

May 27, 2022

# Study and Design of Correctional Center for Women

Mass. State Project No. DOC2106

Existing Conditions Documentation and Analysis

Prepared For:



DIVISION OF  
CAPITAL ASSET  
MANAGEMENT &  
MAINTENANCE

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## Section 1: Existing Conditions Documentation and Analysis - MCI Framingham

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Figure 1.1 Campus Map



**LEGEND**

- PROPERTY LINE
- PERIMETER FENCE



**Cottages**  
 Built in 1963  
 Approximately 8,500 GSF each  
 Occupancy: Corrections / Detention  
 Uses: Housing, Hard Cells



**Modular Unit**  
 Built in 1985  
 Approximately 10,000 GSF  
 Occupancy: Corrections  
 Uses: Housing, Dormitory



**Brewster Building**  
 Built in 1986  
 Approximately 15,560 GSF  
 Occupancy: Corrections  
 Uses: Housing, Dormitory



**Old Superintendent's House**  
 Built in 1877  
 Approximately 6,480 GSF  
 Occupancy: Corrections / Administration  
 Uses: Housing for Superintendent



**Old Administration Building**  
 Built in 1887  
 Approximately 118,000 GSF  
 Occupancy: Corrections / Administration  
 Uses: Housing (Hard Cells), Programs, Administration



**Infirmary**  
 Built in 1963  
 Approximately 37,250 GSF  
 Occupancy: Corrections / Administration  
 Uses: Health care services, housing, administration



**Vehicle Trap**  
 Built in 1992  
 Approximately 288 GSF  
 Occupancy: Corrections / Administration  
 Uses: Administration for entering/exiting the perimeter via a sallyport.



**Betty Cole Smith**  
 Built in 1991  
 Approximately 55,695 GSF  
 Occupancy: Corrections / Administration  
 Uses: Administration, Intake, Admissions, Housing, Dining, & Visitation; Main entrance to the campus for public and staff.



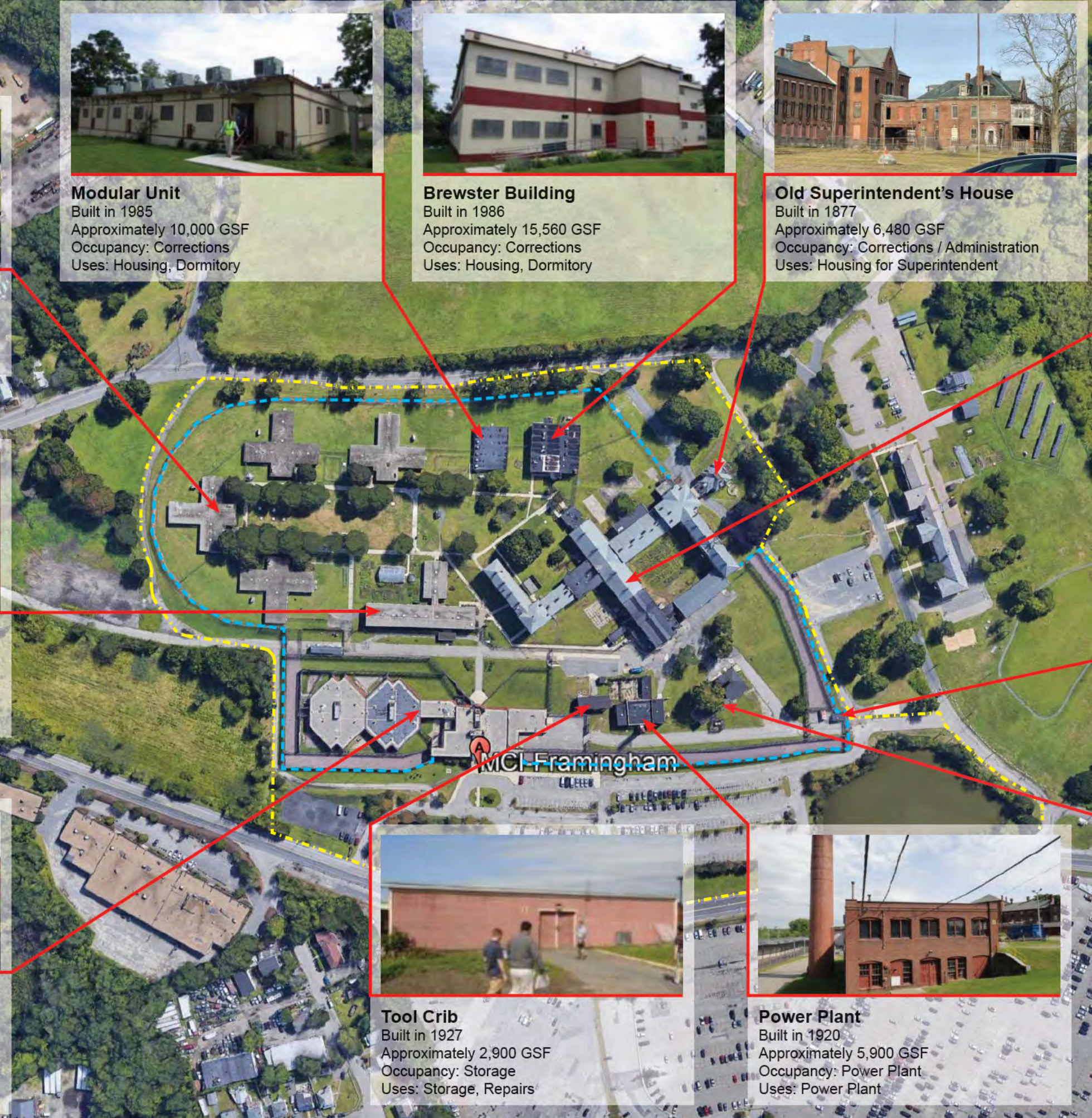
**Tool Crib**  
 Built in 1927  
 Approximately 2,900 GSF  
 Occupancy: Storage  
 Uses: Storage, Repairs



**Power Plant**  
 Built in 1920  
 Approximately 5,900 GSF  
 Occupancy: Power Plant  
 Uses: Power Plant



**Maintenance Building**  
 Built in 1927  
 Approximately 12,400 GSF  
 Occupancy: Maintenance Shed  
 Uses: Storage, Maintenance, grounds care, & repairs



MCI Framingham

## **1.1 Campus Description**

MCI Framingham (Figure 1.1), once known as Sherborn Reformatory for Women, is located at 99 Loring Drive in Framingham. The 27-acre campus originally opened in 1877, making it the second oldest female correctional institute in the United States. While it has the capacity to hold over 500 beds, this medium-security correctional center houses 135 women, who are incarcerated at the state or county level, and offers a comprehensive network of programs.

In 2012, DCAMM conducted a physical assessment of the facility, where it was determined that all 15 structures on campus, with the Betty Cole Smith building being newest inmate building (1991), was noted as rapidly declining. Additionally, the assessment noted that the existing systems and conditions would require extensive alterations or an entirely new system in order to meet the current energy code and accessibility requirements.

Programmatically, the following are noted to be challenges for the campus:

- Health Services is extremely strained.
- Housing options were not sufficiently varied to separate the many inmate classifications.
- Circulation and adjacencies for housing, cafeteria, and medication were problematic.
- Intake is undersized for the current usage and equipment.<sup>1,2,3</sup>

The area that includes the Cottages, the Infirmary, the Old Administration Building, the Old Superintendent's House, the Modular Unit, and the Brewster Building are referred to as the Upper Quad. This area contains a walking path, a greenhouse, and a garden plot. The garden plot is located in the courtyard of the Old Administration Building.<sup>1,3</sup>

For a list of available drawings for this site and its buildings, refer to Appendix A.

### **1.1.1 Landscape Architecture**

MCI Framingham is a large, sprawling complex along Loring Drive in Framingham. The complex runs north-northwest to south-southeast. It has a large parking area parallel to Loring Drive which is flanked on the north and south by a vegetated slope and a pond/wetland. [REDACTED]

There is a great deal of topographical change at this site. The upper quad has a walking path, and it appears that the basketball courts are not utilized. There is a dog training area near the cottages.

The site has many mature deciduous shade trees, mostly located on the north and south parts of the site. On the north side, shade trees line the walkways to the northernmost buildings and appear to provide a great deal of shade. There are many picnic tables in this area. In this area is a greenhouse surrounded by gardens.

There are outdoor areas that appear to be used for gathering or activities. Within the courtyard of the Old Administration Building is a garden that we understand is used for growing food served in this facility.

Moving south, there are shade trees within the courtyards and along Western Avenue on the east side of

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021

the property. Most of the trees along Western Avenue are outside of the security fence. There are also many trees on the south side of the Old Superintendent's Building, and between this building and the parking area for the South Middlesex Correctional Facility. The condition of the site in this area is very poor. Not only is the building in disrepair, but the driveways, walkways and plant material are in poor condition. Dead trees should be removed, and the trees pruned.

In summary, some of the walkways are in good condition, and others are in very poor condition. The trees that will be designated to remain should all be pruned. The lawn is generally in poor condition and should, at a minimum, be aerated, fertilized and overseeded.<sup>21</sup>

**1.1.2 Campus Security & Fencing**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
15 Information received by DCAMM and/or DOC via correspondence  
21 From Shadley Associates' Existing Site Conditions report dated January 18, 2022

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**1.1.3 Topography & Stormwater Drainage**

Topographically, the campus is challenging with steeper slopes between the Infirmary and Old Administration Building and on the north - northwest side of the Old Administration Building and the Old Superintendent's building.<sup>3</sup> The Betty Cole Smith Building is the only building that provides an accessible route to the different site elevations.<sup>3,15</sup> Future investigations should define the slopes and catchment areas, and should note any erosion issues.

The campus is located in an area where the water table is high.<sup>1</sup> Typically, this condition could lend itself to waterproofing issues below grade and to settlement issues. Further investigation may be required to assess the water table level and any potential damaging effects it has had on the buildings and campus infrastructure. It has been noted that stormwater does infiltrate various buildings (the Infirmary Administration Building, the Cottages, and the Old Administration Building) and steam lines/pits.<sup>1,3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
14 DOC Design Criteria  
15 Information received by DCAMM and/or DOC via correspondence



Storm drainage is known to be problematic during a rainstorm as it is often overwhelmed and floods. This scenario occurs even when there is not a heavy downpour. Stormwater is typically collected in one of two methods: (1) Through a combination of perimeter and surface recessed grated inlets that discharge to the stormwater management drainage system located below Loring Drive, or (2) Through a stormwater management pond located adjacent to Loring Drive.<sup>1</sup>

Roots have grown into the underground pipes, thus resulting in cracks within the infrastructure. Per the campus' maintenance team, it's assumed that the campus' infrastructure is reaching the end and/or has exceed its lifespan.

### **1.1.4 Pavements & Roadways**

Cracking is noticeably problematic at the visitor and site parking lots and the interior roadways. There are both longitudinal and transverse cracks throughout the pavement. While repairs have been made, they are not long-term solutions. Repaving the parking lots and interior roadways is recommended to be completed in the next few years.

There is an overflow staff parking lot in the northwest corner of the campus and is considered to be in fair condition. Due to snow plowing and continuous use, there is poor gravel distribution and subbase deterioration at the main drive lanes. It is recommended that the lot is resurfaced at the same time as the main parking lot.<sup>1</sup>

An existing crushed stone interior roadway located north of the Modular Unit, Brewster Building, and the Townline and Pioneer detention building that are in good condition. Any repairs can be made on an as-needed basis.

Two primary asphalt-paved yards - one located at the front of the Maintenance and Power Plant buildings - is in poor condition with extensive cracking and wearing deterioration of the surface. Like the parking lots, the primary asphalt yards should be resurfaced in the next few years. The second primary asphalt yard is located east of the Betty Cole Smith Building, which has longitudinal cracks through the wearing surface, as well as sub-base deterioration. It is recommended that this yard to resurfaced within the next five to eight years.<sup>2</sup>

The outer perimeter road includes significant surface deterioration, rutting, and cracking where both the structural sub-base and sub-grade are exposed. This condition makes plowing the road difficult, as plowing is required for security reasons. Continued use of the outer perimeter road without repairing and resurfacing will result in an unusable road. It is recommended that repairs and resurfacing be made immediately.<sup>2</sup>

Within the campus, an interior cast-in-place concrete sidewalk that is approximately 9-feet wide and 5" thick, serves as walking path at the interior courtyard. This walkway is reported to have cracks, erosion, heaving, and/or settled panels. Current as-needed repairs can be continued.

### **1.1.5 Fire Alarm and Fire Protection Systems**

All fire alarm communication goes directly to the fire department's call center.<sup>1</sup> This system will transition to MassVoice, which is a digital system, if the campus is determined to be a viable option for repurposing or in a future, separate project.<sup>15</sup>

All existing fire hydrants are to be located. Currently, the fire department does not have an issues with accessing areas within the perimeter.<sup>1</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

15 Information received by DCAMM and/or DOC via correspondence

## **1.2 Historic Landmarks**

In November 2016, the Massachusetts Historic Commission (MHC) designated 41.761 acres, which includes land beyond MCI Framingham's double perimeter fence, and the buildings within the campus' perimeter fence as historic landmarks (See Appendix B).<sup>13</sup> The campus and/or campus buildings are not designated as historic landmarks at the local or national level. MHC is a regulatory agency and therefore, historic preservation decisions must involve and be approved by them.

MCI Framingham is the United States' second institution exclusively for adult women. It was originally built and designed as a factory and became a Reformatory Prison for Women in 1876. The campus originally belonged to the town of Sherborn but was given to Framingham in 1913. Today, the campus is the oldest of its kind still in operation. Based on Chapter 385 of the Act of 1974, Section 1, this reformatory prison is permitted to accommodate 500 women. It has been noted that during the first Superintendent's first year, 794 women were housed on campus.<sup>13</sup> The campus has always served medium-security women who are incarcerated.

For many decades before the construction of the Betty Cole Smith Building in 1991, the Old Superintendent House was the main entrance to MCI Framingham.<sup>1</sup> The MHC notes that there have been several alterations over the years, but successfully maintains the essences of 19th century prison via materials, workmanship, and design. The most noticeable alteration occurs with the Old Administration Building where three of the five original wings have been demolished and replaced with a new wing configuration (Figure 1.2.1).

If MCI Framingham becomes a viable site for a reimagined facility for women, there would be potential historical preservation implications for major renovations, additions, and perhaps demolition of certain buildings on campus. Any intervention to the oldest buildings on campus should be carefully developed and presented to the MHC.<sup>16</sup>

There is not a significant difference between historically designated sites and historically designated buildings. The land that a historic building is located on will always be a factor and vice versa. At MCI Framingham, the historically designated site implies that the character of the site should be thought through holistically.<sup>16</sup> Preliminarily, it can be assumed that the existing road between the Betty Cole Smith Building and the Infirmary and Old Administration Buildings, as well as Western Avenue should be preserved. As seen in Figure 1.2.1, these roads were originally train and carriage pathways.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

8 From DCAMM's Initial Info files

13 From the Massachusetts Historic Commission's "Inventory Form" for MCI Framingham, completed November 2016

15 Information received by DCAMM and/or DOC via correspondence

16 Information received by David Fixler via a virtual meeting on March 22, 2022

Figure 1.2.1 Image of MCI Framingham's Old Administration Building<sup>8</sup>



The site and buildings became a Massachusetts Historic Landmarks due to being an "intact example of the 19th century prison complex" and "the complex retains its integrity of materials, feeling, workmanship, and design."<sup>13</sup> There is a distinct aesthetic that the Old Administration Building possesses. However, newer buildings, such as the 1980s modular buildings do not appear to contribute character to the site and should not require significant convincing for their demolition if that option is proposed. Significant buildings that are no longer suitable for the reimagined program and would require a substantial amount of renovation to be code-compliant will require justification and approval for demolition.<sup>16</sup> Substantial amount of renovation to be code compliant is referred to as the cost of renovation compared to its CAMIS replacement cost.

