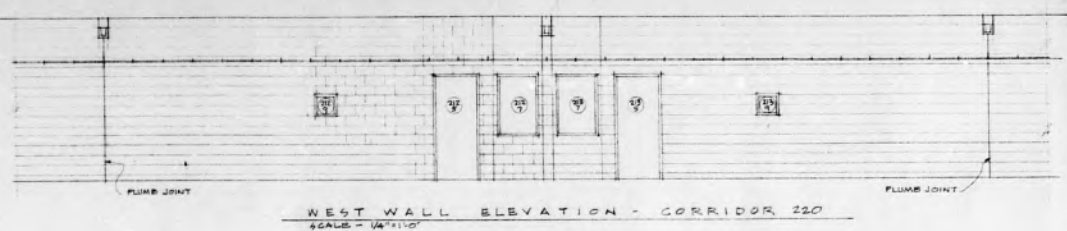
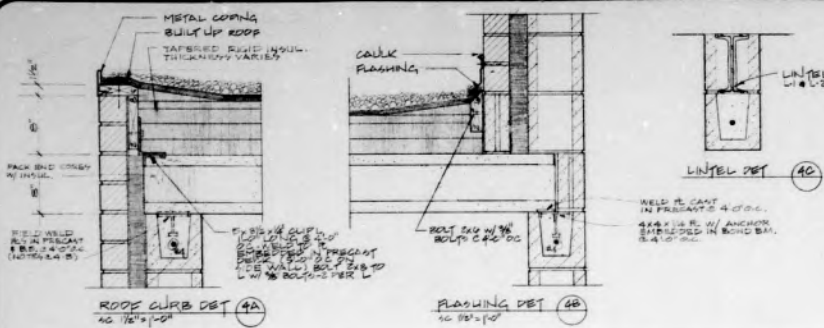
BEAM	SIZE	LENGTH	ELEVATION
B-1	W 4 x 13 WITH 10' x 1/2" BOT. PL.	40'-0"	BOTT. +10'-0"
B-2	W 10 x 30	8'-0"	TOP +18'-0"
L-1	W 6 x 8	7'-4"	TOP +12'-0"
L-2	W 6 x 8	5'-0"	TOP +12'-0"
L-3	W 6 x 15 WITH 7/8" x 1/4" BOT. PL.	14'-0"	BOTT. +9'-0"
L-4	W 6 x 10 WITH 7/8" x 1/4" BOT. PL.	9'-0"	BOTT. +9'-0"
L-5	W 6 x 15 WITH 7/8" x 1/4" BOT. PL.	14'-0"	BOTT. +9'-0"
L-6	W 6 x 15 WITH 7/8" x 1/4" BOT. PL.	11'-0"	BOTT. +9'-0"
L-7	W 6 x 15 WITH 7/8" x 1/4" BOT. PL.	5'-0"	BOTT. +9'-0"
L-8	W 6 x 11 WITH 7/8" x 1/4" BOT. PL.	22'-0"	BOTT. +0'-0"
L-9	W 6 x 15 WITH 7/8" x 1/4" BOT. PL.	15'-0"	BOTT. +10'-0"
L-10	5 x 8 x 10 STL L	19'-0"	BOTT. +18'-4"
L-11	W 6 x 15 WITH 1 1/4" x 1/4" BOT. PL.	4'-0"	BOTT. +9'-0"
L-12	M 6 x 6 S WITH 5/8" x 1/4" BOT. PL.	5'-0"	BOTT. +8'-0"
L-13	M 6 x 6 S WITH 5/8" x 1/4" BOT. PL.	7'-0"	BOTT. +8'-0"
L-14	M 6 x 6 S WITH 5/8" x 1/4" BOT. PL.	11'-0"	BOTT. +8'-0"



SECOND FLOOR FRAMING PLAN
 SCALE - 1/8" = 1'-0"

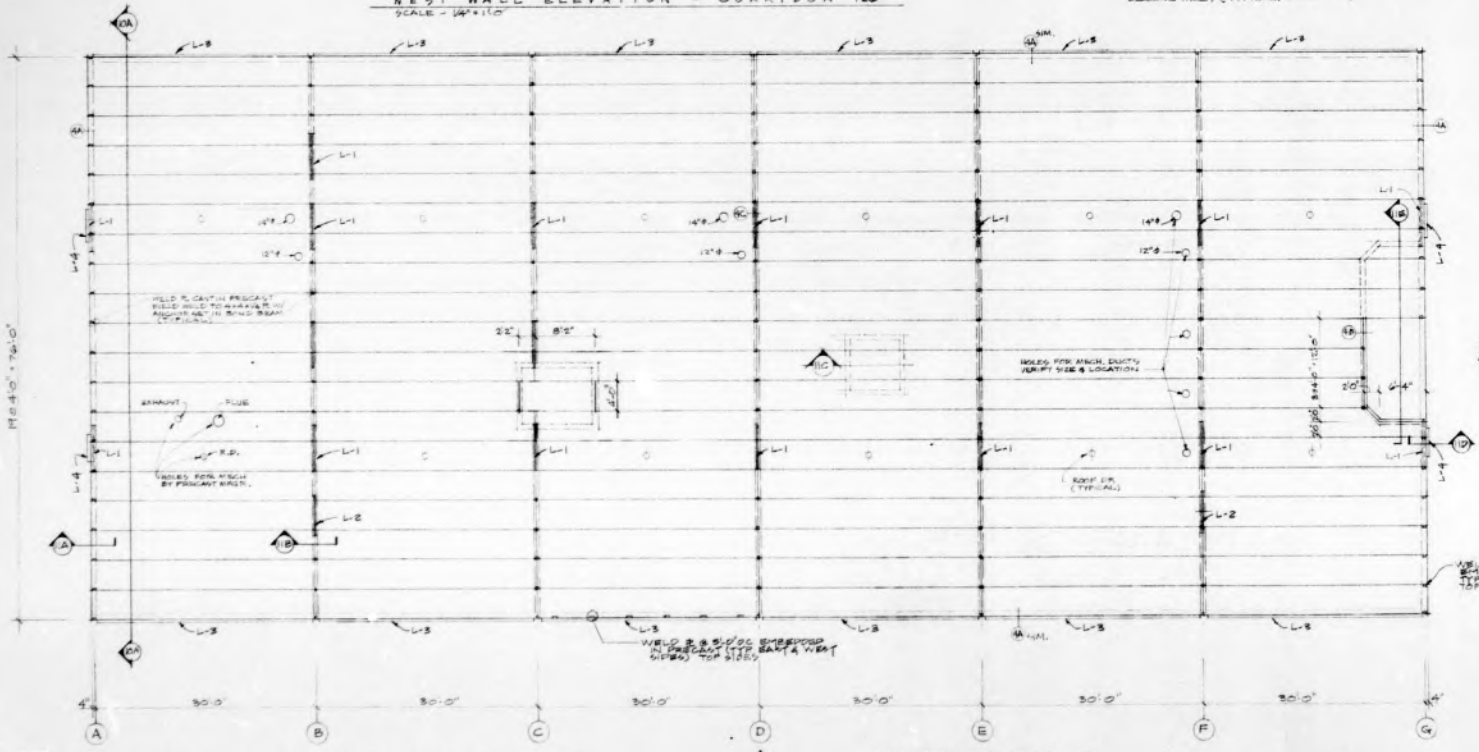
LOAD CAPACITY OF PRECAST FLOOR:
 LIVE = 100# A CORRIDORS, 40# ELSEWHERE
 DEAD = 10# A CORRIDORS, 40# ELSEWHERE
 PARTITION = 10# A CORRIDORS, 20# ELSEWHERE
 WIND = 15# A CORRIDORS, 20# ELSEWHERE
 LONG TERM DEFLECTION OF PRECAST U/L'S, GIRDERS, WALLS, PARTITIONS SHALL NOT EXCEED 1/16" OF THEIR SPAN.





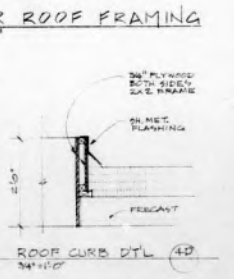
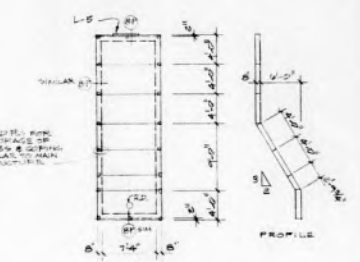
BOND BEAM LOCATION & REINFORCING
 FIRST FLOOR BEARING WALLS - BOND BEAM W/ #4 CONT. AT ELEVATION TOP ± 21'-0" & 21'-6"
 FIRST FLOOR NON-BEARING WALLS - BOND BEAM W/ #4 CONT. AT ELEVATION TOP ± 21'-0" & 21'-6"
 SECOND FLOOR BEARING WALLS - BOND BEAM W/ #4 CONT. AT ELEVATION TOP ± 21'-0" & 21'-6"
 SECOND FLOOR NON-BEARING WALLS - BOND BEAM W/ #4 CONT. AT ELEVATION TOP ± 21'-0" & 21'-6"
 SECOND FLOOR EXTERIOR WALLS - BOND BEAM W/ #4 CONT. AT ELEVATION TOP ± 21'-0" & 21'-6"
 IN GENERAL, AT HEAD OF ALL OPENINGS, NOT OTHER W/ #4 CONT. PROVIDES BOND BEAM

HORIZONTAL JOINT REINFORCING
 PROVIDE STANDARD WEIGHT DIA. 3 WALL AT HEAD OF ALL BEARING WALLS. USE HEAVY DUTY DIA. 3 WALL @ 8'-0"



ROOF BEAM & LINTEL SCHEDULE

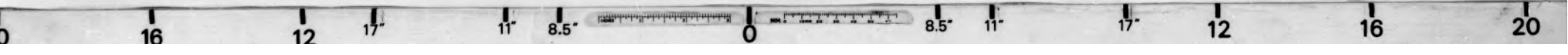
MARK	SIZE	LENGTH	ELEVATION
L-1	W 8 x 13	7'-4"	TOP ± 24'-6"
L-2	W 8 x 13	5'-0"	TOP ± 24'-6"
L-3	5x5x1/2 L	30'-0"	BOT ± 20'-0"
L-4	4x4x1/2 L	6'-4"	BOT ± 21'-6"
L-5	3x3x1/2 L	4'-6"	BOT ± 21'-6"



ROOF FRAMING PLAN
SCALE - 1/8" = 1'-0"

LOAD CAPACITY OF PRECAST ROOF
 LIVE - 30#
 DEAD - 24# (UP ROOFING) + 10# (RECH & CEIL.) + 10# (SOLAR) = 44# TOTAL (MAX)

NOTE: HOLES IN DECK LARGER THAN 2" BY PRECAST REFR.

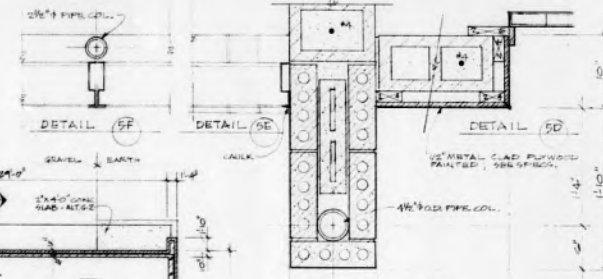
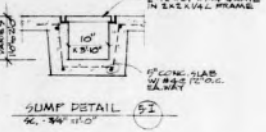
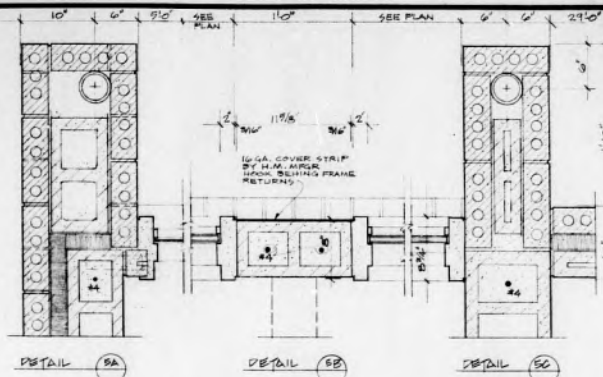


FIRST FLOOR ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	CONCRETE	VINYL QUARRY TILE	GLASS BLOCK	CEMENT PLASTER	CEILING HT.
1	STAIR	●			●	8'-0"
2	STAIR	●			●	8'-0"
3	STAIR	●			●	8'-0"
4	STAIR	●			●	8'-0"
5	STAIR	●			●	8'-0"
6	STAIR	●			●	8'-0"
7	STAIR	●			●	8'-0"
8	STAIR	●			●	8'-0"
9	STAIR	●			●	8'-0"
10	STAIR	●			●	8'-0"
11	STAIR	●			●	8'-0"
12	STAIR	●			●	8'-0"
13	STAIR	●			●	8'-0"
14	STAIR	●			●	8'-0"
15	STAIR	●			●	8'-0"
16	STAIR	●			●	8'-0"
17	STAIR	●			●	8'-0"
18	STAIR	●			●	8'-0"
19	STAIR	●			●	8'-0"
20	STAIR	●			●	8'-0"
21	STAIR	●			●	8'-0"
22	STAIR	●			●	8'-0"
23	STAIR	●			●	8'-0"
24	STAIR	●			●	8'-0"
25	STAIR	●			●	8'-0"
26	STAIR	●			●	8'-0"
27	STAIR	●			●	8'-0"
28	STAIR	●			●	8'-0"
29	STAIR	●			●	8'-0"
30	STAIR	●			●	8'-0"
31	STAIR	●			●	8'-0"
32	STAIR	●			●	8'-0"
33	STAIR	●			●	8'-0"
34	STAIR	●			●	8'-0"
35	STAIR	●			●	8'-0"
36	STAIR	●			●	8'-0"
37	STAIR	●			●	8'-0"
38	STAIR	●			●	8'-0"
39	STAIR	●			●	8'-0"
40	STAIR	●			●	8'-0"

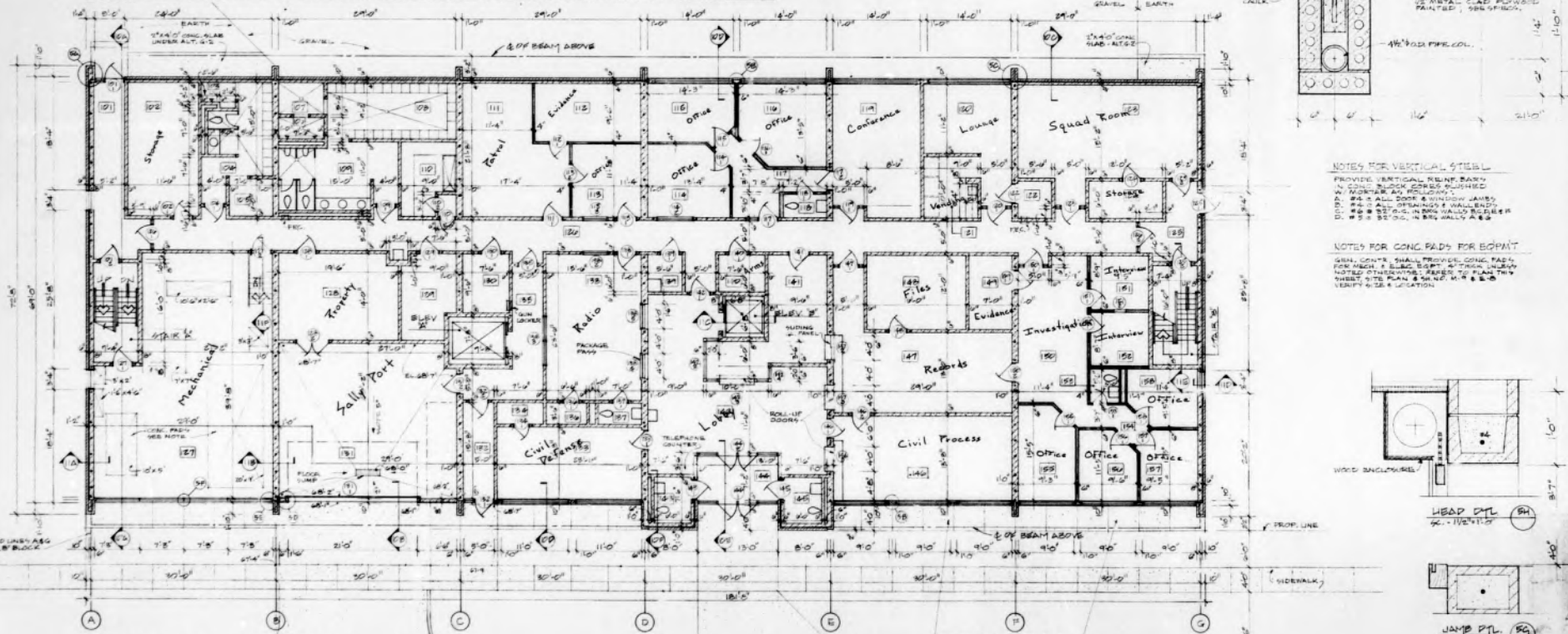
NOTES

- FLOORS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- FLOORS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- FLOORS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- FLOORS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- WALLS ARE PAINTED UNDER THE ALTERNATE 2'S
- CEILING ARE PAINTED UNDER THE ALTERNATE 2'S
- WALLS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- PROVIDE CONCRETE RAISE AT LOCKERS
- STAIRS ARE TO BE PAINTED UNDER THE ALTERNATE 2'S
- WALLS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- WALLS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S
- WALLS ARE EXPOSED CONCRETE UNLESS NOTED OTHERWISE. ALL VERTICAL FINISHES ARE UNDER AND ALTERNATE 2'S



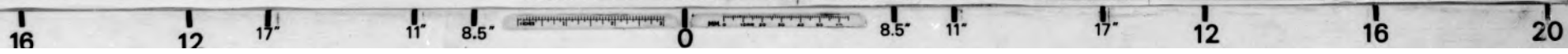
NOTES FOR VERTICAL STEEL:
 PROVIDE VERTICAL REINFORCING IN CONCRETE WALLS TO BE PAINTED AS NOTED IN ROOM FINISH SCHEDULE.
 PROVIDE VERTICAL REINFORCING IN ALL WALLS AND WINDOW JANES.
 PROVIDE VERTICAL REINFORCING IN ALL WOODWORK WALLS AND WOODWORK.
 PROVIDE VERTICAL REINFORCING IN ALL WOODWORK WALLS AND WOODWORK.

NOTES FOR CONC. RAISES FOR EQ/PAT:
 RISES SHALL BE PROVIDED AS NOTED IN ROOM FINISH SCHEDULE.
 PROVIDE VERTICAL REINFORCING IN ALL WOODWORK WALLS AND WOODWORK.
 PROVIDE VERTICAL REINFORCING IN ALL WOODWORK WALLS AND WOODWORK.



FIRST FLOOR PLAN

SCALE - 1/8" = 1'-0"



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JOHNSON COUNTY JAIL II

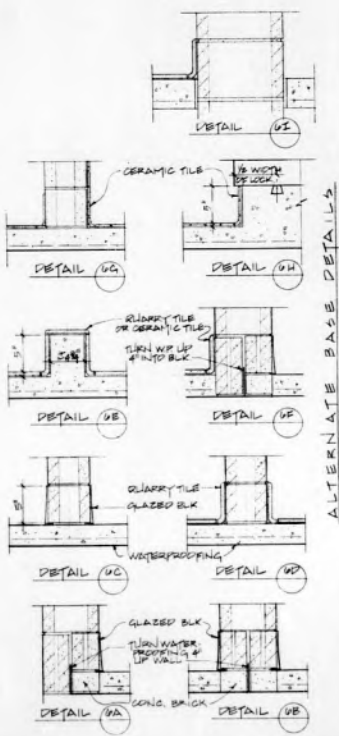
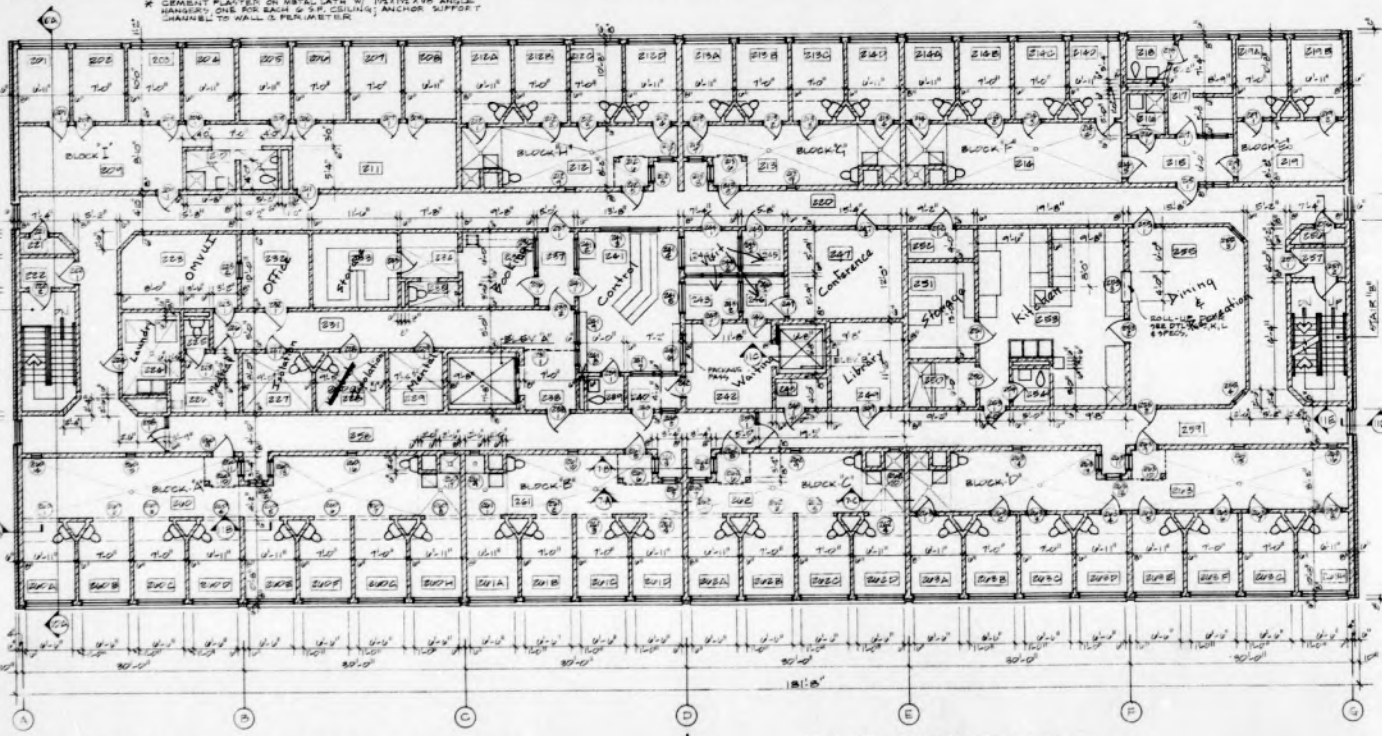
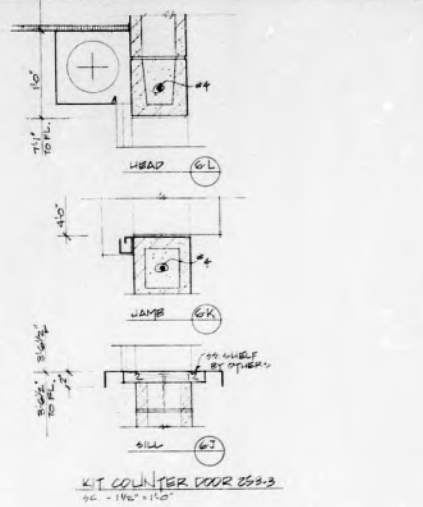
Architects

Weber Meyers and Paffschell

SECOND FLOOR ROOM FINISH SCHEDULE

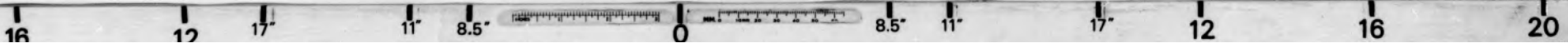
NO.	ROOM	CONCRETE	PAINT	CEILING	WALLS	FLOORING	ROOFING	MECHANICAL	ELECTRICAL	PLUMBING	OTHER
1	DAY ROOM	1	1	1	1	1	1	1	1	1	1
2	DAY ROOM	1	1	1	1	1	1	1	1	1	1
3	DAY ROOM	1	1	1	1	1	1	1	1	1	1
4	DAY ROOM	1	1	1	1	1	1	1	1	1	1
5	DAY ROOM	1	1	1	1	1	1	1	1	1	1
6	DAY ROOM	1	1	1	1	1	1	1	1	1	1
7	DAY ROOM	1	1	1	1	1	1	1	1	1	1
8	DAY ROOM	1	1	1	1	1	1	1	1	1	1
9	DAY ROOM	1	1	1	1	1	1	1	1	1	1
10	DAY ROOM	1	1	1	1	1	1	1	1	1	1
11	DAY ROOM	1	1	1	1	1	1	1	1	1	1
12	DAY ROOM	1	1	1	1	1	1	1	1	1	1
13	DAY ROOM	1	1	1	1	1	1	1	1	1	1
14	DAY ROOM	1	1	1	1	1	1	1	1	1	1
15	DAY ROOM	1	1	1	1	1	1	1	1	1	1
16	DAY ROOM	1	1	1	1	1	1	1	1	1	1
17	DAY ROOM	1	1	1	1	1	1	1	1	1	1
18	DAY ROOM	1	1	1	1	1	1	1	1	1	1
19	DAY ROOM	1	1	1	1	1	1	1	1	1	1
20	DAY ROOM	1	1	1	1	1	1	1	1	1	1
21	DAY ROOM	1	1	1	1	1	1	1	1	1	1
22	DAY ROOM	1	1	1	1	1	1	1	1	1	1
23	DAY ROOM	1	1	1	1	1	1	1	1	1	1
24	DAY ROOM	1	1	1	1	1	1	1	1	1	1
25	DAY ROOM	1	1	1	1	1	1	1	1	1	1
26	DAY ROOM	1	1	1	1	1	1	1	1	1	1
27	DAY ROOM	1	1	1	1	1	1	1	1	1	1
28	DAY ROOM	1	1	1	1	1	1	1	1	1	1
29	DAY ROOM	1	1	1	1	1	1	1	1	1	1
30	DAY ROOM	1	1	1	1	1	1	1	1	1	1
31	DAY ROOM	1	1	1	1	1	1	1	1	1	1
32	DAY ROOM	1	1	1	1	1	1	1	1	1	1
33	DAY ROOM	1	1	1	1	1	1	1	1	1	1
34	DAY ROOM	1	1	1	1	1	1	1	1	1	1
35	DAY ROOM	1	1	1	1	1	1	1	1	1	1
36	DAY ROOM	1	1	1	1	1	1	1	1	1	1
37	DAY ROOM	1	1	1	1	1	1	1	1	1	1
38	DAY ROOM	1	1	1	1	1	1	1	1	1	1
39	DAY ROOM	1	1	1	1	1	1	1	1	1	1
40	DAY ROOM	1	1	1	1	1	1	1	1	1	1
41	DAY ROOM	1	1	1	1	1	1	1	1	1	1
42	DAY ROOM	1	1	1	1	1	1	1	1	1	1
43	DAY ROOM	1	1	1	1	1	1	1	1	1	1
44	DAY ROOM	1	1	1	1	1	1	1	1	1	1
45	DAY ROOM	1	1	1	1	1	1	1	1	1	1
46	DAY ROOM	1	1	1	1	1	1	1	1	1	1
47	DAY ROOM	1	1	1	1	1	1	1	1	1	1
48	DAY ROOM	1	1	1	1	1	1	1	1	1	1
49	DAY ROOM	1	1	1	1	1	1	1	1	1	1
50	DAY ROOM	1	1	1	1	1	1	1	1	1	1

- NOTES:**
1. DOORS ARE EXPOSED CONCRETE UNDER THE BASE AND ALTERNATE G-1.
 2. FLOORS ARE EXPOSED CONCRETE UNDER THE BASE AND ALTERNATE G-1.
 3. WALLS ARE EXPOSED CONCRETE UNDER THE BASE AND ALTERNATE G-1.
 4. FLOORS ARE EXPOSED CONCRETE UNDER THE BASE AND ALTERNATE G-1.
 5. WALLS ARE UNPAINTED UNDER THE BASE AND ALTERNATE G-1.
 6. CEILING IS UNPAINTED UNDER THE BASE AND ALTERNATE G-1.
 7. WALLS ARE EXPOSED CONCRETE BLOCK UNDER THE BASE AND ALTERNATE G-1.
 8. PROVIDE CONCRETE BASE AT LOCKERS. SEE DETAIL G-4.
 9. ALL BASES ARE CONCRETE BLOCK UNDER THE BASE AND ALTERNATE G-1.
 10. USE REINFORCED CEILING PLASTER FOR ALL AREAS OF PLASTER OR GYPSUM CEILING.
 11. PROVIDE RAISED PLATFORM RESTRAINING RAIL & FOLDING SEAT FOR ALL AREAS.
 12. PROVIDE HIGH CHAIR CAN WASH BASIN.
 13. PROVIDE FLOOR TO PROVIDE AN ALLOW.
 14. PROVIDE CONC. CURB & WALL - SEE DET. G-19.



NOTE: INSTALL TO BRACKET PROVIDED BY OTHERS WHERE DIRECTED IN CALL BLOCKS A, B, C, D, E, F, G, H, I, J, K.

JOHNSON COUNTY JAIL II
 SECOND FLOOR PLAN & ROOM FIN. SCHED.
 ARCHITECTS: **Wehner Newmyer and Paffschell**
 PROJECT NO. 7838
 DATE: APRIL 79
 DRAWN BY: SAR
 CHECKED BY: SAR
 SCALE: 1/8" = 1'-0"



REVISED

SECOND FLOOR PLAN ELECTRICAL-POWER WIRING

PROJECT NAME: JOHNSON COUNTY JAIL
 ARCHITECTS: Wehner Newys and Patschell
 CONSULTANT: MOORE-BINGHAM & ASSOCIATES
 12477



SPECIFIC NOTES

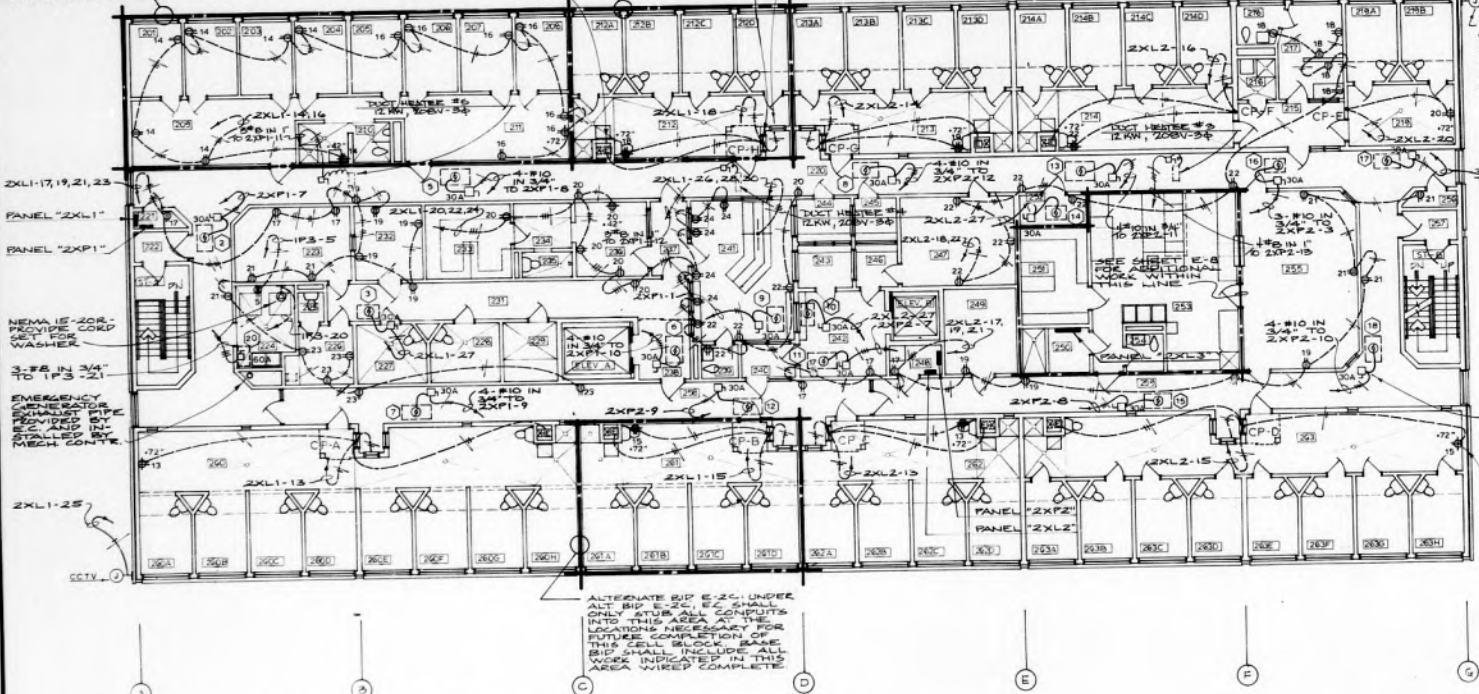
- 1 NOT USED
- 2 H.E.U. #35
4.33 KW, 208V, 3ø
- 3 EXHAUST FAN #7
1/8 HP, 115V, 1ø
- 4 NOT USED
- 5 H.E.U. #34
6.27 KW, 208V, 3ø
- 6 H.E.U. #33
6.27 KW, 208V, 3ø
- 7 H.E.U. #32
6.27 KW, 208V, 3ø
- 8 H.E.U. #30
6.27 KW, 208V, 3ø
- 9 H.E.U. #29
6.27 KW, 208V, 3ø
- 10 EXHAUST FAN #6
1/8 HP, 115V, 1ø
- 11 H.E.U. #31
4.33 KW, 208V, 3ø
- 12 H.E.U. #23
4.98 KW, 208V, 3ø
- 13 H.E.U. #22
6.27 KW, 208V, 3ø
- 14 EXHAUST FAN #5
1/8 HP, 115V, 1ø
- 15 H.E.U. #24
4.98 KW, 208V, 3ø
- 16 H.E.U. #27
3.52 KW, 208V, 1ø
- 17 H.E.U. #26
3.52 KW, 208V, 1ø
- 18 H.E.U. #28
6.27 KW, 208V, 3ø
- 19 NOT USED
- 20 BOILER HEATER #1
12 KW, 208V, 3ø

ALTERNATE BID E-2A: UNDER ALT BID E-2A, ELECT. CONTE. SHALL ONLY STUB ALL APPROPRIATE CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

ELECTRICALLY OPERATED VALVE BY PUMPING CONTRACTOR WIRED COMPLETE BY E.C. (TYPICAL 7 LOCATIONS)

CONTROL PANEL BY DETENTION EQUIPMENT SUPPLIER - E.C. SHALL INSTALL SWITCH TO CONTROL TV RECEPTACLE AND A WHEEL SWITCH (CENTER OFF) MOMENTARY SWITCH TO CONTROL THE ELECTRICALLY OPERATED VALVE (TYPICAL)

CELL INTERCOM BY ELECTRONICS EQUIPMENT SUPPLIER - 120 VOLT WIRING BY E.C. (TYPICAL)



2XLZ-28
 CCTV
 JUNCTION BOX FOR CCTV CAMERA HEATER, PROVIDE STAINLESS STEEL CONCRETE AND WATER TIGHT FLEXIBLE CONDUIT TO CAMERA ENCLOSURE (TYPICAL)

3-#10 IN 3/4" TO 2XPZ-1

DISCONNECT SWITCH TO BE MOUNTED TO STRUCTURE AND CONNECTED TO UNIT WITH FLEXIBLE CONDUIT (TYPICAL)
 DAYROOM TELEVISION RECEPTACLE (TYPICAL)

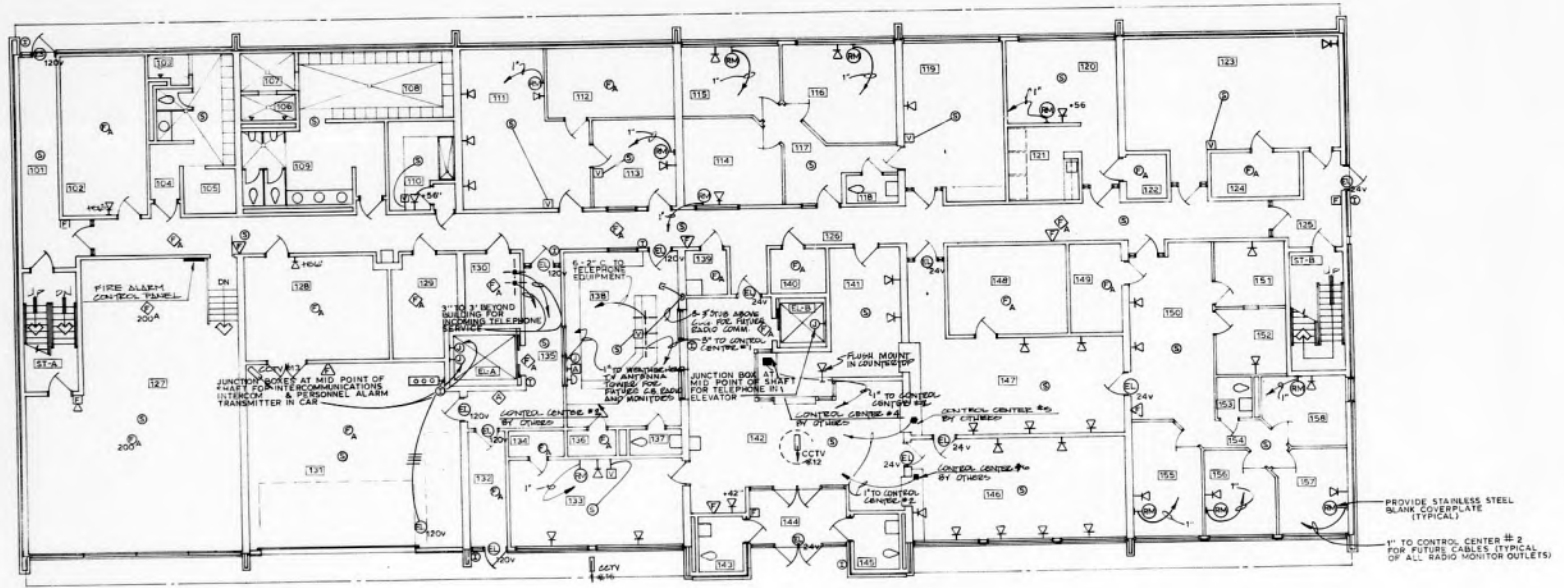
ALTERNATE BID E-2C: UNDER ALT BID E-2C, E.C. SHALL ONLY STUB ALL CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

SECOND FLOOR PLAN
 SCALE - 1/8" = 1'-0"

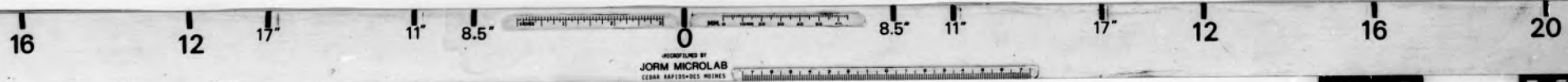


NOTES:

1. REFER TO ELECTRICAL SHEET E-10 FOR EMERGENCY ALARMS DISTRIBUTION, NATV DISTRIBUTION AND FIRE ALARM DISTRIBUTION SCHEMATICS.
2. REFER TO ELECTRICAL SHEET E-11 FOR TELEPHONE DISTRIBUTION SCHEMATIC.
3. REFER TO SECURITY AND RADIO SHEETS SE-1 SE-2 AND SE-3 FOR CONTROL CENTER DETAILS AND CCTV, SPEAKER SYSTEM, MONITOR, INTERCOM, CELL BLOCK COMMUNICATION AND AUDIO SYSTEM SCHEMATICS.