There is a specific protocol that requires to be followed when working with landmarked buildings and sites. For this facility, the Project Notification Form (PNF) is to be submitted as a means of communication between the MHC and the Designer. Per the MHC's PNF website, responses can take up approximately 30-days and phone calls and emails are not permitted forms of communication.

After consultation with DCAMM based on previous collaboration with MHC, it appears that Task 3 Alternatives would be the most appropriate project phase to initiate communication with MHC, if MCI Framingham presents itself as a viable option.

While it is not a regulatory requirement, interaction with the City's Historic District Commission and the Framingham Historical Society would occur during consultation with MHC. These interested parties would be copied when submitting the PNF to MHC.<sup>16</sup>

8 From DCAMM's Initial Info files

13 From the Massachusetts Historic Commission's "Inventory Form" for MCI Framingham, completed November 2016

16 Information received by David Fixler via a virtual meeting on March 22, 2022

## **1.3 Building Descriptions**

### **1.3.1 Betty Cole Smith Building**

Built in 1991, the Betty Cole Smith Building (Figure 1.3.1) is the newest building at MCI Framingham. Its 55,695 gross square feet (GSF)<sup>2</sup> building is divided into two wings: One wing includes administration, intake, and visitations, and another wing that contains inmate housing.<sup>1</sup> The building also serves as a single entrypoint for visitors, staff, and inmates.<sup>1,2</sup>

Figure 1.3.1 Front entrance to the Betty Cole Smith Building<sup>7</sup>



Two hydraulic elevators exist on site - one in the intake area and another in the administration section of the building. While they're reported to be in good working condition, the systems are older and should be renovated/modernized in the next 4-6 years.<sup>2</sup>

#### **1.3.1.1 Structural & Building Envelope**

Several roofing types exist on this building. On the northern wing of the housing units and over the most southern wing (above the intake and administrative areas), ballasted roofs are likely to be original to the building. It has received patchwork repairs over the years on an as-needed basis, but could benefit from a new roof. On the southern wing of the housing units, a new ethylene propylene diene monomer (EPDM) membrane was installed, likely around the time the new air handler units were replaced (See Figure 1.3.1.1). A gable roof over the entryway is comprised of a prefinished standing seam metal panels placed in a gable configuration.<sup>1,3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021

Figure 1.3.1.1 Betty Cole Smith roof types over the Housing Units<sup>3</sup>



The windows are original to the building and are comprised of field painted steel-framed assemblies with insulated glazing units. The doors are predominantly painted steel panel units. Both window and door assemblies are sealed with urethane sealants. Vertical and horizontal control joints in the brick veneer and associated site walls are also sealed with urethane sealant.<sup>2</sup>

Water infiltration and roof leaks have been reported at this building. Further on-site observations and/or spot probing may be required to observe if and the extent of how any water and moisture infiltrations may have impacted the existing structure.

During the initial site visit, condensation issues were observed in the pit where steam enters into the building. This situation will require further investigation to understand if and how the problem can be mitigated.<sup>3</sup>

### 13.1.2 Mechanical

As previously mentioned, the condensation issues in the pit where the steam enters the building is problematic and will likely require reconfiguration. The heating water forced air system is connected to the existing steam system. While on site, it was observed that many of its components will require replacements or repairs.

Three air handler units have been recently replaced in kind based on the original design parameters.<sup>15</sup> ME5 completed the permitting, but the procurement was completed by the DOC.<sup>1,3</sup> Although the units are new, if the Betty Cole Smith Building is a viable option for reuse, the Design Team should determine if the units' capacities are appropriately sized for the new program.<sup>3</sup>

The exhaust system includes rooftop and cabinet exhaust fans which are beyond their life cycle and have been recommended to be updated. There are Excessive Energy Consumption that warrant the replacement of the hot water reheating coil with VAV/PIU terminals with direct digital control (DDC).

The building's mechanical control system is pneumatic, which is outdated and should be replaced with a central DDC system.<sup>3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

### 13.1.3 Electrical

The 5Kv pad mounted service transformer is currently in an inaccessible location. If a significant amount of work is to be completed on this building, it is recommended that it would be relocated to an accessible location.

[REDACTED]. Additionally, the 75kVa transformer and panel require that accessibility clearances must be met. The National Electrical Code (NEC) will also require that the space includes a secondary means of egress in the Main Electrical Room.

The building's exit signs are aged and should be replaced with more modern exit signs. The back-up generator for this building consists of a 2500 gallon tank that provides 72 hours worth of electricity and is located on the roof. It is past its useful life and is recommended to be replaced.<sup>1,3</sup> If this building is determined to be a viable option for repurposing, the Design Team is to analyze if a 2500 gallon tank is sufficient for its current underutilized usage or if it will be sufficient to house more women who are incarcerated and the necessary staff to support the population.<sup>3</sup>

The new main panel in for the fire alarm system was upgraded in 2010.<sup>15</sup>

The current lighting system utilizes fluorescent. More modernized and sustainable lighting options would be advantageous to the building.

The 13.8Kv substation was installed in 1991. Unfortunately, after approximately 20 years, it is recommended that the substation equipment be replaced as parts are currently difficult to find and obtain. The replacement substation equipment should be relocated to maintain proper clearances.<sup>3</sup>

Site lighting controls are not currently in working condition and should be replaced with updated lighting controls for the exterior of the building.

All electrical equipment requires an arc flash label to warn and notify the potential of high voltage.<sup>3</sup>

### 13.1.4 Plumbing

The existing, small kitchen on the south end of the building does not currently have a grease trap.<sup>3</sup> While the original design intent was to have food be brought directly from the Main Kitchen,<sup>15</sup> a grease trap may be helpful in preventing clogged sewer lines due to grease build-up. The design team does not have access to any existing plumbing drawings, and therefore, it will need to be determined the sewage lines within the building and if any potential clogging from the lack of a grease trap contributes to any additional sewage issues the building may be experiencing.<sup>3</sup>

The domestic hot water to this building is served by a dedicated 6" diameter main feed from the main 12" municipal pipe that runs along Loring Drive.<sup>2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

15 Information received by DCAMM and/or DOC via correspondence

1.3.1.5 Fire Protection

This building is fully sprinklered. The building is also equipped with a Class II standpipe system with a 1.5" fire house valve without the hose. Typically, the AHJ will request for the valves to be removed if they are not used, except in certain instances. Major renovations or alterations in the area of the valve's location can trigger a request for removal. The fire department will need to confirm whether the existing Class II standpipe system with 1.5" fire house valves need to be removed.<sup>3</sup>

Currently, the Betty Cole Smith building does include structural fire protection, fire detection, and fire suppression systems. The fire alarm control panel serving this building was replaced approximately seven years ago, and as of 2020, was still supported by the manufacturer.<sup>1</sup>

An existing generator from 1988 that is located on the roof, right behind the gable roof. It is problematic - both in its use and location. This generator can be seen from the front entrance as it is significant in size and is not properly hidden from view.<sup>3</sup>

The generator is also beyond its useful life cycle. If this building undergoes a transformation, it would be recommended to provide a new exterior generator with a sound attenuated enclosure with a 72 hour skid base tank.<sup>3</sup>

1.3.1.6 Security

[REDACTED]

**1.3.2 Infirmiry Administration Building**

Behind the Betty Cole Smith Building (plan east) is the Infirmiry Administration Building (Figure 1.3.2), which was built in 1963, is also known as the Health Services Unit (HSU), the Health Services Building (HSB), and the Barton Building. (The building currently contains a Barton Unit.) This 37,250 GSF, two-story building includes the campus' health services and inmates who benefit from around the clock mental, behavioral, and/or medical care.

This building has not undergone major renovations in many decades which contributes to the notes in the initial Designer Selection Board (DSB) listing that the Infirmiry Administration Building "is not large enough for all the current healthcare space requirements and administrative space is particularly lacking."<sup>1,3,7</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021  
15 Information received by DCAMM and/or DOC via correspondence

Figure 1.3.2 Infirmary Building <sup>7</sup>



### 13.2.1 Structural & Building Envelope

Like the Betty Cole Smith Building, the Infirmary's structural system consists of steel framing, CMU shear walls, and isolated and continuous foundation footings. The building's exterior does include a brick veneer laid in a Flemish bond pattern. The veneer was accented horizontally at the roof level and vertically at penetrations with the mortar cast stone units. Exposed aggregate precast concrete panels are laid below the windows.

The building's roofing system consists of a single-ply ballasted EPDM membrane with internal draining.<sup>2</sup> More analysis of this internal draining system will be required to determine if any blockage or leakage has developed.<sup>1</sup>

An accessible route to the second floor does not currently exist in this building as this building does not have an elevator.

The existing steam pit, located on the southeast reentrant corner of the building, does an efficient job with melting snow around the building, however, it the resulting water infiltrates and floods the building, which is problematic. Further investigation on the flooding and ponding will need to be made to determine the effects it may have on the structural integrity.<sup>2</sup> There are known leaks in the basement as well as through poorly caulked single-glazed, brushed stainless steel window assemblies. Doors are primarily painted steel panel assemblies.<sup>2</sup>

### 13.2.2 Mechanical

The Infirmary Administration Building is equipped with a radiant heating water system<sup>2</sup> which is fed off the steam system. The building has de-centralized through-wall heat pumps for cooling that are in need of replacement.<sup>3</sup>

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2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021



As Faithful & Gould mentioned in their 2020 FCA report, the Design Team noticed concerns over providing correct pressure differential and adequate ventilation air. Due to this observation, it is recommended that the building undergoes evaluation to determine the deficiencies and where adjustments can be made to provide right-sized, energy efficient equipment.<sup>3</sup>

Aside from the isolated cooling units, temperature in the building is controlled by manually throttling the steam valve. It is recommended that this system be upgraded to full DDC controls.<sup>3</sup>

Currently, the only ventilation distribution is via through-wall heat pumps located in administration and staff only areas<sup>2</sup> which is inadequate per today's building code standard. This building does have rooftop exhaust systems.

The sleeping rooms on the north wing have negative air space which cannot be pressured.<sup>3</sup>

### 1.3.2.3 Electrical

Electricity is supplied by Eversource Energy and is provided to this building via a 4,160-volt feed.<sup>2</sup> This 1960's system is original to the building and is considered to be obsolete and recommended for replacement.<sup>3</sup>

Like the electricity distribution system, the lighting system is beyond its useful life and is recommended to be replaced.



Currently, not all electrical equipment have arc flash labels which is required to warn people of high voltages.<sup>3</sup>

The existing life safety system does not meeting the 2020 NEC article 700 standard requiring that only life safety loads are circuited to the life safety branch. The standby loads are also connected to the same transfer switch. An MTS for connection to a roll-up generator is also required and does not currently exist.<sup>3</sup>

The existing fire alarm system are conventional. It is recommended to replace all initiating and notification devices and wiring with full addressable devices and wiring.<sup>3</sup>

A natural gas generator is located in the basement of the building and is capable of operating for 912 hours. The 1980's 25-kilowatt system is considered vintage and recommended to be replaced.<sup>2</sup>

### 1.3.2.4 Plumbing

As previously mentioned, the basement level contains water issues. Groundwater issues were observed on site but can potentially be remediated with the addition of proper drainage and sump pumps.<sup>3</sup>

Hard cell housing units are located on the north wing. The rooms located east of the corridor have plumbing access panels located on the corridor side. Rooms located west of the corridor have toilets and sinks located back-to-back with no access panels on the corridor side.<sup>3</sup>

2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021

It was noted that the sanitary lines are over 50 years. Due to the age of them, it the sanitary lines should be evaluated via ultrasonic testing- to determine the extent of any deterioration.<sup>1,2</sup>

Steam fired, instantaneous water heaters serve this building. However these systems date back to the 1990s and 2000's and are considered "vintage" and towards the end of their life cycle.

It has been recommended that the sanitary piping undergo ultra-sonic testing and potentially be replaced.<sup>2</sup>

Very few drawings are available for this building. While the Design Team was able to measure some existing piping sizes, a thorough evaluation will be required if this building is to be transformed.

### 1.3.2.5 Fire Protection

The Infirmary Building contains structural fire protection and fire detection systems in place, however a fire suppression system currently does not exist.<sup>1</sup> Due to the size, number of stories, and the building occupancy, if this building were to be fully renovated, it would require full sprinkler coverage.<sup>3</sup>

An existing 1980s drawing show the building's fire protection system is potentially outdated. Verification of its accuracy should be made if this building is a viable option for the reimagined facility.<sup>1</sup>

This building does not have a gas storage room and therefore would not need a rated enclosure within the building.<sup>3</sup>

A carbon monoxide detection system was installed in 2007.<sup>15</sup>

### 1.3.2.6 Security

[REDACTED]

[REDACTED]

[REDACTED]

### 1.3.3 Cottages

On the northeast corner of the campus lies four single-story cottages - Laurel, Algon, Townline, and Pioneer - that were built in 1963 and are similar in configuration (Figures 1.3.3a & 1.3.3b).

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
15 Information received by DCAMM and/or DOC via correspondence

Figure 1.3.3a Townline & Pioneer Cottages <sup>3</sup>



Figure 1.3.3b Bird's Eye view of the Laurel, Algon, Townline, and Pioneer Cottages.  
Photo from GoogleEarth, Edited by HDR.



The cottages underwent some accessibility upgrades and a window replacement project in 2017.

Laurel Cottage, the most west cottage of the four structures, has additional fencing around it as it was once used as a male housing facility.

### 1.3.3.1 Structural & Building Envelope

Each cottage is 8,500 GSF and was built with unreinforced CMU with a glazed brick facade, and ballasted single-ply EPDM membrane roofing. The foundation of each cottage consists of continuous footing.<sup>2</sup>

No structural issues have been noted, however, future analysis of the unreinforced double-wythe exterior wall's structural integrity may be required if any or all of the cottages are utilized for the reimagined project.<sup>1,2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

### 13.3.2 Mechanical

All four cottages' heating system includes radiant water heating. The cooling system is limited to window-mounted air conditioners that are limited to staff and administrative only areas.<sup>2</sup>

The sleeping rooms were recently updated to include secured, operable windows that allow users to access fresh and/or cool air to their comfort level.<sup>1</sup> This flexibility is necessary as the steam produces an excessively hot basement and first floor. However, despite these issues, the ceilings have remained fairly dry and in clean conditions.<sup>1</sup>

The age and condition of the steam service, heating water converter, and radiant heating system warrants for replacement. Additionally, the thermal insulation located on the ceiling of the steam room is recommended to minimize the excessive heating in the Holding Cells located above.<sup>1,2,3</sup>

The cottages have a single heating and ventilation unit with rooftop fans.<sup>2</sup> Improvements to the building's ventilation is recommended as it is noticeably lacking when walking through the built environment.<sup>3</sup>

The steam is manually controlled via a valve throttle. There are control issues that lead to the structures' steam issues. The fin tubes located above the ceiling are additional contributing factors to the steam and heat issues.<sup>1</sup>

Location of the underground steam pipes are noticeable from the exterior. The excessive steam has made it an inhabitable environment for grass to grow and has left a train of dry, dead grass.<sup>3</sup>

Around 2017, when the DCAMM MCI Framingham Cottage Replacement project occurred, all four cottages underwent air quality testing to satisfy the EPA for re-occupancy.<sup>15</sup> Since then, only one cottage, Laurel Cottage, has been reoccupied, while the other three cottages remain vacant. It is recommended that air quality testing is conducted for the Algon, Pioneer, and Townline Cottages.<sup>3</sup>

### 13.3.3 Electrical

Three of the four cottages - Laurel, Algon, and Townline - share a 4,160-volt incoming service feed while Pioneer shares a 4,160-volt incoming service feed with the Brewster and Modular Units. All four buildings' distribution equipment include dry-type, 120/208-volt service transformers.<sup>2,3</sup>

The Laurel and Algon Cottages' primary electrical switchgear is considered to be in workable conditions and would not need replacement. Their secondary electrical distribution systems would likely require distribution upgrades due to its age and condition.

The Pioneer and Townline Cottages would require a replacement of the primary electrical switchgear as they are from the 1960s and are considered vintage and obsolete. Like their sister cottages, these two cottages would require distribution upgrades to their secondary electrical distribution systems.

Each cottage are equipped with a pad-mounted, 25-kilowatt diesel generator that has approximately 800-2,445 operating hours. This system was installed in 1990 and is recommended to be replaced.<sup>2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

15 Information received by DCAMM and/or DOC via correspondence

The life safety system does not meet the 2020 NEC Article 700 which requires that only life safety loads are circuited to the life safety branch. Standby loads are also connected to the same transfer switch. A Manual Transfer Switch (MTS) connection to a roll-up generator is also required.<sup>3</sup>

Interior lighting is also outdated, insufficient, and past its useful life. It is recommended that the systems be replaced.

Exterior light poles only exist around the cottages and are not located elsewhere on the campus.

The fire alarm devices are conventional and are recommended for replacement. All of the cottages, but Pioneer was the exception and was upgraded in 1997, and the Pioneer Cottage was upgraded in 2009. All initiating and notification devices and wiring should be replaced with fully addressable devices and wiring.

Similar to the previously mentioned buildings on the campus, ARC flash labels are required on all electrical equipment.<sup>3</sup>

#### 1.3.3.4 Plumbing

Like the Infirmary Administration Building, all four cottages run on instantaneous steam domestic hot water heating system. This system was installed in 2000. While it was only installed 22 years ago, the system is considered vintage and should be replaced after a 10-year study period.<sup>2</sup>

Pioneer Cottage, the southeast cottage of the four, has an underground steam pipe running by the structure, causing the interior to occasionally reach 100°F or more.<sup>3</sup>

#### 1.3.3.5 Fire Protection

No sprinkler system is installed and would not be required due to its size and its non-combustible construction. However, if residents occupy the space, the addition of them would be recommended.<sup>3</sup> It is noted that structural fire protection and a fire detection system are provided for these nearly 60 year old buildings. The fire detection system was most recently upgraded in 2012 for Laurel Cottage, 2009 for Pioneer Cottage, and 1997 for Algon and Townline Cottages. The fire alarm control panels were recently upgraded in 1997 with the exception of the Pioneer Cottage which was upgraded in 2009.<sup>15</sup>

#### 1.3.3.6 Security

[REDACTED]

### **1.3.4 Modular Unit**

The Modular Unit (Figure 1.3.4) is a single-story, 10,000 GSF building with dormitory style rooms and communal toilet and shower rooms. The design and placement of the building allowed for a possible expansion but was never more than a possibility.<sup>1</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
15 Information received by DCAMM and/or DOC via correspondence

The Design Team did not walk through this building during the initial site walk-through due to limited time.

Figure 13.4 Modular Building <sup>7</sup>



#### 1.3.4.1 Structural & Building Envelope

The structure is made of prefabricated light wood framing, EPDM roofing membrane, painted T1-11 plywood siding, and isolated foundation footings. Trim was installed horizontally at the wall levels and was wrapped in steel. Windows are minimally double-glazed steel framing sliding assemblies and doors are steel panel assemblies.

Per the Faithful + Gould 2020 FCA study, it is likely that the Modular Unit has exceeded its estimated use. It is also suspected that there may be structural issues based on the exterior facade's noticeable deterioration.<sup>1</sup>  
<sup>2</sup>It is suspected that the structural integrity was compromised from the chassis needed for road travel.<sup>15</sup>

There are several roof issues that have been identified. Since the building is currently unoccupied, there is no urgent need to make extensive repairs. However, if this prefabricated building is repurposed, a thorough analysis of the building's structural integrity will be required, as well as repairs as needed.<sup>1</sup>

#### 1.3.4.2 Mechanical

This structure's heating system includes a gas-fired packaged rooftop unit with packaged DX rooftop units for cooling. Terminal air conditioning units is only available to staff and administrative areas only. Due to the age of the systems, they should be replaced as they are in a state of disrepair.

Air is distributed and ventilated through the rooftop packaged air conditioning units. The existing exhaust system includes cabinet bathroom exhaust fans. The air distribution and ventilation system may be in acceptable conditions and appropriately sized for the building.<sup>2</sup> However, the cabinet bathroom exhaust fans are insufficient as there is poor indoor air quality. It is recommended that the exhaust fans be appropriately sized and are roof-mounted.<sup>1,2</sup>

Building systems for the Modular Unit is independent from the rest of the campus.<sup>15</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021

15 Information received by DCAMM and/or DOC via correspondence

### 1.3.4.3 Electrical

The Modular Unit shares a 4,160-volt incoming service feed with the Brewster Building and the Pioneer Cottage. It's distribution system includes a pad-mounted service transformer. No deficiencies appear to exist with the existing systems.

However, the existing 1980's diesel-fuel emergency power generator is considered vintage and should be replaced.<sup>2</sup>

No emergency lighting is provided in the building and is recommended that emergency battery units are placed along the path of egress.<sup>1</sup>

While it was not verified on site, it can be assumed that similar to the other buildings on site, there are missing ARC flash labels warning of high voltage on all electrical equipment.<sup>1</sup>

Interior light fixtures include T-12 fluorescent light bulbs and exterior light fixtures include metal halide lamps.<sup>15</sup>

### 1.3.4.4 Plumbing

The Modular Unit's domestic hot water heating equipment includes two tankless natural gas heaters that were installed in 2017.<sup>2</sup> Due to its age and potential lack of use since the building is currently unoccupied, it is likely that the system can be remained. However, if this building is to be repurposed, the system will need to be inspected.

### 13.4.5 Fire Protection

The building is not sprinklered nor does it have structural fire protection. It is recommended that if the building is repurposed for the reimagined campus, that a sprinkler system is added.<sup>1</sup> There is fire detection system that was installed in 2017<sup>15</sup> but is considered obsolete and should be replaced with newer, modern system.<sup>2</sup>

### 1.3.4.6 Security



## **1.3.5 Brewster Building**

The Brewster Building (Figure 1.3.5) is a two-story, 15,560 GSF building with dormitory style housing units and communal toilet and shower rooms.

The building does not have an elevator, leaving the second floor dormitory completely inaccessible to inmates with disabilities.<sup>1</sup> The building would require significant structural and life safety requirements, as well as changes in functional use and flow, if an elevator were added into the building.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

15 Information received by DCAMM and/or DOC via correspondence

The Design Team did not visit this building during their December 15, 2021 visit.

Figure 13.5 Brewster Building <sup>7</sup>



#### 1.3.5.1 Structural & Building Envelope

The structure is made of prefabricated wood framing with an EPDM roof membrane, painted wood exterior sidings, and isolated foundation footings. Trim was installed horizontally at the wall levels and was wrapped in steel. Windows are minimally double-glazed steel framing sliding assemblies and doors are steel panel assemblies.<sup>2</sup>

Due to settlements in the ground, the building has experienced issues of racked door openings by the dormitory area, etc. as a result. Additionally, the roof and rooftop units have been problematic and have not been successfully remedied by the maintenance team. There is the possibility of structural issues as there is significant deterioration to the exterior facade.<sup>1</sup>

Under the shower areas have rotted structures. The facility attempted to have the areas repaired but the work was never followed through.<sup>1</sup>

#### A4.3.5.2 Mechanical

A gas-fired packaged rooftop unit is used to provide this building's interiors with heating. Cooling is provided via a packaged direct expansion (DX) rooftop unit. The latter units should be replaced as they were noted to be in a state of disrepair.<sup>2</sup> Even with partial replacements, the units are not functioning properly and should be replaced completely with a new, modern system.<sup>1</sup>

The building also utilizes cabinet bathroom exhaust fans<sup>2</sup> which may not be sufficient. As there are residents currently living in the building, it is recommended that further investigation be made to ensure the fans are sized properly.<sup>1</sup>

Mechanical units are rooftop units and are independent from the rest of the campus.<sup>15</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021

15 Information received by DCAMM and/or DOC via correspondence



#### A4.3.5.3 Electrical

Electrical supply to the building comes via a 4,160-volt service feed and is distributed from a pad-mounted service transformer. The current equipment appears to be sufficient for its current needs.<sup>2</sup>

However, the emergency power generator is a 1980's vintage diesel generator that should be replaced as it is no longer a modern system.<sup>2</sup>

#### 13.5.4 Plumbing

Like the Modular Unit, the Brewster Building utilizes two tank-less natural gas systems for their domestic hot water needs.<sup>2</sup> No notes of inefficiencies have been made.<sup>1</sup>

#### 13.5.5 Fire Protection

This building utilizes gas for its hot water heating system but fails to have any carbon monoxide detection systems in place. Residents currently occupy the space, therefore carbon monoxide detectors should be installed immediately.<sup>2</sup>

The building includes both a fire suppression system and a fire detection system. [REDACTED]

#### 1.3.5.6 Security

[REDACTED]

### **1.3.6 Old Superintendent's Building**

The Old Superintendent's Building (or "Old Superintendent's House" as it's also referred to as) was built in 1877 and is a 2.5 story, 6,480 GSF building formerly occupied by the Superintendents of the facility. Prior to the construction of the Betty Cole Smith Building, the Old Superintendent's Building was the main entrance into MCI Framingham (Figure 1.2.1).

The house has been vacated since the 1980's<sup>2</sup> and has rapidly deteriorated. Due to the poor building conditions, the Department of Public Safety requested a fence to surround the area to prevent people from entering the building and/or to removing the potential of loose brick falling. The DOC has complied to this request (Figure 1.3.6).<sup>2</sup>

<sup>2</sup> From Faithful + Gould's 2020 MCI Framingham FCA Study  
<sup>15</sup> Information received by DCAMM and/or DOC via correspondence

Figure 1.3.6 Old Superintendent's House fenced off<sup>3</sup>



The Design Team was not able to walk through the building as it is fenced off. All observations were made from a distance. Due to the safety concerns of accessing the building and its significant deterioration, it is likely that the Old Superintendent's Building is unsuitable for adaptive reuse.<sup>1,3</sup>

#### 1.3.6.1 Structural & Exterior Envelope

Its wood framed structure, brick wall exterior, and slate covered sloped roofs have significantly deteriorated. The natural slate and built-up roofing system has cracked, delaminated, and slipped slates, as well as corrosion of its fasteners.<sup>2</sup>

The building sits on cast-in-place concrete footings.<sup>2</sup>

Based on seeing the house at a distance, the porch, windows, and doors have significantly deteriorated or been damaged. If the building is reused, all three elements would require reconstruction or replacement. It is also likely that due to the deterioration of the brick and roof that there is significant internal due to water infiltration.<sup>1,4</sup>

#### 1.3.6.2 Mechanical

The Old Superintendent House utilizes a radiant steam heating system. No cooling system exists. The temperature control system is unknown<sup>2</sup> and is believed that no operational heating system exists.<sup>4</sup>

#### 1.3.6.3 Electrical

The incoming service feed is 120/208-Volts, and there is no known distribution equipment. Very little inspection was performed in previous studies.<sup>2,4</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study

### 13.6.4 Plumbing

It is currently unknown how the Old Superintendent's Building supplies domestic hot water throughout its interior spaces. From previous reports, its likely that a trap does not exist as it could not be located.<sup>4</sup>

### 13.6.5 Fire Protection

Due to the age of use of the building, it is not likely that a sprinkler system exists inside the building.<sup>1,4</sup>

### 13.6.6 Security



## **1.3.7 Old Administration Building**

This 1887 building (Figure 1.3.7) is approximately 118,000 GSF that spans over three stories and a basement level.

Figure 1.3.7 Old Administration Building<sup>3</sup>



### 1.3.7.1 Structural & Exterior Envelope

The building's structure is comprised of wood and steel frames with an unreinforced brick exterior wall (laid in a running bond pattern) and cast-in-place concrete and brick piers. The roof consists of three tab fiberglass reinforced asphalt, natural slate shingles, and/or mechanically attached EPDM membranes at both multi-sloped and low-sloped roof areas. Roofs are drained to copper gutters and downspout assemblies.<sup>1,2</sup> Replacements to the damaged slate shingles, flashing, and fasteners have been made on an as-needed basis. No major repairs or replacements have been made.<sup>1</sup>

- 1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021
- 2 From Faithful + Gould's 2020 MCI Framingham FCA Study
- 3 Observation made on-site on December 15, 2021
- 4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study
- 15 Information received by DCAMM and/or DOC via correspondence

Due to the age of the building, there are natural mortar and brick erosion at the interior and exterior load-bearing foundation walls.<sup>1,2,3</sup> The brick in the basement has not been addressed and is noted to be significantly deteriorating.<sup>1,3</sup> Additionally, there is notable mortar and brick deterioration at the building's 13 chimneys, which have detached and damaged the roof. It has been recommended that the chimneys be demolished in order to prevent any further damage to the building.<sup>2</sup>

The existing windows vary in condition. The newest windows date between 1983 and 2012 and were installed based on programmatic requirements when that particular area of the building was undergoing renovation. These windows are double-glazed anodized aluminum framed assemblies. Older windows (40+ years old) are single-paned wood sash assemblies. In some areas, the older window units have been removed and infilled with wood or masonry.

Window ledges are typically cast stone.

Doors are a mix of steel panel service doors and older wood doors.<sup>2</sup>

Overall, this building appears to have chronic moisture and humidity issues that are potentially contributing to rot (and potential termite) activities that are reported.<sup>1</sup>

This building is one of the few buildings on campus that has elevators installed - both a in-ground jack hydraulic freight elevator with a capacity of 10,000 lbs.

Additionally, there are three overhead traction dumbwaiters, each with a capacity of 100 lbs each.<sup>2</sup> All dumbwaiters are the connecting points between the main kitchen and the culinary kitchen, which are stacked on top of each other.<sup>1,3</sup> The dumbwaiters are reported to be slow and time-consuming to operate, but the users are able to cope with the situation.<sup>1</sup>

### 1.3.7.2 Mechanical

Radiant steam heating is utilized for the Old Administration Building controlled by a manual steam valve throttle. The lack of forced air ventilation is noticeable throughout areas of the interior. Natural ventilation is the only exhaust system provided in the building. This passive method is not likely to be sufficient for the occupancy.<sup>2</sup>

Through-wall heat pumps are provided in the building, but only to staff and administrative areas only.<sup>2</sup>

If repurposed, it is likely that the entire mechanical system would need to be removed and replaced with right-sized and efficient equipment. Additionally, the building envelope would require improvements for any new system to function efficiently.<sup>1,3</sup>

### 1.3.7.3 Electrical

The incoming service feed to this building is 4,160 volts and is distributed through a pad-mounted service transformer. Both of these systems are from the 1960s and are considered vintaged and obsolete. The system would require to be removed and replaced.<sup>2,3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021

The life safety system does not currently meet the 2020 NEC Article 700 which requires that only life safety loads are circuited to the life safety branch. Standby loads are currently connected to the same transfer switch. An MTS for connection to a roll-up generator is also required.