FIRST FLOOR PLAN
 SCALE - 1/8" = 1'-0"



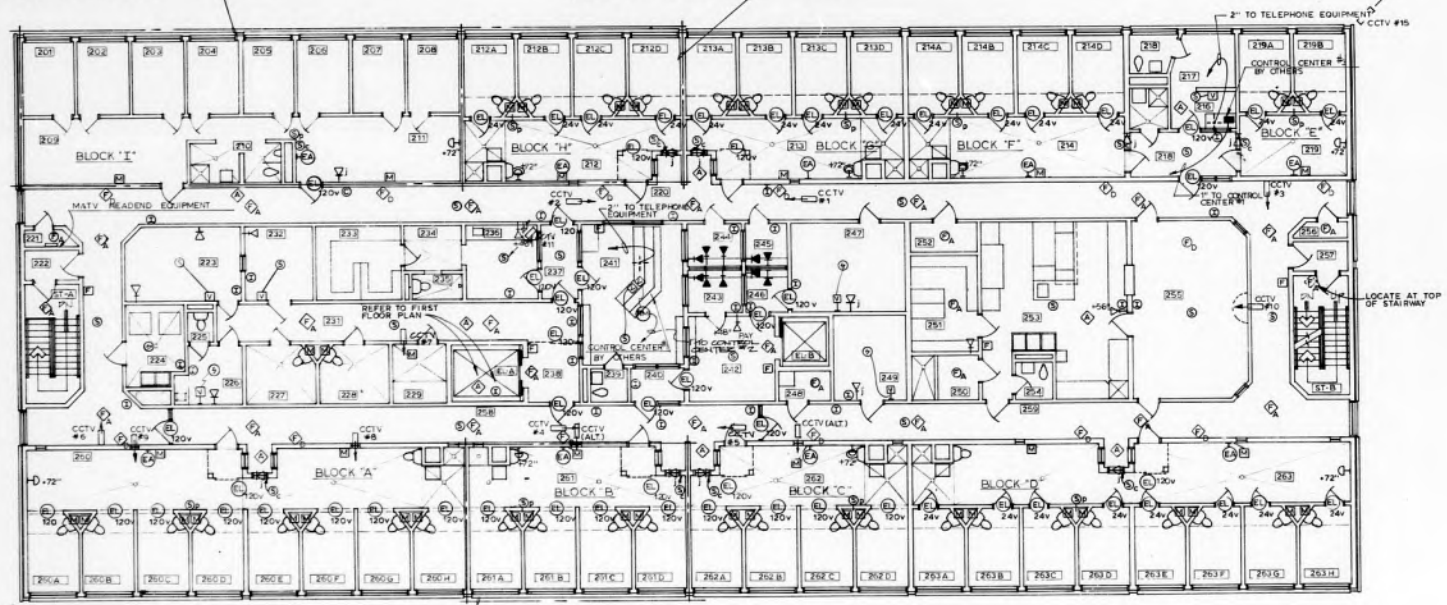
NOTES:

1. REFER TO ELECTRICAL SHEET E-10 FOR EMERGENCY LIGHT DISTRIBUTION, MAIN DISTRIBUTION AND FIRE ALARM DISTRIBUTION SCHEMATICS.
2. REFER TO ELECTRICAL SHEET E-11 FOR TELEPHONE DISTRIBUTION SCHEMATIC.
3. REFER TO SECURITY AND RADIO SHEETS E-1, E-2, AND E-3 FOR SECURITY LIGHTING AND CCTV SYSTEMS. REFER TO SHEETS E-4, E-5, E-6, E-7, E-8, E-9, E-10, E-11, E-12, E-13, E-14, E-15, E-16, E-17, E-18, E-19, E-20, E-21, E-22, E-23, E-24, E-25, E-26, E-27, E-28, E-29, E-30, E-31, E-32, E-33, E-34, E-35, E-36, E-37, E-38, E-39, E-40, E-41, E-42, E-43, E-44, E-45, E-46, E-47, E-48, E-49, E-50, E-51, E-52, E-53, E-54, E-55, E-56, E-57, E-58, E-59, E-60, E-61, E-62, E-63, E-64, E-65, E-66, E-67, E-68, E-69, E-70, E-71, E-72, E-73, E-74, E-75, E-76, E-77, E-78, E-79, E-80, E-81, E-82, E-83, E-84, E-85, E-86, E-87, E-88, E-89, E-90, E-91, E-92, E-93, E-94, E-95, E-96, E-97, E-98, E-99, E-100 FOR TELEPHONE, SECURITY AND RADIO SYSTEM SCHEMATICS.

ALTERNATE BID E-2A UNDER ALT BID E-2A ELECT CONTR SHALL ONLY STUB ALL APPROPRIATE CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

ALTERNATE BID E-2B UNDER ALT BID E-2B ELECT CONTR SHALL ONLY STUB ALL APPROPRIATE CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

ALTERNATE BID E-2C UNDER ALT BID E-2C, E-2 SHALL ONLY STUB ALL CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.



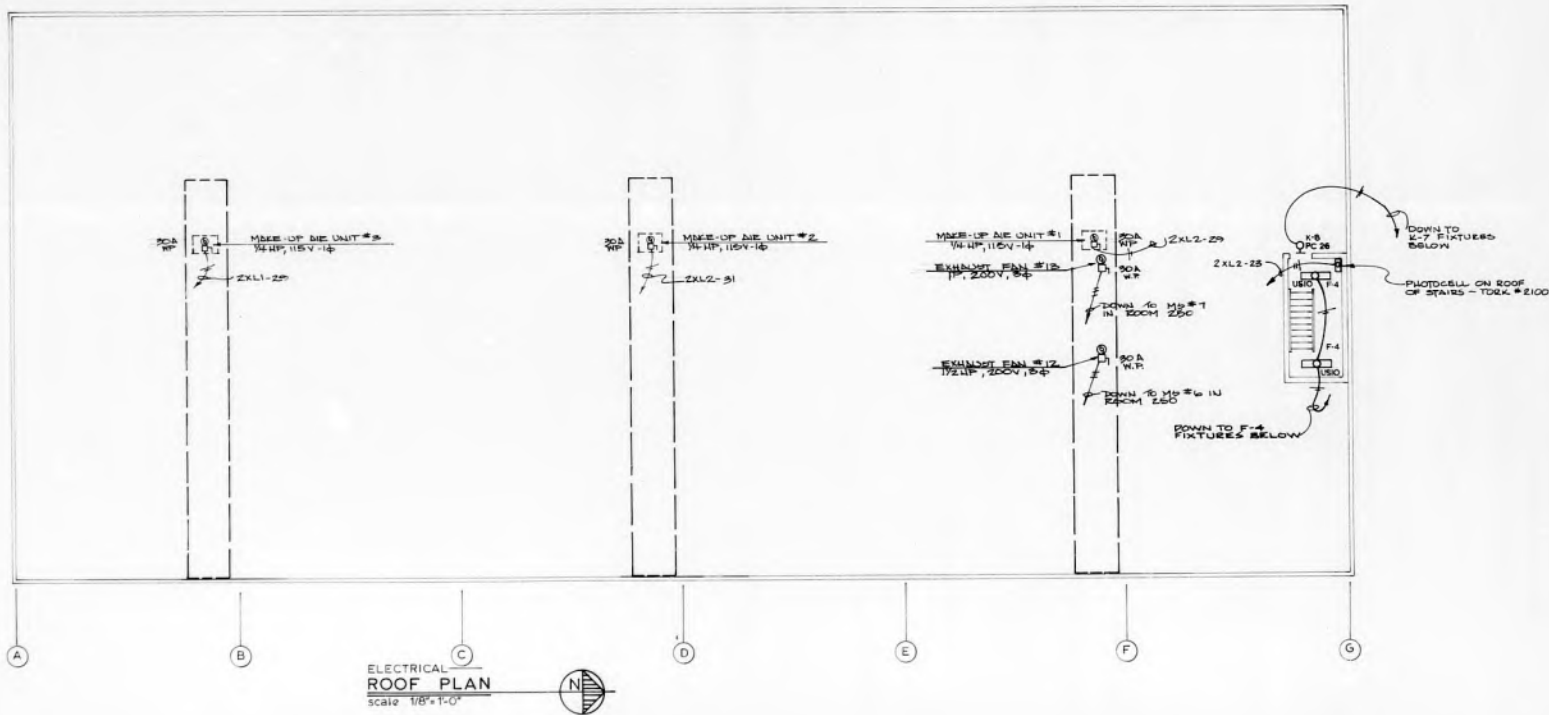
SECOND FLOOR PLAN
SCALE - 1/8" = 1'-0"

REVISION

OWNER: THE COUNTY OF JOHNSON
PROJECT NAME: JOHNSON COUNTY JAIL
SECOND FLOOR PLAN
ELECTRICAL - SYSTEMS
CONSULTANT: MOORE-SINGMAN & ASSOCIATES
12477

ARCHITECT: Wehner Nowys and Patschell
Architects
12477





ELECTRICAL
ROOF PLAN
scale 1/8"=1'-0"



sheet no
E-7
of 11

DATE
APRIL 1973

DESIGNED BY
EDW

DRAWN BY
7838

revised

drawing title
ROOF PLAN - ELECTRICAL

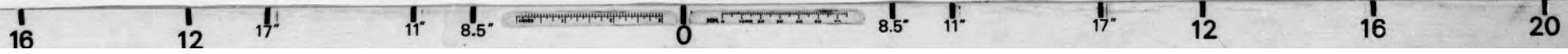
project name
JOHNSON COUNTY JAIL

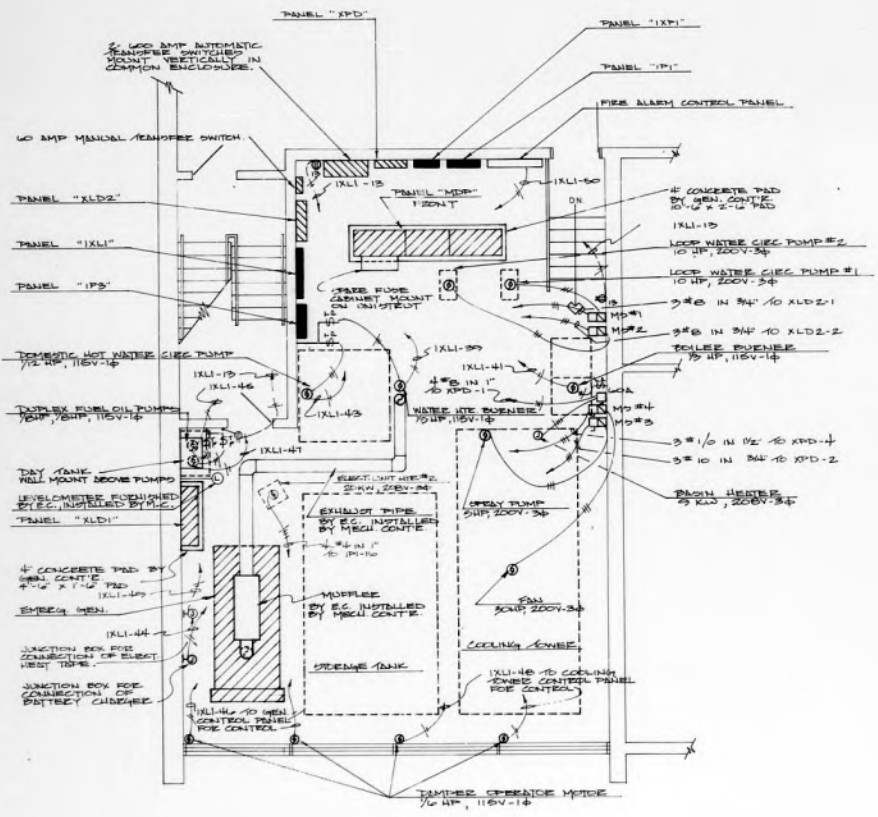
consultant
MOORE-BINGHAM & ASSOCIATES
12477 INDUSTRIAL & ELECTRICITY CENTER DRIVE, HOUSTON, TEXAS 77044

architect
Wehner Howys and Patischall

project name
JOHNSON COUNTY JAIL

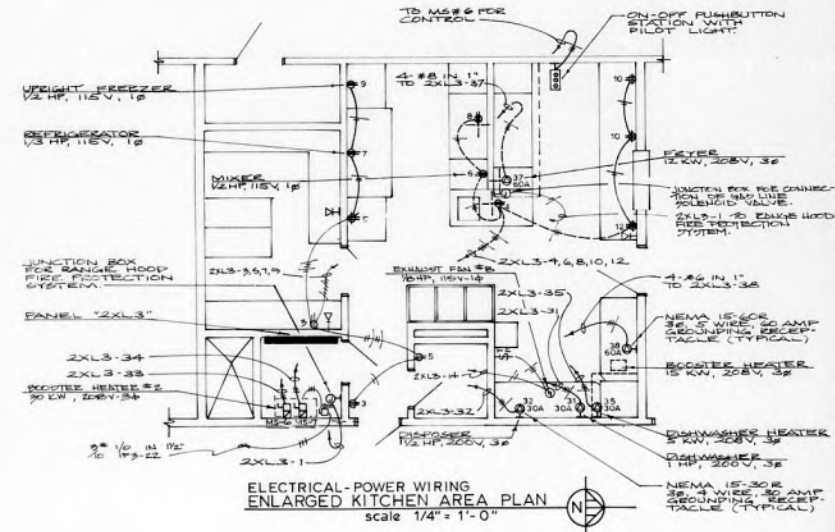
architect
Wehner Howys and Patischall





ELECTRICAL ENLARGED MECHANICAL ROOM PLAN
scale 1/4" = 1'-0"

NOTES:
1. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGHING-IN.
2. ELECTRICAL CONTRACTOR SHALL SUPPLY CORD SETS FOR ALL EQUIPMENT WHICH IS SUPPLIED WITHOUT APPROPRIATE CORD SETS.



ELECTRICAL-POWER WIRING ENLARGED KITCHEN AREA PLAN
scale 1/4" = 1'-0"



DESIGNATION AND TYPE		CIRCUIT NUMBER	BREAKER OR SWITCH	FRAME OR POSE	REMARKS
PANEL SCHEDULE					
IP1 HCN 120/208V, 3Ø, 4W 400 AMP M.L.O. SURFACE MOUNTED	1-6 7-10 11-12 13 14-15 16-17 18 19 20	1P-SPACE 2P-20 2P-SPACE 3P-15 3P-20 3P-70 3P-70 3P-125 3P-150	FA FA FA FA FA FA KA KA		
IP2 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-8 9-11 12-14 15-16 17-20 21-22	1P-SPACE 2P-20 2P-30 2P-SPACE 3P-15 3P-20 3P-20	QOB QOB QOB QOB QOB QOB QOB		
IP3 HCN 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-18 19-20 21 22	1P-SPACE 3P-20 3P-45 3P-125	FA FA FA KA		
IXP1 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-10 11-12 13-14 15-16 17 18	1P-SPACE 2P-20 2P-30 3P-20 3P-30 3P-SPACE	QOB QOB QOB QOB QOB QOB		
IXP2 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-3 4-6 7 8-9 10-12 13 14-16	2P-20 2P-SPACE 3P-15 3P-20 3P-30 3P-45 3P-SPACE	QOB QOB QOB QOB QOB QOB QOB		
XPD HCN 120/208V, 3Ø, 4W 600 AMP MAIN C/B SURFACE MOUNTED	1-2 3 4 5-6 7-10	3P-40 3P-100 3P-125 3P-225 3P-SPACE	FA FA KA KA KA		
IXL1 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-60 61-84	1P-20 1P-SPACE	QOB QOB	TWO SECTION HORIZONTAL PANEL-BOARD ~ BOTH SECTIONS SAME HEIGHT.	
IXL2 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-60 61-84	1P-20 2P-20	QOB QOB	TWO SECTION HORIZONTAL PANEL-BOARD ~ BOTH SECTIONS SAME HEIGHT.	
ZXL1 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-42	1P-20	QOB		
ZXL2 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-42	1P-20	QOB		
ZXL3 NQOB 120/208V, 3Ø, 4W 225 AMP M.L.O. SURFACE MOUNTED	1-24 25-30 31-34 35-36 37 38 39 40	1P-20 1P-SPACE 3P-15 3P-20 3P-50 3P-60 2P-SPACE 3P-SPACE	QOB QOB QOB QOB QOB QOB QOB QOB	TWO SECTION HORIZONTAL PANEL-BOARD ~ BOTH SECTIONS SAME HEIGHT. CIRCUIT BREAKER #37 SHALL HAVE 120 VOLT SHUNT TRIP COIL CONTROLLED BY CIRCUIT #1 & FIRE PROTECTION SYSTEM.	
XLD1 HCNM 120/208V, 3Ø, 4W 1200 AMP M.L.O. SURFACE MOUNTED	1 2 3-4 5-6	3P-90 3P-SPACE 3P-SPACE 3P-600	FA FA FA MA		
XLD2 HCNM 120/208V, 3Ø, 4W 600 AMP MAIN C/B SURFACE MOUNTED	1-2 3 4-6 7-12	3P-125 3P-150 3P-225 3P-SPACE	KA KA KA KA		
MDF FUSIBLE 120/208V, 3Ø, 4W 2000 AMP BUS FREE SPAND 1/4" & FRONT CONNECTED. FRONT ACCESSIBLE	1 2 3 4 5 6 7 8 9 10	C/T 3P-600 3P-400 3P-2000 CABLES C/T 3P-600 3P-200 3P-60 3P-60		PROVIDE GROUNDING BUS THROUGHOUT SECTION I. 2000 AMP BUS #1 SHALL BE METERING COMPARTMENT FOR #2 & #3 SECTION II. 2000 AMP BUS #4 SHALL BE BOLT-ON MAIN SWITCH FOR ENTIRE FACILITY #5 SHALL BE METERING COMPARTMENT FOR INCOMING UNDERGROUND CABLES SECTION III. 2000 AMP BUS #6 SHALL BE METERING COMPARTMENT FOR #7 & #8 MAXIMUM OVERALL LENGTH SHALL BE 10'-0"	

LIGHTING FIXTURE SCHEDULE					
PLAN MARK	LAMPS	MANUFACTURER & NO.	MOUNT	FINISH	REMARKS
F-1	4-F40T12/CW	LITHONIA 2G5 440 A12-120FR	LAY-IN	WHITE	
F-2	2-F40T12/CW	LITHONIA 2G5 2U40A12-120FR	LAY-IN	WHITE	
F-3	2-F40T12/CW	LITHONIA 5C240A-120SR WITH SC2WH	SURFACE	WHITE	
F-4	2-F40T12/CW	LITHONIA L240-120	PENDANT	WHITE	
F-5	2-F40T12/CW	ALKCO 3235 C.O.	WALL	WHITE	WITH CONVENIENCE OUTLET
F-6	2-F40T12/CW	LITHONIA DVL 240 A 120	SURFACE	WHITE	U.L./W.L. LISTED
F-7	1-F40T12/CW	LITHONIA F240 A12P120FR-NL	RECESS	WHITE	PROVIDE PLASTER TRIM
F-8	2-F40T12/CW	ALKCO 8542	WALL	WHITE	
K-1	1-H00W/IF	ELM REFLECTOR 14"Ø	RECESS	WHITE	
K-2	1-H00W/IF	ALKCO ERG-12-FG-12	RECESS	WHITE	"DARKROOM IN USE"
K-3	1-G0W/IF	PRESCOLITE 4013	WALL	WHITE	
K-4	1-H00W/IF	PORCELAIN LAMP HOLDER	WALL	WHITE	W/ WIRE GUARD & CONVENIENCE OUTLET
K-5	1-H15W/IF	ALKCO 2059-CO-B	WALL	BLACK	WITH CONVENIENCE OUTLET FILTER TO BE SELECTED BY OWNER
K-6	1-T0W/HPS	PRESCOLITE 122656-70HPS-FE-35-120	RECESS	ALZAK	
K-7	1-H15W/HPS	SPALDING NU-150-HPS 39055-30A-120	WALL	T.B.	PROVIDE UNDER ALT. BIDE 53B
K-8	1-T0W/HPS	SPALDING NU-70-HPS 39055-30A-120	WALL	T.B.	
K-9	1-H15W/R-40	PRESCOLITE 93457	TRACK	WHITE	CHASE BY TRACK-YEE BAR ALZAK
K-10	1-H00W/IF	PRESCOLITE 488HF-7	RECESS	WHITE	
DF-1	2-F40T12/CW	ALKCO 10610-30	WALL	WHITE	LEXAN DIFFUSER
DF-2	2-F40T12/CW	ALKCO SP-R-7241PF	RECESS	WHITE	LEXAN DIFFUSER & PLASTER TRIM
DF-3	4-F40T12/CW	ALKCO SP-R-8441PF	RECESS	WHITE	LEXAN DIFFUSER & PLASTER TRIM
DF-4	2-F40T12/CW	KENALL #1240 US 985-NL OR ACME DUNDAR 222-45-WBS-FNL	WALL	WHITE	WITH CORNER BRACKET
DK-1	2-T5W/IF	ALKCO 7879 (MODIFIED)	SURFACE	WHITE	LEXAN DIFFUSER ~ PLASTER WIRE GUARD
DK-2	1-H00W/IF	ALKCO CH-2-61 (MODIFIED)	RECESS	WHITE	LEXAN DIFFUSER GUARD
DK-3	2-T5W/IF	KENALL 3808 OR ACME-DUNDAR 404W	SURFACE	WHITE	
X-1	2-FG-T5	PRESCOLITE 73221	UNIV	WHITE	SINGLE FACE
X-2	2-FG-T5	PRESCOLITE 73221	UNIV	WHITE	DOUBLE FACE

NOTES: 1. ALTERNATE BID E-3A: UNDER ALTERNATE BID E-3A, E.C. SHALL PROVIDE DIFF. FIXTURES IN lieu OF ALL DIFF. FIXTURES SHOWN, & DK-1 IN lieu OF ALL DK-3 FIXTURES SHOWN.
2. ALTERNATE BID E-3B: UNDER ALTERNATE BID E-3B, E.C. SHALL FURNISH & INSTALL K-7 FIXTURES. BASE BID SHALL INCLUDE CONDUIT, WIRING & OUTLET BOXES ONLY.

RELAY SCHEDULE				
MARK & TYPE	ITEM	CONTROLLED CIRCUIT	COIL CIRCUIT	ROOM NUMBER SEE NOTE(S)
R-1 2430C	EXTERIOR SODFIT LIGHTS	1XL2-3,5	2XL2-23 (PHOTO-CONTROL)	139 1,2,3,4,6B
R-2 2430C	EXTERIOR WALL LIGHTS	2XL2-23,24, 25,26	2XL2-23 (PHOTO-CONTROL)	248 1,2,3,4,6B

NOTES: 1. FURNISH NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED.
2. FURNISH FUSE PROTECTION FOR COIL CIRCUIT.
3. 120 VOLT COIL.
4. ELECTRICALLY HELD.
5. MECHANICALLY HELD.
6. CONTACTS - NORMALLY OPEN.
7. CONTACTS - NORMALLY CLOSED.
8. PROVIDE HAND-OFF-AUTOMATIC SELECTOR SWITCH IN RELAY ENCLOSURE.

MOTOR STARTER SCHEDULE						
MARK	ITEM	COIL SIZE	NEMA SIZE	HP	AUXILIARY CONTACTS N.O./N.C.	ROOM NUMBER CONTROL ENCL. REMOTE
MS#1	LOOP WATER CIRC. PUMP #1	1	2	10	2	127 SA ---
MS#2	LOOP WATER CIRC. PUMP #2	1	2	10	2	127 SA ---
MS#3	COOLING TOWER FAN	1	4	30	2	127 SA ---
MS#4	COOLING TOWER SPRAY PUMP	1	1	5	4	127 SA ---
MS#5	EXHAUST FAN #11	1	0	1	2	102 S ---
MS#6	EXHAUST FAN #12	1	0	1/2	2	250 --- 5
MS#7	EXHAUST FAN #13	1	0	1	2	250 SA ---

NOTES: 1. ALL MOTOR STARTERS SHALL BE 3-POLE COMBINATION TYPE WITH NEMA 1 ENCLOSURE.
2. ALL MOTOR STARTERS SHALL HAVE 208/120 VOLT CONTROL CIRCUIT TRANSFORMER WITH CONTROL CIRCUIT FUSES.
3. ALL MOTOR STARTERS SHALL HAVE 120 VOLT COIL & 208 VOLT CONTACTS.
4. 120 VOLT MAINTAINED CONTACT SELECTOR SWITCH: 22 HI-LOW; 502 HI-LOW-OFF; 5A1 HAND-OFF-AUTOMATIC.
5. PLOT LIGHT SHALL BE FURNISHED WITH ALL REMOTE CONTROL LIGHTS.
6. INTER-LOCK MS#6 & MS#7 SUCH THAT EXHAUST FAN #12 (MS#6) IS OPERATED.

ELECTRIC WIRING SYMBOLS

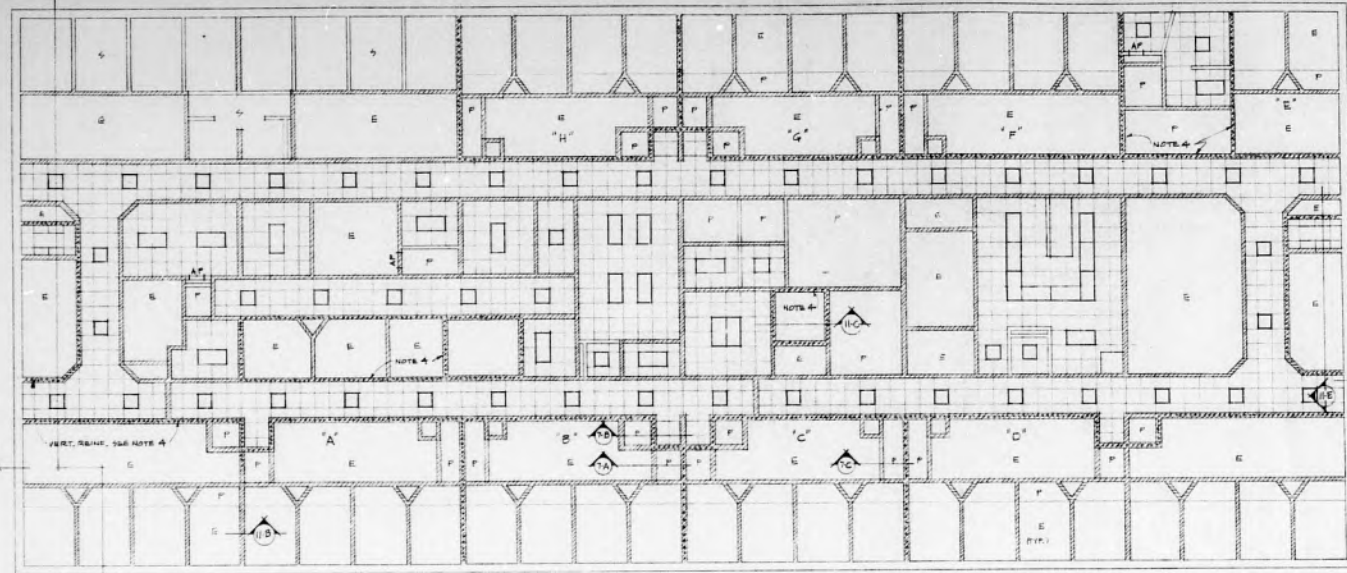
- - CEILING OUTLET WITH INCANDESCENT FIXTURE AS NOTED
- - RECESSED INCANDESCENT FIXTURE AS NOTED
- 1 - WALL BRACKET OUTLET WITH INCANDESCENT FIXTURE AS NOTED
- 2 - FLUORESCENT FIXTURE AS NOTED
- 3 - FLUORESCENT TROFFER AS NOTED
- 4 - FLUORESCENT STRIP LIGHT
- 5 - DUPLEX CONVENIENCE OUTLET 14" ABOVE FLOOR
- 6 - 20 AMPERE CONVENIENCE OUTLET
- 7 - DUPLEX CO-ONE HALF SWITCHED
- 8 - DUPLEX CO-2 ABOVE COUNTER-TOP OR AS NOTED
- 9 - WEATHERHOOP OUTLET
- 10 - EXIT LIGHT-WALL MOUNTED
- 11 - EXIT LIGHT-CEILING MOUNTED
- 12 - SPECIAL OUTLET-CEILING MT.
- 13 - SPECIAL OUTLET-FLOOR MT.
- 14 - SPECIAL OUTLET-WALL MT. HEIGHT AS NOTED
- 15 - FLOOR BOX OUTLET
- 16 - CLOCK OUTLET
- 17 - JUNCTION BOX
- 18 - THERMISTE-60" ABOVE FLOOR OR AS NOTED
- 19 - PUSHBUTTON -48" OR AS NOTED
- 20 - SWITCH -48" OR AS NOTED
- 21 - 3-WAY SWITCH
- 22 - 4-WAY SWITCH
- 23 - THERMALLY PROTECTED SWITCH-120V LIGHT SWITCHER
- 24 - DIMMER
- 25 - MOTOR OUTLET
- 26 - MOTOR STARTER
- 27 - NURSE CALL DOME LIGHT, EMERGENCY & NORMAL CALL WALL MOUNTED ABOVE DOOR
- 28 - NURSE CALL DOME LIGHT-EMERGENCY CALL ONLY WALL MOUNTED ABOVE DOOR
- 29 - OUTLET ON EMERGENCY SYSTEM PROVIDE RED DEVICE "H"
- 30 - ELECTRIC LOCK-120 VOLT
- 31 - ELECTRIC LOCK-24 VOLT
- 32 - ELECTRIC ALARM BUTTON
- 33 - RADIO MONITOR
- 34 - VOLUME CONTROL
- 35 - INTERCOM CALL IN SWITCH
- 36 - TELEPHONE OUTLET IN FLOOR
- 37 - PHONE OUTLET IN FLOOR
- 38 - SPEAKER OUTLET IN FLOOR
- 39 - SPEAKER HEIGHT AS NOTED
- 40 - HORN SPEAKER
- 41 - TELEVISION OUTLET "H"
- 42 - MICROPHONE OUTLET IN FLOOR
- 43 - MICROPHONE OUTLET "H"
- 44 - SUBMOUNT SWITCH
- 45 - WEATHERHOOP OUTLET
- 46 - LIGHTING PANEL-SURFACE MOUNTED
- 47 - POWER PANEL-SURFACE MOUNTED
- 48 - SPECIAL CABINET AS NOTED
- 49 - FIRE ALARM STATION
- 50 - FIRE ALARM BELL-SPEAKING BELLOW
- 51 - FIRE ALARM HORN
- 52 - FIRE ALARM HORN-SPEAKING BELLOW
- 53 - SMOKE DETECTOR-EX-HORN DETECTOR
- 54 - FIRE DETECTOR-EX-HORN DETECTOR
- 55 - SMOKE EXIT ALARM
- 56 - ELECTROMAGNETIC ROOM KILLER
- 57 - PULSED STRIP
- 58 - FUSED CONDUIT OR METERING CONDUIT
- 59 - CONDUIT (SEE NOTE 1)
- 60 - DOWNLEAD CONDUIT IN TUNNEL
- 61 - SHUNT CONDUIT FOR UNDER-UNIT
- 62 - BONDING OUTLET "H"
- 63 - CLOCK MANAGER OUTLET
- 64 - PROGRAM BELL
- 65 - SINGLE PATIENT NURSE CALL STATION "H"
- 66 - DOUBLE PATIENT NURSE CALL STATION "H"
- 67 - NURSE CALL DUTY STATION "H"
- 68 - NURSE CALL STATION "H"
- 69 - NURSE CALL STATION "H"
- 70 - PA SPEAKER
- 71 - PROGRAM SPEAKER
- 72 - CELL INTERCOM
- 73 - PERSONNEL ALARM
- 74 - MONITOR
- 75 - CLOSED CIRCUIT TV CAMERA
- 76 - INTERCOM

NOTES: 1. DIMES ACROSS CONDUIT OR RACEWAY INDICATE NUMBER OF WIRES (CONDUIT TO BE USED).
2. LOWER CASE LETTERS AT FIXTURES AND SWITCHES INDICATE ASSOCIATED UNIT(S).
3. NUMBER AT FIXTURE INDICATES PANEL CIRCUIT.
4. UPPER CASE LETTERS AT FIXTURES INDICATE FIXTURE TYPE.
5. THIS IS A STANDARD SYMBOL LIST. NOT ALL SYMBOLS WILL BE USED ON PLANS.