The existing back-up generator were replaced in 2014 with pad-mounted, gas systems located on site. However, this system is considered outdated and should be removed and replaced if this building is repurposed.<sup>3</sup>

The fire alarm system is conventional and it is recommended to be replaced.

Lighting throughout the building is outdated and past its useful life. It is recommended that this system is replaced and updated to a modernized system.<sup>1,3</sup>

[REDACTED] All equipment requires an ARC flash label warning people of high voltage equipment.<sup>3</sup>

#### 1.3.7.4 Plumbing

Domestic hot water is provided partially from the Power Plant and partially from the electric hot water heaters located in the basement.<sup>3</sup> These electric hot water heaters are believed to have been installed in 1970. The capacity and manufacturer are unknown.<sup>2</sup>

A significant portion of the sanitary lines are over 50 years old and should be evaluated. However, it should be noted that there have not been any significant plumbing system failures.<sup>2</sup>

#### 1.3.7.5 Fire Protection

This building is partially sprinklered. There is missing coverage in parts of the Museum and the old cells in storage areas of the basement. It is recommended that all un-sprinklered spaces have sprinkler protection installed.<sup>3</sup>

[REDACTED] It is and has been recommended that the fire alarm system be completely upgraded.<sup>2,3</sup>

A double check valve assembly (DCVA) does not currently exist on the fire service. It is recommended that one is installed on the service.<sup>3</sup>

The kitchen hoods are tied into the building's fire suppression system.<sup>1</sup>

#### 1.3.7.6 Security

[REDACTED]

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

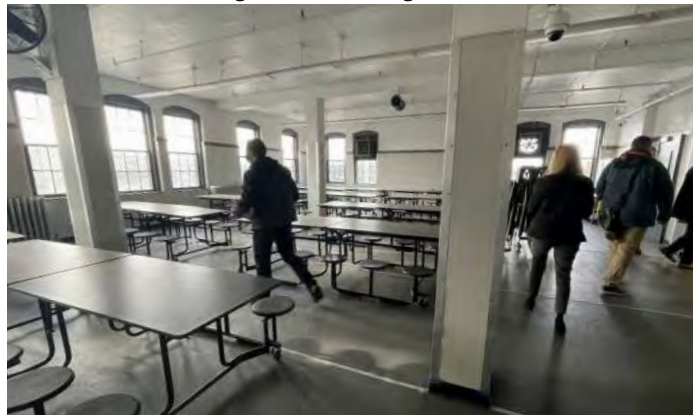
3 Observation made on-site on December 15, 2021

### 1.3.7.7 Kitchens & Dining Room

Observations based on the 1964 EJ Flynn Associates plans indicate that this facility is oversized based on the Department of Justice (DOJ) requirements of 10 sq.ft. minimum per inmate. At a population of 200, that would be 2,000 sq.ft. The scaled imaged comes to approximately 7,663 sq.ft.<sup>5</sup>

Dining is recommended to be at 12-15 sq.ft. per inmate. That is 2,400 - 3,000 sq.ft. The kitchen plans do not show the dining space. Based on pictures (Figure 1.3.7.6), it seems the existing dining space is undersized. Proper measurements would be needed to document for proper assessment. However, given discussions had during the virtual site meeting, it was noted that the current configuration of the kitchen production one level lower than dining, coupled with the dumb waiter requirement to transport food is ineffective and time consuming.<sup>1</sup>

Figure 1.3.7.7 Dining Room <sup>3</sup>



The recommendation would be to rework the kitchen space in the basement in a manner that would allow for dining services to take place adjacent to it for a more fluid and traditional approach.<sup>1</sup>

Given that dining only needs to be 2,400-3,000 sq. ft. to be right-sized for the population, approximately 31%-39% of the existing kitchen space should be repurposed for dining. With the balance 61%-69% used for kitchen services. The kitchen would encompass approximately 5,263-4663 sq. ft.

The Old Administration Building currently has a culinary arts program in place with an existing kitchen, located adjacent to the Dining Room on the First Floor and above the main kitchen in the Basement. In the virtual site visit, the desire for maintaining the culinary arts program was expressed. Based on the 2006 drawings by SMRT as part of the DRM 2005-58 project, the space seems to have all the components required for a culinary program. This observation is only at a surface level without knowledge of the full program. However, the infrastructure is in place to support the program.<sup>1</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021  
5 EJ Flynn Associates' 1964 Floor Plans

New equipment has been purchased through capital improvements when funds are available and the facility submits a request.<sup>15</sup> For the most part, the kitchen equipment is many years old and should be tested for efficiency and the potential amount of life remaining.<sup>1</sup>

Based on site visit pictures, curbs in the main kitchen were noticed.<sup>3</sup> The purpose of the curbs in the kitchen is to minimize flooding which occurs periodically.<sup>15</sup> The recommendation is to determine the point of water infiltration, remove curbs to allow for more flexibility and prevent potential drainage issues.<sup>3</sup>

Overall, the finishes in the kitchen, given the age, appear to be in good condition. Hoods appear to be original to the building and should be tested and checked for code compliance.<sup>3</sup>

A large 4,000 gallon grease trap is located outside of the kitchen. The grease trap routinely gets pumped and is maintained on a regular basis. Routine maintenance occurs once a month if not more.<sup>1</sup>

Ramps leading into kitchen seem to be non-ADA compliant and do not seem to have a slip-resistant finish.<sup>3</sup>

Per the Faithful + Gould 2020 FCA study most of the equipment in the main kitchen space is dated to the year 2000. At 22 years old the equipment has met or is approaching its useful life expectancy. If the project is brought into a construction phase, recommendation would be to replace all equipment with newer more energy efficient units. Tables, counters, and shelving can be reused, as needed.<sup>1,2,3</sup>

### **1.3.8 Vehicular Trap**

The Design Team did not walk through and evaluate the space during the initial on-site visit.

Figure 1.3.8 Vehicular Trap <sup>4</sup>



1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study  
15 Information received by DCAMM and/or DOC via correspondence

### 1.3.8.1 Structural & Exterior Envelope

It is believed to be supported by of wood framing with a sloped EPDM roofing system and vinyl lap siding. The existing vinyl lap siding is noted to be in fair condition and can be replaced as-needed on a operational expense basis.<sup>2</sup>

### 1.3.8.2 Mechanical

A through-wall heat pump system provides both heating and cooling needs for this small building. It appears to be sufficient for the building's purposes.<sup>1,2,3</sup> If needed, additional ventilation is provided via operable windows.<sup>3,4</sup>

### 1.3.8.3 Electrical

There is a transformer located in the office space which has not been problematic but ideally should be moved elsewhere.<sup>3,4</sup> The structure is supplied with a 120/208-volt service feed.<sup>2</sup>

### 1.3.8.4 Plumbing

Domestic hot water heating is supplied through a one gallon electric Hubbell system that was installed in 1995, a few years after the structure was constructed.<sup>2</sup>

There may be sediment filled water as a result of the domestic water being fed from the Municipal and being a dead-end line. This condition should be investigated and remedied if it creates potable water issues.<sup>4</sup>

### 1.3.8.5 Fire Protection

It is assumed that no fire protection is provided to this small, low capacity structure.<sup>1,2,4</sup>

### 1.3.8.6 Security



## **1.3.9 Maintenance Building**

The Maintenance Building (Figure 1.3.9) was built in 1927 with approximately 12,400 GSF to house tools, materials, work areas, etc.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study



Figure 1.3.9 Maintenance Building<sup>4</sup>



The Design Team did not walk through and evaluate this building during the initial on-site visit.

#### 1.3.9.1 Structural & Exterior Envelope

The structure consists of brick masonry supported on isolated and continuous footings. Structural components are in overall poor condition. The brickwork around the building was noted to be deteriorating. The second floor of this structure consists of mild steel reinforced concrete slab, and is noted to have major areas of delamination where reinforcing steel rebar is exposed and corroded on both the topside and underside. This condition poses as a great hazard. Additionally, the supporting columns are noted to have expansive deterioration and failure.<sup>2</sup>

The roof is covered with multi-level low-slope three-tab fiberglass reinforced shingles roofing system. The Faithful + Gould 2020 FCA Study notes the roof to be in fair condition. While leaking does occur, the issue can be mitigated with proper and elevated maintenance.<sup>2</sup>

The older windows range in fair to poor conditions with areas of structural failure, peeled paint, rotted wood, and glazing failures. It has been suggested that these replacements occur in the next five years.<sup>2</sup>

Doors were in fair to good conditions and can be repaired or replaced as an operational expense.<sup>2</sup>

The building's structural integrity should be assessed if used for the reimagined project.<sup>1</sup>

#### 1.3.9.2 Mechanical

Steam unit heaters are still utilized at the Maintenance Building. For cooling needs, through-wall heat pumps are provided in the staff and administrative only areas. No mechanical ventilation exists in this structure.<sup>2</sup>

#### 1.3.9.3 Electrical

The 120/208-volt service feed is provided via a sub-feed from the Power Plant.<sup>2</sup> This system is beyond its useful life as many circuits have corroded and/or have become overloaded.<sup>4</sup>

On the southwest exterior corner of this building is a step-down transformer.<sup>2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study

#### 1.3.9.4 Plumbing

Domestic hot water is supplied through an electric point-of-use system. Unless fixtures were replaced since 2014, it is likely that continuous deterioration occurred. One of the most concerning condition lies with the exposed cast iron piping, which was noted in 2014 to be in poor to fair condition.

The number of plumbing fixtures is not compliant with the plumbing code.<sup>4</sup>

#### 1.3.9.5 Fire Protection

The building is supplied with a dry sprinkler system with upright heads that is fed from a 4" dry pipe alarm valve.<sup>4</sup> A fire alarm system is provided within the building, but it has no structural fire protection.<sup>2</sup>

### **1.3.10 Power Plant**

The Power Plant currently serves both MCI Framingham and South Middlesex Correctional Center.<sup>1</sup>

#### 1.3.10.1 Structural & Exterior Envelope

This 1920 wood-framed, brick exterior structure (Figure 1.3.10.1) stands at approximately 5,900 GSF over two-stories with a cast-in-place concrete floor slab and brick piers. Like many of the buildings on campus, the roof consists of a EPDM system.<sup>1</sup>

Figure 1.3.10.1 Power Plant <sup>4</sup>



Due to extensive deterioration and weathering, the large brick chimney has been leaning towards the eastern direction at a rate of 2 centimeters per year. It is currently held in place by wood bracing and wiring (Figure 1.3.10.2). The chimney, which is in poor condition and has the potential of falling on the Power Plant, has been recommended for demolition by the Faithful + Gould 2020 FCA Study; this recommendation was visually confirmed during the site visit.<sup>3</sup>

The chimney is a prominent visual feature to the campus and may not be one that the Massachusetts Historic Commission (MHC) will allow for demolition without proper reasoning. Based purely on assumptions, the MHC may require the Design Team to explore a more robust means of stabilizing the existing condition.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

3 Observation made on-site on December 15, 2021

4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study

Figure 1.3.10.2 Power Plant - Top of chimney braced by wooden slats and metal wiring<sup>3</sup>



Active moisture infiltration issues has been reported. Additionally, the concrete foundation has deteriorated and has been documented.<sup>1</sup>

Recently, a new structure was placed north of the existing Power Plant that houses the two new boilers that will phase out the existing 1959 and 1962 oil-burning boilers (Figure 1.3.10.3). This structure is a corrugated metal structure supported by metal trusses. With the exception of one side where this structure meets the existing Power Plant's exterior wall, the interior walls and the underside of the roof structure contain spray foam insulation.

Figure 1.3.10.3 Power Plant - New Boiler Room addition<sup>3</sup>



More investigation needs to be made on the connection between the new boilers' housing structure and the existing Power Plant structure.<sup>3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

3 Observation made on-site on December 15, 2021

### 1.3.10.2 Mechanical

The Power Plant has been supplemented with a new plant that only holds new steam boilers. Many of the components of the steam system that are still needed such as the condensate tanks which are still located in the original steam plant. It is recommended to replace this equipment in a new expansion of the new plant. After the system is up and running, the existing plant should be demolished and removed.<sup>3</sup>

Rooftop exhaust fans and gravity vents are provided to the building.<sup>2,3</sup>

[REDACTED] Further investigation will be required to determine the structural and efficiency of the system and how a system alteration, replacement, decommissioning, or demolition of the central steam plant affects these buildings.

### 1.3.10.3 Electrical

This building has an incoming service feed of 4,160 volts and distributes that electricity via a pad-mounted service transformer.<sup>2</sup> The feeders and substations are original to the building and are past their useful life. It is recommended that this system is replaced with a medium voltage campus distribution with 13.8KV distribution and an exterior Nema 3R rated switchgear.<sup>3</sup>

The original 1965 motor control center is past its useful life.

It is recommended that temporary wiring be replaced with permanent wiring.<sup>3</sup>

Currently, there are several non-powered exit signs. Non-powered exit signs are required to be illuminated to 1.0 vertical footcandles. It is recommended that new, code-compliant, battery powered exit signs are installed at all egress doors and along the egress path.<sup>3</sup>

There is no central emergency generator. Each building has a generator in various stages of condition. It is recommended that a 13.8KV generator sized for the campus is included in the medium voltage electrical infrastructure upgrade.

There are combustible items in the switchgear room. It is recommended that all combustible items are removed.

The generator is aged and not in a rated room. It is recommended that this existing generator is replaced with an exterior generator that is in a sound attenuated enclosure.

The life safety system does not meet the 2020 NEC Article 700 requiring that only life safety loads are circuited to the life safety branch. Standby loads are also connected to the same transfer switch. An MTS for connection to a roll-up generator is also required.

All equipment require an ARC flash label notifying occupants of high voltage equipment.<sup>3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
17 From the 2014 Framingham Energy Audit completed by RMF Engineering, Inc.

#### 1.3.10.4 Plumbing

A 10" line from the east serves this building. The domestic hot water heater that serves the Old Administration Building is located here.<sup>1,2,3</sup>

There are known leaks from the sanitary line [REDACTED]. There is difficulty getting to the pipes as other utilities are in the way. It is recommended that said utilities are relocated so the sanitary line can be addressed and fixed.<sup>3</sup>

Natural gas systems are supplied from the local utility from a main running along Western Avenue and Herring Avenue into the building.<sup>2,3</sup>

#### 1.3.10.5 Fire Protection

The Design Team observed partial sprinkler coverage in the existing Power Plant. The new addition that houses the two new boilers is not sprinklered. It is recommended that all unsprinklered areas install a sprinkler protection. The team did not evaluate if the existing system is to code compliance.<sup>3</sup>

### **1.3.11 Ancillary Buildings**

The following is a list of ancillary buildings that exist on campus:

- Greenhouse
- Tool Crib

## **1.4 Uses and Occupancy**

### **1.4.1 Betty Cole Smith Building**

The Betty Cole Smith Building was noted by the DOC as an "island" as it is capable of intake, housing, dining, visitation, and administration.

[REDACTED]

In the last few years, the intake area replaced its existing skylights as water leakage was problematic. The decision to replace the skylights rather than infill the area was to provide passive lighting into the space, which is adequately provided. [REDACTED], toilet facilities, holding cells, medical examination rooms, and storage rooms.

Currently, the building houses approximately 100 women living in the tiered housing unit with a central dayroom and hard cells (Figure 1.4.1.1). Each cell is capable of housing a single occupancy or double occupancy. Each dayroom has a skylight and visual access by the Control Room located on the 2nd Floor (Figure 1.4.1.2).<sup>3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021

Figure 1.4.1.1 Tiered housing unit with central dayroom<sup>3</sup>

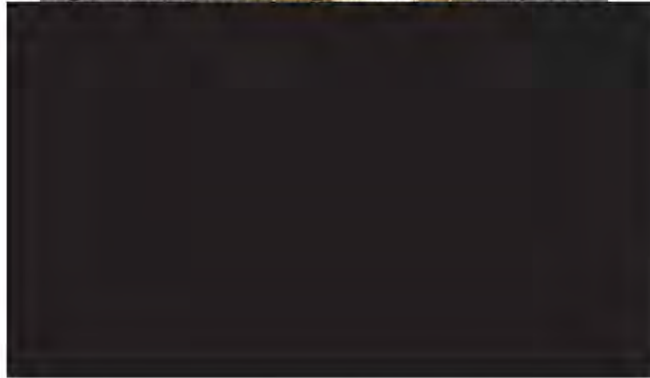
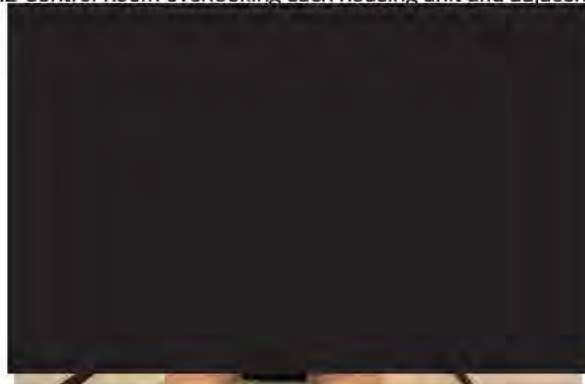


Figure 1.4.1.2 Control Room overlooking each housing unit and adjacent corridors<sup>3</sup>



Shared bathroom facilities are provided for each housing unit, as well as Consultation Rooms.

Not all of the housing units are currently occupied.<sup>3</sup>

The inmates residing in Betty Cole Smith and the Cottage go to the warming kitchen, located on the east portion of the 2nd Floor. The food is brought over from the Old Administration Building's main kitchen via warming carts. The inmates are served meals through the kitchen's pass-through window and eat in the Dining Hall. When the warming kitchen is closed, a roll down gate covers the pass-through window (Figure 1.4.1.3).

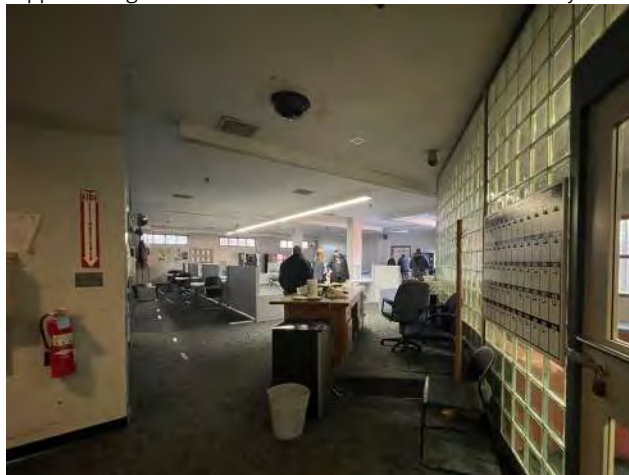
<sup>3</sup> Observation made on-site on December 15, 2021

Figure 1.4.1.3 Roll-down passthrough window at the Kitchen<sup>3</sup>



A large contact visitation space is provided for its residents. Due to COVID, the visitation space is underutilized as the facility has been restricting visitors from entering the building. A large visitation room with privacy partial-height walls for general family visitation is provided (Figure 1.4.1.4). A Children's Playroom, which is partitioned off with glass block walls (Figure 1.4.1.5), is provided in efforts for incarcerated women to interact with their child(ren) in a more child-friendly environment.

Figure 1.4.1.4 Approaching the Visitation Room with the Children's Playroom on the right<sup>3</sup>



3 Observation made on-site on December 15, 2021

Figure 1.4.1.5 Children's Playroom adjacent to the Visitation Room<sup>3</sup>



Per the DOC, there is ample of offices located on the 2nd Floor of the building's southern wing.

### **1.4.2 Infirmary Administration Building**

The Infirmary Administration Building is, at the time of the site visit, occupied by 33 women with approximately 80-90% on medical call.<sup>3</sup> The 2nd Floor Barton Unit can hold up to 42 women.<sup>15</sup> The Medically Assisted Treatment (MAT) program is located in the southern wing of the first floor. The Health Services Unit (HSU) housing rooms are located on the north wing of the first floor.<sup>1,3</sup>

The health services, currently located on the second floor, includes an X-Ray Room, a Dental Room, an Ophthalmology Room, an Obstetrician-Gynecologist Exam Room, and a Nursing Room.<sup>3</sup>

A Medication distribution area is located on the southwest corner of the building's 2nd Floor. And directly across the corridor is a paper records space.<sup>3</sup>

Women can reside and participate in this program on a short-term basis to the entire length of an occupant's stay at the campus.<sup>3</sup>

### **1.4.3 Cottages**

The cottages have always been intended to house residents. Each of the four cottages is intended to house 68 residents in 34 rooms<sup>15</sup> (Figure 1.4.3a) - all rooms are shared with the exception of the relatively new accessible rooms (Figure 1.4.3b). Currently, only Laurel Cottage is currently occupied.<sup>3</sup> The other three cottages have been vacated since October 2016 with authorization to reoccupy the Townline Cottage in November 2020.<sup>15</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

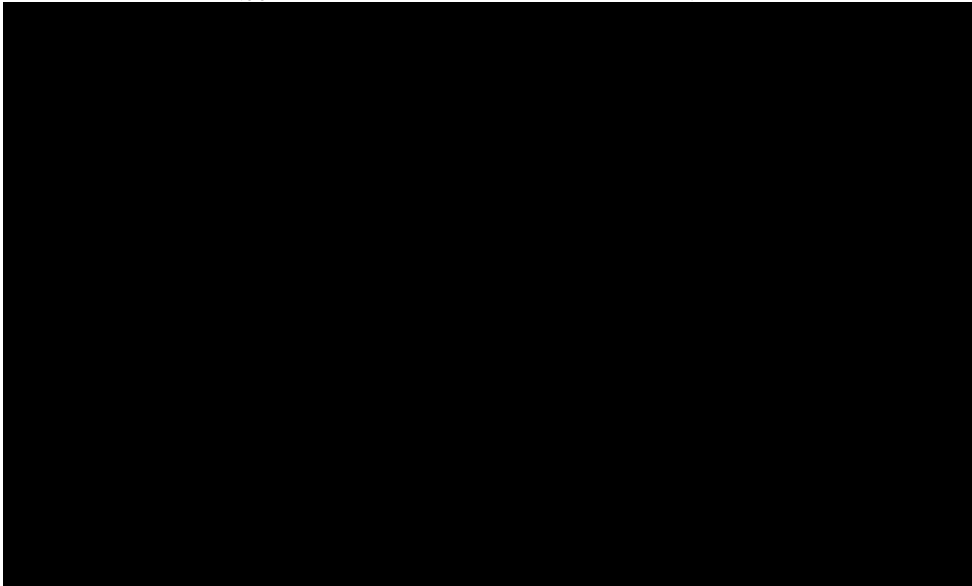
3 Observation made on-site on December 15, 2021

15 Information received by DCAMM and/or DOC via correspondence



Figure 1.4.3a Cottage - Double Occupancy Room<sup>3</sup>

Figure 1.4.3b Cottage - Single Occupancy Room, Accessible<sup>3</sup>

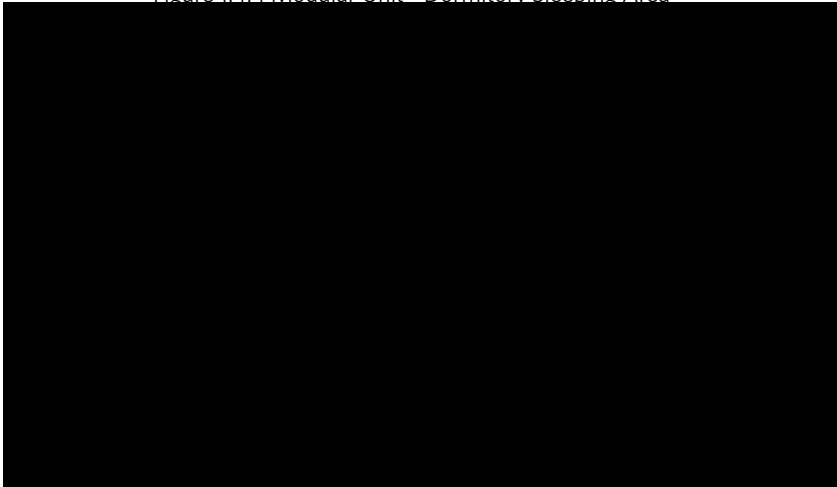


Laurel Cottage, the most western cottage, was once designated to house men. As a primarily female facility, housing men on campus required additional fencing to separate the two demographics.<sup>3</sup>

**1.4.4 Modular Unit**

The Modular Unit was originally used to house residents in a dormitory style (Figure 1.4.4) setting with communal bathrooms. It is currently unoccupied.<sup>1</sup>

Figure 1.4.4 Modular Unit - Dormitory Sleeping Area<sup>4</sup>

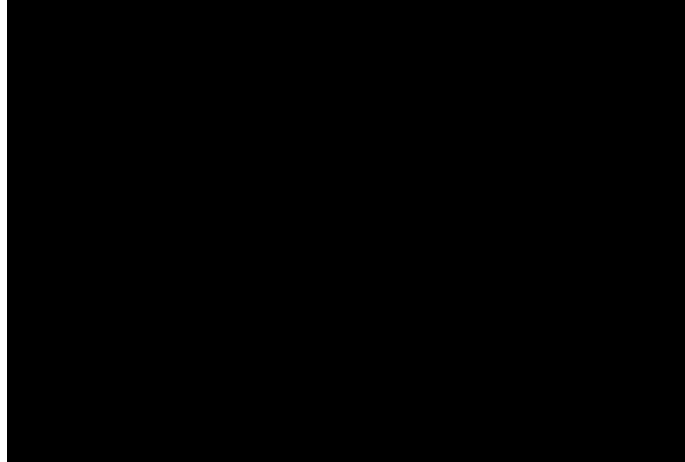


1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021

### **1.4.5 Brewster Building**

The Brewster Building is currently occupied with inmates with their sleeping areas divided into rooms of eight occupants in each room (Figure 1.4.5). As mentioned in Section 1.3.5, settlement within the building has caused door openings to rack in the dormitory areas, making it more difficult to open and close the doors properly.<sup>1</sup>

Figure 1.4.5 Brewster Building - Dormitory Sleeping Room <sup>4</sup>

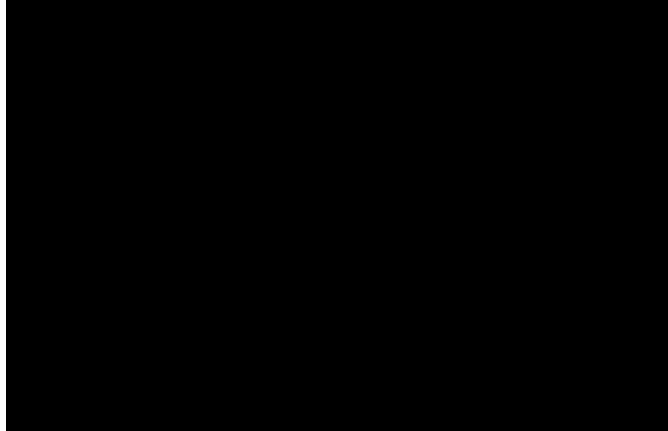


### **1.4.6 Old Superintendent's Building**

This house housed the facility's superintendent for over 100 years before it was abandoned. A connecting corridor exists between this building and the neighboring Old Administration Building, however, access was boarded off at the Old Administration Building's side once the house was abandoned.<sup>1</sup>

For a short time after the house was vacated, it was used for light storage (Figure 1.4.6). However, the Department of Public Safety requested the building be fenced off due to safety concerns to which the DOC complied.

Figure 1.4.6 Old Superintendent's Building - Interior Room <sup>2</sup>



1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

2 From Faithful + Gould's 2020 MCI Framingham FCA Study

4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study

### 1.4.7 Old Administration Building

The interiors of the Old Administration Building shows insight of the history and evolution of this building's usage. It contains vocational and educational programs, administrative spaces, a barber shop, a courtyard garden, and recreational programs such as a basketball court and a gym. Although not used, a performance stage does exist in the same space as the indoor basketball court (Figure 1.4.7a).

Figure 1.4.7a Old Administration Building - Performance Stage and Indoor Basketball Court <sup>3</sup>

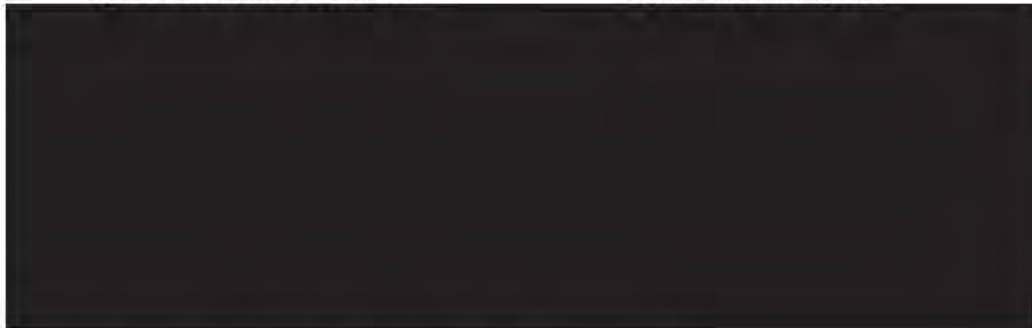


A textiles and embroidery shop does exist within the building which used to also include a sock factory. Mattresses used on a campus are also stored, refilled, and fixed in the basement level of the building (Figure 1.4.7b).

Commercial washers and dryers are located in the basement (Figure 1.4.7c) and are currently used for the campus' needs.

Figure 1.4.7b Mattress Work Area <sup>3</sup>

Figure 1.4.7c Laundry Area <sup>3</sup>



A chapel exists in the south wing of the building and is still in use today.<sup>1</sup>

A full-size industrial kitchen and a separate culinary arts program exist within this building.

Currently, the second floor contains several offices. When there were 800 inmates on campus, these spaces were used as psychological therapy rooms.

<sup>1</sup> Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

<sup>3</sup> Observation made on-site on December 15, 2021

The basement also contains antiquated female health services equipment that have been abandoned but remain as part of the history of the building (Figure 1.4.7d).