APRIL 1979
 EDW
 7838

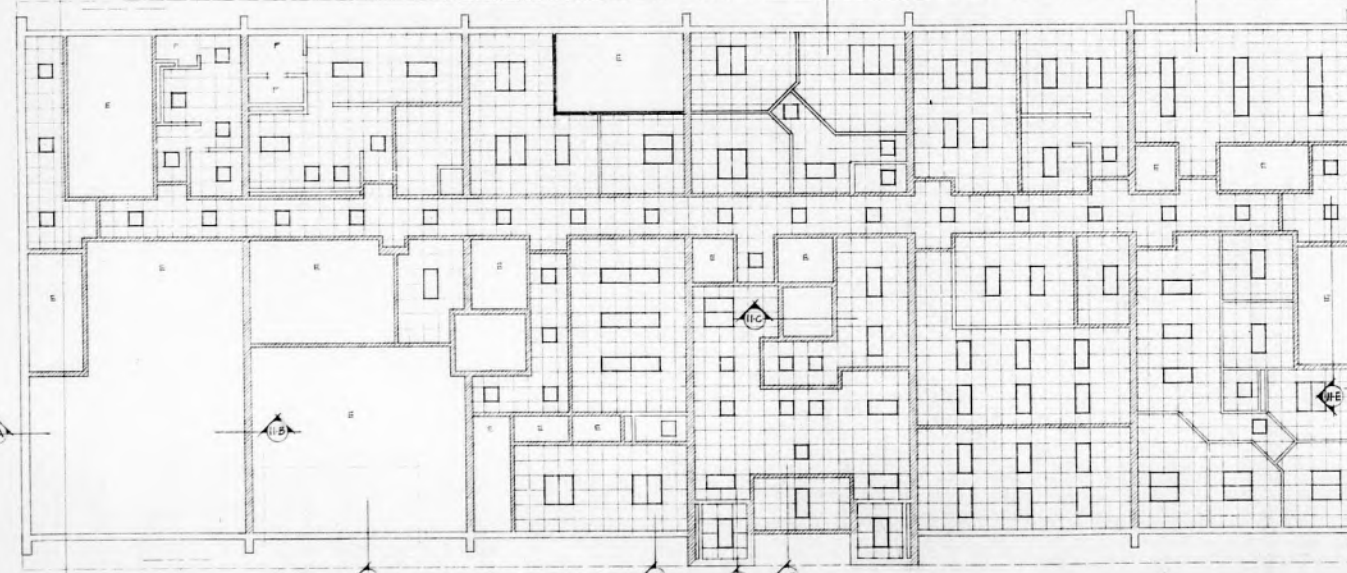
ELECTRICAL - DETAILS & SCHEDULES
 CONSULTANTS
 12177

JOHNSON COUNTY JAIL
 Architects
 Weber Noway and Patschall



SECOND FLOOR REFLECTED CEILING PLAN

SCALE - 1/8" = 1'-0"



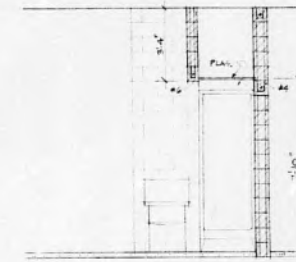
FIRST FLOOR REFLECTED CEILING PLAN

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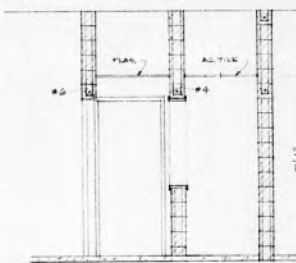


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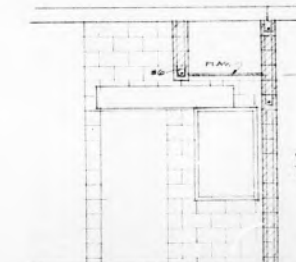
1. CROSS-HATCHED OR SHAPED WALLS INDICATES INTERIOR WALLS WHICH ARE BUILT TIGHT TO UNDERSIDE OF DECK ABOVE. ALL OTHER INTERIOR WALLS NEED ONLY RUN TO ABOVE CEILING.
2. SEE ROOM FINISH SCHEDULE FOR CEILING MATERIALS FOR CONSTRUCTION. THE FOLLOWING ARE TYPE 1 & 2 PLASTER ABOVE AND TYPE 1 & 2 SHRETOLE & 3 EXPANDED CONSTRUCTION.
3. WHEN NOTED AF ON PLAN, PROVIDE ACCESS PANELS IN BLOCK WALL, 24" X 24", SEE SPEC FOR TYPE.
4. AT INTERIOR WALLS ENVELOPING CELL BLOCKS A, B, C, D, E, F, G, H PROVIDE WAVY TOP & 3/8" DIA. FINISHED IN BLOCK CORNER FROM FLOOR TO UNDERSIDE ROOF SLAB. PROVIDE SAME REPAIR & 2ND FLOOR LEVEL OF WALLS ENVELOPING STAIRS & ELEVATOR SHAFTS.



SECTION 7A
26'-3/8" = 11'-0"



SECTION 7B
26'-11" = 11'-0"



SECTION 7C
26'-0" = 11'-0"

Sheet No. **A7**
DATE **APRIL '79**
DRAWN BY **SAR RCW**
CHECKED BY **7838**

PROJECT

DRAWING TITLE
REFLECTED CEILING PLANS

PROJECT NAME
JOHNSON COUNTY JAIL II
ARCHITECTS
Wagner Meyers and Paffschell



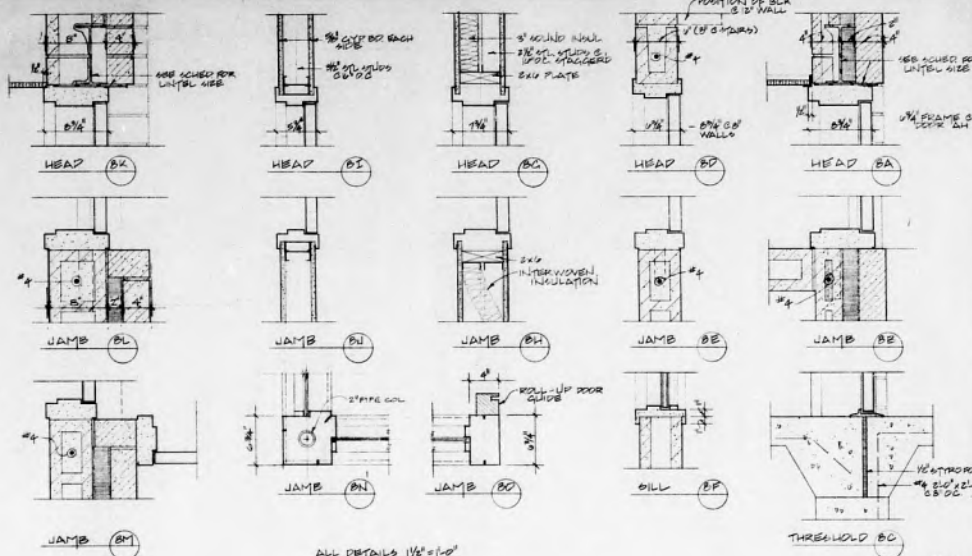
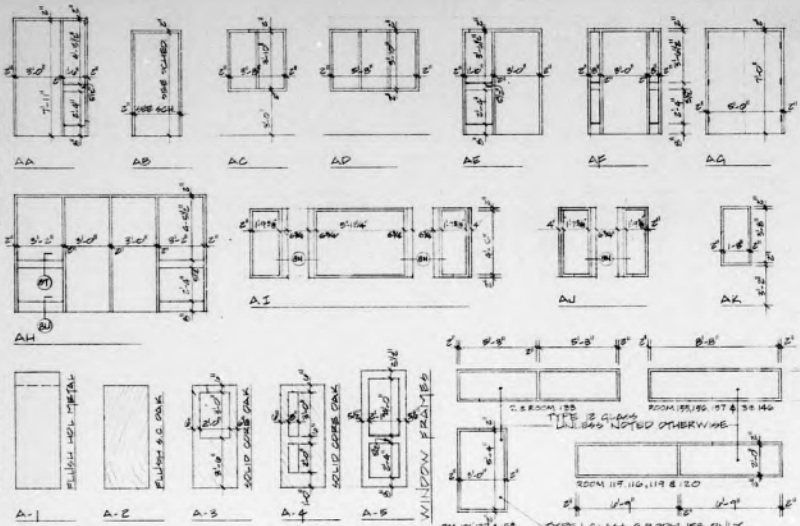
REPRODUCED BY
JORM MICROLAB
COURT REPORTERS & DESIGNERS

ARCHITECTURAL DOORS & FRAMES

SEE SCHEDULE FOR A-WAY TYPES

DOOR TYPES

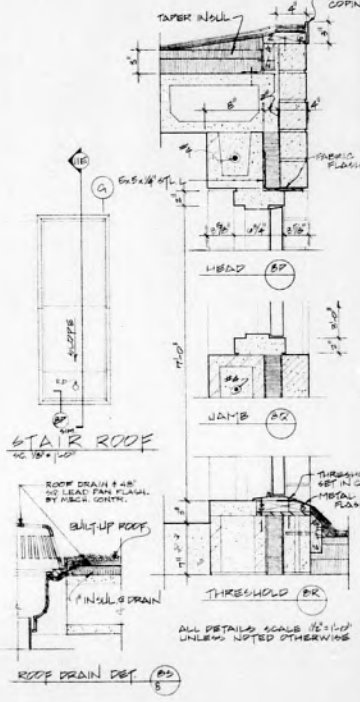
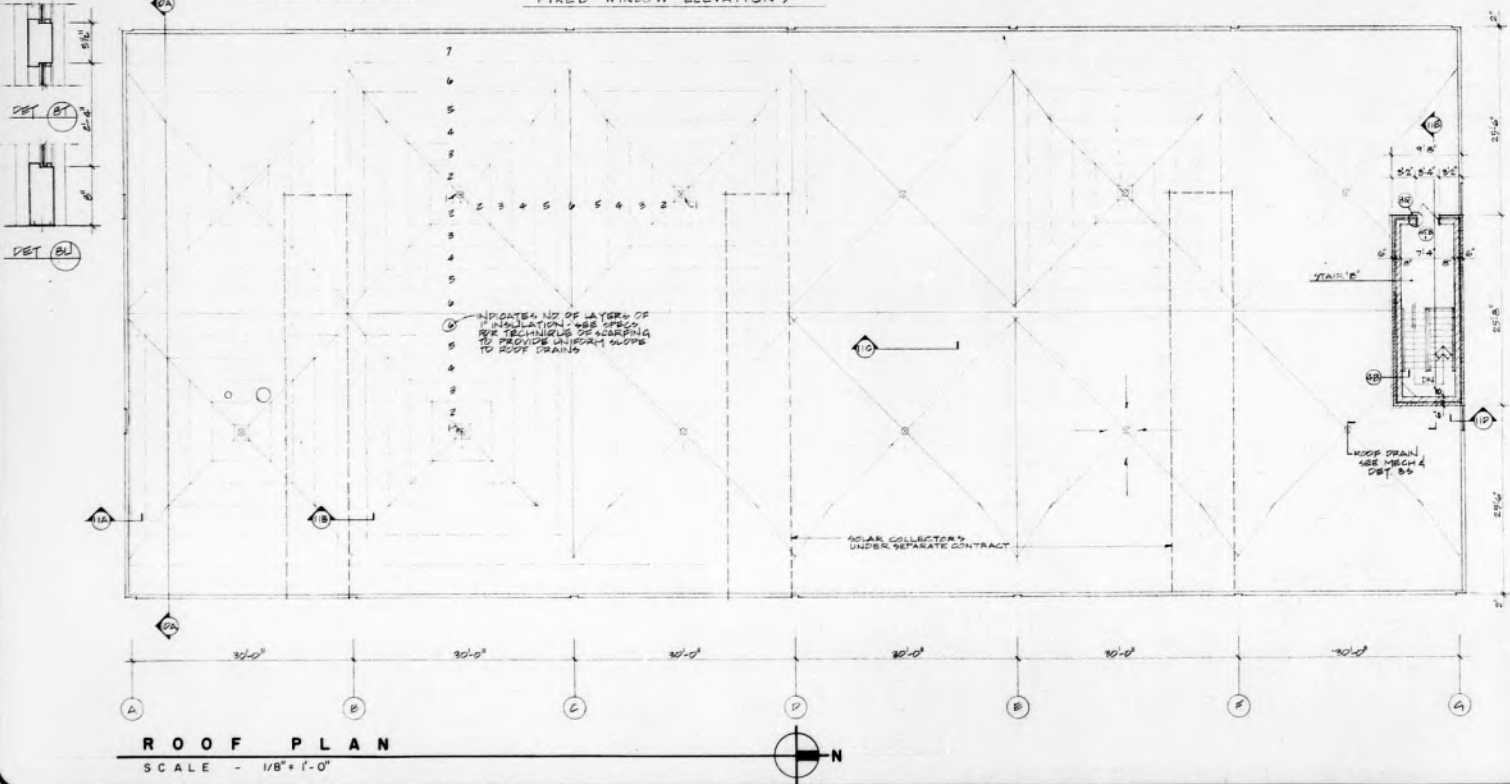
FRAME TYPES



ALL ELEVATIONS 1/8" = 1'-0"

FIXED WINDOW ELEVATIONS

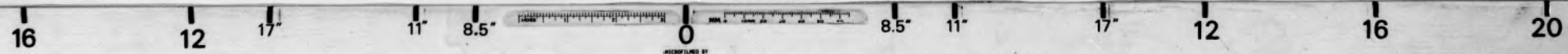
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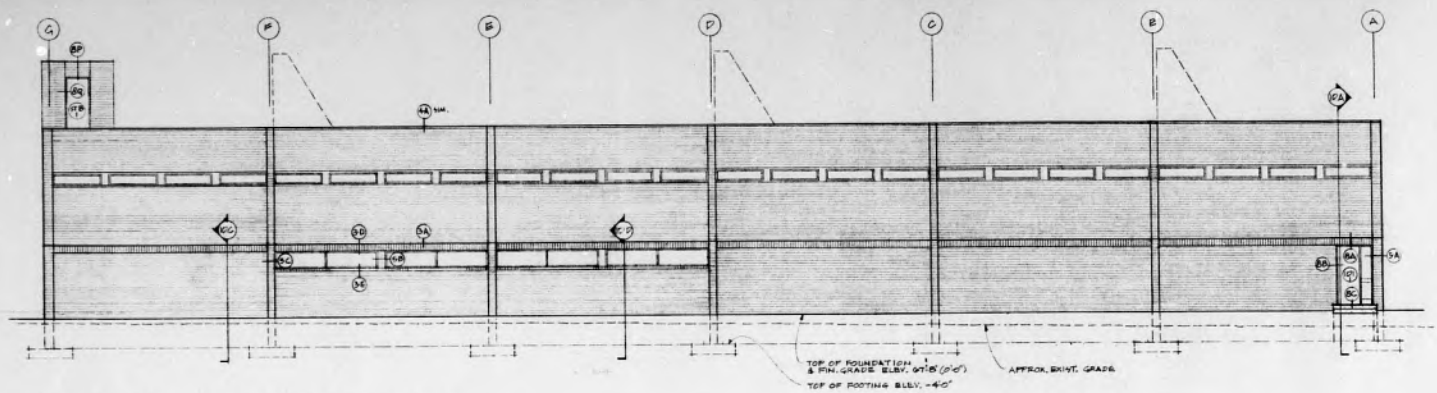


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 SAR RCW
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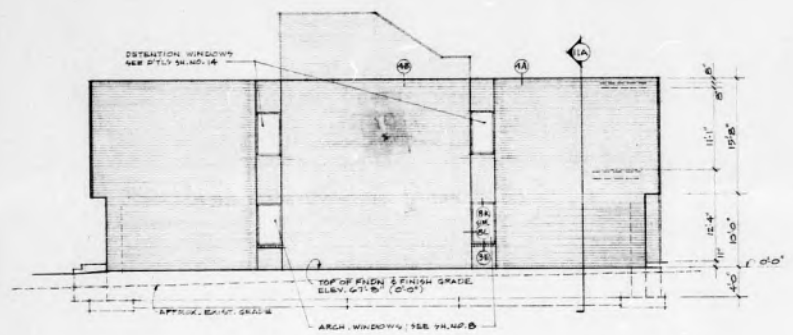
JOHNSON COUNTY JAIL II
 ROOF PLAN, DOOR ELEVATIONS & DETAILS
 CONSULTANT
 WEHNER NEWMAN AND PATTSCHHELL ARCHITECTS

JOHNSON COUNTY JAIL II
 ROOF PLAN, DOOR ELEVATIONS & DETAILS
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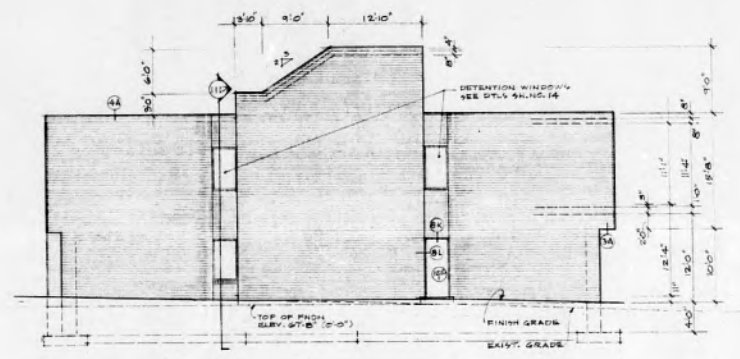




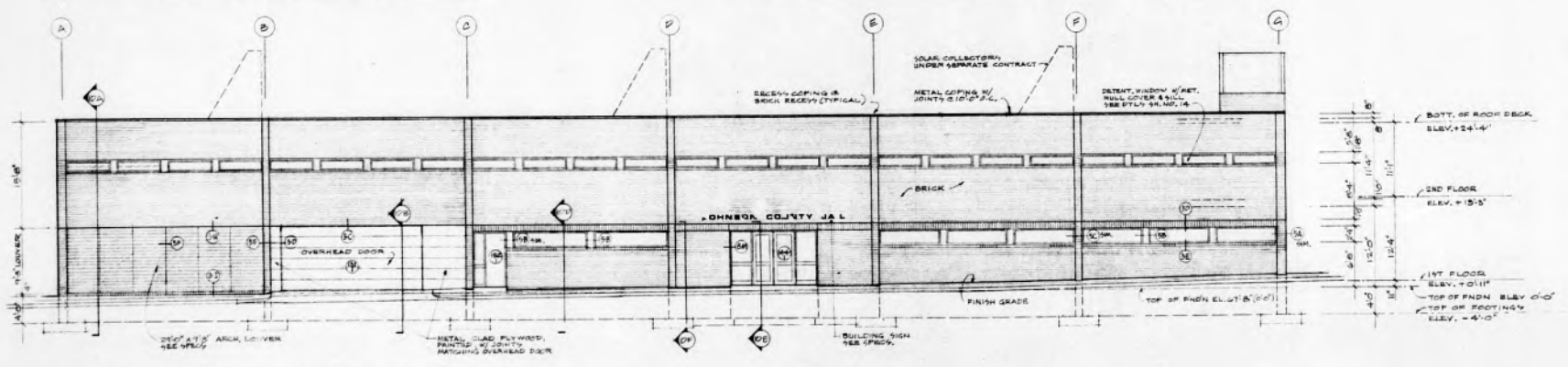
WEST ELEVATION



SOUTH ELEVATION

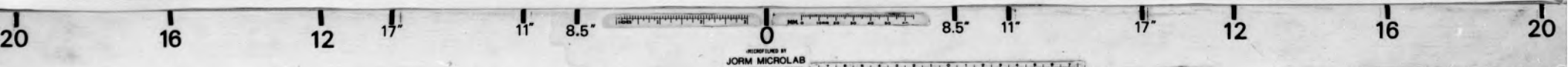


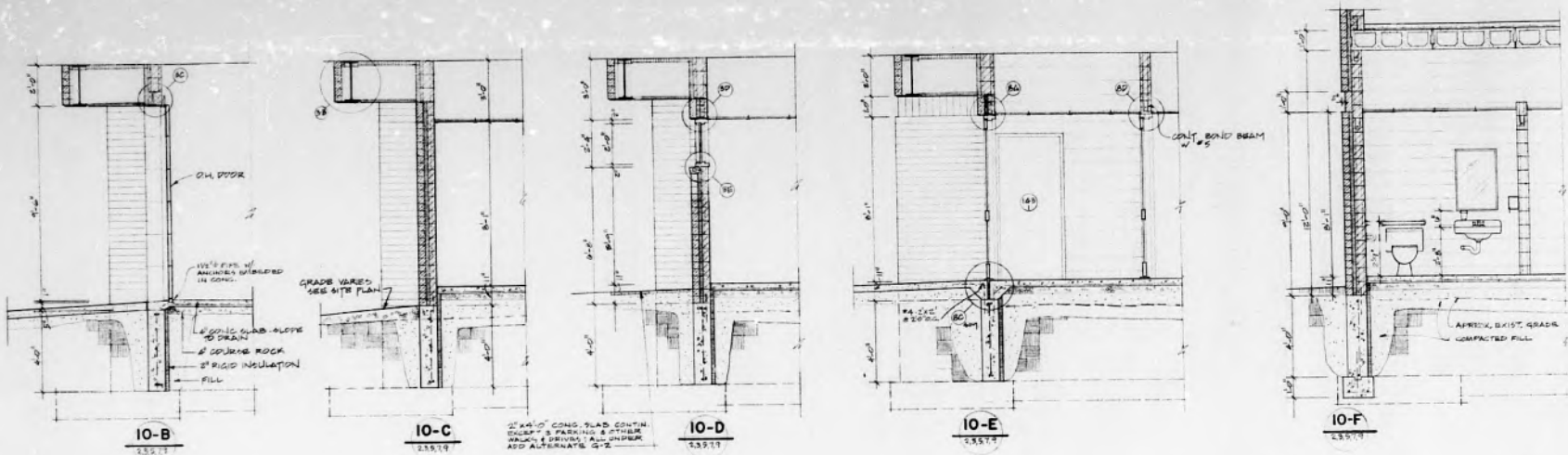
NORTH ELEVATION



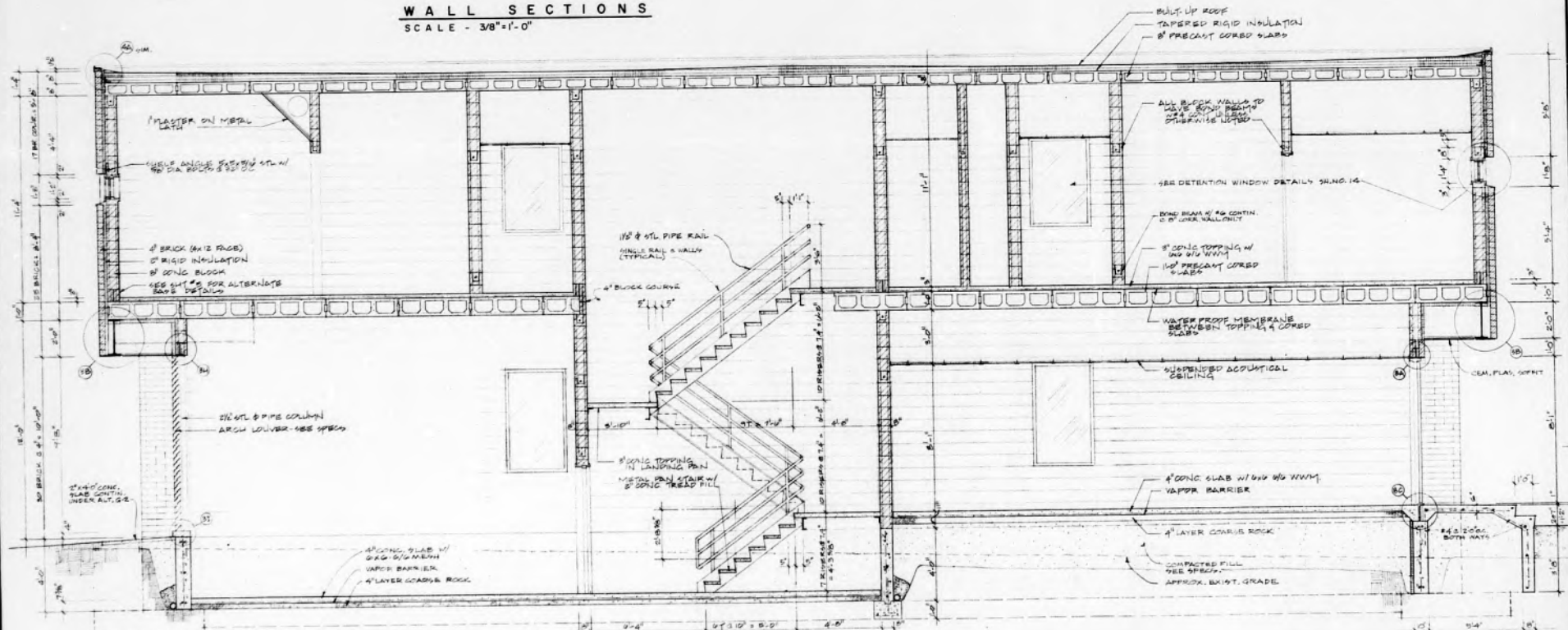
EAST ELEVATION

SCALE - 1/8" = 1'-0"



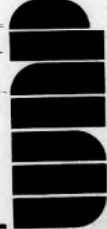


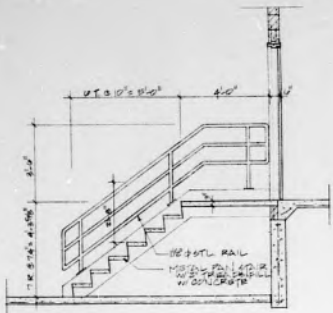
WALL SECTIONS
 SCALE - 3/8" = 1'-0"



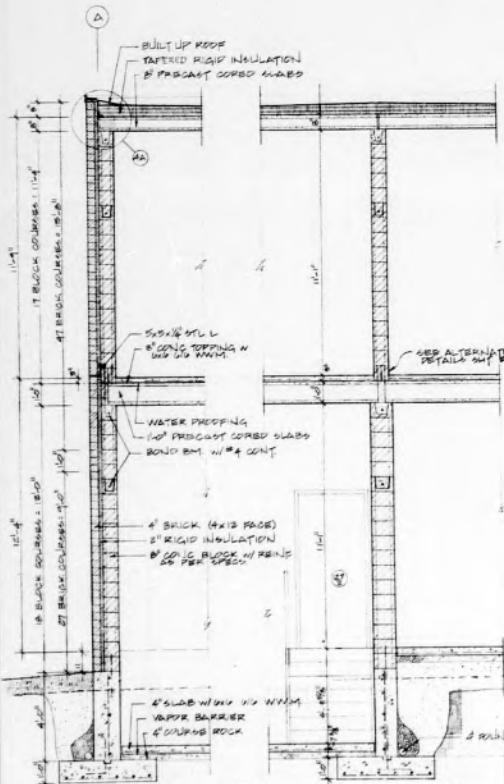
BUILDING SECTION
 SCALE - 3/8" = 1'-0"

drawing title **BUILDING & WALL SECTIONS**
 project name **JOHNSON COUNTY JAIL II**
 ARCHITECTS **Wehner Nowys and Paffschell**
 CONSULTANT



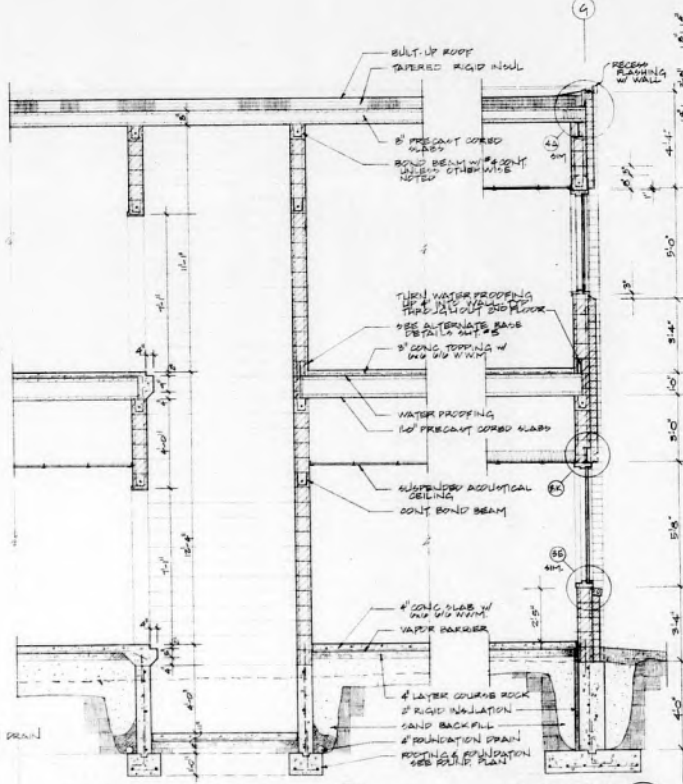


STAIR DET
SCALE 1/8"=1'-0"



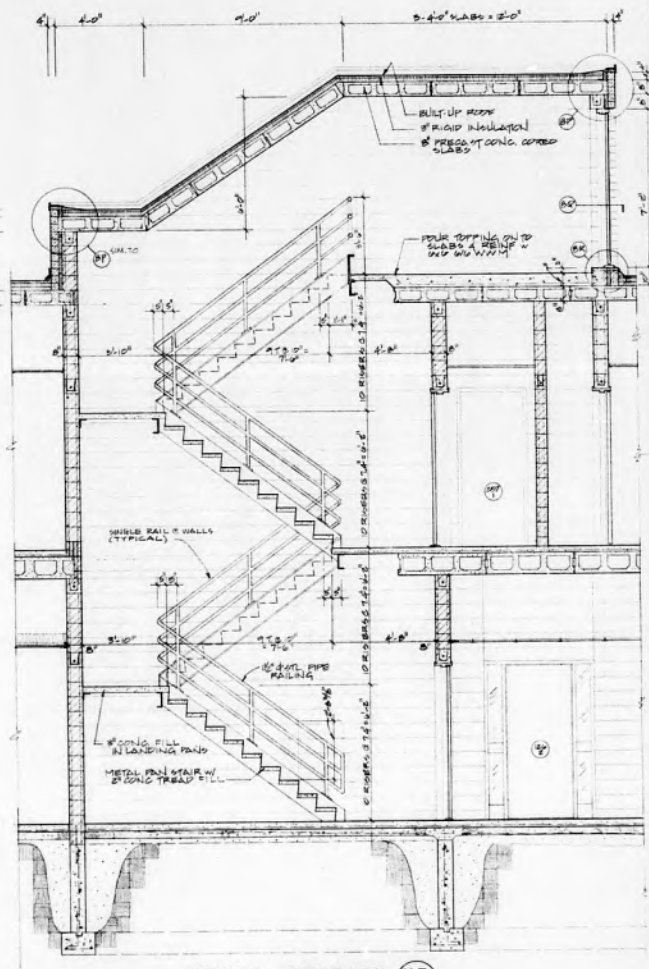
WALL SECTIONS (IIA)
SCALE - 3/8" = 1'-0"

SECTION (IIB)