Figure 1.4.7d Antiquated & abandoned Health Services beds from the 1800s<sup>3</sup>



A significant amount of the building, especially the basement, is currently utilized for storage. Storage includes inmate property, linens, laundry, and portable oxygen tanks.<sup>1,3</sup>

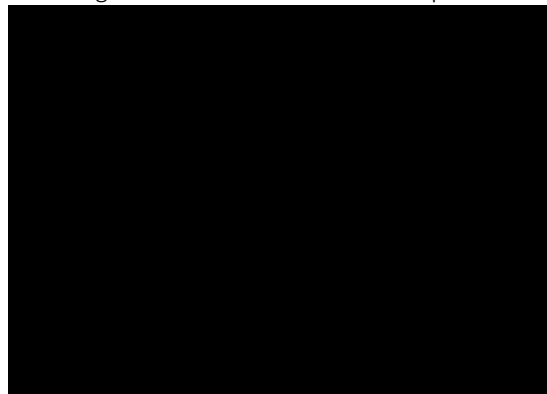
Due to the deterioration of the building, there are areas, particularly on the third floor, that are unoccupied and either vacated or used for storage.<sup>2,3</sup>

The kitchen was recently fully tested in the event that a significant amount of inmates needed to be transferred to the facility due to the COVID-19 pandemic. No mass transfers were ever made.<sup>1,3</sup>

### **1.4.8 Vehicular Trap**

This small structure's purpose is to control traffic of vehicles arriving and leaving the facility's premise and is located within the vehicular sallyport (Figure 1.4.8).<sup>1,2,3</sup>

Figure 1.4.8 Interior of Vehicular Trap<sup>4</sup>



1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
4 From Kleinfelder's 2014 MCIF/SMCC Feasibility Study

**1.4.9 Maintenance Building**

This building is used to store and provide an area for maintenance and repair.<sup>1</sup>

**1.4.10 Power Plant**

The Power Plant has and continues to act as the hub for the campus' power needs. It also services the campus' neighboring facility - South Middlesex Correctional Center.<sup>1,2,3</sup>



**1.5 Accessibility**

This portion of Study was derived from Jensen Hughes' observations from the December 2, 2021 Virtual Site Visit, the KMA Access Audit Reports, Faithful + Gould's 2020 FCA Report, and other documentation provided by HDR. See Appendix D for the full report.

**1.5.1 Campus**

Currently, the parking lot offers accessible parking spaces; however, the spaces are not fully compliant. A portion of the existing parking spaces (closest to the entrance) will need to be reconfigured to include seven accessible parking spaces including two van-designated spaces. Signage and proper accessible aisle striping needs to be provided for every two spaces.

The campus is located approximately 700 feet away from the MCI/Adesa bus stop. Employees and visitors will arrive to the site via car or bus. If they are arriving via car, there are two parking lots on campus - a large parking lot for both the staff and public. There is a smaller parking lot north of the main parking lot that is for staff only.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021

There is no sidewalk provided from the public right of way to the building entrance(s).<sup>20</sup>

There are significant topographic challenges on the site. As mentioned in Section 1.1.2, a steeper slope exists between the Infirmary Administration Building and the Old Administration Building with the northwest side of the Old Administration Building and Old Superintendent's building.<sup>3</sup> Therefore, the Betty Cole Smith Building is the only building on campus that provides an accessible route to the different site elevations.<sup>3,15</sup>

If MCI Framingham is to be repurposed, accessible alterations to the existing site include, but are not limited to:

- Provide accessible routes between buildings and facilities in an existing steep terrain setting;
- Provide an accessible route from the public sidewalk to the main entry point (Betty Cole Smith) if a public sidewalk adjacent to the site is provided;
- Determine the number of required accessible parking spaces based on the total number of parking spaces provided in the parking facility. Considerations should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided;
- Provide accessible parking in the smaller staff-only parking lot;
- Provide a designated van accessible parking space for every six (6) accessible parking spaces to conform with the van accessible parking provisions including signage designating van accessible parking. Restriping of the parking spaces is required;
- Provide compliant access aisles to accessible parking spaces. Restriping of parking spaces is required;
- Address the deficiencies along the accessible route from the parking lots to the building entrance including excessive slope(s) and changes in level; and
- Provide amenities (e.g., Drinking fountains and benches) which are currently not located along the accessible route.<sup>1,20</sup>

### **1.5.2 Betty Cole Smith Building**

There are a number of accessibility related issues at the Betty Cole Smith Building with numerous deficiencies that need to be addressed. The following is a list of accessibility locations and/or issues:

- Update the following bathrooms to comply with accessibility provisions:
  - Visitor's Waiting Room - Men's Toilet Room
  - Visitor's Waiting Room - Women's Toilet Room
  - Visitation - Inmate Toilet Rooms
  - Visitation - Visitor Toilet Rooms
  - Intake - Inmate Toilet Room & Shower Room
- Retrofit the information desk in the 1st Floor Lobby to include an accessible section;
- Modify/Replace the existing non-compliant drinking fountains in the Visitor's Waiting Room and the Visitation Room with code-compliant drinking fountains;
- Provide code-compliant room signage to all rooms with non-compliant signage or without any signage;
- Make improvements to the ATU and CCU housing cells to be accessible;
- Modify the sink and toilet in the Medical Room that are not currently accessible;
- Provide an accessible, lower-serving counter in the Dining Room; and
- Provide accessible signs on both door jambs of the Elevator Hoistway Entrances on both floors.

<sup>1,20</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

3 Observation made on-site on December 15, 2021

15 Information received by DCAMM and/or DOC via correspondence

20 From Jensen Hughes' Accessibility Report dated March 25, 2022

### **1.5.3 Infirmary Administration Building**

Unfortunately, it is noted that the building would require to go under extensive renovation to bring it to full compliance. There have been previous attempts to make the building accessible, but the building remains largely inaccessible. Financially, it would be difficult to justify an accessibility renovation as well as potentially a programming process and renovation given the building's inability to adapt to modern programs and the building's existing aging systems.<sup>1,20</sup>

### **15.4 Cottages**

There are few accessibility issues that are required to be addressed if the reimagined facility project utilizes any or all of these structures. Requirements include:

- Gut renovate the Shared Inmate Shower Room nearest to the accessible cell to be fully accessible;
- Replace the existing non-compliant drinking fountain with an accessible drinking fountains; and
- Retrofit the sink in the Pantry Area to be ADA-compliant.<sup>1,2,3,20</sup>

### **15.5 Modular Unit**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct an accessible concrete ramp leading to the inmates' front entrance;
- Gut-renovate the Shared Inmate Toilet/Shower Rooms to be fully accessible;
- Install an ADA-compliant drinking fountain;
- Retrofit the existing pantry sink to be ADA-compliant.<sup>1,20</sup>

### **15.6 Brewster Unit**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct an accessible concrete ramp leading to the inmates' front entrance;
- Gut-renovate the Shared Inmate Toilet/Shower Rooms to be fully accessible;
- Retrofit the existing pantry sink to be ADA-compliant.<sup>1,20</sup>

### **1.5.7 Old Superintendent's Building**

Unfortunately, it is noted that the building would require to go under extensive renovation to bring it to full compliance. There have been previous attempts to make the building accessible, but the building remains largely inaccessible. Financially, it would be difficult to justify an accessibility renovation as well as potentially a programming process and renovation given the building's inability to adapt and existing and aging systems.<sup>1,20</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
3 Observation made on-site on December 15, 2021  
20 From Jensen Hughes' Accessibility Report dated March 25, 2022

### **1.5.8 Old Administration Building**

Unfortunately, it is noted that the building would require to go under extensive renovation to bring it to full compliance. There have been previous attempts to make the building accessible, but the building remains largely inaccessible. Financially, it would be difficult to justify an accessibility renovation as well as potentially a programming process and renovation given the building's inability to adapt and existing and aging systems.  
<sup>1,20</sup>

### **1.5.9 Vehicular Trap**

The Vehicular Trap is a staff-only building and was not reviewed in the Faithful + Gould 2020 FCA Study for accessibility issues. The building will require a full accessibility assessment if it is considered to be a viable option for repurposing.

### **1.5.10 Maintenance Building**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Construct an accessible concrete ramp leading to the inmates' front entrance;
- Gut-renovate an Inmate Toilet Room to be fully accessible.<sup>1,20</sup>

### **1.5.11 Power Plant**

The Power Plant is a staff-only building and was not reviewed in the Faithful + Gould 2020 FCA Study for accessibility issues. The building will require a full accessibility assessment if it is considered to be a viable option for repurposing.

## **1.6 Resiliency, Energy, & Sustainability**

### **1.6.1 Campus**

DCAMM requires every project submit a Climate Resiliency Checklist which evaluates the climate change resiliency at a site level. It is utilized to ensure that every "state facility can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and function through risk management."

The Climate Resiliency Checklist for MCI Framingham was completed during the Faithful + Gould 2020 FCA Study and is utilized for this project.<sup>2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study  
20 From Jensen Hughes' Accessibility Report dated March 25, 2022





## Climate Resiliency Checklist

### I. Introduction

This checklist is to evaluate climate change resilience at a site level for correctional facilities owned and operated by the Commonwealth of Massachusetts. For DCAMM's purposes, Climate Change Resilience is defined as: "Ensuring state facilities can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and functions through risk management." This checklist focusses on hazards related to flooding, extreme heat, extreme precipitation, & high winds.

Building peak heating and cooling loads can be estimated based on equipment capacities. Electrical demand can be found on utility bills or in CBEI metered energy data where available. For more information, please direct all questions about this checklist to [Timothy.Spencer@mass.gov](mailto:Timothy.Spencer@mass.gov).

### II. Project Information

Project Name			
Project Name:	<i>Facility Conditions Assessment of Correctional Facilities</i>		
Project Address:	<i>99 Loring Drive, Framingham, MA 01702</i>		
Site Name:	<i>MCI Framingham</i>		
CAMIS Site Code:	<i>DOC05</i>		
Number of Buildings:	<i>26 buildings on campus; 19 buildings inspected</i>		
CAMIS Project Number:	<i>EPS1802-HS1</i>		
Project Team			
DCAMM Project Manager:	<i>Emmanuel Andrade</i>		
FCA Consultant:	<i>Benjamin Dutton, Faithful+Gould</i>		
Access Consultant:	<i>TBD</i>		
Project Description and Design Conditions			
List the principal Building Uses:	<i>Housing, intake/processing, vocational/educational, recreational, healthcare, food and laundry services, etc.</i>		
What past property damage has occurred from flooding, extreme heat, precipitation, or high winds?	<i>None</i>		
What is the estimated occupancy?	<i>447</i>		
Does this facility house an immovable residential population?	<i>Yes</i>		
Energy Loads and Performance			
Peak Electric (kW):	<i>204.04 kW</i>		
Heating Capacity (MMBtu):	<i>Varies by building (75 MMBtu in 1984)</i>		
Cooling Capacity (Tons):	<i>Betty Cole Smith, 225-ton; Brewster Building, 50-ton; Modular, 21-ton</i>		
Back-up / Emergency Power System			
Electrical Generation Output:	<i>Ranges (450 - 15) kW</i>	Number of Power Units:	<i>12</i>
System Type:	<i>Generators</i>	Fuel Source:	<i>Natural Gas or Diesel</i>
Schedule for testing generators under load:			
<i>Weekly testing of startup protocol, no load bank testing</i>			

### III. Extreme Heat Events

Extreme Heat - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Annual Maximum Temperature in 2050:	93.87 °F	Annual Maximum Temperature in 2090:	99.54 °F
Current Cooling Design 0.4% DB Temperature (e.g. from ASHRAE Climate Design Data):	TBC	Change in Annual Max Temperature between 2050 and 2000:	4.15 °F

### IV. Extreme Precipitation Events

Extreme Precipitation - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Average Annual Precipitation in 2050:	43.51 In.	Average Annual Precipitation in 2090:	44.62 In.
Average Annual Precipitation in 2000:	35.70 In.		
10 Year, 24 Hour Design Storm Rainfall:	5.21 In.	Total Impervious Site Area:	484,380 SF
Building Foot Print Area:	30,4718 SF	Total Site Area:	1,200,000 SF

### V. Sea Level Rise and Flooding

Flood Hazard Areas			
For site-specific sea-level-rise & flood hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Is any part of the project site located in the FEMA zone AE (100 yr flood plain with BFE)?	No	Is any part of the project site located in a FEMA zone X (500 year flood plain)?	No
Sea Level Rise / Storm Surge			
Will any part of the project fall within SLOSH Category 1?	No	What minimum level of sea level rise is the project vulnerable to (if any)?	0 Feet
<i>If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!</i>			
Base Flood Elevation (BFE):	N/A	Site elevation at building:	N/A
Lowest occupiable floor elevation:	N/A	Proposed Site Elevation – High:	N/A
Lowest basement floor elevation:	N/A	Proposed Site Elevation – Low:	N/A
Accessible route elevation:	N/A		
List any building uses and critical equipment located below the *BFE (Base Flood Elevation)			
<input type="checkbox"/> Switchgear	<input type="checkbox"/> Emergency Generator	<input type="checkbox"/> Boiler	
<input type="checkbox"/> Transformer	<input type="checkbox"/> Communications	<input type="checkbox"/> Server	
<input type="checkbox"/> Distribution Panel	<input type="checkbox"/> Water heater	<input type="checkbox"/> Elevator pit	
<input type="checkbox"/> Substation	<input type="checkbox"/> Air handling unit	<input type="checkbox"/> Other (list below)	
Other:			
<i>*Base Flood Elevation (BFE): "The computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations are shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles." (FEMA)</i>			

The current LEED v4.1 checklist is far more stringent than LEED v4 as the requirements for each credit has changed. Achieving Location and Transportation and Sustainable Sites will be more challenging than it was in the previous checklist.

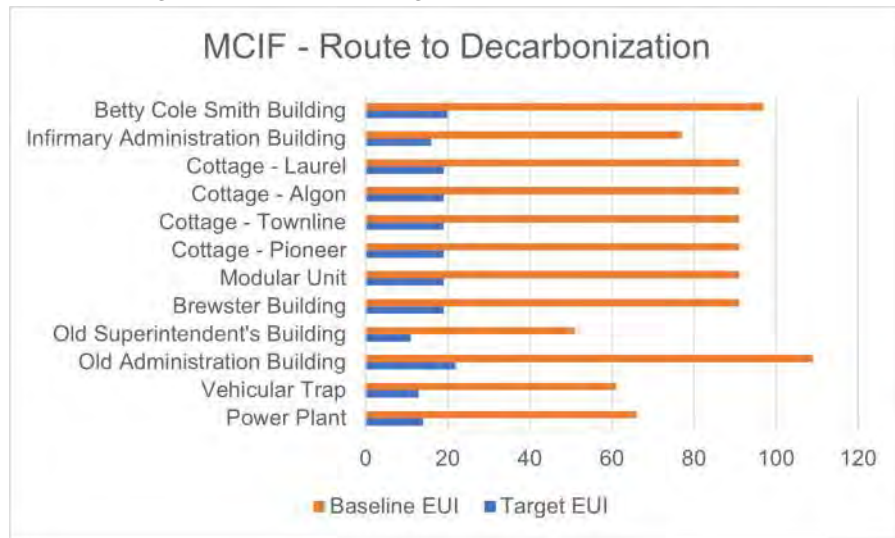
Potentially achievable credits include:

- LT Credit: Sensitive Land Protection  
Option 1 - Previously Developed Land
- LT Credit: Bicycle Facilities  
Case 1: Commercial or Institutional Projects
- LT Credit: Electric Vehicle
- SS Prerequisite: Construction Activity Pollution Prevention
- SS Prerequisite: Environmental Site Assessment
- SS Credit - Site Assessment
- SS Credit - Open Space
- SS Credit - Rainwater Management

This preliminary list requires further investigation and research.

In efforts to work towards achieving Massachusetts Executive Order 594: Leading By Example: Decarbonizing and Minimizing Environmental Impacts of State Government, the use of AIA2030's ZeroTool to provide baseline and target Energy Use Intensities (EUIs). The baseline energy and emission metric is based on CBECS 2003/RECS 2001, but normalized by climate, weather, space type, building size, occupancy, and schedule, as noted on the AIA2030's ZeroTool website. Information such as Annual Energy Purchased and Annual Energy Generated are not factored into this calculation due to lack of information, but the calculations can be adjusted to include them once its known. In order to achieve a carbon neutral building by 2030, the building would currently require an 80% reduction in the baseline. As seen in Figure 1.6.1, any building repurposed will require significant changes to reach decarbonization.

Figure 1.6.1 Baseline and Targeted EUIs towards Decarbonization



NOTE: Potential LEED credits will be explored once and if it is determined a specific building will be reused for the reimagined facility.

### **1.6.2 Betty Cole Smith Building**

On a generic analysis, the building current EUI is 97. If the Betty Cole Smith Building is chosen to be used for the reimagined facility, its target EUI is at least 20, if not less. Working hours and the amount of heating and cooling in the office may need to be adjusted.

### **1.6.3 Infirmary Administration Building**

On a basic analysis, the building current EUI is 77. If the Infirmary Administration Building is chosen to be used for the reimagined facility, its target EUI is at least 16, if not less. The square footage allotted for each occupancy type is an approximation based on a floor plan and how the building is currently occupied. Working hours and the amount of heating and cooling in the office may need to be adjusted.

### **1.6.4 Cottages**

Each cottage's current EUI stands at 91. If any of the cottages are repurposed, each utilized structure's target is a reduction to 19 EUIs. These buildings only contain one occupancy, therefore it would be unlikely that the target EUI would change.

### **1.6.5 Modular Unit**

The Modular Unit's current EUI stands at 91. If this prefabricated structure is repurposed, the target EUI is 19. This building only contain one occupancy, therefore it would be unlikely that the target EUI would change.

### **1.6.6 Brewster Building**

The Brewster Building's current EUI stands at 91. If this prefabricated structure is repurposed, the target EUI is 19. This building only contain one occupancy, therefore it would be unlikely that the target EUI would change.

### **1.6.7 Old Superintendent's Building**

The Old Superintendent's Building's current EUI stands at 51. If this house is repurposed, the target EUI is 11. This building's settings are initially set as a residential, single family attached home, but these settings may change as that may not be entirely accurate.

### **1.6.8 Old Administration Building**

The Old Administration Building's current EUI stands at 109. If this house is repurposed, the target EUI is 22. The settings are currently set as an office space, but this generalization could be updated to include other occupancy types such as storage, etc.

### **1.6.9 Vehicular Trap**

The Vehicular Trap's current EUI stands at 61. If this house is repurposed, the target EUI is 13. It is unlikely that the baseline and targeted EUIs will change as this structure only has one occupancy.

### **1.6.10 Power Plant**

The Power Plant's current EUI stands at 66. If this house is repurposed, the target EUI is 14. There may be potential changes to the settings as some areas of the Power Plant have been utilized as storage.

## **1.7 Hazardous Materials**

The following contains information contain a list of materials and finishes installed during a certain year that typically contain hazardous materials. The list was derived from past DCAMM FCA Studies and information provided by the DOC. The following information is not suggesting that hazardous materials exists and only suggests potential follow up to determine if testing and/or abatement is necessary.

### **1.7.1 Betty Cole Smith Building**

The building envelope consists of a two-story steel framed structure, brick veneer with CMU back-up, insulated metal windows and entrance systems and a flat ballasted membrane roofing system.

Interior floor finishes consist of vinyl or ceramic tile. Wall finishes consist of painted CMU or gypsum wallboard. Ceiling finishes consist of suspended acoustic tiling or bare concrete. Carpet tile floor finishes are provided in the visitor waiting space. <sup>1,2</sup>

### **1.7.2 Infirmary Administration Building**

The exterior wall system at the Infirmary Administration Building consists of a clay brick veneer. Exposed aggregate precast concrete panels are provided below windows. Windows consist of single glazed units. Doors consist of painted steel panel units. Caulking are installed at the perimeter of window and door units and are installed vertically at control joints the brick veneer and at the precast panels. Interior floor finishes consist of vinyl or ceramic tile. Wall finishes consist of painted CMU or gypsum wallboard. Ceiling finishes consist of suspended acoustic tiling or bare concrete. <sup>1,2</sup>

According to the Environmental Protections Agency (EPA)'s standards - acceptable levels of polychlorinated biphenyl (PCB) are traceable in this building. Both the windows and doors have urethane sealants around them and are likely to contain PCB. Urethane sealants were used at the brick veneer vertical control joints and precast panels. Further testing to verify the PCB levels will be required if the Infirmary Administration Building is determined to be a viable option for repurposing.<sup>2</sup>

### **1.7.3 Cottages**

The exterior wall system at the four Algon, Laurel, Pioneer and Townline detention buildings consist of a clay brick veneer laid in bond. Painted precast concrete panels are provided below and above windows. Windows consist of double-glazed units. Doors consist of painted steel panel units. Caulking are installed at the perimeter of window and door units and are installed vertically at control joints the brick veneer and at the precast panels. <sup>1,2</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study

### **1.7.4 Modular Unit**

The exterior wall system at the Modular Unit consists of painted wood panel T1-11 siding. Trim installed vertically and horizontally at the roof and wall levels consists of painted wood. Windows consist of minimally double-glazed steel frame sliding units. Doors consist of steel panel units.<sup>1,2</sup>

### **1.7.5 Brewster Building**

The exterior wall system at Brewster consists of painted wood panel hardboard siding. Windows consist of minimally double-glazed steel frame sliding units. Doors consist of steel panel units. Interior finishes consist of painted concrete flooring and painted gypsum wall finishes. Restroom flooring consists of ceramic tile and floors and painted gypsum walls and ceilings.<sup>1,2</sup>

### **1.7.6 Old Superintendent's Building**

The exterior wall system at the Old Superintendent House consists of a load-bearing clay brick system as well. A wood-framed two-level porch is located at the east elevation. Windows consist of older (40+ years) single pane wood sash units. Doors consist of older wood door. The interior finishes consist of hardwood flooring, wood and gypsum wall finishes and gypsum wall and ceiling finishes.<sup>1,2</sup>

### **1.7.7 Old Administration Building**

The exterior wall system at the Old Administration Building consists of a load-bearing clay brick system laid in running bond. The building contains 13 brick chimneys at the roof level. Windows consist of a combination of older (40+ years) single pane wood sash units and newer double-glazed anodized aluminum frame units. Many of the older window units have been removed and infilled with wood or masonry. Building interior wall finishes typically consist of painted brick and painted gypsum wallboard. Ceiling finishes on the lower levels are suspended acoustic tiling. Flooring consists of vinyl tiles. On the 3rd floor level, finishes consist of hardwood flooring and painted gypsum wall and ceiling finishes. On the basement level, typical finishes include bare concrete floors and painted brick and/or bare brick walls. Old Admin is equipped with a gym area that consists of a basketball court with polyurethane-coated hardwood floors. Office spaces consist of painted gypsum wallboard and carpet tile floor finishes.<sup>1,2</sup>

### **1.7.8 Vehicular Trap Building**

A walk-through of the space to identify potential location of hazardous materials would be required if this building is determined for reuse.

### **1.7.9 Maintenance Building**

Interior finishes consist of bare concrete flooring and painted brick walls. Ceilings are painted or bare wood. The exterior wall system at both the Maintenance Building and the Power Plant consists of a clay brick system laid in bond. The Power Plant contains a 65' tall chimney. Maintenance and storage areas for the correctional facility are housed in this building. The building is connected to the central steam system, with the steam being used for space heating. The steam condensate is returned to the Power Plant. Domestic hot water is provided by a single electric domestic water heater. Approximately 90% of the building is used for

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study

storing material and equipment. All the light fixtures in the building are equipped with T12 type fluorescent light bulbs.<sup>1,2</sup>

### **1.7.10 Power Plant**

The Power Plant houses four water tube boilers. Boilers 1, 2 and 3 were installed in 1951 and Boiler No. 4 was installed in 1963. All the boilers are currently operable. There are several standard auxiliary systems that support the steam system. Steam is distributed throughout the campus. The plant operates year-round; the steam load during the summer supports kitchen and laundry facilities as well as domestic hot water in some buildings.<sup>1,2</sup>

## **1.8 Further Investigations / Assessments Needed**

Below is a list of investigations and/or assessments that would be required if a building or campus is determine a potential candidate for reuse:

### **1.8.1 Campus**

- Determine if the 2500 gallon tank is sufficient for it's current underutilized usage or if it will be sufficient to house more women who are incarcerated and the necessary staff to support the population.
- Determine which windows have metal mesh screens. Determine reasoning as to why some windows have protective metal meshes and others do not.
- Determine the slopes and catchment areas and note any observed erosion, etc.
- Determine which infrastructure pipes need to be replaced due to roots growing into the pipes and due to cracking.
- Locate the existing fire hydrants and determine if it is sufficient and accessible.
- Obtain input from the Massachusetts Historic Commission (MHC) to determine limitations/ constraints with demolishing and/or building existing structures and land features.
- Identify any discrepancies in the floor plans compared to the existing drawings. Laser scanning may be required.
- Investigate if any PCBs or radon, etc. exist on campus. If so, quantify it and determine the necessary remediation.
- Investigate if any testing and/or abatement is required based on the HazMat section (Section 1.7).
- Obtain a list of all plumbing fixtures and kitchen equipment for the campus (Manufacturer, model, and possibly the installation year).
- Determine how a State Historic Landmark status impacts design options, feasibility against the project budget, and extension of length of study.

### **1.8.2 Betty Cole Smith Building**

- Would the entire hydraulic elevator systems require replacement or can it be retrofitted to accommodate modern technology?
- Determine how water infiltration and roof leaks have impacted the existing structure.
- Potentially conduct a visible mold inspection to determine if the water infiltration, roof leaks, and existing condensation from the steam pipes have caused any mold growth.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
2 From Faithful + Gould's 2020 MCI Framingham FCA Study

- Determine if the condensation caused by the steam pipes can be remedied.
- Are the existing direct exchange (DX) air handlers properly sized for the building's heating, cooling, and ventilation needs?
- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Determine if the sewage lines within the building and/or if the grease trap contribute to the sewage and clogging issues the building experiences.
- Identify the rated partitions.
- Determine locations of existing fire alarm pull stations, type of alarm (audible and illuminated) systems, and illuminated egress signage.

### **1.8.3 Infirmary Administration Building**

- Analysis of the internal roof drainage system. Have there been any blockages and/or leaks that have developed since the building's construction and/or last thorough assessment (has the internal roof drainage been inspected?).
- Determine if the reported flooding/ponding has affected the structural integrity of the building.
- Determine what exists beyond the basement hatch door and if any flooding/ponding exists in that space.
- Evaluate the mechanical equipment deficiencies and determine if its properly sized and how to upgrade it, whether it be retrofitting or replacing.
- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify the rated partitions.
- Determine the extent of the groundwater issues that exist around the building, and determine possible solutions.
- Determine the extent of any damage in the sanitary lines via ultrasonic testing.
- Measure the size of all plumbing pipes to ensure proper sizing.
- Verify that the existing 1980s Fire Protections drawings are still valid / accurate.
- Test and investigate current PCB levels to determine if remediation is required.

### **1.8.4 Cottages**

- Analyze the structural integrity of the existing unreinforced double-wythe exterior wall system.
- Determine how to improve the building's ventilation as it currently has poor ventilation.
- Determine how to mitigate the building's steam issues and the extreme heat located in certain rooms.
- Indoor air quality testing is recommended for the three vacant cottages.
- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify the rated partitions.

### **1.8.5 Modular Housing**

- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify the rated partitions.



### **1.8.6 Brewster Building**

- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify the rated partitions.
- Determine the extent of the building's racking issues and how to fix it and/or prevent further issues.
- Determine if there are any rotting issues below the shower areas and if the structural system's integrity has been affected.
- Identify the locking mechanisms of the building.

### **1.8.7 Old Superintendent's Building**

- Determine which windows and doors are broken.
- Determine the structural integrity of the porch.
- Determine water infiltration related damages that developed as a result of the broken windows and doors.
- Determine the extent of the brick damage and how to repair the existing exterior facade. Determine if there are any water infiltration issues that may have compromised the structural integrity.
- No information has been provided on the mechanical, electrical, plumbing, and fire protection systems of the building. Additionally, no general architectural drawings have been provided. A full building analysis and scanning will be required.

### **1.8.8 Old Administration Building**

- Determine the extent of the existing brick and mortar deterioration and how to fix the current condition.
- Determine how to properly cap and demolish the existing 13 chimneys that are significantly deteriorating and compromising the roof's integrity. The Massachusetts Historic Commission (MHC) is to be included in this conversation. Possible solutions to include how to fix the roof's integrity and prevent air movement through these chimneys if it is determined that the MHC does not allow for demolition to occur.
- Determine which windows were replaced in 1983 and in 2012. Determine all window assemblies for solar heat gain purposes.
- Determine if the existing dumbwaiters can be retrofitted to be faster as they are reported to be slow and time consuming to operate.
- Determine what building envelope upgrades are necessary for any existing and new, right-sized equipment to operate more efficiently.
- Determine if it is feasible or even possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify the rated partitions.
- Understand how the corridor to the Old Superintendent's House has been boarded off to prevent access into the building from the Old Administration Building. Is it sufficient and effective in prevent air flow between the two buildings?
- Determine if the existing kitchen hoods are original to the building and/or identify when they have been installed. Check hood assembly for code compliance.

### **1.8.9 Vehicular Trap**

- Determine if the sediment filled water affects potable water. If so, determine the reason (and location) for this issue and determine how to remediate it.
- Complete an accessibility assessment of the building.

### **1.8.10 Maintenance Building**

- Determine the extent of the exterior brick's deterioration.
- Locate areas of concrete floor delamination and the extent of the damage.
- Determine the structural column's expansive deterioration and failure.
- Locate where leaking occurs in the roof and how to fix it.
- Assess the structural integrity of the building.
- Determine what feed circuits have corroded and/or become overloaded. Should they be replaced like-to-like or replace with upgrades?
- Determine which plumbing fixtures were replaced in 2014 and determine which have exposed cast iron piping which are likely to be in poor conditions. Assess the integrity of any exposed cast iron piping.
- Determine how to make the plumbing fixtures code compliant with the plumbing code.

### **1.8.11 Power Plant**

- Determine if demolition of the Power Plant chimney is permitted by the MHC. If not, determine how the deterioration can properly be controlled/fixed.
- Determine extent of moisture infiltration.
- Determine the extent of the concrete floor delamination and concrete foundation's deterioration.
- Determine how the new structure attaches to the existing structure (even if it's by means of expansion joints).
- Determine where leaking in sanitary lines exist. Relocate or repair as necessary.
- Analyze code compliance of the existing sprinkler system.
- Complete an accessibility assessment of the building.

## Section 2: Existing Conditions Documentation and Analysis - South Middlesex Correctional Center

- 1.1 Campus Description
- 1.2 Building Description & Systems
- 1.3 Uses and Occupancy
- 1.4 Accessibility
- 1.5 Resiliency and Energy, Sustainability
- 1.6 HazMat
- 1.7 Further Investigations / Assessments  
Needed



LEGEND

--- PROPERTY LINE



**Main Building - South Middlesex**  
Built in 1939, Expanded in 1990  
Approximately 52,600 GSF  
Occupancy: Corrections / Administration  
Uses: Housing, intake, visitation, kitchen, laundry, health services, library, programs, religious services, administration, and warehouse storage



**Reunification House**  
Built in 2008  
Approximately 1,880 GSF  
Occupancy: Corrections  
Uses: Housing / Parenting Program, Administration



**Automotive Garage**  
Built in unknown  
Approximately 900 GSF  
Occupancy: Multi-Purpose  
Uses: Storage

South Middlesex Correctional Center

Figure 2.1 Campus Map

## **2.1 Campus Description**

South Middlesex Correctional Facility (South Middlesex CC) is located south of MCI Framingham. This facility originally opened in 1981 as a facility for both men and female inmates. It later became an all-female correctional facility in 2002 for minimum and Pre-Release classifications. The campus is capable of housing 125 female inmates.