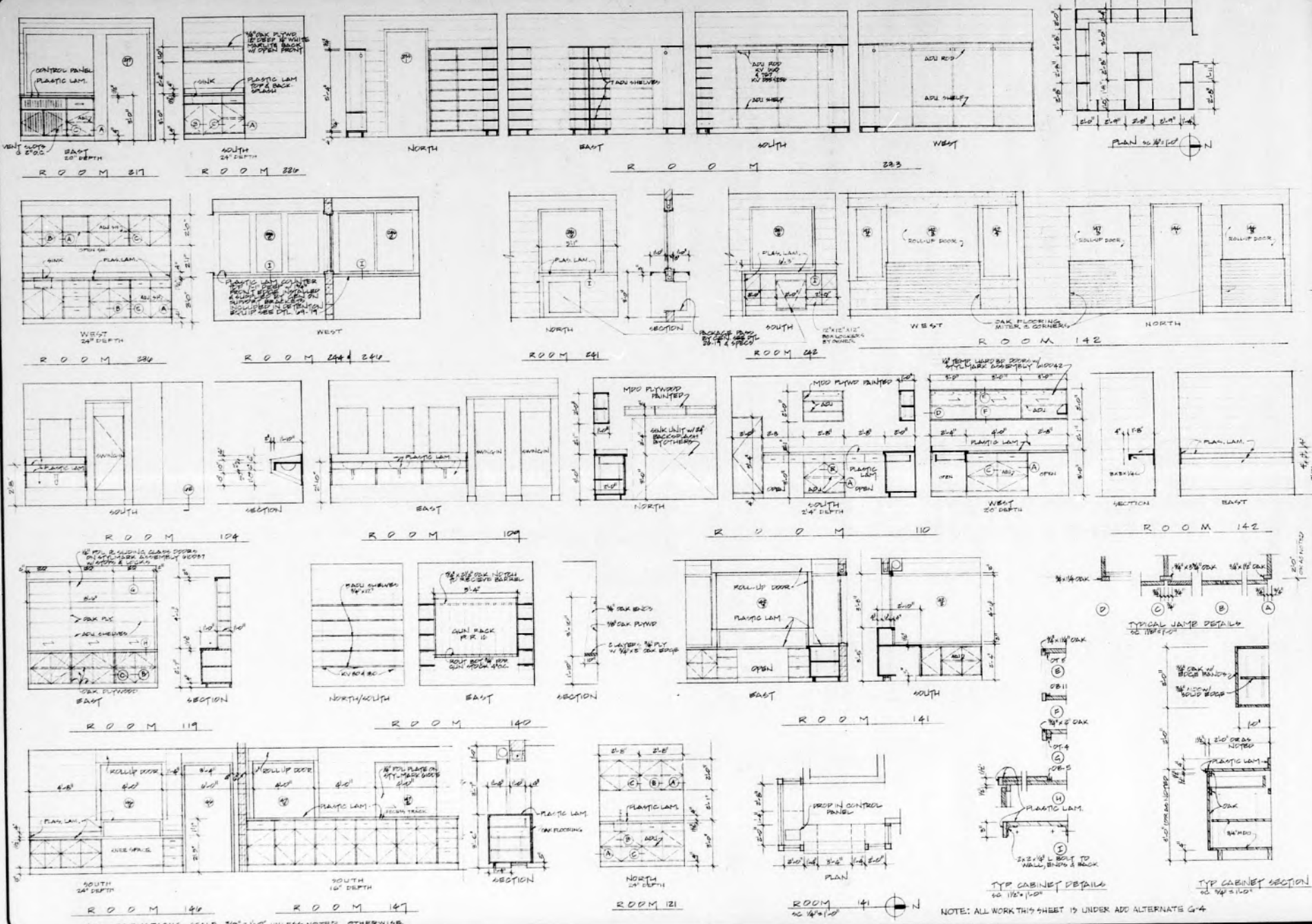
ELEVATOR SECTION (IIC)

SECTION (IID)



STAIR SECTION (IIE)



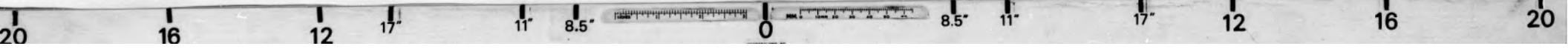


ALL ELEVATIONS SCALE 3/8" = 1'-0" UNLESS NOTED OTHERWISE

NOTE: ALL WORK THIS SHEET IS UNDER ADD ALTERNATE G-4

ARCHITECTS
Johnson County Jail II
 Wehner Neways and Patschall

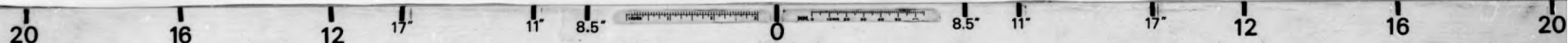
PROJECT NAME: **CABINET WORK**
 DRAWING TITLE: **CABINET WORK**
 CONSULTANT: **SAF**
 DATE: **APRIL '79**
 SHEET NO: **A 12**
 OF 14



DOOR & FRAME SCHEDULE

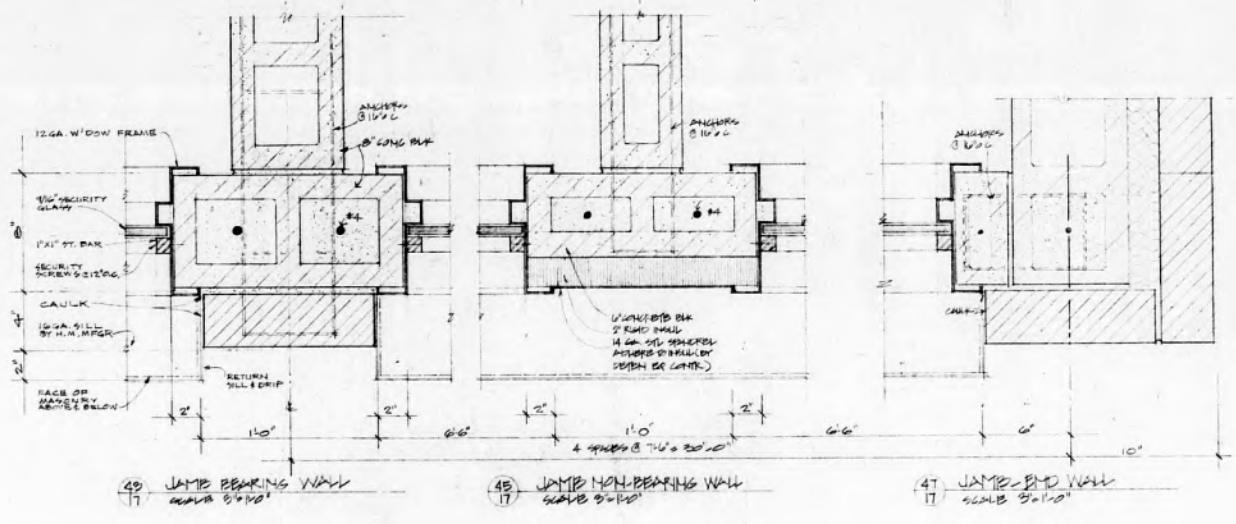
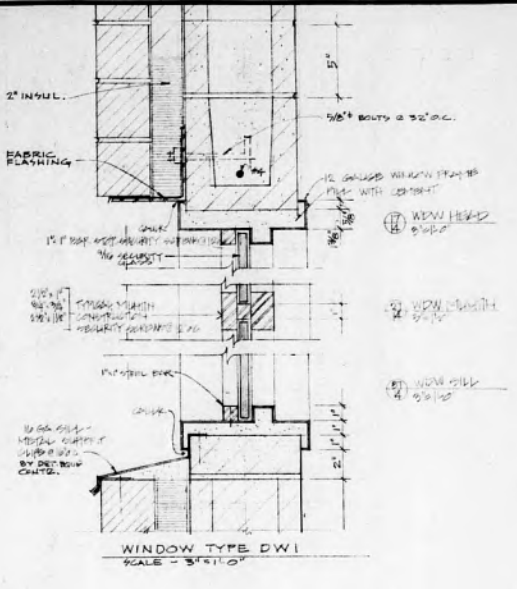
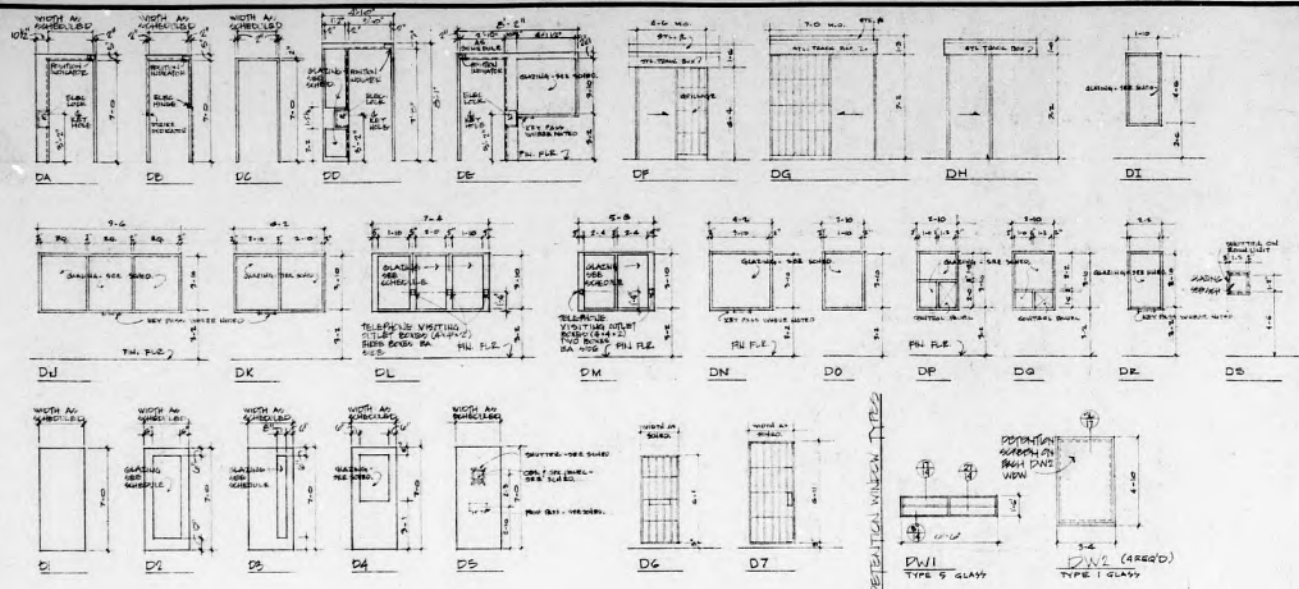
Main table with columns for Door #, Frame, Door Size, Frame Details, and Remarks. It lists various door and frame specifications across multiple rows.

NOTE: REFER TO MECHANICAL FOR UNDERCUT DOORS. L = C LABEL = 20MIN. B LABEL = 1/2" RK



MANUFACTURED BY JORM MICROLAB CEDAR RAPIDS-IOES MINNESOTA

DETENTION DOOR TYPES



14

REVISED

DETENTION DOOR & FRAME TYPES

CONSULTANT

GALGER PARRISH INC.

ARCHITECTS

Wehner Nowyn and Patschell

PROJECT NAME

JOHNSON COUNTY JAIL

OWNER NAME

DETENTION DOOR & FRAME TYPES

DATE

APRIL 1978

DRAWN BY

E.S. M.D.L.

CHECKED BY

T.S.S.

SCALE

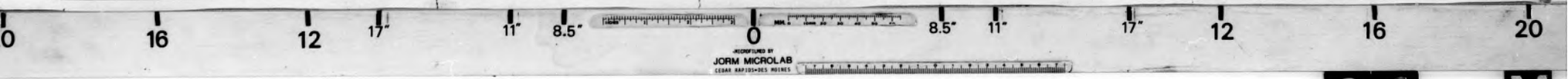
AS SHOWN

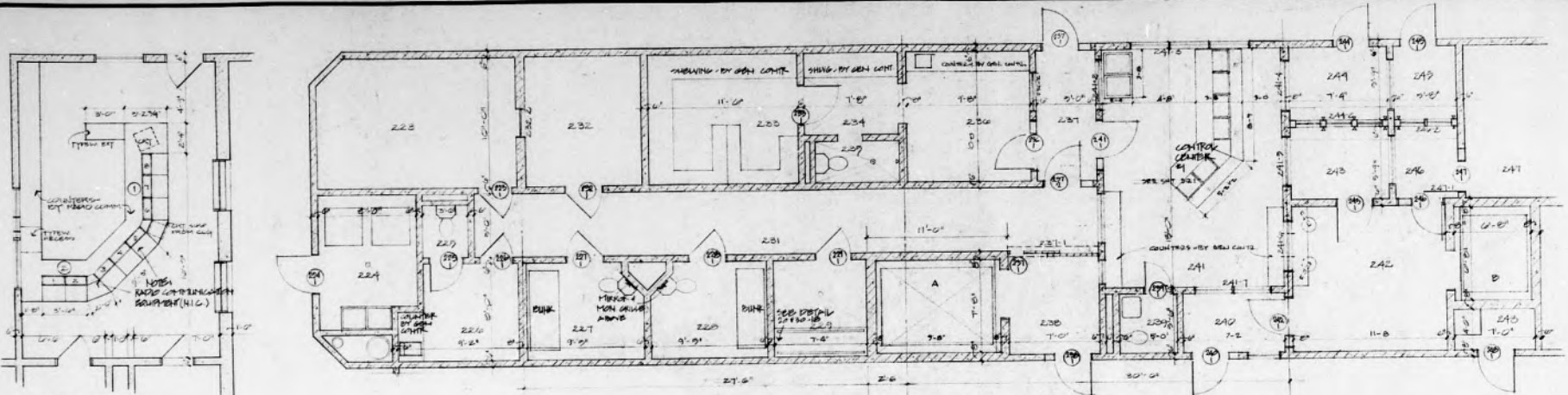
SHEET NO.

14

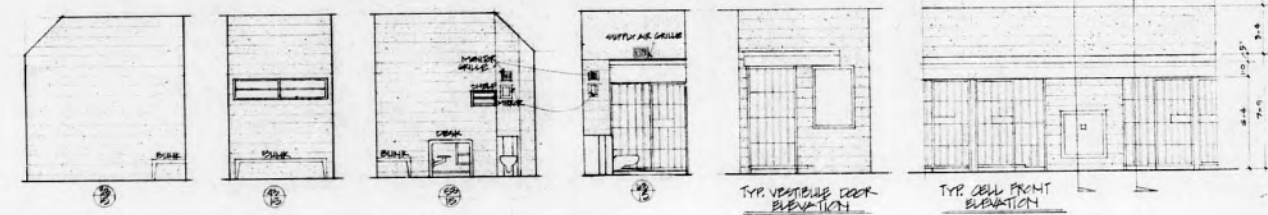
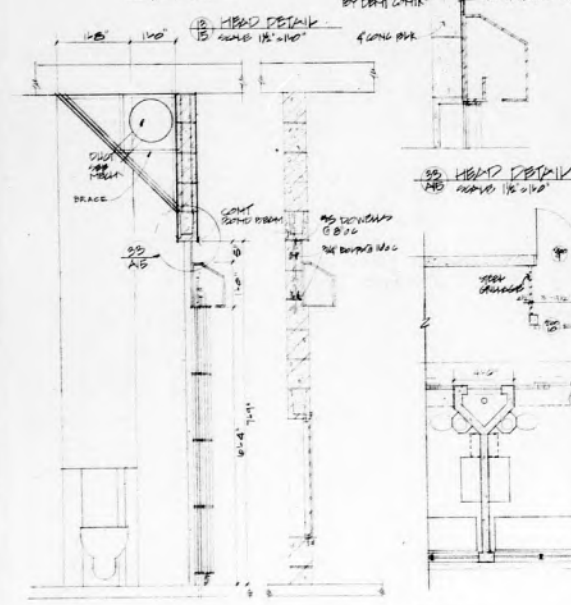
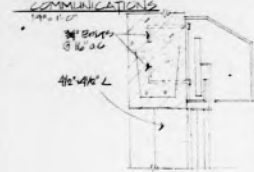
TOTAL SHEETS

14

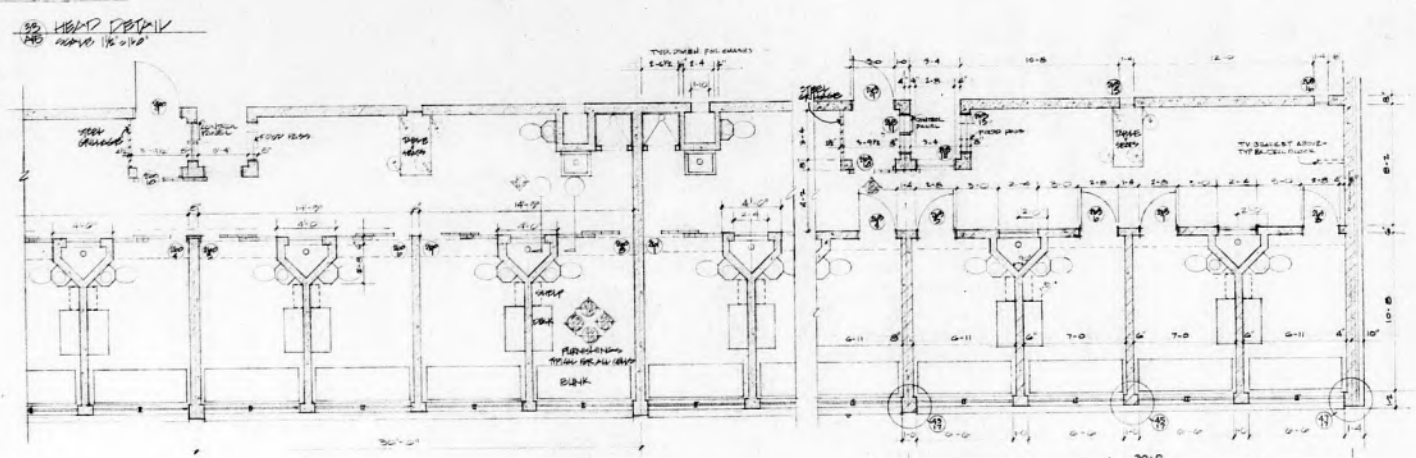




PARTIAL SERVICE SECTION PLAN 1/8"



TYPICAL CELL ELEVATIONS SCALE 1/8" = 1'-0"



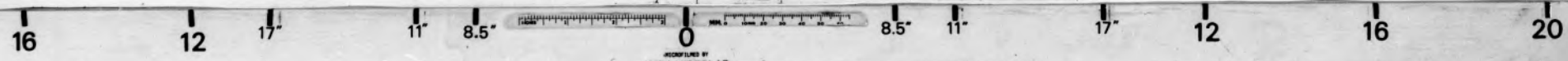
TYPICAL CELL & BLOCK PLAN 1/8" = 1'-0"

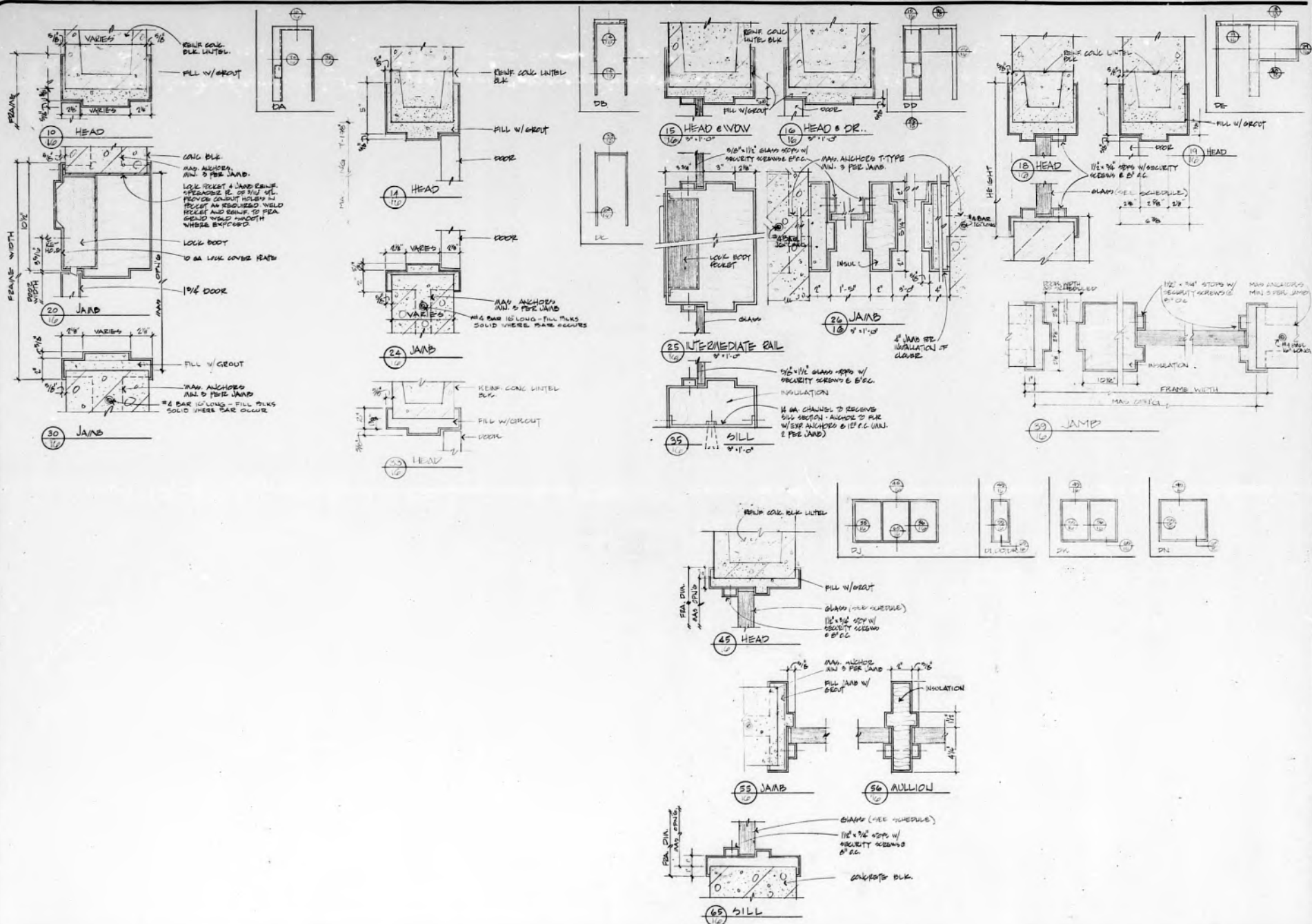
15 WALL SECTION (OF CELL) SCALE 3/8" = 1'-0"
 16 WALL SECTION (OF CORRIDOR) SCALE 3/8" = 1'-0"

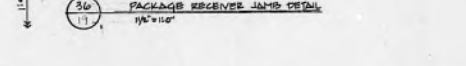
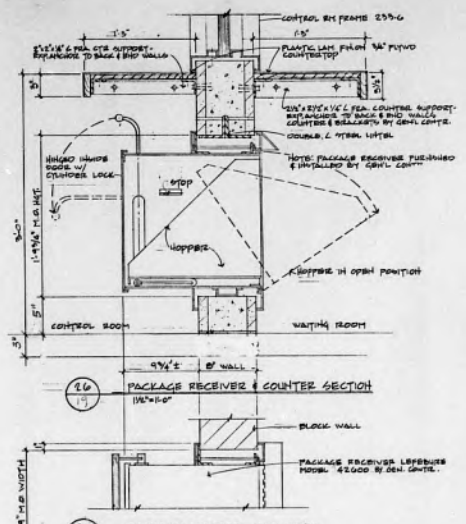
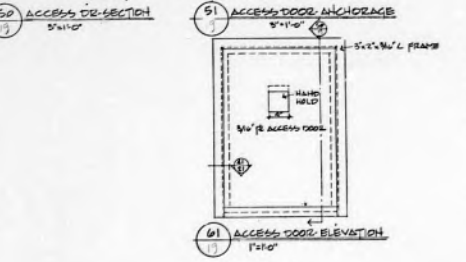
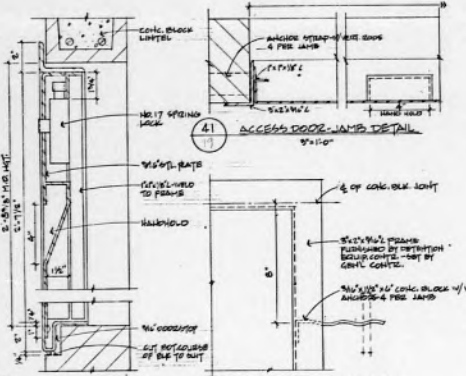
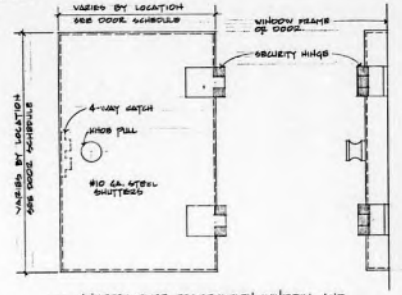
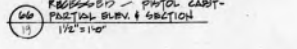
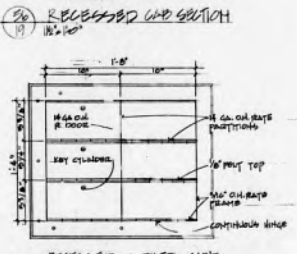
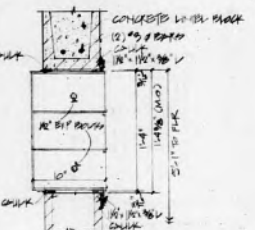
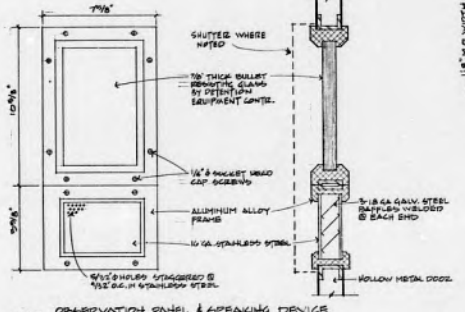
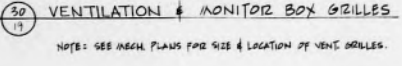
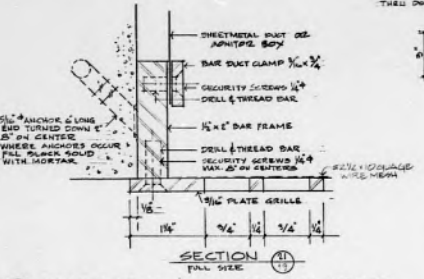
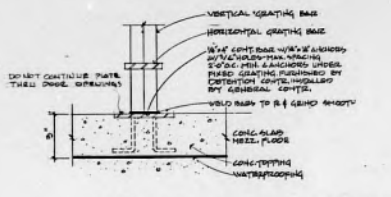
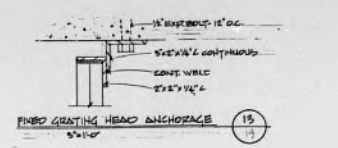
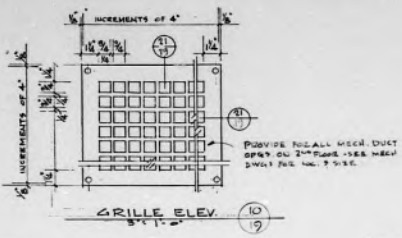
project name: [blank]
 drawing title: [blank]

CONSULTANT
 ARCHITECTS

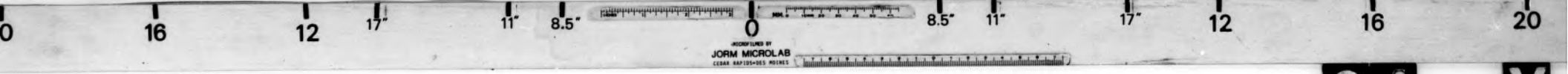
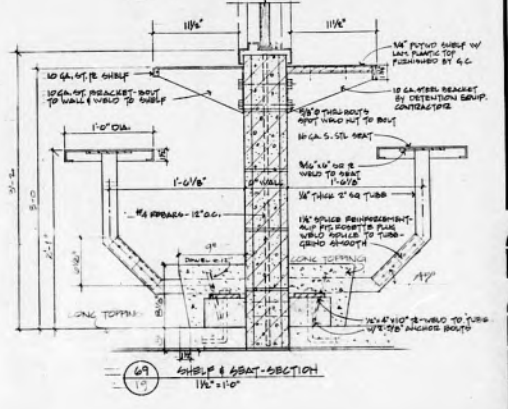
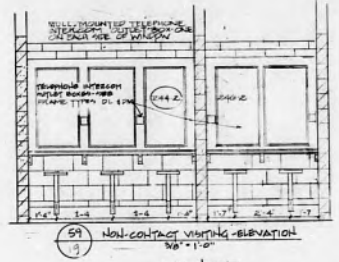
Wehner Neuwys and Poffschell
 ARCHITECTS

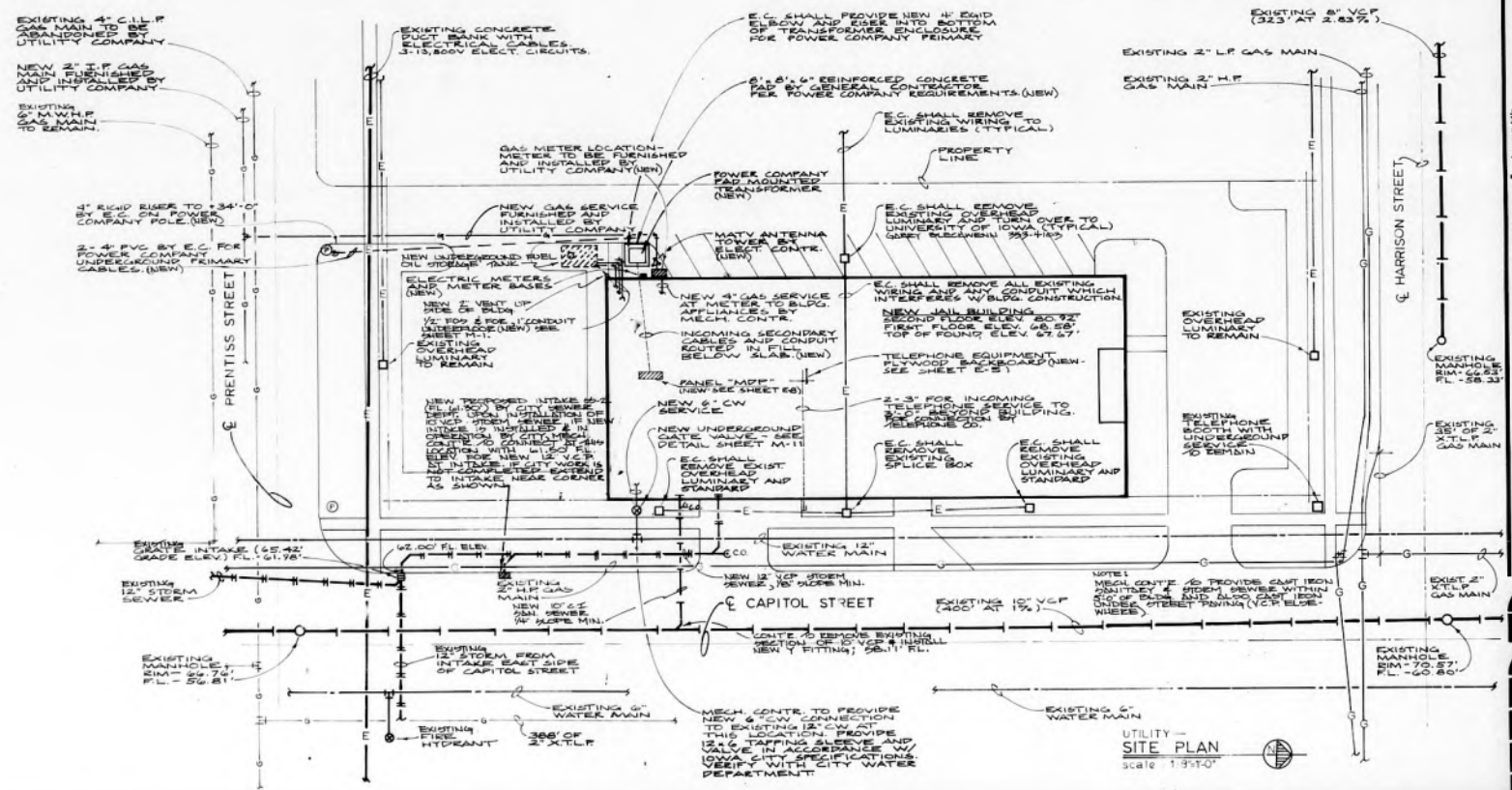
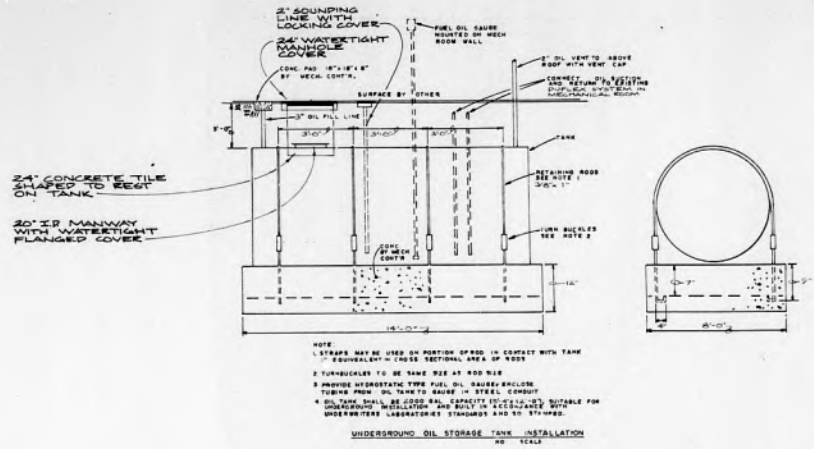






GLAZING SCHEDULE	
TYPE	DESCRIPTION
1	1 1/2" INSULATION GLASS COMPOSED OF: 9/16" SECURITY GLASS (EXTERIOR) 1/2" AIR SPACE 9/16" SECURITY GLASS (INTERIOR)
2	1 1/2" BULLET RESISTIVE GLASS
3	CMIT
4	7/8" BULLET RESISTIVE GLASS
5	9/16" SECURITY GLASS, CLEAR
6	9/16" SECURITY GLASS INCLUDING LAMINATION OF WIRE GLASS
7	1 1/2" LAMINATED CLEAR-WAY GLASS
8	CMIT
9	1/4" POL RE CLEAR PLATE
10	1/4" POL RE TEMPERED (SAFETY)
11	1/4" POL RE WIRE GLASS
12	1" INSULATION GLASS COMPOSED OF: 1/4" TEMPERED PLATE GLASS (EXTERIOR) 1/2" AIR SPACE 1/4" POL RE CLEAR PLATE (INTERIOR)

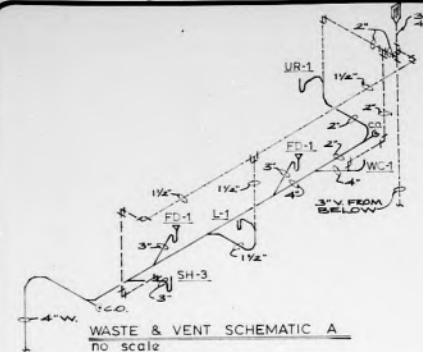




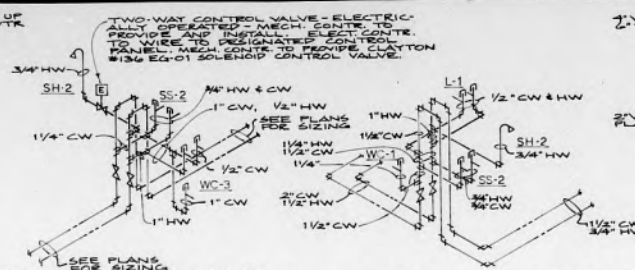
UTILITY -
SITE PLAN
 scale 1/8"=1'-0"



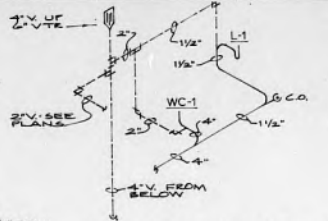
REPRODUCED BY
JORM MICROLAB
 1008 HARTSHORN BLVD



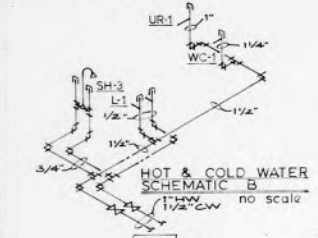
WASTE & VENT SCHEMATIC A
no scale



HOT & COLD WATER SCHEMATIC C
no scale



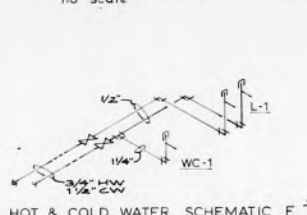
WASTE & VENT SCHEMATIC G
no scale



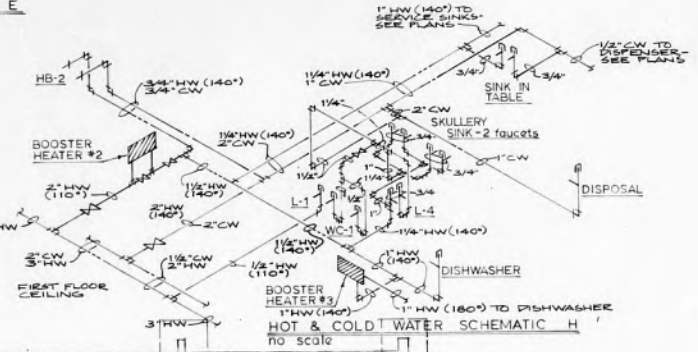
HOT & COLD WATER SCHEMATIC B
no scale



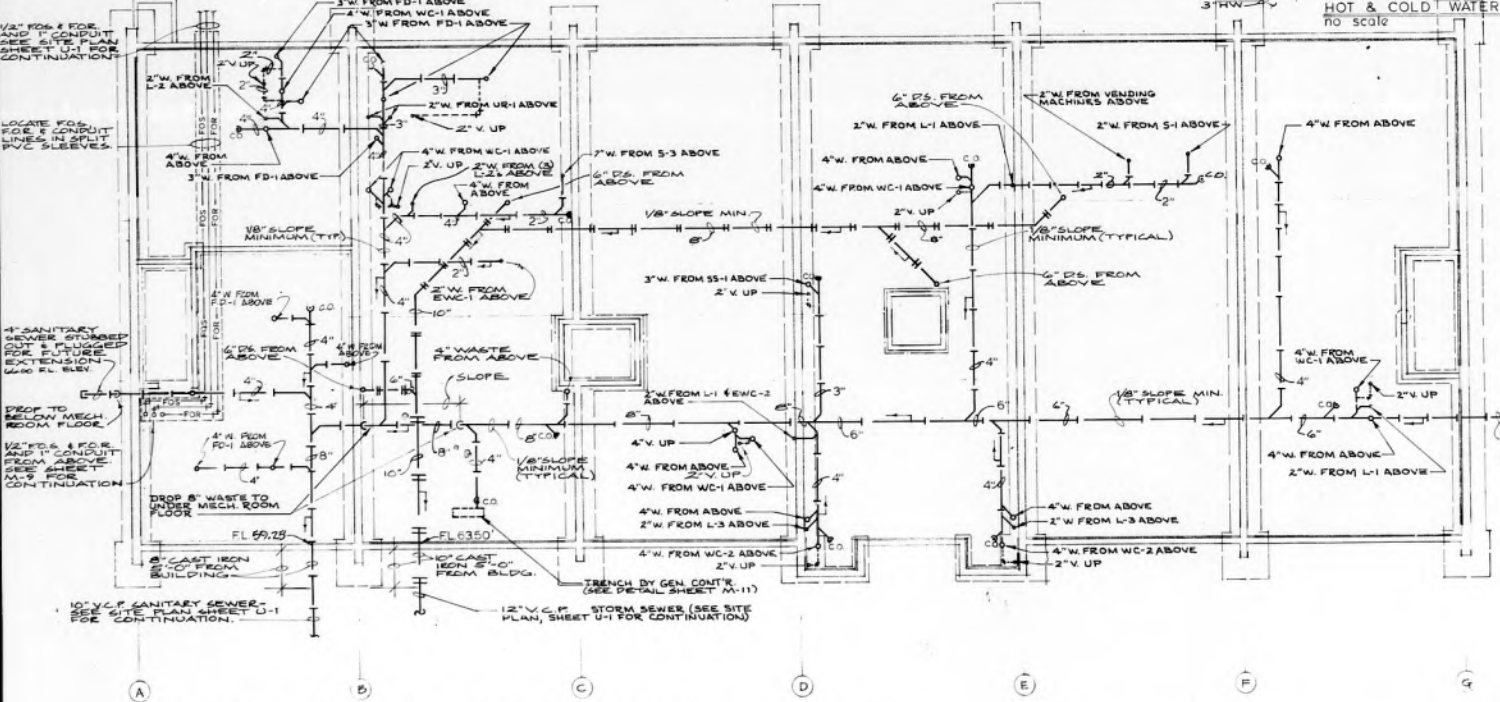
WASTE & VENT SCHEMATIC D
no scale



HOT & COLD WATER SCHEMATIC F
no scale



HOT & COLD WATER SCHEMATIC H
no scale



FOOTING & FOUNDATION PLAN

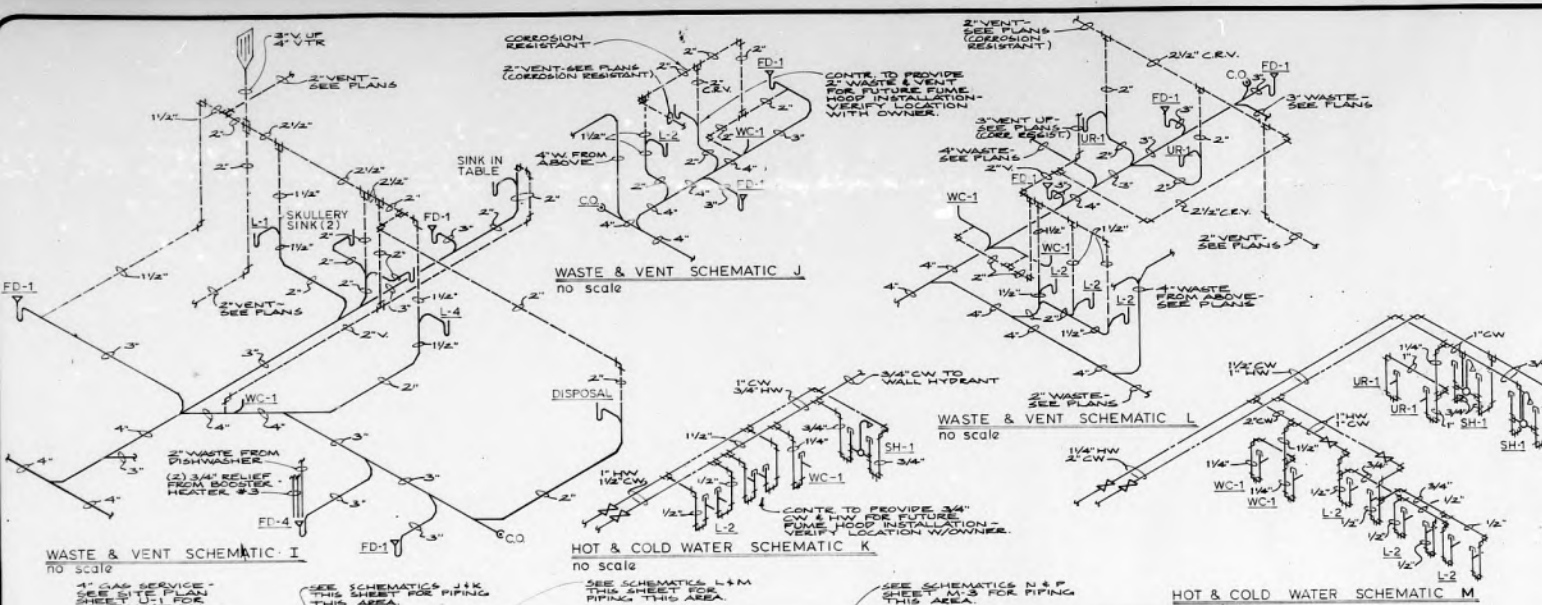
SCALE - 1/8" = 1'-0"



GENERAL NOTES

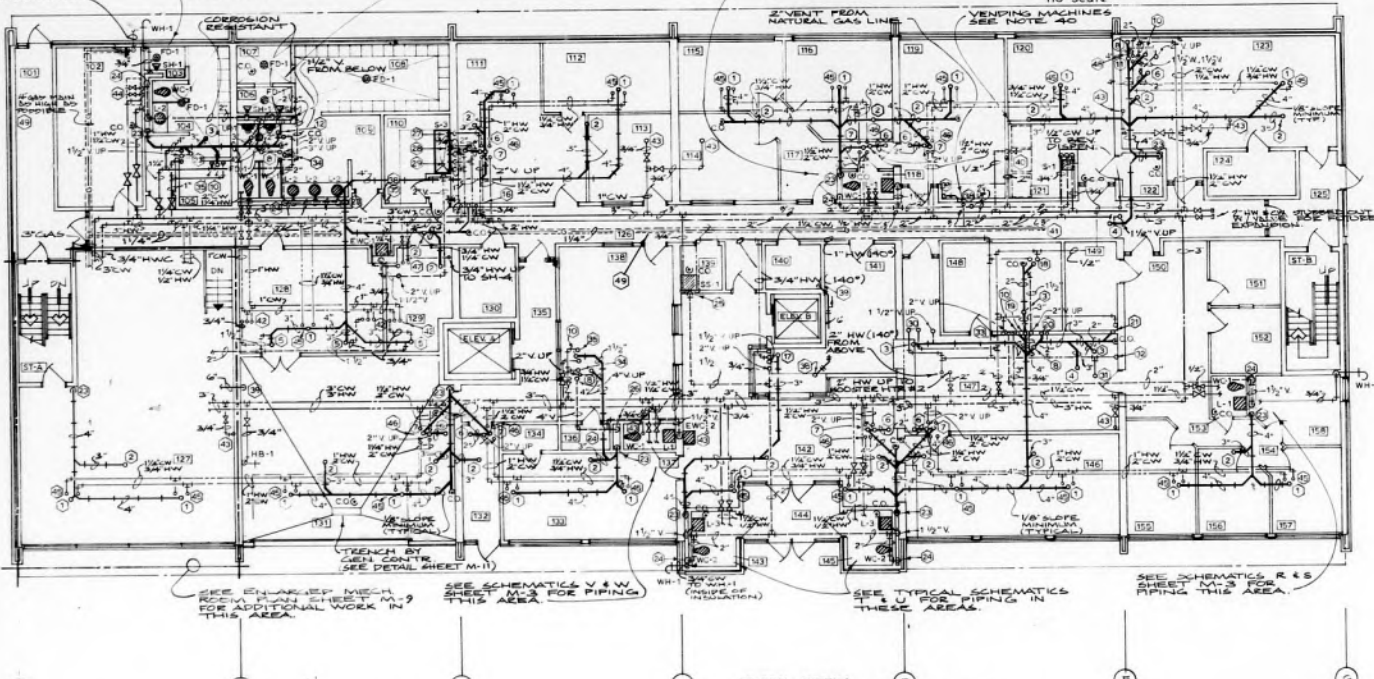
- MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES.
- ALL WASTE AND SEWER PIPING TO BE SLOPED TO A MINIMUM OF 1/8" PER FOOT.

4" SANITARY SEWER STUBBED OUT AND PLUGGED FOR FUTURE EXTENSION. FL ELEV. 66.00'



SPECIFIC NOTES:

- ① 4" W FROM WC-4 & WC-5 ABOVE
- ② 3" WASTE FROM FD-2 ABOVE
- ③ 3" WASTE FROM FD-1 ABOVE
- ④ 3" WASTE FROM FD-4 ABOVE
- ⑤ 3" WASTE FROM FD-3 ABOVE
- ⑥ 2" WASTE FROM SH-2 ABOVE
- ⑦ 4" WASTE FROM WC-3 ABOVE
- ⑧ 4" WASTE FROM WC-1 ABOVE
- ⑨ NOT USED
- ⑩ 1/2" WASTE FROM L-1 ABOVE
- ⑪ 2" WASTE FROM SS-2 ABOVE
- ⑫ 2" WASTE FROM UR-1 ABOVE, 1" CW UP
- ⑬ 2" WASTE FROM WASHER STANDPIPE ABOVE, 3/4" HW (140°) AND CW UP
- ⑭ 2" WASTE FROM L-1 ABOVE, 3/4" HW (140°) AND CW UP
- ⑮ 1/2" WASTE FROM S-2 ABOVE, 3/4" HW (140°) AND CW UP
- ⑯ 1/2" WASTE FROM S-1 ABOVE, 3/4" HW & CW UP
- ⑰ 3" WASTE FROM SS-1 ABOVE, 3/4" HW (140°) AND CW UP
- ⑱ 2" WASTE FROM SINK IN TABLE ABOVE, 3/4" HW (140°) AND CW UP
- ⑲ 2" WASTE FROM SKULLERY SINK ABOVE
- ⑳ 1/2" WASTE FROM L-2 ABOVE, 3/4" HW (140°) UP IN CHASE
- ㉑ 2" WASTE FROM DISPOSAL ABOVE, 1" CW UP
- ㉒ 3" WASTE FROM SH-3 ABOVE, 3/4" HW & CW UP
- ㉓ 2" WASTE FROM WC-1 TO 4" WASTE TO CHASE
- ㉔ 2" VENT FROM BELOW
- ㉕ 1/2" V FROM BELOW, 3/4" CW & 3/4" HW (140°) DOWN TO SS-1
- ㉖ 4" VENT FROM BELOW
- ㉗ 3/4" CW DOWN WALL TO FAUCET SEE S-3 PLUMBING FIXTURE SCHEDULE
- ㉘ 3/4" HW & CW DOWN WALL TO SINK ABOVE, SEE S-3 ON PLUMBING FIXTURE SCHEDULE
- ㉙ 3/4" HW & CW DOWN WALL TO SINK, SEE S-3 ON PLUMBING FIXTURE SCHEDULE
- ㉚ 3/4" HW (140°) AND CW UP TO HS-2
- ㉛ 1" HW (140°) UP TO BOOSTER HEATER
- ㉜ 1" HW (140°) UP TO DISHWASHER
- ㉝ 1/2" CVV UP IN CHASE
- ㉞ 1/4" CW UP TO WC-1
- ㉟ 3/4" HW & CW UP TO L-1
- ㊱ GENERATOR STACK UP
- ㊲ BOILER STACK UP
- ㊳ 8" PS FROM ABOVE
- ㊴ 8" PS DOWN TO UNDERFLOOR
- ㊵ MECH CONTR TO PROVIDE 1/2" CW WITH SHUT-OFF VALVE AND 2" OPEN-HUB WASTE ATTACHED UP FOR CONNECTIONS TO VENDING MACHINES
- ㊶ 1/4" GAS UP TO RANGE (174,000 BTU)
- ㊷ MECH CONTR TO PROVIDE 2" M GAS ON 2ND FLOOR MECH CONTR TO PROVIDE 2" M GAS UP TO 2ND FLOOR MECH CONTR TO PROVIDE 2" M GAS ON 2ND FLOOR TO FLOOR DRAIN CONNECTION AS REQ'D
- ㊸ 3/4" CW UP TO HS-3 ABOVE
- ㊹ CONTR TO PROVIDE 1/2" HW & CW WITH VALVES, 2" WASTE & VENT WITH FLOOD FOR FUTURE FUME HOOD INSTALLATION. VERIFY LOCATION W/OWNER
- ㊺ 3/4" HW, 1/2" CW UP TO WC-4 & WC-5
- ㊻ 1/2" HW, 2" CW UP IN CHASE WITH VALVES, 2" WASTE & VENT WITH FLOOD FOR FUTURE FUME HOOD INSTALLATION. VERIFY LOCATION W/OWNER
- ㊼ 2" CW, 1/2" HW UP TO WC-3 ABOVE
- ㊽ 2" CW, 1/2" HW UP IN CHASE WITH GATE
- ㊾ 1/2" CW, 1/2" HW UP IN CHASE WITH GATE
- ㊿ NATURAL GAS HORIZONTAL PIPING WILL BE LOCATED IN FUNCTIONING AREA UNLESS OTHERWISE NOTED IN MECH SCHEDULE VENT TO THE BUILDING EXTERIOR



FIRST FLOOR PLAN
 SCALE - 1/8" = 1'-0"

GENERAL NOTES:

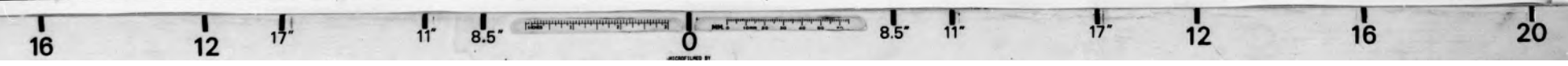
1. MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES
2. SEE SCHEMATICS FOR ADDITIONAL HW & CW PIPE SIZING

DATE: APRIL 1979
 DRAWN BY: MNN
 PROJECT NO: 7938

JOHNSON COUNTY JAIL
 ARCHITECTS: Wehner Newnan and Patachelli

ENGINEER: MOORE-BINGHAM & ASSOCIATES
 PROJECT NO: 12-177

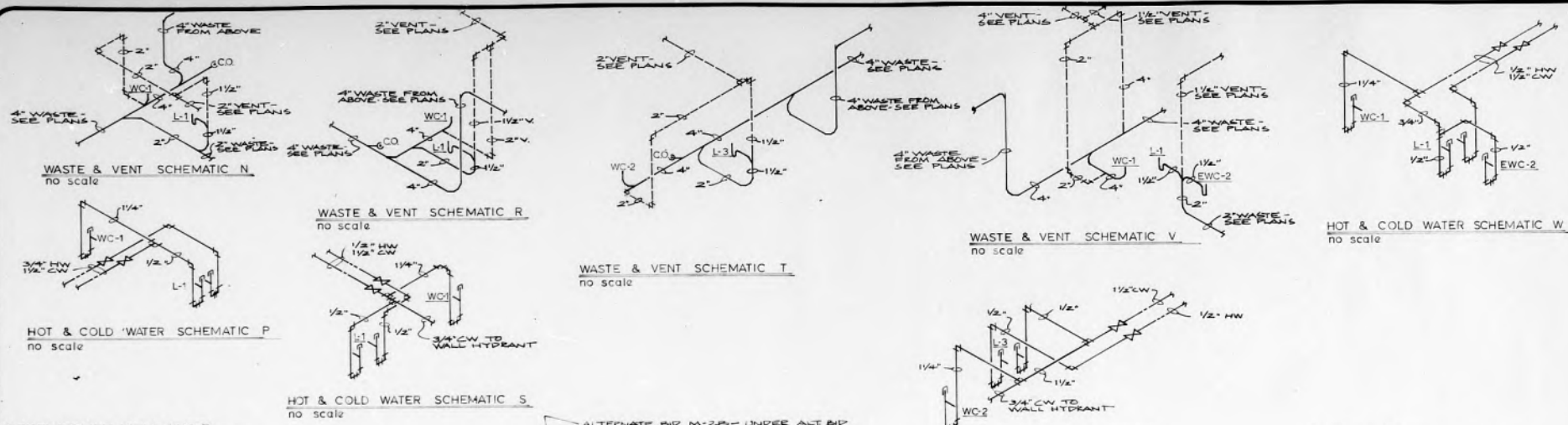
JOHNSON COUNTY JAIL
 ARCHITECTS: Wehner Newnan and Patachelli



DATE: APRIL 1973
 DRAWN BY: MVM
 CHECKED BY: MVM
 JOB NO.: 7838

REVISED

drawing title: **SECOND FLOOR PLAN - PLUMBING**
 project name: **JOHNSON COUNTY JAIL**
 architect: **Wegner Newys and Patschell**
 consultant: **MOORE-BINGHAM & ASSOCIATES**
 25 1/2th STREET
 Des Moines, Iowa 50319
 12477



WASTE & VENT SCHEMATIC N
no scale

WASTE & VENT SCHEMATIC R
no scale

WASTE & VENT SCHEMATIC T
no scale

WASTE & VENT SCHEMATIC V
no scale

HOT & COLD WATER SCHEMATIC U
no scale

HOT & COLD WATER SCHEMATIC W
no scale

HOT & COLD WATER SCHEMATIC S
no scale

HOT & COLD WATER SCHEMATIC P
no scale

ALTERNATE BID M-2A - UNDER ALT BID M-2A NEIGH CONTL TO STUD ALL PLUMBING PIPING THROUGH WALL OR FLOOR TO AREA AND CAP OFF FOR FUTURE EXTENSION. PROVIDE PLUGS IN WASTE & VENT AND SHUTOFF VALVES AT 1/2" CW LINES. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.

ALTERNATE BID M-2B - UNDER ALT BID M-2B NEIGH CONTL TO STUD ALL PLUMBING PIPING THROUGH WALL OR FLOOR TO AREA AND CAP OFF FOR FUTURE EXTENSION. PROVIDE PLUGS IN WASTE & VENT AND SHUTOFF VALVES AT 1/2" CW LINES. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.

SEE DETAIL SHEET M-11 FOR PIPING IN CHASE (TYPICAL 7 LOCATIONS) AND SHEET M-1 FOR WATER PIPING.

SEE SCHEMATICS D & E SHEET M-11 FOR PIPING THIS AREA.

CLEANOUT WITH TAMPER PROOF PLUG.

SEE SHEET M-9 FOR ENLARGED KITCHEN AREA PLAN.

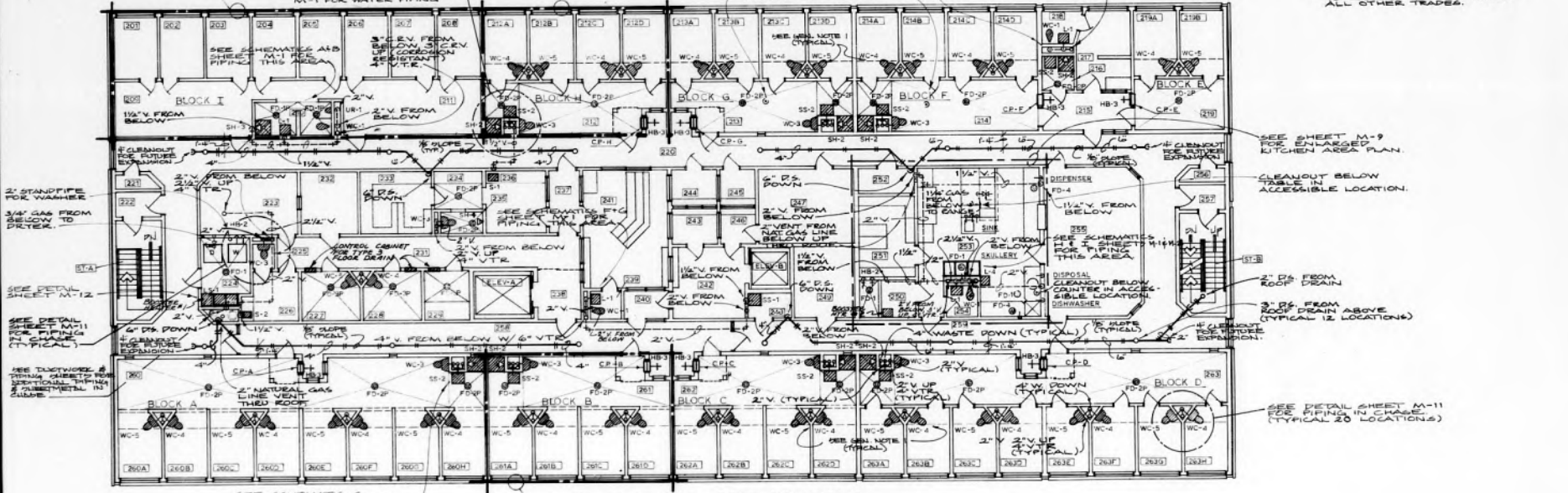
CLEANOUT BELOW TABLE IN ACCESSIBLE LOCATION.

2" DS FROM ROOF DRAIN

3" DS FROM ROOF DRAIN ABOVE (TYPICAL 12 LOCATIONS)

SEE DETAIL SHEET M-11 FOR PIPING IN CHASE (TYPICAL 20 LOCATIONS)

- GENERAL NOTES
1. NEIGH CONTL TO SEE PLUMBING EXTENSION SHEET M-12 FOR EXACT LOCATION OF COMBUSTION LAV & WHITE CLOSET FIXTURES AND SHEET.
 2. MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES.



SEE DETAIL SHEET M-11 FOR PIPING IN CHASE (TYPICAL 20 LOCATIONS)

ALTERNATE BID M-2C - UNDER ALT BID M-2C NEIGH CONTL TO STUD ALL PLUMBING PIPING THROUGH WALL OR FLOOR TO AREA AND CAP OFF FOR FUTURE EXTENSION. PROVIDE PLUGS IN WASTE & VENT AND SHUTOFF VALVES AT 1/2" CW LINES. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.

SEE SCHEMATIC C SHEET M-11 FOR WATER PIPING THIS AREA (TYPICAL 7 LOCATIONS)

SEE SHEET M-9 FOR ENLARGED KITCHEN AREA PLAN.

CLEANOUT BELOW TABLE IN ACCESSIBLE LOCATION.

2" DS FROM ROOF DRAIN

3" DS FROM ROOF DRAIN ABOVE (TYPICAL 12 LOCATIONS)

SEE DETAIL SHEET M-11 FOR PIPING IN CHASE (TYPICAL 20 LOCATIONS)

SEE SCHEMATICS D & E SHEET M-11 FOR PIPING THIS AREA.

SEE SHEET M-9 FOR ENLARGED KITCHEN AREA PLAN.

CLEANOUT BELOW TABLE IN ACCESSIBLE LOCATION.

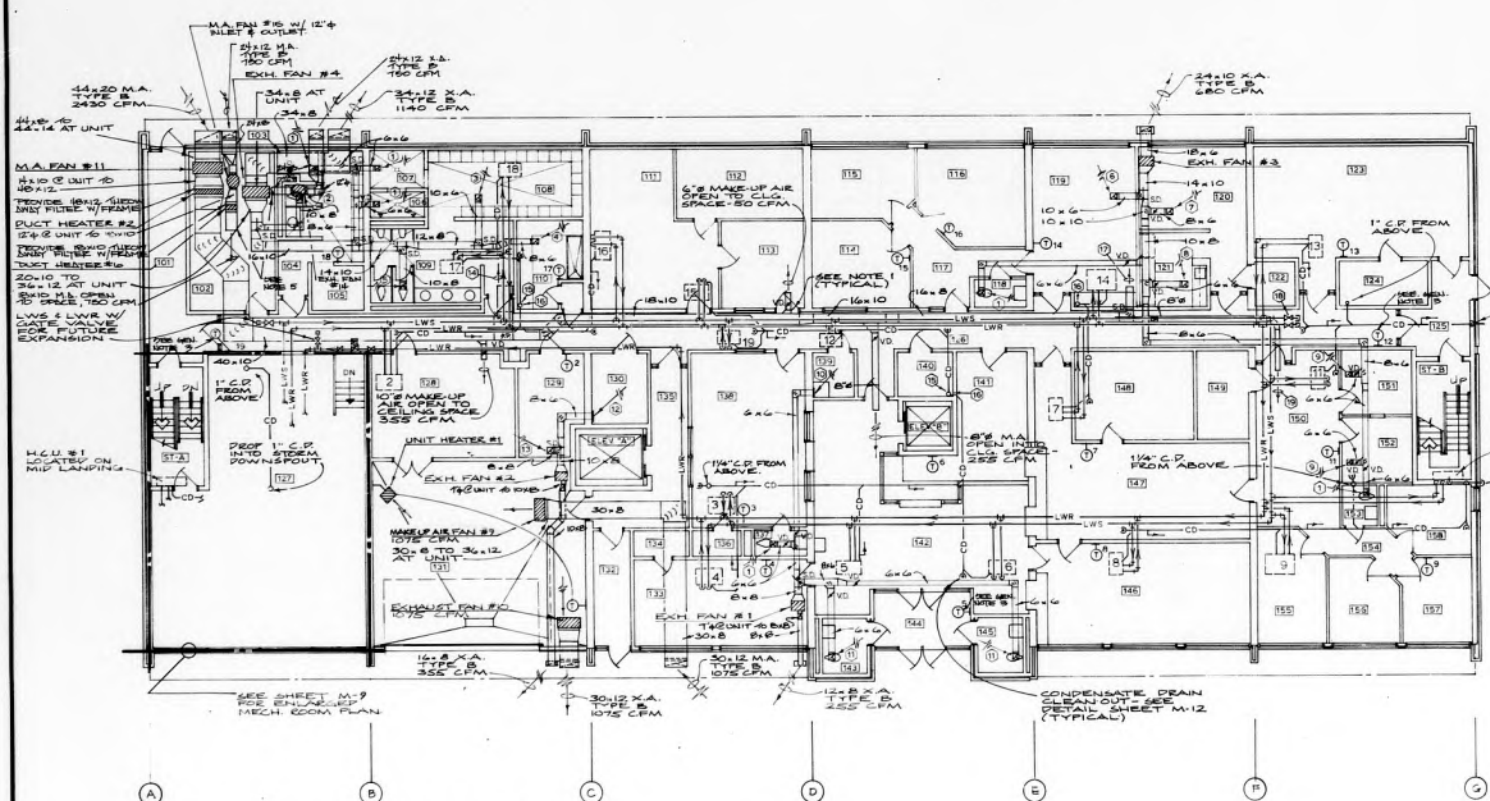
2" DS FROM ROOF DRAIN

3" DS FROM ROOF DRAIN ABOVE (TYPICAL 12 LOCATIONS)

SEE DETAIL SHEET M-11 FOR PIPING IN CHASE (TYPICAL 20 LOCATIONS)

SECOND FLOOR PLAN
 SCALE - 1/8" = 1'-0"





GENERAL NOTES:

- MECH CONTR TO PROVIDE IDENTIFIED SPIN-IN FITTING ASSEMBLY ON ALL ROUND CONNECTIONS TO MAIN DUCT RUN.
- MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES.
- MECH CONTR TO PROVIDE LOCKED COVER PLATE ON SUBMITTAL.
- KEEP ALL EXHAUST AND MAKE-UP AIR DUCTWORK AS HIGH AS POSSIBLE.
- MECH CONTR TO PROVIDE 12" X 4" DUCT FOR FUTURE FUME HOOD INSTALLATION. VERIFY HOOD LOCATION WITH OWNER. PROVIDE MAKE-UP AIR DUCT & FAN IN DUCT HEATER BY EXHAUST FAN #1 & FAN #2 TO BE UNBLOCKED W/ FUME HOOD OPERATION.
- SEE LOOP WATER PIPING SCHEMATIC SHEET M-10 FOR PIPE SIZING & VALVE LOCATION.

SPECIFIC NOTES:

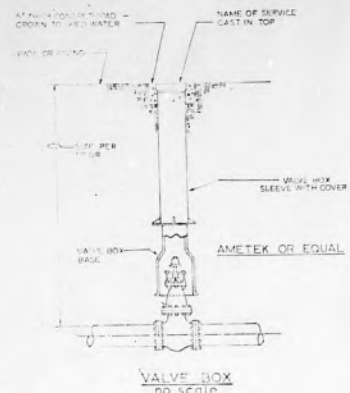
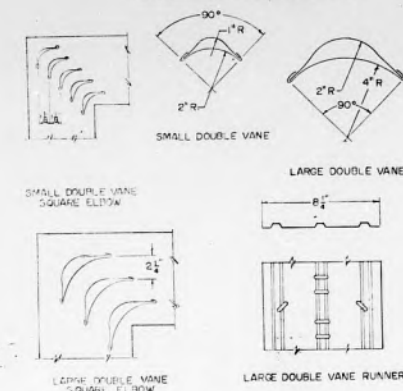
NOTE	SIZE	TYPE	CFM	REMARKS
1	6" x 6"	A	50	EXHAUST AIR
2	10" x 10"	A	275	
3	10" x 10"	A	250	
4	8" x 8"	A	145	
5	10" x 10"	A	320	
6	10" x 10"	A	220	
7	8" x 8"	A	160	
8	6" x 6"	A	80	
9	6" x 6"	A	50	
10	6" x 6"	Z	50	
11	6" x 6"	A	75	
12	8" x 8"	A	145	
13	8" x 8"	A	215	EXHAUST AIR
14	24" x 10"	A	1140	MAKE-UP AIR
15	36" x 12"	A	460	MAKE-UP AIR
16	30" x 12"	A	355	MAKE-UP AIR
17	12" x 8"	A	170	MAKE-UP AIR

FIRST FLOOR PLAN

SCALE - 1/8" = 1'-0"

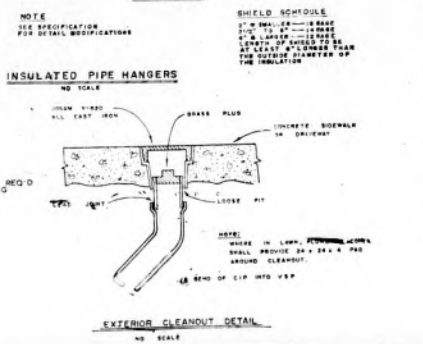
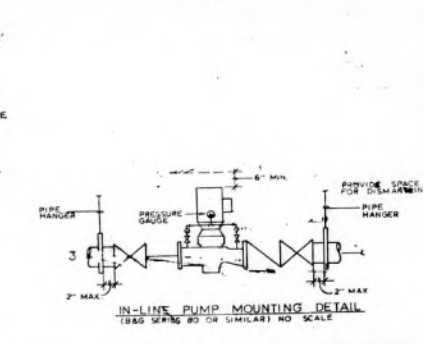
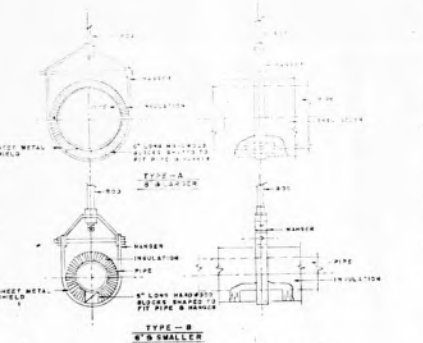
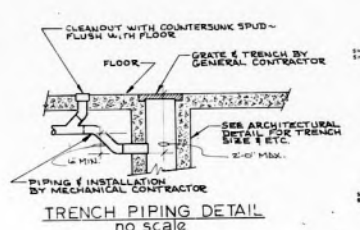
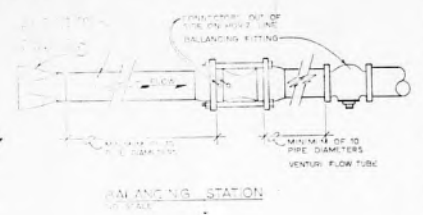
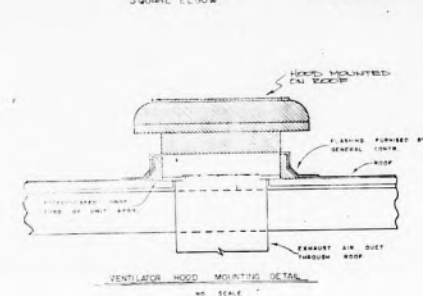
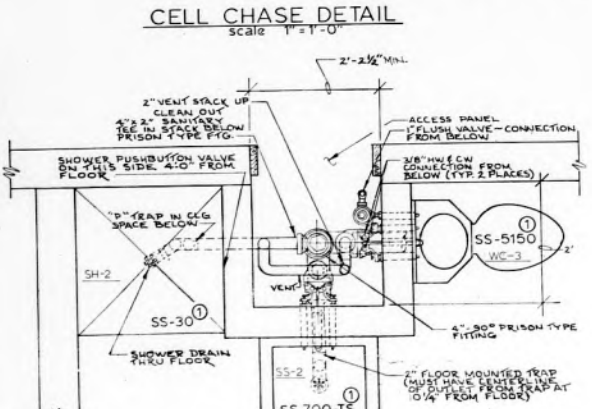
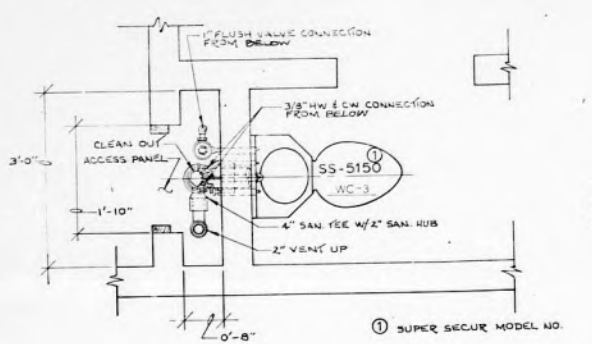
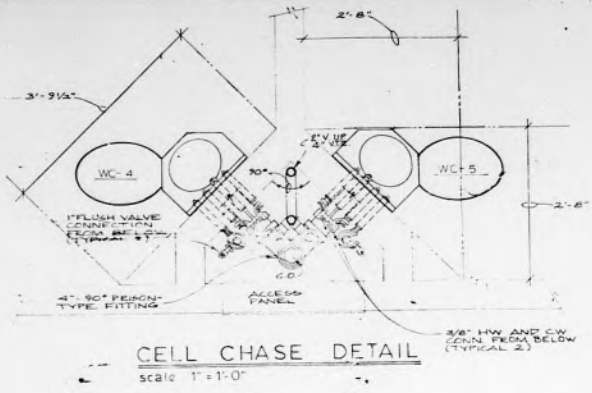


VANED ELBOW DETAILS



PLUMBING & HEATING SYMBOLS
(REFER TO STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT BE USED ON PLANS)

PIPE ANCHOR	PIPE EXPANSION JOINT
DOUBLE EXPANSION JOINT	PIPELINE X-RAINER
GATE VALVE	ANGLE GLOBE VALVE
GLOBE VALVE	BALL VALVE
BUTTERFLY VALVE	CHECK VALVE WITH DIRECTION OF FLOW ARROW
TWO-WAY CONTROL VALVE, E.E. ELECTRICAL, AIR/A OPERATED	THREE-WAY CONTROL VALVE, E.E. ELECTRICAL, AIR/A OPERATED
PRESSURE REDUCING VALVE	R-RELIEF; S- SAFETY VALVE
BACKWATER PREVENTER VALVE WITH DIRECTION OF FLOW ARROW	PRESSURE GAUGE & COCK
AIR VENT	THERMOMETER IN PIPE LINE
STEAM TRAP, F.F. FLOAT, T.T. THERMOSTATIC, T.T. THERMOSTATIC	STEAM DRIP ASSEMBLY - SEE DETAIL
CONCENTRIC REDUCER	ECCENTRIC REDUCER
UNION	TEE'S PLUS - PRESSURE & TEMPERATURE TEST STATION
ELBOW, TURNED UP	ELBOW, TURNED DOWN
ELBOW, 90°	TEE, OUTLET DOWN
TEE, OUTLET UP	SHOWER HEAD
THERMOSTAT	WATER TEST
FLOOR DRAIN	ROOF DRAIN
WALL HYDRANT	HOSE BIBB



PLUMBING SYMBOLS

EXHAUST DUCT - ELBOW UP	EXHAUST DUCT - ELBOW DOWN
RETURN DUCT - ELBOW UP	RETURN DUCT - ELBOW DOWN
SUPPLY DUCT OR DISCHARGE ELBOW DOWN	EXHAUST AIR REGISTER IN BOTTOM OF DUCT
TRANSITION PIECE	RADIUS ELBOW
EXHAUST AIR REGISTER IN BOTTOM OF DUCT	EXHAUST AIR REGISTER IN BOTTOM OF DUCT

NOTES:
THIS IS A STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT BE USED ON PLANS.

PROJECT NO. **M-11 of 13**
DATE: APRIL 1979
DESIGNED BY: [Name]
DRAWN BY: [Name]
CHECKED BY: [Name]

CONSULTING ENGINEER
MECHANICAL - DETAILS & SCHEDULES
12477 W. 124TH AVENUE, DENVER, CO. 80231

JOHNSON COUNTY JAIL
Architects
Weber Meyers and Patischall

BOILER SCHEDULE																		
ITEM	TYPE	MAKE	MODEL NO.	HP	EFF.	WATER	STEAM	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	3000	WATCO	3000-1000	1000	85%	150	250	150	250	150	250	150	250	150	250	150	250	150

ELECTRIC UNIT HEATERS																		
ITEM	MAKE	MODEL NO.	WATT	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	BEACH	#20-208	20	1/2	120	120	120	120	120	120	120	120	120	120	120	120	120	120

COOLING TOWER SCHEDULE																		
ITEM	MAKE	MODEL NO.	WATT	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	BEACH	#20-208	20	1/2	120	120	120	120	120	120	120	120	120	120	120	120	120	120

MAKE-UP AIR AND EXHAUST FAN SCHEDULE																	
ITEM	LOCATION	CFM	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	101	250	1/2	120	120	120	120	120	120	120	120	120	120	120	120	120	120

NOTE: 1. EXHAUST FANS TO BE PROVIDED WITH BACKFLOW PREVENTERS AND APPROVED TO SERVICE FAN ELECTRICAL CONNECTIONS.
2. MAKE UP AIR TO PROVIDE FAN DRIVE CONTROL. MAKEUP AIR TO BE PROVIDED WITH ELECTRICAL CONNECTIONS.

PUMP SCHEDULE																
ITEM	MAKE	MODEL NO.	WATT	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	BEACH	#20-208	20	1/2	120	120	120	120	120	120	120	120	120	120	120	120

NOTE: 1. FLOOR OVERHEAD PUMP SET TO 150 PSI DISCHARGE PRESSURE SET COMPLETE WITH INTERCONNECTING PIPING SHUTOFF VALVES ON SUCTION AND DISCHARGE LINES DISCHARGE CHECK VALVES, FLOW DIRECTION VALVES PRESSURE GAUGES AND STRAINERS, ALSO PROVIDE CONTROL EQUIPMENT W/ DETAILED WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS AND OTHER OBTAINABLE. 2" & 2.5" P.D. BY GEN. CONTR.
2. DISCHARGE ALSO APPROVED MANUFACTURERS.

VIBRATION ISOLATION SCHEDULE														
EQUIPMENT CATEGORY	ISOLATOR TYPE	RECOMMENDED MIN. DEFLECTION	MANUFACTURER & MODEL NO.											
COILING TOWER	SPRING RANGED	10	BEACH #20-208											
AIR UNIT	SPRING RANGED	10	BEACH #20-208											
FAN	SPRING RANGED	10	BEACH #20-208											

ELECTRIC DUCT HEATER SCHEDULE																
ITEM	MAKE	MODEL NO.	WATT	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	BEACH	#20-208	20	1/2	120	120	120	120	120	120	120	120	120	120	120	

NOTE: 1. TESTED AND APPROVED BY MANUFACTURER. 2. MAKEUP AIR TO PROVIDE FAN DRIVE CONTROL. MAKEUP AIR TO BE PROVIDED WITH ELECTRICAL CONNECTIONS.

FIXTURE SCHEDULE GUIDE														
SYM	DESCRIPTION	HOT	COLD	WASTE	VENT									
WC-1	WATER CLOSET (FLUSH VALVE)	1/2"	1/2"	4"	2"									
WC-2	WATER CLOSET (FLUSH VALVE)	1/2"	1/2"	4"	2"									
WC-3	WATER CLOSET (FLUSH VALVE)	1/2"	1/2"	4"	2"									
WC-4	WATER CLOSET W/ LAV (SECURITY)	1/2"	1/2"	4"	2"									
WC-5	WATER CLOSET W/ LAV (SECURITY)	1/2"	1/2"	4"	2"									
UR-1	URINAL	1"	2"	2"	2"									
L-1	LAVATORY	1/2"	1/2"	1/2"	1/2"									
L-2	LAVATORY	1/2"	1/2"	1/2"	1/2"									
L-3	LAVATORY	1/2"	1/2"	1/2"	1/2"									
L-4	LAVATORY (KITCHEN)	1/2"	1/2"	1/2"	1/2"									
SS-1	SERVICE SINK	3/4"	3/4"	3"	1/2"									
SS-2	SERVICE SINK (SECURITY)	3/4"	3/4"	3"	1/2"									
LS-1	LAUNDRY SINK	3/4"	3/4"	2"	2"									
S-1	SINK	1/2"	1/2"	1/2"	1/2"									
S-2	SINK	1/2"	1/2"	1/2"	1/2"									
S-3	SINK (DARK ROOM)	3/4"	3/4"	2"	2"									
SH-1	SHOWER	3/4"	3/4"	SEE PLANS	---									
SH-2	SHOWER (SECURITY)	3/4"	3/4"	2"	2"									
SH-3	SHOWER	3/4"	3/4"	3"	1 1/2"									
SH-4	SHOWER (SECURITY)	3/4"	3/4"	SEE PLANS	---									
FD-1	FLOOR DRAIN	---	---	---	---									
FD-2	FLOOR DRAIN (SECURITY)	---	---	---	---									
FD-3	FLOOR DRAIN (FLUSH TYPE)	1/2"	1/2"	3"	1 1/2"									
FD-4	FUNNEL FLOOR DRAIN	---	---	---	---									
HB-1	HOSE BIBB	3/4"	3/4"	---	---									
HB-2	HOSE BIBB	3/4"	3/4"	---	---									
HB-3	HOSE BIBB	3/4"	3/4"	---	---									
WH-1	WALL HYDRANT	---	---	---	---									
RD-1	ROOF DRAIN	---	---	---	---									
EW-1	ELECTRIC WATER COOLER	---	---	---	---									
EW-2	ELECTRIC WATER COOLER (HANDLABLE)	---	---	---	---									
LAUNDRY					---									
DRYER	22,000 BTU	3/4"	3/4"	---	---									
WASHER	---	3/4"	3/4"	---	---									
KITCHEN					---									
SCULLERY SINK (2 FAUCET)	---	3/4"	3/4"	2"	2"									
DISPOSAL W/ SPRAY	---	---	---	2"	2"									
DISHWASHER	---	3/4"	---	2"	2"									
BOOSTER HEATER (HOT TO HOT)	---	---	---	2 1/2"	---									
SINK AT WORK TABLE	---	3/4"	3/4"	2"	2"									
RANGE 1700,000 BTU	---	1 1/4"	---	---	---									
BEVERAGE DISPENSER	---	1/2"	---	---	---									

REGISTER, GRILLE, & DIFFUSER SCHEDULE														
TYPE	MANUFACTURER & NO.	FINISH	CONTROL	DAMPER	FLOW	DEFLECTION	MOUNTING	REMARKS						
A	CARNES #235	ALUM. STEEL	OFF BLADE	---	---	---	LAY-IN	NOTE 1						
B	CARNES #235	ALUM. STEEL	---	---	---	---	LAY-IN	---						
C	SECURITY GEL BY PETITION CONTR.	STD	WHERE NOTED	---	---	---	---	---						
D	SECURITY GEL BY PETITION CONTR.	STD	WHERE NOTED	---	---	---	---	---						
E	SECURITY GEL BY PETITION CONTR.	STD	WHERE NOTED	---	---	---	---	---						
F	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	---	---						
G	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	---	---						
H	NOT USED	---	---	---	---	---	---	---						
I	NOT USED	---	---	---	---	---	---	---						
J	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
K	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
L	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
M	NOT USED	---	---	---	---	---	---	---						
N	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
P	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
R	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
S	NOT USED	---	---	---	---	---	---	---						
T	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	LAY-IN	---						
U	NOT USED	---	---	---	---	---	---	---						
X	CARNES SPA 24T 12 OS	MATTE WHITE	OFF BLADE	---	---	---	---	---						
Y	CARNES #2008	MATTE WHITE	OFF BLADE	---	---	---	---	---						
Z	CARNES #2008	MATTE WHITE	OFF BLADE	---	---	---	---	---						

NOTE: 1. MECHANICAL CONTRACTOR TO INSTALL ALL 'REG. GRATE' RETURN AIR REGISTER IN CEILING OF 2'-2" ACoustical CEILING GRID SYSTEM.
2. 'PREFERRED' NOTED ON PLANS WITH P.D. TO HAVE FIRE DAMPERS LOCATED IN BOUNDED DUCT BEFORE INSTALLATION.
3. 'P.D.' ENTER & EXHAUST REGISTER COLUMN WITH AIR, WINDMOUNT PRESSURE, MATTE ALSO APPROVED MANUFACTURERS.

MAKEUP AIR UNIT SCHEDULE															
ITEM	LOCATION	CFM	HP	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.	WATER	TEMP.
#1	101	250	1/2	120	120	120	120	120	120	120	120	120	120	120	

NOTE: 1. MAKEUP AIR UNITS #1, 4, 5 TO BE WEATHERPROOF & FITTED FOR OUTDOOR INSTALLATION.
2. MAKEUP AIR UNITS #2, 3, 6 TO BE WEATHERPROOF & FITTED FOR OUTDOOR INSTALLATION.
3. MAKEUP AIR UNITS #7, 8 TO BE WEATHERPROOF & FITTED FOR OUTDOOR INSTALLATION.

HEATING - COOLING UNIT SCHEDULE																									
NO	TYPE	CFM	EXT. S. W.G.	FAN HP	VOL. KW UNIT	HEATING					COOLING					MANUFACTURER & MODEL NO.									
						MBH	EAT °F	LAT °F	GPM	PD FT	EWT °F	LWT °F	MBH	S/T	EAT °F		LAT °F	GPM	PD FT	EWT °F	LWT °F				
10	A	300	---	0.75	116	208-10	105	72	1052	19	39	61	68	60	95	069	78	65	564	19	39	51	76	90	AMERICAN AIR FILTER - NO. CW09
11	B	580	0.3	0.25	249	---	253	66.6	109.0	3.9	53	11	---	---	19.5	0.68	80.3	61.4	---	3.9	53	11	76	90	HW19
12	C	780	0.3	0.25	352	---	323	---	---	5.2	23	15	---	---	26.0	0.69	85.6	65.8	---	5.2	23	15	76	90	HW26
13	D	880	0.4	0.33	433	208-30	463	---	---	6.6	15	15	---	---	35.0	0.69	---	---	---	6.6	15	15	76	90	HW33
14	E	1100	0.4	0.33	498	---	500	---	---	8.0	21	14	---	---	40.0	0.70	---	---	---	8.0	21	14	76	90	HW40
15	F	1600	0.4	0.50	627	---	628	---	---	10.2	15	26	---	---	51.0	0.70	---	---	---	10.2	15	26	76	90	HW51
16	G	1000	0.3	0.33	433	---	463	---	---	6.6	15	15	---	---	35.0	0.69	---	---	---	6.6	15	15	76	90	HW33

NOTE: 1. UNIT NUMBERS TO 2 & 20 SEE UNIT DATA SHEET IN THIS SPECIFICATION.
2. COILS AND FILTER ELEMENTS PROVIDED AS NOTED.
3. HEATING COILS ON 120 V. COOLING COILS ON 240 V. COILS TO BE PROVIDED BY OTHERS. SHALL NOT BE SUBJECT TO THIS SPECIFICATION.



Revised

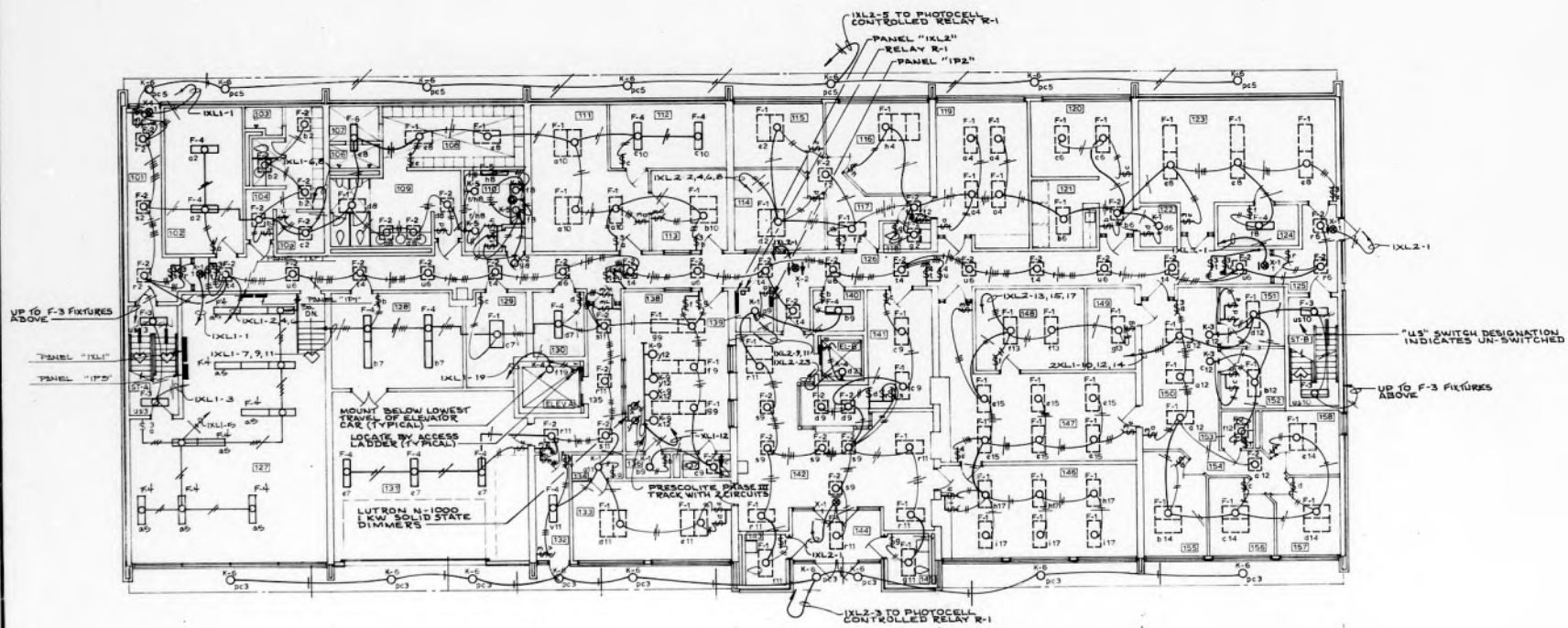
drawing title
FIRST FLOOR PLAN - LIGHTING

PROJECT NAME
JOHNSON COUNTY JAIL

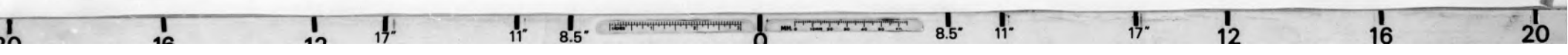
Architects
Wehner Nowys and Pattschell

consultant
 152477 MOORE-INGHAM & ASSOCIATES
 1601 N. W. 10TH AVENUE, SUITE 200
 MIAMI, FLORIDA 33136

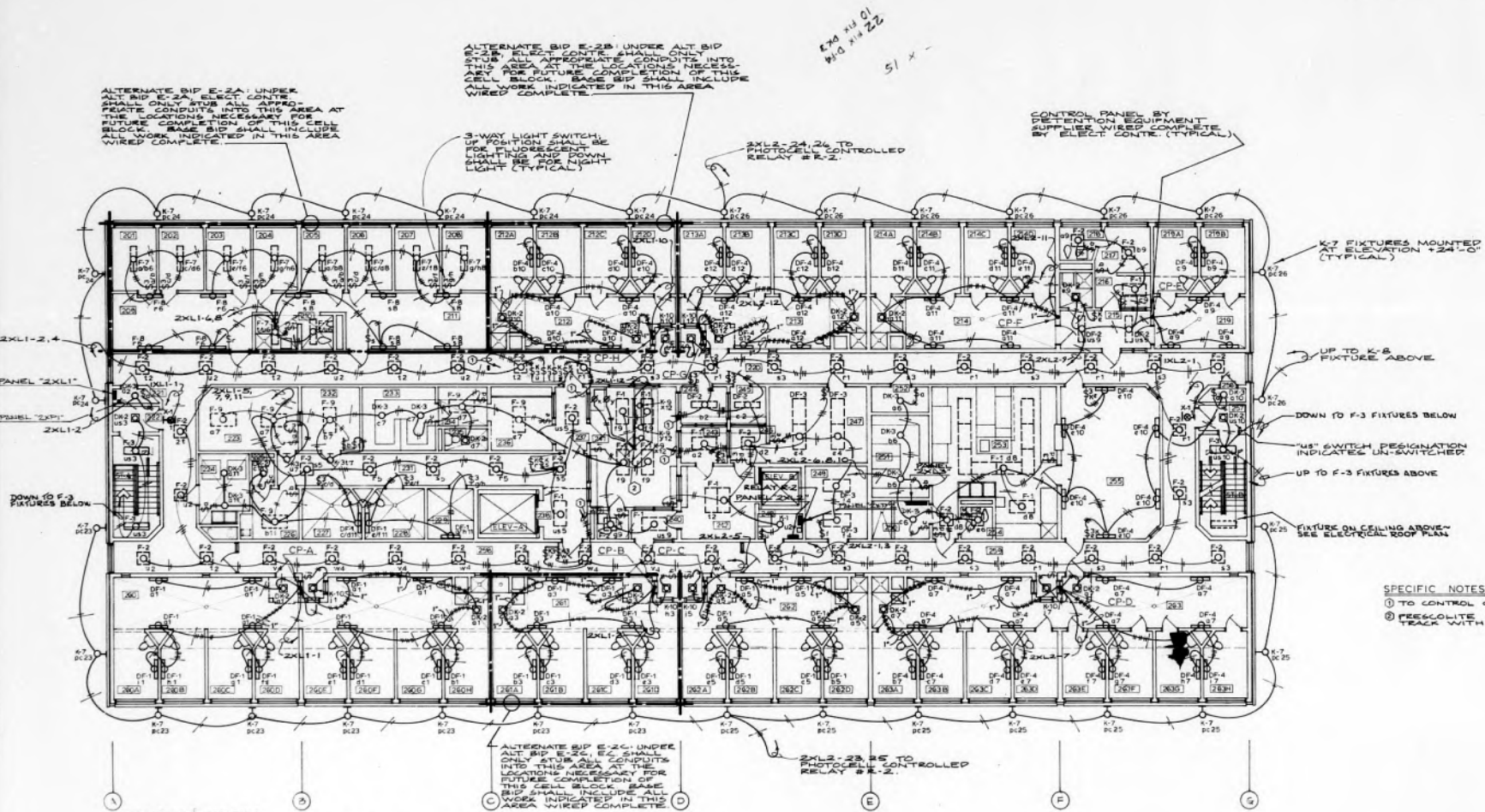
- NOTES:
- REFER TO ARCHITECTURAL SHEET A-7 REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES.
 - VERIFY LOCATION OF LIGHTS IN ROOMS CONTAINING EXPOSED DUCT WORK & PIPING BY MECHANICAL TRADES & RELOCATE IF NECESSARY AS DIRECTED BY ARCHITECT



ELECTRICAL-LIGHTING
FIRST FLOOR PLAN
 SCALE - 1/8" = 1'-0"



- GENERAL NOTES:**
1. REFER TO ARCHITECTURAL SHEET A-7 REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES.
 2. VERIFY LOCATION OF LIGHTS IN ROOMS CONTAINING EXPOSED PIPING AND RIFING BY MECHANICAL TRADES AND RELOCATE IF NECESSARY AS DIRECTED BY ARCHITECT.
 3. REFER TO ELECTRICAL SHEET E-10 FOR DETENTION LIGHTING CONTROL SCHEMATIC AND TO ARCHITECTURAL SHEET A-17 FOR CONTROL PANEL LAYOUT.



EXD 214 01
 W/D 214 22
 51 X

ALTERNATE BID E-2A UNDER ALT BID E-2B. ELECT. CONTR. SHALL ONLY STUB ALL APPRO. FEATS. CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

3-WAY LIGHT SWITCH, UP POSITION SHALL BE FOR FLUORESCENT LIGHTING AND DOWN POSITION SHALL BE FOR NIGHT LIGHT (TYPICAL)

2XL2-24, 26 TO PHOTOCELL CONTROLLED RELAY #K-2.

CONTROL PANEL BY DETENTION EQUIPMENT SUPPLIER WIRED COMPLETE BY ELECT. CONTR. (TYPICAL)

K-7 FIXTURES MOUNTED AT ELEVATION +24'-0" (TYPICAL)

UP TO K-8 FIXTURE ABOVE

DOWN TO F-3 FIXTURES BELOW

"US" SWITCH DESIGNATION INDICATES UN-SWITCHED

UP TO F-3 FIXTURES ABOVE

K-7 FIXTURE ON CEILING ABOVE - SEE ELECTRICAL ROOF PLAN

- SPECIFIC NOTES:**
- 1 TO CONTROL CENTER #1.
 - 2 PRECISELY PHASE III TRACK WITH TWO CIRCUITS.

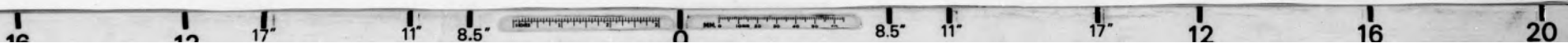
ALTERNATE BID E-2C UNDER ALT BID E-2A. ELECT. CONTR. SHALL ONLY STUB ALL CONDUITS INTO THIS AREA AT THE LOCATIONS NECESSARY FOR FUTURE COMPLETION OF THIS CELL BLOCK. BASE BID SHALL INCLUDE ALL WORK INDICATED IN THIS AREA WIRED COMPLETE.

2XL3-23, 25 TO PHOTOCELL CONTROLLED RELAY #K-2.

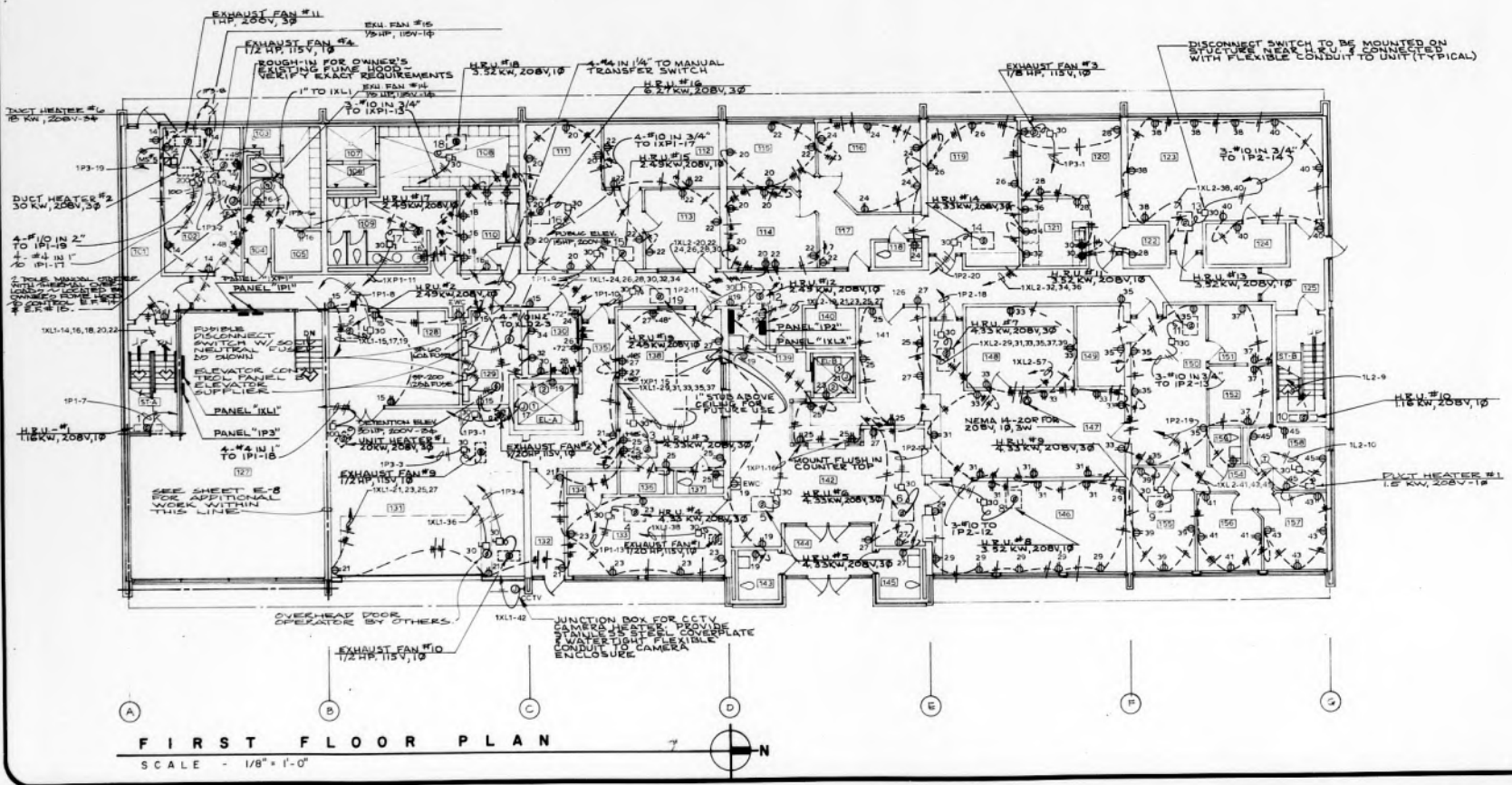
ELECTRICAL - LIGHTING
SECOND FLOOR PLAN
 SCALE - 1/8" = 1'-0"

Drawing title: **SECOND FLOOR PLAN - LIGHTING**
 project name: **JOHNSON COUNTY JAIL**
 consultant: **MOORE-BINGHAM & ASSOCIATES**
 2100 LEXINGTON
 AND 200 20th
 DES MOINES, IOWA 50319
 123177

Architects
Weber Newmyer and Patafchall



- SPECIFIC NOTES:
- LOCATE AT MID-POINT OF SHUNT FOR ELEVATOR LIGHTS.
 - LOCATE BELOW LOWEST POINT OF CAR TRAVEL.



FIRST FLOOR PLAN
 SCALE - 1/8" = 1'-0"





SPECIFIC NOTES:

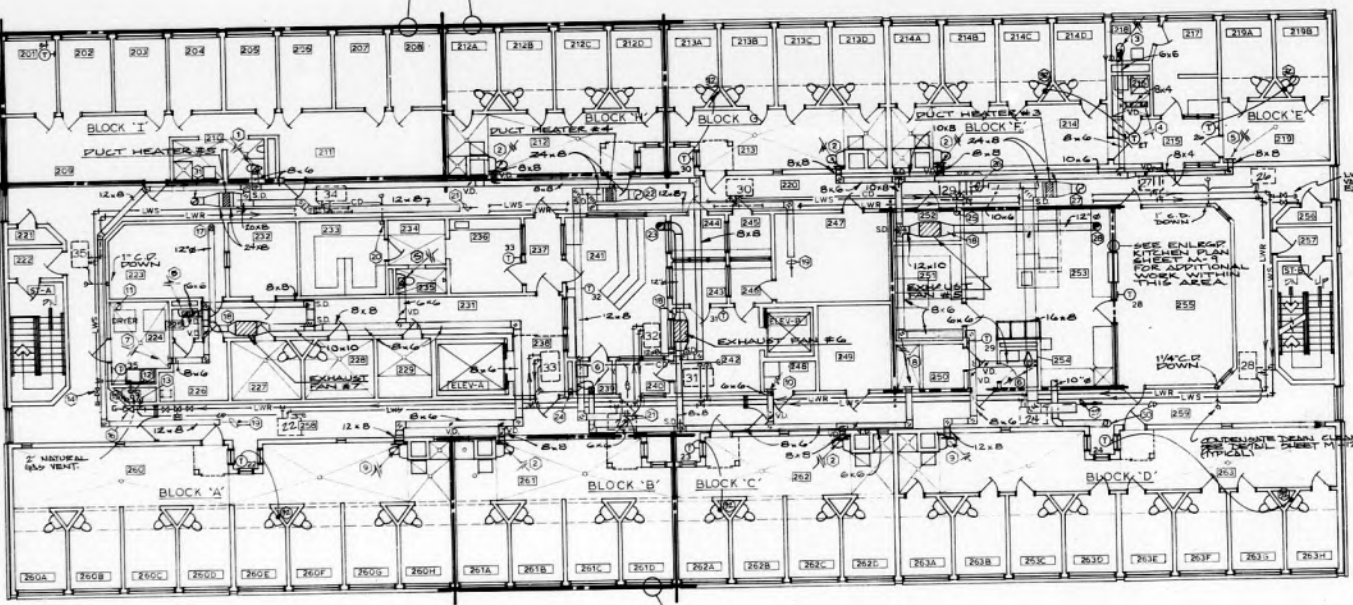
- ① 8" Ø EXHAUST AIR, TYPE A, 160 CFM
- ② DETENTION SECURITY GRILLE
- ③ 6" Ø X.A., TYPE A, 110 CFM
- ④ 8" Ø X.A., TYPE E, 50 CFM
- ⑤ 8" Ø X.A., TYPE E, 50 CFM
- ⑥ 6" Ø X.A., TYPE A, 50 CFM
- ⑦ 12" Ø X.A., TYPE E, 190 CFM
- ⑧ 8" Ø X.A., TYPE E, 75 CFM
- ⑨ DETENTION SECURITY GRILLE
- ⑩ 12" Ø X.A., TYPE E, 120 CFM
- ⑪ DETENTION SECURITY GRILLE
- ⑫ 6" Ø X.A., TYPE Z, 80 CFM
- ⑬ DRYER VENT UP THRU ROOF
- ⑭ LWS AND LWS FROM MECHANICAL ROOM BELOW
- ⑮ LWR DOWN TO MECHANICAL ROOM
- ⑯ LWS WITH GATE VALVE FOR FUTURE EXPANSION
- ⑰ PROP 1" C.P. INTO STORM DOWNSPOUT
- ⑱ LWR WITH GATE VALVE FOR FUTURE EXPANSION
- ⑲ 12" Ø UP THRU ROOF TO HOOP #3
- ⑳ 18" Ø AT UNIT TO 12" Ø
- ㉑ 12" Ø MAKE-UP AIR OPEN TO CLG. SPACE - 420 CFM
- ㉒ PROP 1" C.P. INTO STORM DOWNSPOUT
- ㉓ 12" Ø M.A. OPEN TO CLG. SPACE - 418 CFM
- ㉔ 14" Ø FROM M.A. UNIT #2 ABOVE
- ㉕ 12" Ø UP THRU ROOF TO HOOP #2
- ㉖ 1 1/4" C.P. DOWN
- ㉗ PROP 1 1/4" C.P. INTO STORM DOWNSPOUT
- ㉘ 10" Ø M.A. OPEN TO CLG. SPACE - 285 CFM
- ㉙ 14" Ø FROM M.A. UNIT #1 ABOVE
- ㉚ 12" Ø UP THRU ROOF TO HOOP #1
- ㉛ 16" Ø M.A. OPEN TO CLG. SPACE - 600 CFM
- ㉜ 10" Ø X.A. UP THRU ROOF TO HOOP #4
- ㉝ 14" Ø FROM M.A. UNIT #3 ABOVE
- ㉞ LOCATE SCHEDULE IN MECHANICAL ROOM; SEE DETAIL ON SECURITY EQUIPMENT SHEET A-18 FOR LOCATION.

GENERAL NOTES:

- ① GENERAL CONTRACTOR TO BE RESPONSIBLE FOR INSTALLING SOUND ACCESS PARTIES IN PLASTER CEILING TO YOUNG MENS 253 ROOMS. SEE PLANS FOR THE BEST DESIGN. SEE INSTALLERS.
- ② MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES.
- ③ MECHANICAL CONTRACTOR TO PROVIDE SECURITY BARS IN ALL DUCTS GREATER THAN 8" I.D. OR 8" ROUND BARS SHALL BE LOCATED ON 6" CENTERS (7/8" IN DIAMETER) & BE LOCATED AT ALL WALL PENETRATIONS FROM SECURITY ?
- ④ DETENTION CONF. #6 INSTALL SECURITY COMBES/SHUN TRUCKING (SEE DETAIL) ON ALL MURKINATED NOT WORKING EXITS SERVICES.
- ⑤ SEE LOCK WIRE PIPING SCHEMATIC SHEET M-10 FOR PIPE SIZING & VALVE LOCATIONS.

ALTERNATE BID M-2A - UNDER ALT BID M-2A MECH. CONTR. SHALL STUB ALL DUCTWORK THRU WALL OPEN TO AREA FOR FUTURE ALL EXPANSION. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.

ALTERNATE BID M-2B - UNDER ALT BID M-2B MECH. CONTR. SHALL STUB ALL DUCTWORK THRU WALL OPEN TO AREA FOR FUTURE ALL EXPANSION. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.



ALTERNATE BID M-2C - UNDER ALT BID M-2C MECH. CONTR. SHALL STUB ALL DUCTWORK THRU WALL OPEN TO AREA FOR FUTURE ALL EXPANSION. BASE BID SHALL INCLUDE ALL WORK IN THIS AREA INSTALLED COMPLETELY.

SECOND FLOOR PLAN
 SCALE - 1/8" = 1'-0"

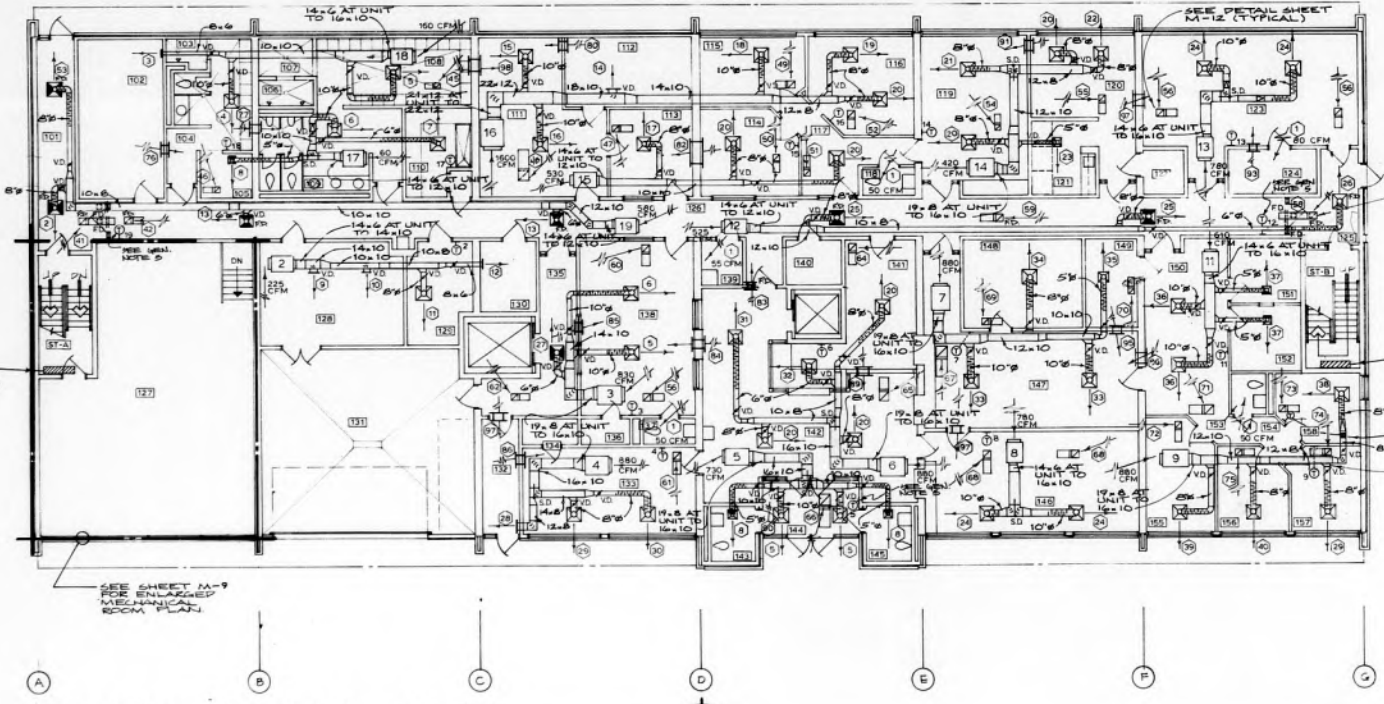


SPECIFIC NOTES:

- | | | | | | |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| 1 GENERAL CONTRACTOR TO VERIFY ALL DOOR MINIMUM AIR FLOW AND RETURN AIR MAKE-UP CFM AS NOTED | 18 24" x 24" SA DIFF TYPE K, 335 CFM | 36 12" x 12" SA DIFF TYPE F, 60 CFM | 54 12" x 12" RA REG. TYPE A, 350 CFM | 72 10" x 10" RA REG. TYPE A, 210 CFM | 90 NOT USED |
| 2 24" x 24" SA DIFF TYPE K, 180 CFM | 19 24" x 24" SA DIFF TYPE N, 210 CFM | 37 24" x 24" SA DIFF TYPE N, 145 CFM | 55 NOT USED | 73 8" x 6" TRANSFER DUCT 130 CFM | 91 6" x 6" TRANSFER DUCT 80 CFM |
| 3 8" x 6" SA REGISTER TYPE Y, 130 CFM | 20 24" x 24" SA DIFF TYPE N, 200 CFM | 38 24" x 24" SA DIFF TYPE N, 265 CFM | 56 8" x 6" RA REG. TYPE A, 140 CFM | 74 10" x 6" TRANSFER DUCT 165 CFM | 92 NOT USED |
| 4 24" x 24" SA DIFF TYPE N, 285 CFM | 21 24" x 24" SA DIFF TYPE N, 195 CFM | 39 24" x 24" SA DIFF TYPE N, 210 CFM | 57 12" x 12" RA REG. TYPE A, 385 CFM | 75 NOT USED | 93 6" x 6" TRANSFER DUCT 20 CFM |
| 5 24" x 24" SA DIFF TYPE K, 365 CFM | 22 12" x 12" SA DIFF TYPE A, 80 CFM | 40 12" x 12" RA REG. TYPE A, 380 CFM | 58 12" x 12" RA REG. TYPE A, 325 CFM | 76 NOT USED | 94 10" x 6" TRANSFER DUCT |
| 6 24" x 24" SA DIFF TYPE K, 305 CFM | 23 24" x 24" SA DIFF TYPE K, 310 CFM | 41 8" x 6" RA REG. TYPE A, 200 CFM | 59 12" x 12" RA REG. TYPE A, 485 CFM | 77 NOT USED | 95 6" x 6" TRANSFER DUCT 180 CFM |
| 7 24" x 24" SA DIFF TYPE K, 145 CFM | 24 24" x 24" SA DIFF TYPE K, 230 CFM | 42 NOT USED | 60 8" x 6" RA REG. TYPE A, 155 CFM | 78 NOT USED | 96 NOT USED |
| 8 12" x 12" SA DIFF TYPE F, 75 CFM | 25 24" x 24" SA DIFF TYPE N, 140 CFM | 43 NOT USED | 61 12" x 12" RA REG. TYPE A, 55 CFM | 79 NOT USED | 97 6" x 6" TRANSFER DUCT 20 CFM |
| 9 8" x 6" SA REGISTER TYPE Y, 115 CFM | 26 24" x 24" SA DIFF TYPE N, 205 CFM | 44 6" x 6" RA REG. TYPE A, 35 CFM | 62 12" x 12" RA REG. TYPE A, 180 CFM | 80 20" x 12" TRANSFER DUCT 1075 CFM | 98 6" x 6" TRANSFER GRILLES SEE DETAIL SHEET M-12 |
| 10 8" x 6" SA REGISTER TYPE Y, 110 CFM | 27 24" x 24" SA DIFF TYPE N, 155 CFM | 45 8" x 6" RA REG. TYPE A, 180 CFM | 63 10" x 10" RA REG. TYPE A, 330 CFM | 81 6" x 6" TRANSFER DUCT 80 CFM | 99 8" x 6" TRANSFER DUCT 150 CFM |
| 11 24" x 24" SA DIFF TYPE N, 215 CFM | 28 24" x 24" SA DIFF TYPE N, 240 CFM | 46 16" x 16" RA REG. TYPE A, 675 CFM | 64 16" x 16" RA REG. TYPE A, 950 CFM | 100 14" x 10" TRANSFER DUCT 395 CFM | 101 NOT USED |
| 12 8" x 6" SA REG. TYPE Y, 140 CFM | 29 24" x 24" SA DIFF TYPE N, 240 CFM | 47 12" x 12" RA REG. TYPE A, 555 CFM | 65 8" x 6" RA REG. TYPE A, 950 CFM | 102 NOT USED | 102 NOT USED |
| 13 24" x 24" SA DIFF TYPE Y, 150 CFM | 30 24" x 24" SA DIFF TYPE N, 150 CFM | 48 8" x 6" RA REG. TYPE A, 550 CFM | 66 8" x 6" RA REG. TYPE A, 150 CFM | 103 14" x 8" TRANSFER DUCT 330 CFM | 103 24" x 10" TRANSFER DUCT 730 CFM |
| 14 8" x 6" SA REG. TYPE Y, 180 CFM | 31 24" x 24" SA DIFF TYPE N, 335 CFM | 49 8" x 6" RA REG. TYPE A, 150 CFM | 67 12" x 12" RA REG. TYPE A, 60 CFM | 104 10" x 10" TRANSFER DUCT 235 CFM | |
| 15 24" x 24" SA DIFF TYPE K, 300 CFM | 32 24" x 24" SA DIFF TYPE N, 315 CFM | 50 12" x 12" RA REG. TYPE A, 170 CFM | 68 14" x 14" RA REG. TYPE A, 550 CFM | | |
| 16 24" x 24" SA DIFF TYPE N, 180 CFM | 33 24" x 24" SA DIFF TYPE K, 375 CFM | 51 10" x 10" RA REG. TYPE A, 265 CFM | 69 10" x 10" RA REG. TYPE A, 165 CFM | | |
| 17 24" x 24" SA DIFF TYPE N, 180 CFM | 34 24" x 24" SA DIFF TYPE K, 330 CFM | 52 10" x 10" RA REG. TYPE A, 235 CFM | 70 10" x 10" RA REG. TYPE A, 240 CFM | | |

GENERAL NOTES:

- MECHANICAL CONTRACTOR TO PROVIDE GENEXLX SPFIN FITTING & 2" x 2" PFL ON ALL ROUND CONNECTIONS TO MAIN DUCT RUN.
- MAXIMUM LENGTH OF FLEXIBLE DUCT TO DIFFUSERS SHALL NOT EXCEED 12'-0" AND SHALL BE INSTALLED FREE OF KINKS.
- RETURN AIR QUANTITIES SHOWN TO UNITS DOES NOT INCLUDE MAKE-UP AIR FROM CEILING SPACE.
- MECH CONTRACTOR TO COORDINATE NOCK WITH ALL CURB, TRAYS.
- MECH CONTRACTOR TO PROVIDE LOCKED COVER PLATE ON AIR-SIDE OF UNIT.
- SEE SHEET M-8 FOR UNIT PUMP INSTALLATION DETAIL.



FIRST FLOOR PLAN
 SCALE - 1/8" = 1'-0"

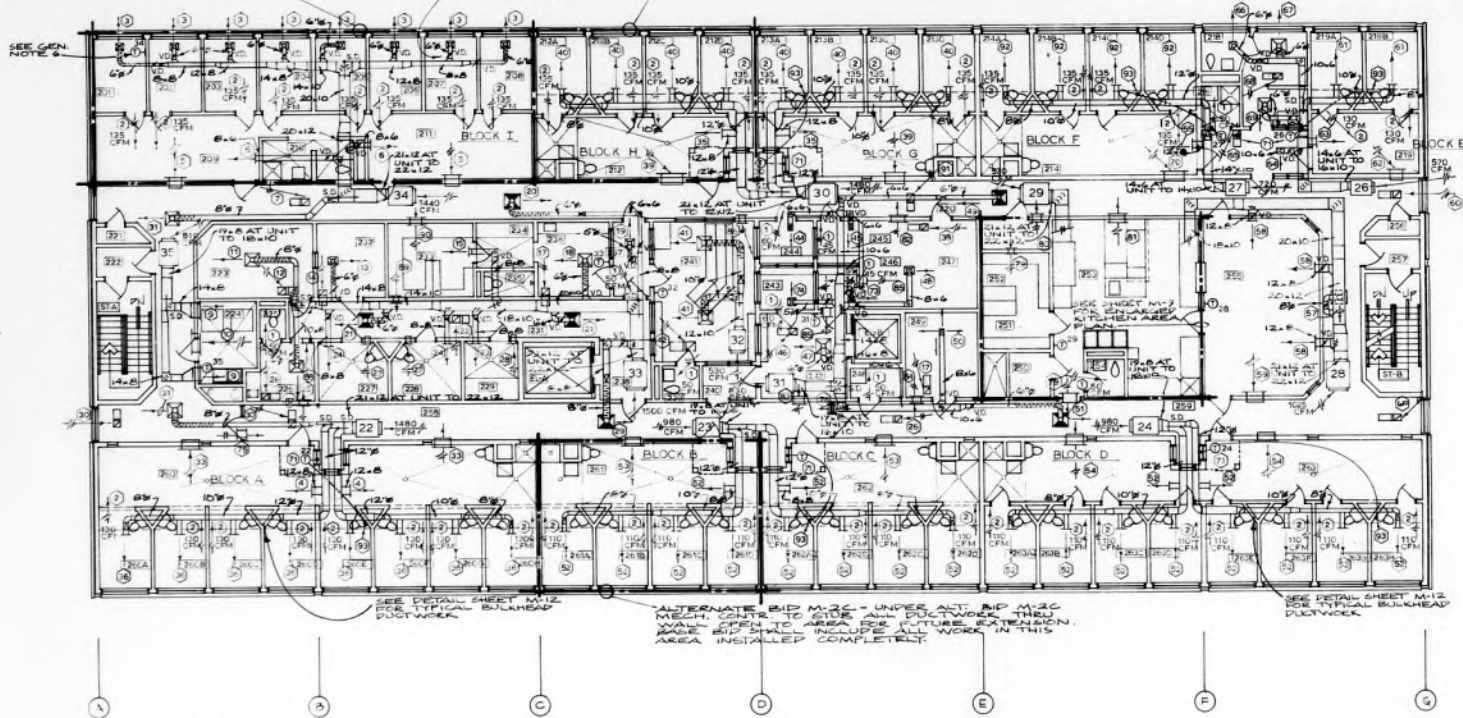
SPECIFIC NOTES:

- | | | | | | | | | | |
|--|----------------------------|----------------------------|---------------------------|----------------------------|----------------------------|---|--|---|--|
| 1 GENERAL CONTR. TO UNDERCUT DOOR A MINIMUM OF 3/4" CFM AS SHOWN FOR EXHAUST AND RETURN MAKE-UP. | 11 24-24 SA TYPE A 140 CFM | 21 8-8 SA TYPE C 90 CFM | 31 12-8 SA TYPE D 260 CFM | 41 24-24 SA TYPE C 140 CFM | 51 24-12 SA TYPE C 175 CFM | 61 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 400 CFM | 71 MECH CONTR. TO INSTALL TRANSITS AS SHOWN IN THESE DESIGNATED AREAS. CONTRACTOR TO BE LOCATED TO AS LOCATED TO AS SHOWN. | 81 6-6 TRANSFER GRILLES SEE DETAIL SHEET M-12 130 CFM | 91 LOCATE SENSOR IN MICROPHONE BOX - SEE DETAIL ON SECURITY EQUIPMENT SHEET A-16 FOR LOCATION. |
| 2 GENERAL CONTR. TO UNDERCUT DOOR A MINIMUM OF 1/2" FOR EXHAUST AND RETURN MAKE-UP CFM AS NOTED. | 12 12-12 SA TYPE C 120 CFM | 22 8-8 SA TYPE C 90 CFM | 32 8-8 SA TYPE C 90 CFM | 42 12-12 SA TYPE D 175 CFM | 52 24-24 SA TYPE C 115 CFM | 62 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 72 NOT USED | 92 20-10 TRANSFER GRILLES SEE DETAIL SHEET M-12 840 CFM | |
| 3 24-12 SA TYPE C 125 CFM | 13 12-8 SA TYPE D 120 CFM | 23 12-12 SA TYPE C 125 CFM | 33 12-8 SA TYPE D 120 CFM | 43 12-12 SA TYPE D 120 CFM | 53 8-8 SA TYPE C 90 CFM | 63 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 73 NOT USED | 93 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 4 12-8 SA TYPE D 190 CFM | 14 12-8 SA TYPE D 120 CFM | 24 12-8 SA TYPE D 120 CFM | 34 12-8 SA TYPE D 120 CFM | 44 12-12 SA TYPE D 120 CFM | 54 8-8 SA TYPE C 90 CFM | 64 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 74 NOT USED | 94 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 5 24-12 SA TYPE C 165 CFM | 15 12-8 SA TYPE D 120 CFM | 25 12-8 SA TYPE D 120 CFM | 35 12-8 SA TYPE D 120 CFM | 45 12-12 SA TYPE D 120 CFM | 55 8-8 SA TYPE C 90 CFM | 65 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 75 NOT USED | 95 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 6 8-8 SA TYPE C 170 CFM | 16 12-8 SA TYPE D 120 CFM | 26 12-8 SA TYPE D 120 CFM | 36 12-8 SA TYPE D 120 CFM | 46 12-12 SA TYPE D 120 CFM | 56 8-8 SA TYPE C 90 CFM | 66 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 76 NOT USED | 96 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 7 12-12 SA TYPE C 340 CFM | 17 12-8 SA TYPE D 120 CFM | 27 12-8 SA TYPE D 120 CFM | 37 12-8 SA TYPE D 120 CFM | 47 12-12 SA TYPE D 120 CFM | 57 8-8 SA TYPE C 90 CFM | 67 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 77 NOT USED | 97 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 8 NOT USED | 18 12-8 SA TYPE D 120 CFM | 28 12-8 SA TYPE D 120 CFM | 38 12-8 SA TYPE D 120 CFM | 48 12-12 SA TYPE D 120 CFM | 58 8-8 SA TYPE C 90 CFM | 68 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 78 NOT USED | 98 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 9 24-12 SA TYPE C 200 CFM | 19 12-8 SA TYPE D 120 CFM | 29 12-8 SA TYPE D 120 CFM | 39 12-8 SA TYPE D 120 CFM | 49 12-12 SA TYPE D 120 CFM | 59 8-8 SA TYPE C 90 CFM | 69 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 79 NOT USED | 99 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |
| 10 24-12 TRANSFER GRILLE - SEE DETAIL SHEET M-12 80 CFM | 20 12-8 SA TYPE D 120 CFM | 30 12-8 SA TYPE D 120 CFM | 40 12-8 SA TYPE D 120 CFM | 50 12-12 SA TYPE D 120 CFM | 60 8-8 SA TYPE C 90 CFM | 70 24-12 SA TRANSFER GRILLE SEE DETAIL SHEET M-12 290 CFM | 80 NOT USED | 100 12-8 TRANSFER GRILLES SEE DETAIL SHEET M-12 240 CFM | |

ALTERNATE BID M-2A - UNDER ACT. BID M-2A MECH CONTR. TO FILL ALL BULKHEADS THROUGH WALLS OPEN TO FUTURE EXTENSION. SEE BID #12 FOR FUTURE EXTENSION. SEE BID #12 FOR FUTURE EXTENSION. THIS AREA INSTALLED COMPLETELY.

ALTERNATE BID M-2B - UNDER ALTERNATE BID M-2B MECH CONTR. TO FILL ALL BULKHEADS THROUGH WALLS OPEN TO FUTURE EXTENSION. SEE BID #12 FOR FUTURE EXTENSION. THIS AREA INSTALLED COMPLETELY.

SEE GENERAL NOTE 1 (TYPICAL)

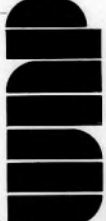


GENERAL NOTES:

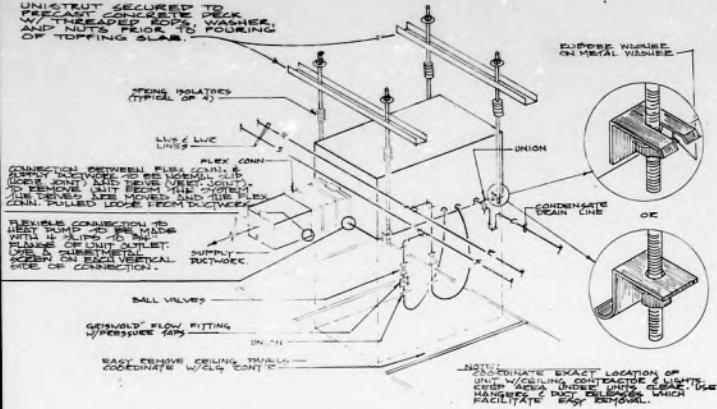
- MECHANICAL CONTRACTOR TO PROVIDE GENTEX SPRING FITTING 85M-2 PIP ON ALL ROUND CONNECTIONS TO MAIN DUCT RUN.
- MAXIMUM LENGTH OF FLEXIBLE DUCT TO DIFFUSERS SHALL NOT EXCEED 12' 0" AND SHALL BE INSTALLED FREE OF KINKS.
- RETURN AIR QUANTITIES SHOWN TO UNITS DOES NOT INCLUDE MAKE-UP AIR FROM CEILING SPACE.
- GENERAL CONTRACTOR TO BE RESPONSIBLE FOR INSTALLING ROUND ACCESS PLATES IN PLASTER CEILINGS OF UNSECURED AREAS TO VOLUNTARILY PROVIDE ACCESS PLATES AND TURN OVER TO GEN CONTR. FOR INSTALLATION.
- MECH CONTR. TO PROVIDE SECURITY BARS IN ALL DUCTS GREATER THAN 24" OR 8" ROUND BARS SHALL BE LOCATED ON 2" CENTERS AT 7/8" IN DIAMETER AND BE LOCATED AT ALL WALL AND FLOOR PENETRATIONS FROM SECURITY AND DETENTION AREAS.
- MECH CONTR. TO INSTALL SECURITY COVERS (CHAIN MECHANISM) ON ALL UNSECURED AREAS NOT HAVING REMOTE SECTORS.
- SEE SHEET M-12 FOR HEAT PUMP INSTALLATION DETAIL.
- MECH CONTR. TO COORDINATE WORK WITH ALL OTHER TRADES.

SECOND FLOOR PLAN

SCALE - 1/8" = 1'-0"



UNIT TRUST SECURED TO PRECAST CONCRETE BRICK AND NUTS PRIOR TO POURING OF TOPPING SLAB.



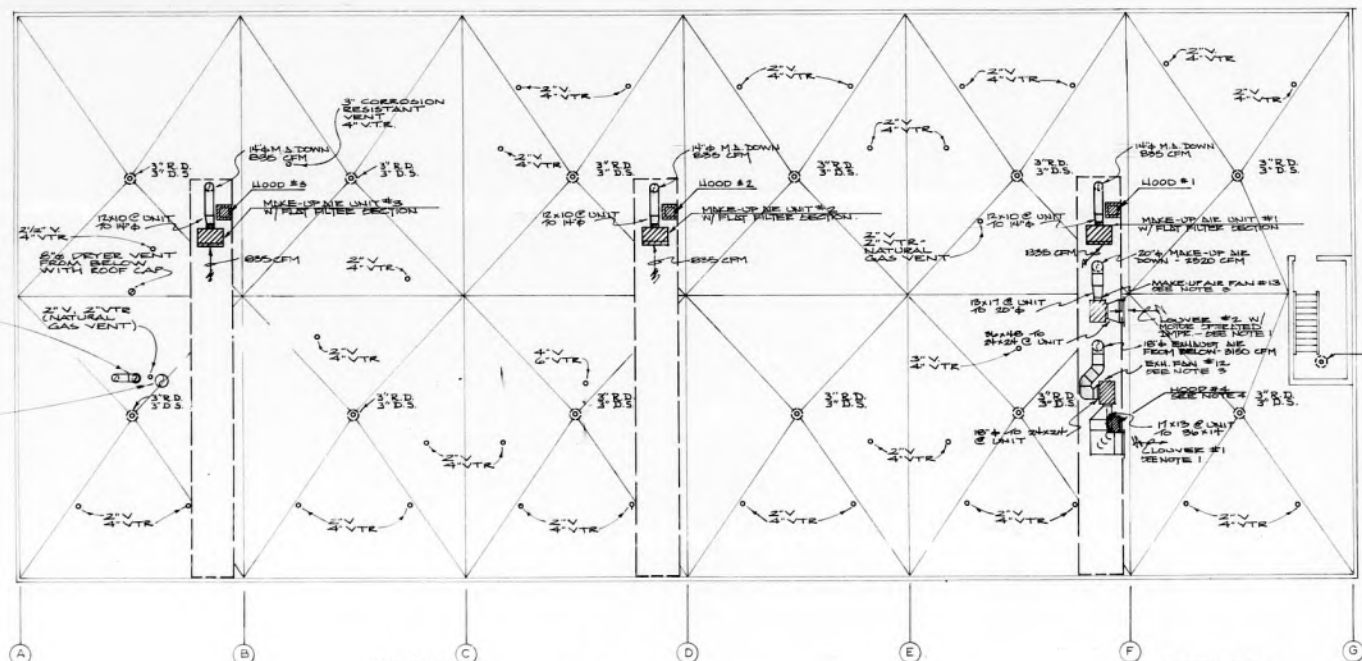
HEATING & A/C UNIT PIPING & MOUNTING DETAIL
NO SCALE

LOUVER SCHEDULE						
DESIG	MANUFACTURE & MODEL NO	CFM	MOUNT	SIZE	FINISH	REMARKS
#1	JENN WARMING IN. 10 31 DI 150	3600	WALL	46" x 48"	GALV STEEL	FUTURE INSTALLATION - PROVIDE PROTECTION & DUCT CONN.
#2	JENN WARMING IN. 10 31 DI 150	2920	WALL	36" x 48"	GALV STEEL	FUTURE INSTALLATION - PROVIDE PROTECTION & DUCT CONN.

① PRESSURE DROP THRU LOUVER SHALL NOT EXCEED 0.1" WG.

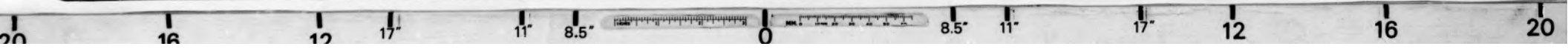
ROOF VENTILATOR SCHEDULE						
DESIG	MANUFACTURE & MODEL NO	CFM	AREA SQ. FT.	TILT/ROT SIZE	HOOD SIZE	REMARKS
#1	LOREN COOK 'VE' BELIEF WHF 500	500	1.8	12 X 12	24 X 24	EXH. FAN #5
#2	" " " " " "	465	.98	12 X 12	24 X 24	EXH. FAN #6
#3	" " " " " "	470	.74	12 X 12	24 X 24	EXH. FAN #7
#4	" " " " " "	490	.98	12 X 12	24 X 24	EXH. FAN #8

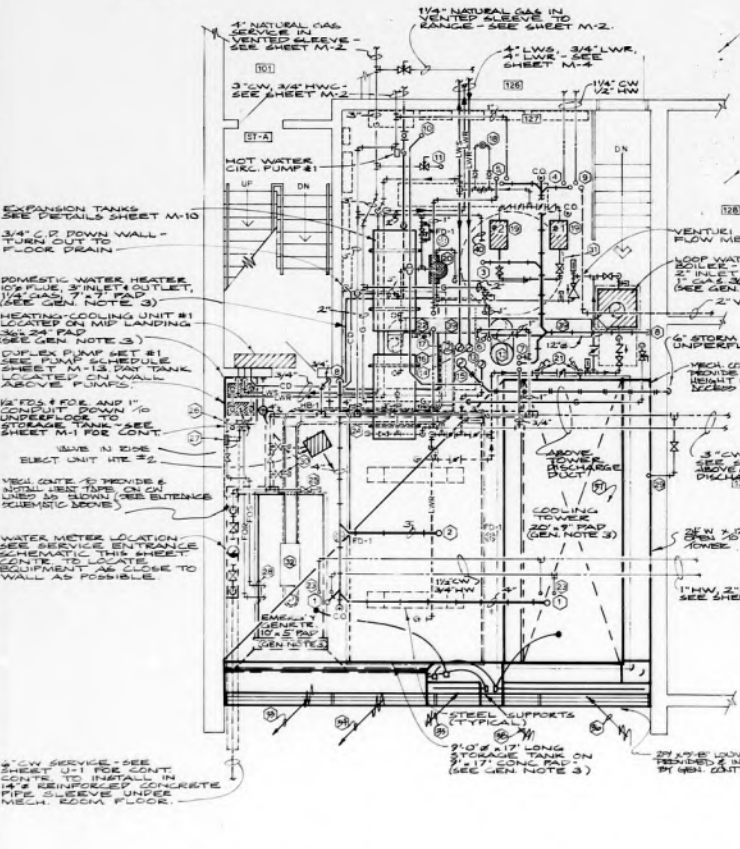
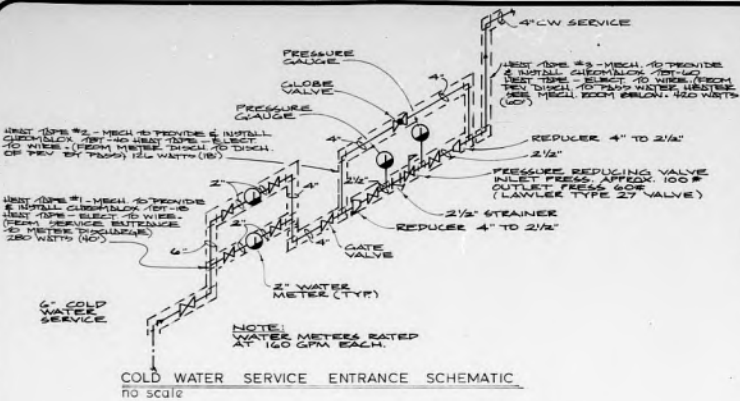
① PENN. JENN AIR. ALSO APPROVED MFGS.



MECHANICAL ROOF PLAN
scale 1/8" = 1'-0"

- GENERAL NOTES:
- UNSHED DUCTWORK SHOWN & LOUVER #1 PROVIDED WHEN FUTURE INSTALLATION OF SOLAR PANELS IS COMPLETED.
 - CONTR. TO COORDINATE WORK WITH ALL OTHER TRADES.
 - EXH. FAN #12 & EXH. FAN #13 TO BE INTERLOCKED W/ KITCHEN HOOD #1 OPERATION.
 - 10" EXH. DUCT TO HOOD #4 TO BE CONNECTED TO 24" X 24" H. PORTION OF LOUVER #1 PAN #12 TO BE CONNECTED TO 36" X 36" H. PORTION OF LOUVER #1 WHEN FUTURE INSTALLATION OF SOLAR PANELS IS COMPLETED. SOLAR PANELS PROVIDED UNDER SEPARATE PROJECT.





MECHANICAL - ENLARGED MECHANICAL ROOM PLAN scale 1/4" = 1'-0"

GENERAL NOTES: (KITCHEN PLUMBING)

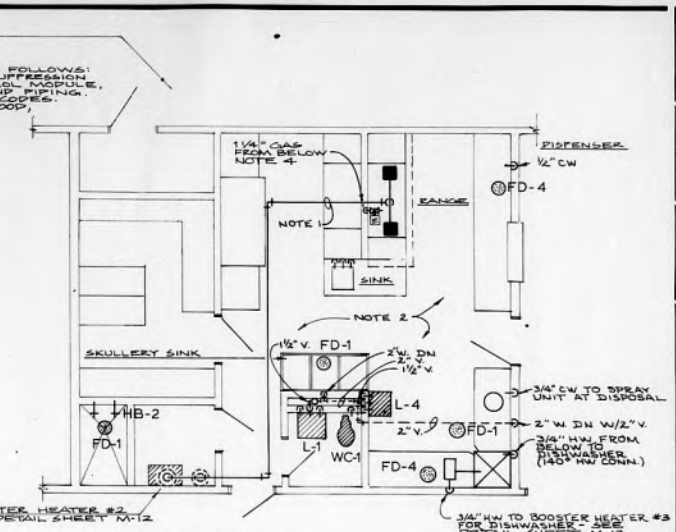
1. KITCHEN HOOD DRY CHEMICAL SYSTEM TANKS AND HEADS TO BE PROVIDED WITH KITCHEN EQUIPMENT UNDER SEPARATE CONTRACT AND INSTALLED UNDER CONTRACTOR AS REQUIRED BY NFPA 13 AND NFPA 70 AND AS FOLLOWS: PRE-ENGINEERED DRY CHEMICAL KITCHEN HOODS WITH FIRE SUPPRESSION SYSTEM COMPLETE WITH WATER RELEASE CONTROL MODULE, 2 1/2" SCHEDULE 40 WATER PIPE, 2 1/2" SCHEDULE 40 EXHAUST AND PIPING. SYSTEM SHALL PROVIDE PROTECTION FOR KITCHEN CODES. HOOD SYSTEM SHALL BE ANSUL E-101-30 BELOW HOODS. PLUMBING SHALL BE ANSUL E-101-30 BELOW HOODS. PLUMBING FROM TANKS AND HEADS TO BE PROVIDED WITH ALL OTHER TRADES.
2. MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING GAS VALVES AND PIPING LINES TO KITCHEN EQUIPMENT AS REQUIRED. MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING GAS VALVES AND PIPING LINES TO KITCHEN EQUIPMENT AS REQUIRED. MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING GAS VALVES AND PIPING LINES TO KITCHEN EQUIPMENT AS REQUIRED.
3. MECHANICAL CONTRACTOR TO COORDINATE WORK WITH ALL OTHER TRADES.
4. MECHANICAL CONTRACTOR TO PROVIDE & INSTALL ELECTRICALLY OPERATED 1/2" CW VALVE ON GAS LINE. ELECTRICAL CONTRACTOR TO WIRE SO THAT VALVE INTERLOCKS WITH FIRE EXTINGUISHING SYSTEM ON HOOD.

GENERAL NOTES (MECH. ROOM)

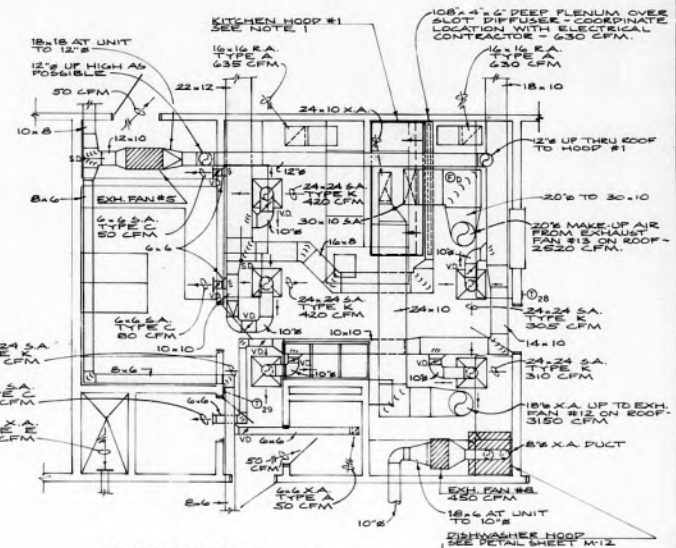
1. SEE SHEET M-10 FOR LOOP WATER PIPING AND SIZING.
2. MECH. CONTR. TO COORDINATE WORK WITH ALL OTHER TRADES.
3. GENERAL CONTRACTOR TO PROVIDE EQUIPMENT AS SHOWN.

SPECIFIC NOTES (MECH. ROOM)

1. 1/2" CW FROM W.C. 1 ABOVE.
2. WASTE FROM FD-2 ABOVE LOCATED ABOVE COOLING TOWER EXHAUST DUCT.
3. WASTE FROM FD-1 ABOVE.
4. WASTE FROM W.C. 3 ABOVE.
5. WASTE FROM WASHING STANDPIPE ABOVE. 1" HW (140") AND 1" CW UP.
6. 1" HW (140") & 1" CW UP.
7. WASTE FROM W.C. 2 ABOVE.
8. 3/4" HW & CW UP.
9. 2" VENT UP.
10. 1" CW FROM ABOVE - DROP INTO 6" STORAGE TANK ABOVE ROOF.
11. 3/4" GAS UP TO DRYER ABOVE.
12. USE FLUE UP - METAL BODIES DOUBLE WALL.
13. 5" LWR FROM ABOVE.
14. 4" LWR UP TO SECOND FLOOR.
15. 6" STORM DRAIN FROM ABOVE.
16. 4" LWS UP TO SECOND FLOOR.
17. 10" GENERATOR STACK UP (INSULATED).
18. CHEMICAL TREATMENT FEEDER TANK.
19. COOL WATER PUMPS.
20. CENTRIFUGAL AIR SEPARATOR.
21. BUTTERFLY VALVE IN DRYER WITH PETE'S PLUG AND REDUCER.
22. 1/4" HW UP TO BOOSTER HEATER #1. REMOVE LOCATED ON LAUNDRY ROOF. 1/4" HW (140") FROM BOOSTER HEATER #1.
23. 3/4" HW & 1/2" CW UP TO W.C. 4 & W.C. 5. DUCT ABOVE COOLING TOWER EXHAUST DUCT.
24. MECH. CONTR. TO PROVIDE 2" HW STUB. CUT W/ GATE VALVE FOR FUTURE EXPANSION.
25. MECH. CONTR. TO PROVIDE 2" CW STUB. CUT W/ GATE VALVE FOR FUTURE EXPANSION.
26. 1/2" FOS TO DAY TANK FROM PUMPS AND GENERATOR TO GENERATOR FROM DAY TANK.
27. 1" PNEUMATIC PNEUMATIC FUEL OIL GAGE LINE TO OIL TANK.
28. 1/2" FOS & FOS TO GENERATOR. MECH. CONTR. TO MAKE FINAL CONN.
29. 3/4" CW UP TO H.B.-3.
30. 4" CW STUB OUTS WITH VALVES FOR FUTURE EXPANSION TO WATER SOFTENER SYSTEM.
31. FUTURE 18" DIA. 10' HIGH TANK TO BE INSTALLED WITH FUTURE SOLAR WATER INSTALLATION (7'-0" PAD). SEE GENERAL NOTE #3.
32. ELECT. CONTRACTOR TO PROVIDE MUFFLER AND STACK PIPING AND TURN OVER TO FUTURE CONTRACTOR TO INSTALL AND INSULATE UP TO ROOF PENETRATION.
33. 1/4" X 2'-6" PORTION OF LOUVER, H.C. 10 TRENDS DUCT FROM TO LOWER W/ TRENDS DUCT PROVIDED & INSTALLED BY M.E. & W/IED BY E.C. (25000 CFM).
34. H.C. 10 PORTION OF LOUVER, H.C. 10 TRENDS DUCT FROM TO LOWER W/ TRENDS DUCT PROVIDED & INSTALLED BY M.E. & W/IED BY E.C. (12500 CFM).
35. H.C. 10 PORTION OF LOUVER, H.C. 10 TRENDS DUCT FROM TO LOWER W/ TRENDS DUCT PROVIDED & INSTALLED BY M.E. & W/IED BY E.C. (25000 CFM).
36. H.C. 10 PORTION OF LOUVER, H.C. 10 TRENDS DUCT FROM TO LOWER W/ TRENDS DUCT PROVIDED & INSTALLED BY M.E. & W/IED BY E.C. (25000 CFM).
37. 1/2" X 1'-0" DUCT CORN. AT TOP OF LOWER TRENDS SECTION ABOVE TANK AND ENERGY GENERATOR.
38. 1" W/ 9" X 8" PORTION OF LOUVER OPEN TO SPACE FOR COMBUST AIR.
39. METAL BODIES DOUBLE WALL VENT PIPE FROM UNIT TO COMBINED FLUE UP.
40. 2" CW MAKE-UP TO TOWER.

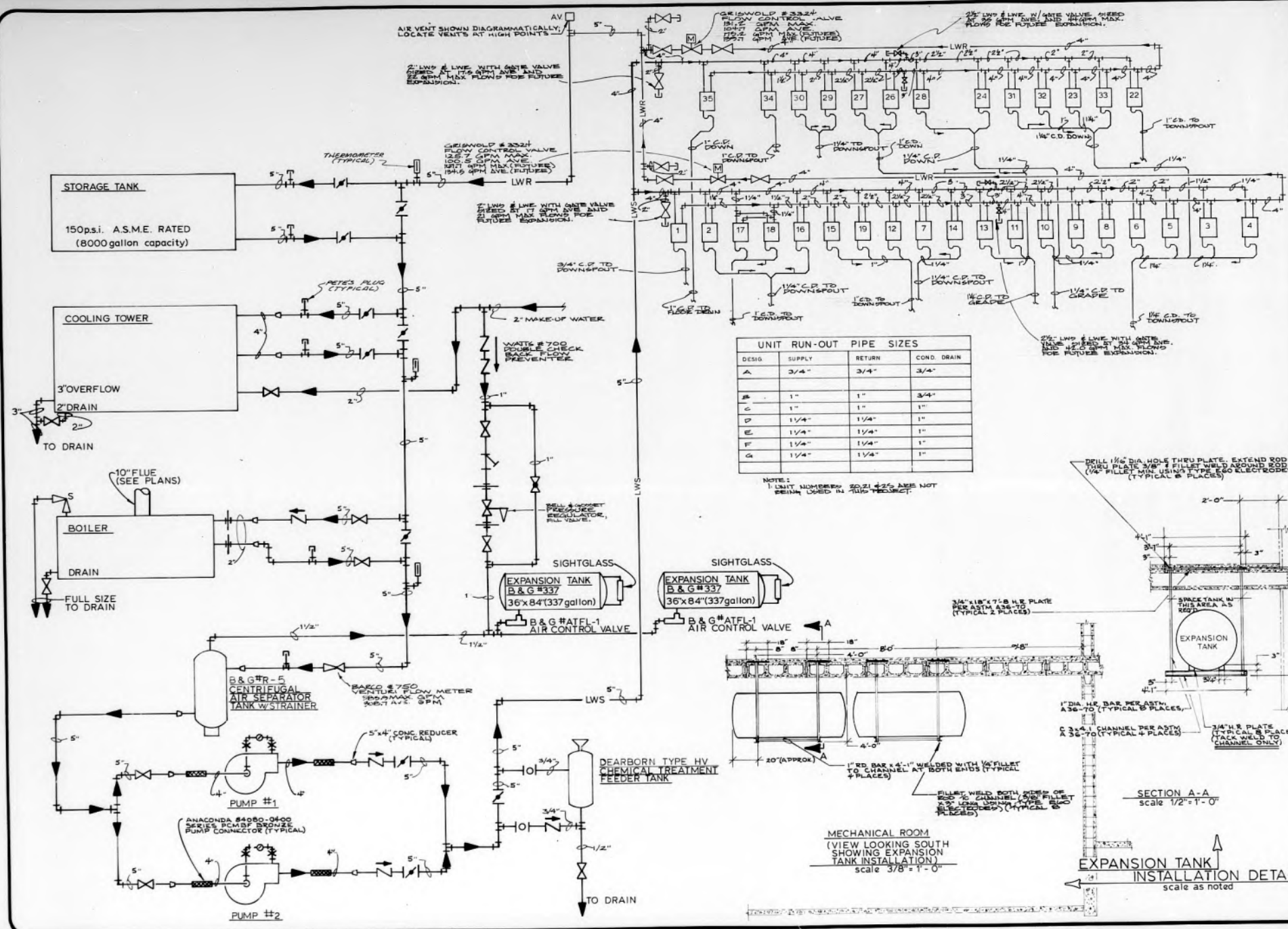


MECHANICAL-PLUMBING ENLARGED KITCHEN AREA PLAN scale 1/4" = 1'-0"

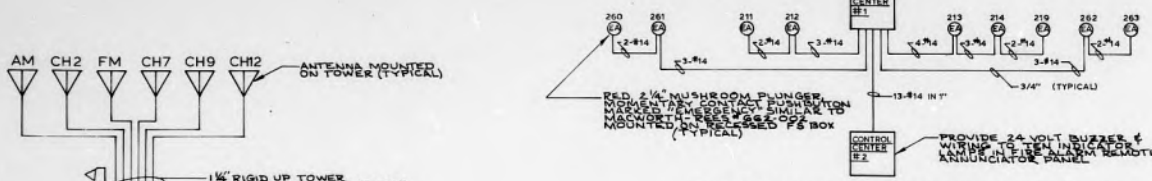


MECHANICAL - H.V.A.C. ENLARGED KITCHEN AREA PLAN scale 1/4" = 1'-0"

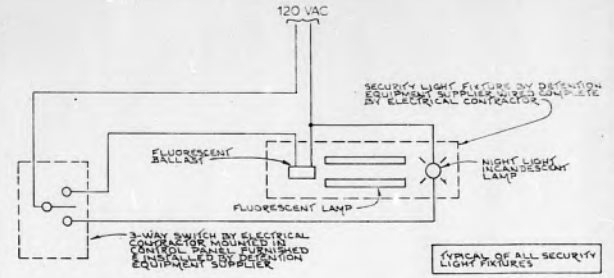
- NOTES: (KITCHEN H.V.A.C.)
1. KITCHEN EXHAUST HOOD #1 TO BE ECONOMY 18 GAUGE STAINLESS STEEL 3'-6" WIDE X 9'-0" LONG X 2'-6" HIGH. 2'-0" DIA. EXHAUST PIPE TO BOTTOM OF HOOD. ECONOMY 4" X 9'-0" 2'-0" DIA. EXHAUST PIPE TO BOTTOM OF HOOD. REFUSE TO BE PROVIDED WITH KITCHEN EQUIPMENT UNDER SEPARATE CONTRACT MECHANICAL CONTRACTOR TO INSTALL AND CHECK.
 2. MECH. CONTR. TO COORDINATE WORK WITH ALL OTHER TRADES.



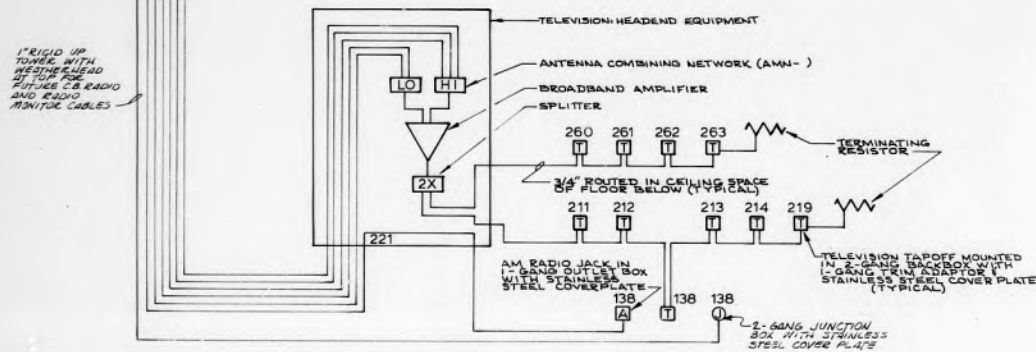
PROVIDE 24 VOLT BUZZER TO SOUND ANY TIME A STATION IS PRESSSED. A 120 VOLT TO 24 VOLT TRANSFORMER & TEN AMPERE 2.5 AMP FUSES TO OPERATE THE BUZZER INDICATOR LAMP IN FIRE ALARMS REMOTE ANNUNCIATOR PANELS IN BOTH FOR RELAYS.



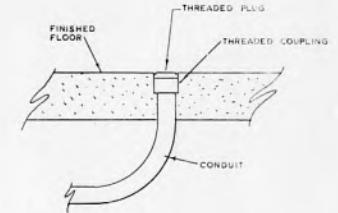
EMERGENCY ALARMS DISTRIBUTION SCHEMATIC
 no scale



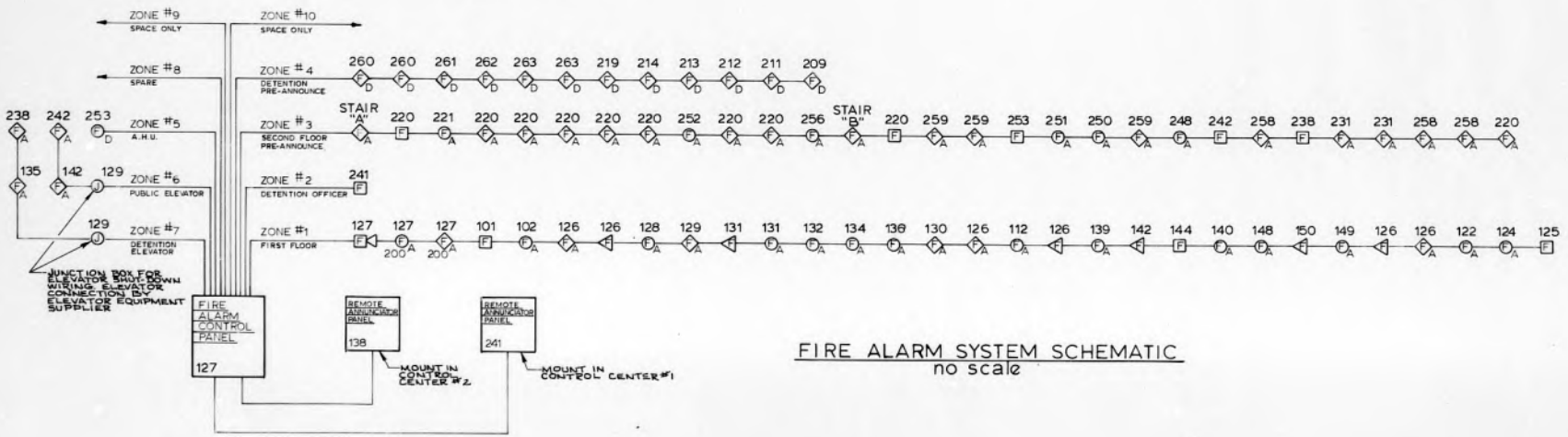
DETENTION LIGHTING CONTROL SCHEMATIC
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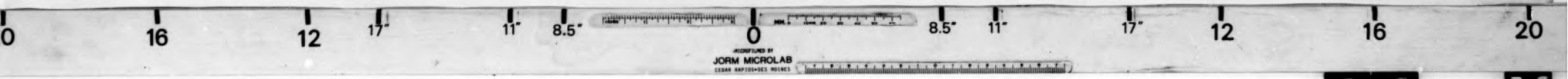
MATV DISTRIBUTION SCHEMATIC
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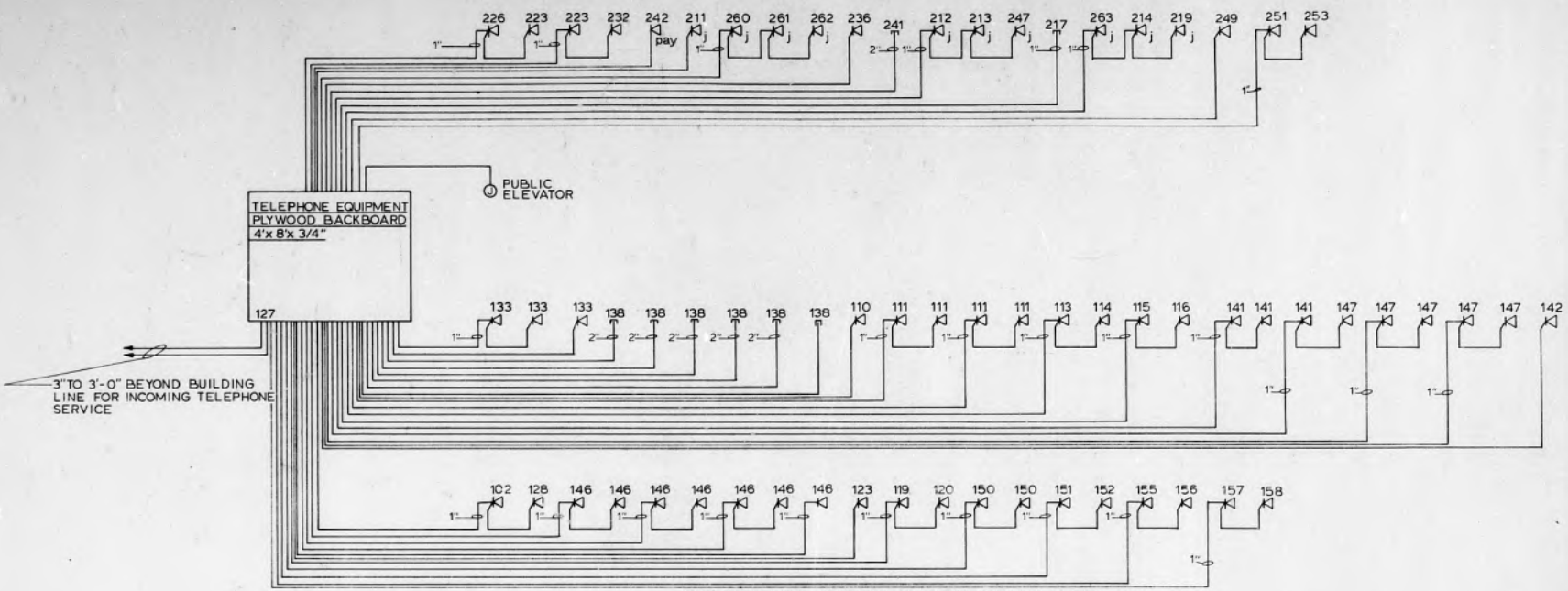


CONDUIT STUB UP DETAIL
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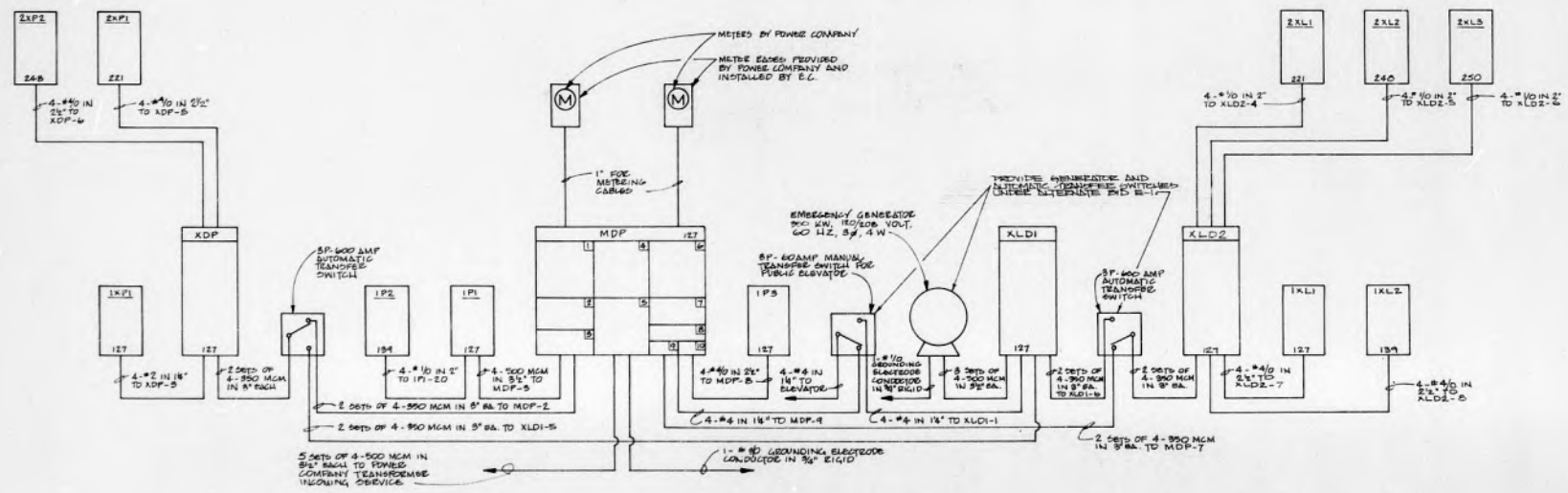


FIRE ALARM SYSTEM SCHEMATIC
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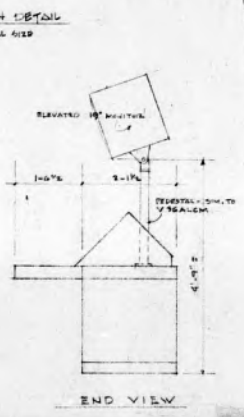
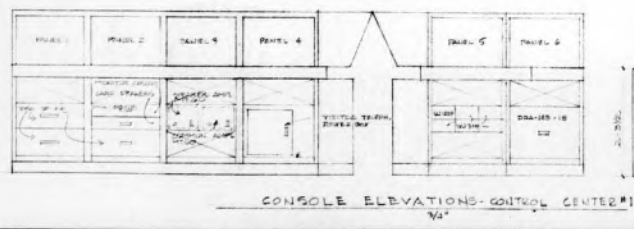
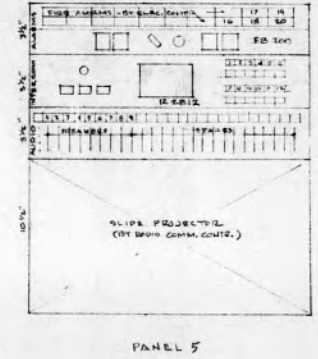
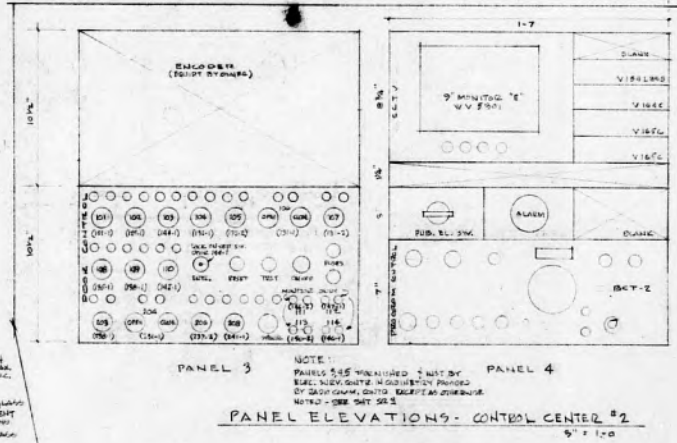
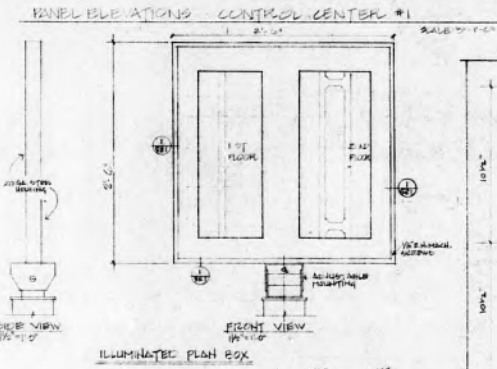
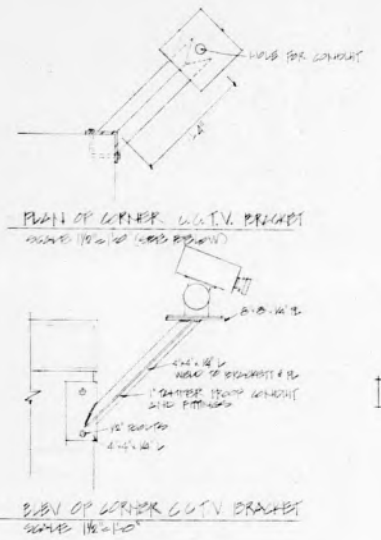
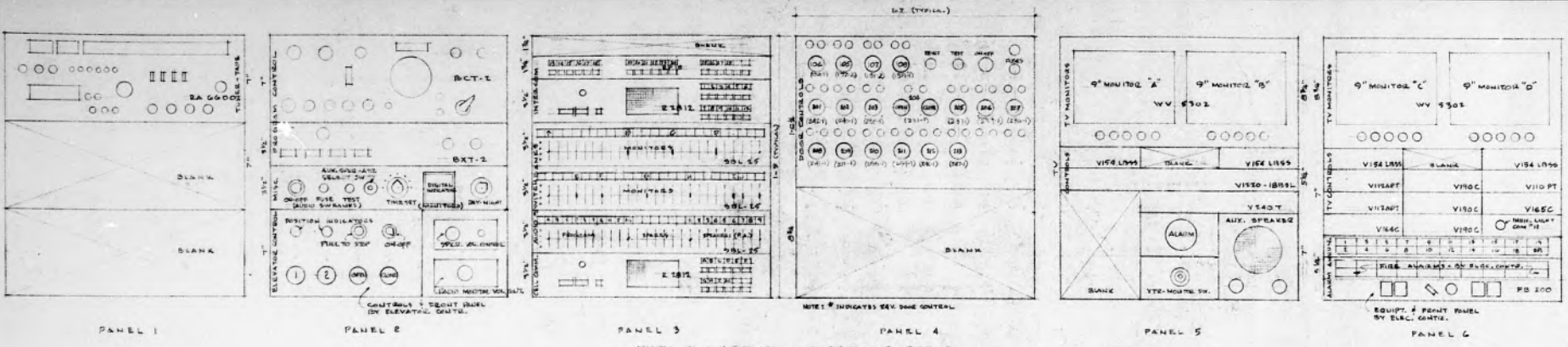


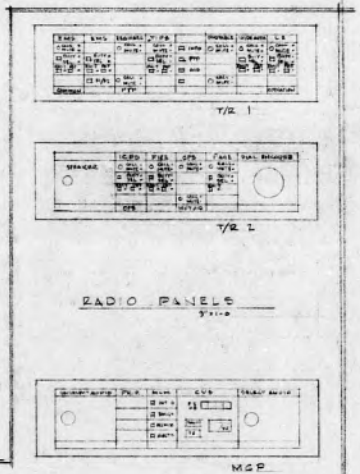
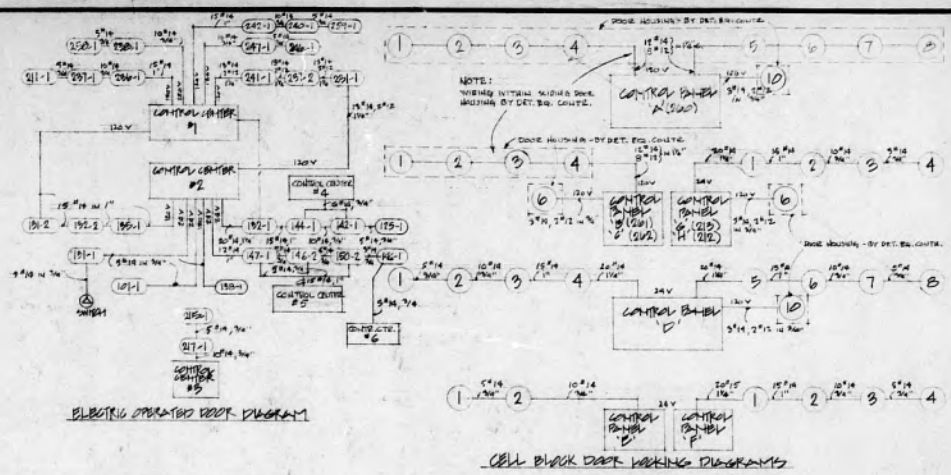
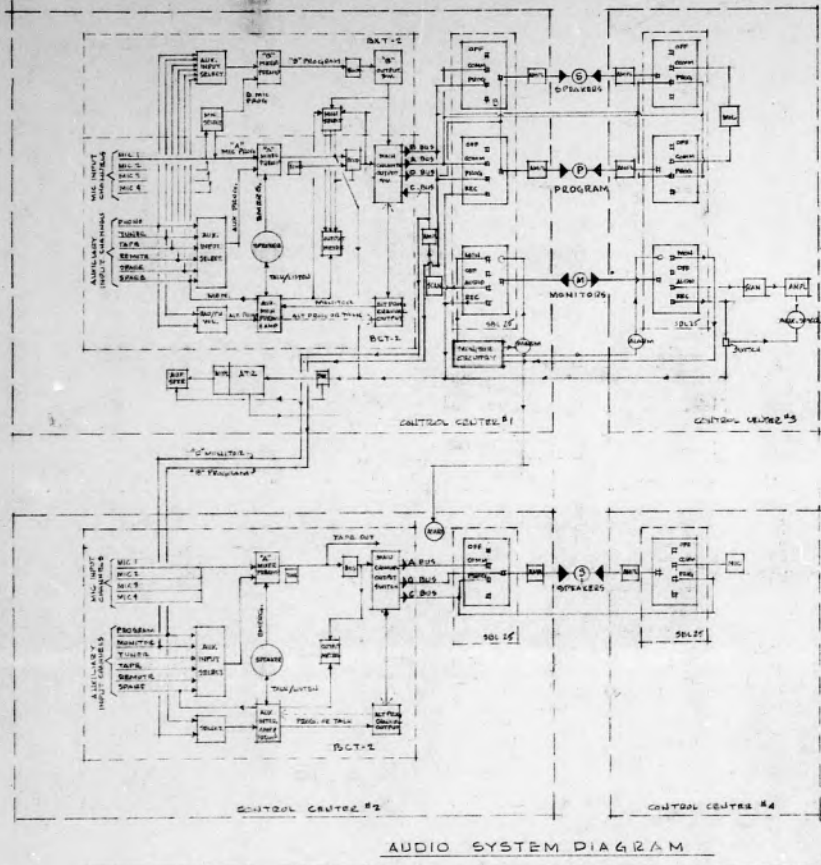
TELEPHONE DISTRIBUTION SCHEMATIC
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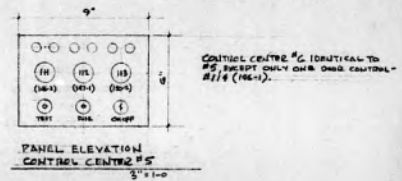
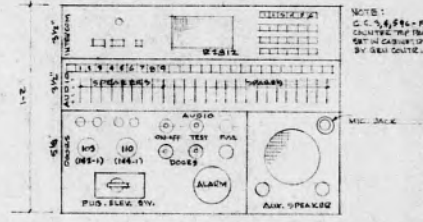
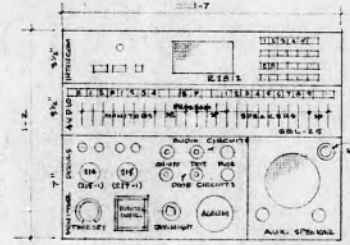
ELECTRICAL POWER DISTRIBUTION SCHEMATIC
no scale



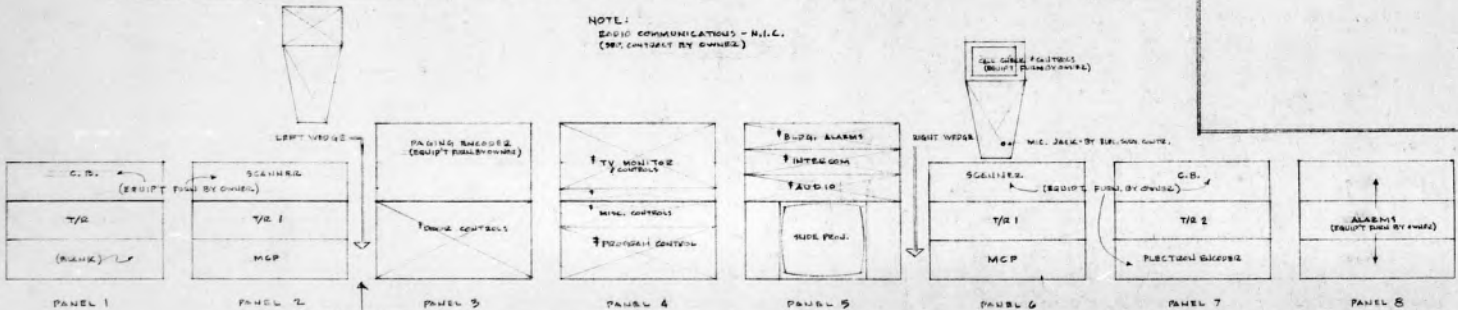




SEE SHEET 5 OF THE PLAN LOCATING OF RADIO SYSTEM COMPONENTS



NOTE: RADIO COMMUNICATIONS - N.I.C. (SEE CONTRACT BY OWNER)



NOTE: *# INDICATES EQUIP. # OPER. PLANTS TO BE FURN. BY DET. BY ELEC. CONTR. - SEE PANELS 3, 4 & 5 SHEET # 021

SR 3

DATE: APRIL 1976

DESIGNER: [Name]

PROJECT: JOHNSON COUNTY JAIL

ARCHITECTS: Weber Noway and Patschall

CONSULTANT: GALLER, PARRISH, INC.

ELECTRONIC SECURITY & RADIO COMMUNICATIONS

HISTORIC PHOTOS SCANNED FROM PHOTO ALBUM LOCATED AT THE JAIL

