This campus relies on MCI Framingham for its electric power, steam heating, and water supply. Massachusetts Water Resources Authority provides waste management services and provides secondary water supply to the facility. South Middlesex also utilizes Eversource Energy's supply as a secondary power source. The primary power source comes from MCI Framingham.

A bus stop is located on Loring Drive and is approximately 0.2 miles away from the campus' main entrance.

The campus has five buildings - The Main Building, the Reunification House, the Automotive Garage, the Greenhouse, and the Shed (Figure 2.1). Only the first three buildings will be reviewed as the Greenhouse and Shed are supplementary structures.

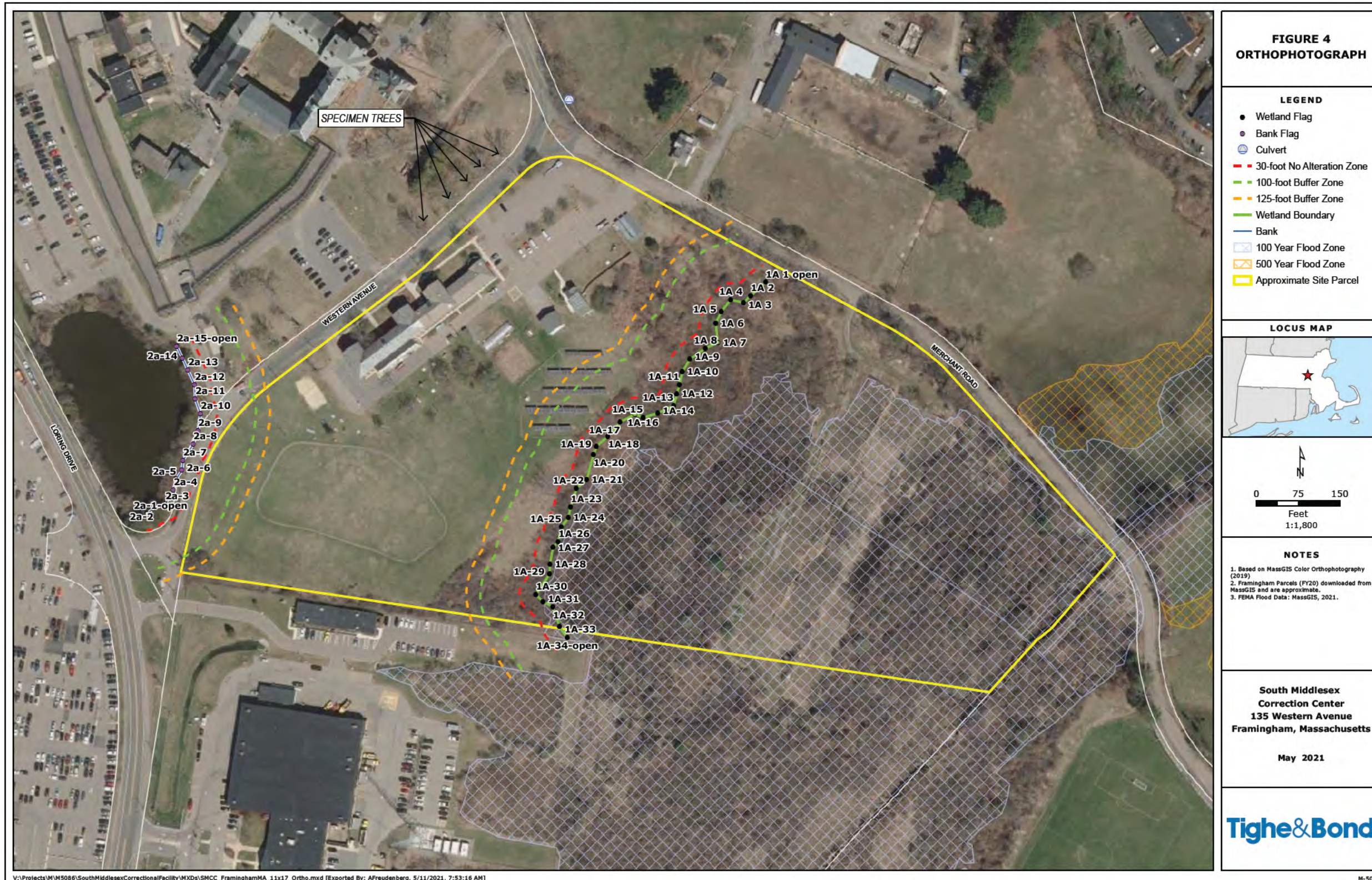
Additionally, emergency power system testing was performed on a weekly basis, but it has stopped for some time after 2020. No reported updates on the power failures noted in Faithful + Gould's 2020 FCA Study.<sup>1</sup> Area lighting for the site is provided in the form of building-mounted light fixtures and is said to be sufficient.<sup>1,6</sup>

### **2.1.1 Wetlands Status**

The campus parcel is within wetlands territory. There are two 100-foot/125-foot buffer zones located west and east/southeast of the buildings. Unfortunately, this condition limits where new construction can be located on the campus. Additionally, Tighe & Bond's May 2021 Wetlands Report (Appendix C) includes a map (Figure 2.1.1) locating the 100-foot and 125-foot boundaries which equates to approximately half of the campus site.<sup>10</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study  
10 Tighe and Bond's Wetlands Report dated May 2021

Figure 2.1.1 Diagram of wetlands location at the South Middlesex Correctional Center campus parcel<sup>10</sup>



**2.1.2 Landscape Architecture**

The South Middlesex Correctional Center is located to the southeast of MCI Framingham [REDACTED] [REDACTED] Its entry drive, Herring Avenue, is accessed from Loring Drive, and travels to the northeast, towards the north side of the building where its main entrance is located. On the left side of the access road is a large pond/wetland, and on the right is a large open space with a walking loop. There are parking areas to the northwest and the northeast of the building, and a service drive around the building.

On the east side of the site is a solar array within a fence, and beyond this there is a forested area that may contain wetlands.

This site has quite a bit of outdoor recreation and outdoor spaces. On the south there is a basketball court and a sand volleyball court. There are seating areas and picnic tables under the shade trees. There is children’s play equipment on the lawn, and a greenhouse with a garden. There are appurtenance buildings around the site as well as a few containers.

There are large shade trees at this site, on the west, east and south. The trees appear to be in reasonable condition. There is a small amount of foundation planting on the building’s west side, and pockets of gardens near the building and along the walk to MCI Framingham.

In summary, the pavements are mostly asphalt with some areas of concrete and are mostly in fair to good condition. The trees appear to be in reasonable health and should be pruned. The lawn is generally in fair to good condition with bare areas and needs aerating and overseeding.<sup>21</sup>

**2.1.3 Campus Security & Fencing**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould’s 2020 South Middlesex CC FCA Study  
14 DOC Design Criteria  
15 Information received by DCAMM and/or DOC via correspondence  
21 From Shadley Associates’ Existing Site Conditions report dated January 18, 2022

## **2.1.4 Topography and Stormwater Drainage**

Unlike its neighboring facility, South Middlesex CC does not have stormwater ponding issues.<sup>1,3</sup> The stormwater system is regularly maintained. The basement has a sump pump pit. It is unlikely that foundation drains exist in this building.<sup>15</sup>

Stormwater is collected in a combination of perimeter and surface recessed grated inlets. The water is then conveyed to one of two locations: the stormwater management drainage system which is located below Loring Drive and the stormwater management pond located adjacent to Loring Drive.

## **2.1.5 Pavements and Roadways**

An asphalt parking lot for staff is located on the north end of the campus and can hold 48 vehicles. This parking lot is considered to be in fair condition. Another asphalt parking lot is located on the east end of the campus and can hold 63 vehicles. This parking lot is considered to be in fair to poor conditions.<sup>3,6</sup>

There is a 30'-0" wide asphalt roadway that connects Herring Avenue to around the side to the rear of the Main Building, to the Main Parking Lot (east), and to the front of the Reunification House and Automotive Garage. A cast-in-place concrete sidewalk is located in front of the Main Building.<sup>6</sup> This walkway is considered to be in poor condition as its upheaval and settlement have made it non-accessible friendly.<sup>3,6</sup>

There is also an asphalt basketball court located west of the Main Building which was rarely used.<sup>1,3</sup>

## **2.1.6 Fire Alarm Communication**

Currently, a Public Announcement system exists, but it will transition to MassVoice, which is a digital system, if the campus is determined to be a viable option for repurposing or if the facility is reoccupied in a future, separate project.<sup>15</sup>

## **2.2 Building Description & Systems**

### **2.2.1 Main Housing**

The Main Housing, also known as the Pre-Release Building (Figure 2.2.1), was originally built in 1939 and was later expanded in 1986.<sup>15</sup> The structure comprises of 56,000 square feet and 87 bedrooms.<sup>7</sup> The three-story building does come with a sublevel and an elevator. The sublevel is at ground level on the rear side of the building.<sup>3</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

3 Observation made on-site on December 15, 2021

6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

15 Information received by DCAMM and/or DOC via correspondence via correspondence



Figure 2.2.1 Exterior view of the Main Housing.<sup>3</sup>



### 2.2.1.1 Structural & Exterior Envelope

This building is primarily constructed of a steel frame with concrete shear walls. The building contains a four-story wood and concrete-framed balcony at the rear.

The gable roof contains slate tiles mechanically fastened over wood battens, a wood board substrate, and a precast concrete roof deck. The roof's tiles are divided into two sections. The roof area west of the main entrance is covered in natural slate tiles and the remaining roof area is covered in synthetic slate roof tiles.<sup>6</sup>

A new slate roof vendor would be required to fix the problematic areas. In general, slate roofers are a niche specialty and due to security issues, vendors are preferred to being listed as pre-approved.<sup>1</sup>

The balcony's roof is comprised of a mechanically attached EPDM roof system which has been problematic.<sup>6</sup> Water infiltration has been reported in this area.<sup>1,3</sup>

Steel and cooper roof gutters and downspouts are provided around the building.

Persistent water infiltration issues have been identified. Portions of the ceiling was opened to observe the conditions of the structural system. Per the facility assessors, there appears to have no noticeable structural damage. However, if this building is selected as a potential repurposed space, further investigation and a follow-up site visit is recommended for evaluation, especially the balcony areas.<sup>1,3,6</sup>

### 2.2.1.2 Plumbing

Domestic cold water is supplied through the main which consists of vintage ductile iron piping from the 1940's. This system has been repaired throughout it's life. The supply enters through the building at the basement level through a backflow prevention assembly. Observable water supply piping consists of soldered copper tubing.<sup>6</sup>

Domestic hot water is provided via steam from the MCI Framingham Power Plant.<sup>3,6</sup> A storage tank with the a shell and tube heat exchanger and a fractional horsepower circulating pump supplies hot water to the

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

showers, kitchen, and custodial sinks. With the exception of the original 1939 wing of the Main Building, the domestic hot water system infrastructure appears to be in good condition.<sup>6</sup>

Plumbing fixtures are commercial grade, vitreous china systems of the floor and wall mounted varieties.<sup>3,6</sup> The interior plumbing fixtures have been noted as very problematic and should be repaired or replaced as necessary.<sup>3</sup> The restrooms have corroded steel pipes connected to the sanitary line. All steel pipe should be replaced with cast iron and/or copper pipes.<sup>3</sup>

Natural gas is supplied from a main supply along Herring Avenue to the kitchen food service equipment.

In the original 1939 wing, the sanitary waste piping consists of cast-iron, bell and spigot piping. In the 1986 addition, the sanitary waste piping consists of a hub-less cast-iron system. The original sanitary piping has been repaired and replaced in the past but is showing indications that the system is at the end of its useful life.<sup>6</sup> All vintage piping should be fully removed and updated along with the domestic water supply piping upgrades.<sup>1,6</sup>

### 2.2.1.3 Fire Protection

The building contains a Class I standpipe system with 2 1/2" fire hose valves. The fire pump is installed on fire service. However, the fire pump requires a transfer switch on emergency power and the generator is not large enough to handle the load of the fire pump.<sup>3</sup>

Full building sprinkler coverage was installed in the 1986 renovation and expansion, even though it was not required by code at the time, it would meet today's building code requirements. Automatic sprinkler coverage is limited to the basement and closet/storage spaces.<sup>3</sup>

The kitchen hoods are tied into the building's fire suppression system.<sup>1</sup>

### 2.2.1.4 Mechanical

Steam heating is supplied by MCI Framingham's Power Plant which is converted to heating hot water in the basement. Chilled water is supplied by a chiller located in the basement.<sup>3</sup>

Forced air - heating and cooling - was installed on the first floor during the 1986 renovation. Upper levels do not have mechanical cooling and are limited to radiant heating<sup>6</sup> and natural ventilation via operable windows.<sup>3</sup>

The insufficient ventilation is likely to cause poor indoor air quality which should be tested if this building is an option for repurpose. Additionally, the lack of ventilation causes a build-up of steam that falsely sets the fire alarms off.<sup>3</sup> The doors of the bathrooms were removed due to this problem. There has been known cases of mold detected in the building.<sup>1</sup>

### 2.2.1.5 Electrical

Electric power is supplied by MCI Framingham's Power Plant. The connection includes a step-down transformer that takes the 4,160 volts and brings it down to 120/208 volt power. The primary electrical service was upgraded as part of the 1986 renovation and expansion project. The secondary electrical distribution servicing the 1939 wing was not replaced in the 1986 project, and should be removed and replaced.<sup>6</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

3 Observation made on-site on December 15, 2021

6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

The steam has caused corrosion in the electrical system and should be assessed if this building is determined to be a viable option for reuse.<sup>1</sup>

The fire pump is not powered by the generator nor is the generator large enough to handle the load of the fire pump. It is recommended that the generator size is increased and that the fire pump is powered by it.

Currently, the life safety system does not meet the 2020 NEC article 700 requiring that only life safety loads are circuited to the life safety branch. Standby loads are also connected to the same transfer switch.



All electrical equipment require an ARC flash label warning people of high voltage equipment.<sup>3</sup>

The existing lighting primarily consists of fluorescent lamps and fixtures. They were new additions to the 1986 renovation and are in fair condition. However, they should be updated to modern LED systems which would align with the sustainability efforts.<sup>3,6</sup>

#### 2.2.1.6 Security



#### 2.2.1.7 Kitchen

Observations based on the 1988 Stull Floor plan indicate that this facility is oversized based on DOJ requirement of 10 sq.ft. minimum per inmate. At a population of 200, that would be 2,000 sq.ft. The scaled drawing comes to approximately 4,049 sq.ft.

Dining is recommended to be at a 12-15 sq.ft. per inmate. That is 2,400-3,000 sq.ft. The kitchen plans scale to approximately 1,777 sq.ft. making the dining space undersized per guidelines.

To meet minimum space guidelines in the dining room and the kitchen, these spaces would require renovations expanding the dining room into the existing kitchen and decreasing the footprint of the kitchen.

General observations of the space indicated that the floor, wall, and ceiling finishes are in fair condition with no major concerns. Stainless steel wall flashing is recommended behind the cooking line.

The hoods look to be original to the building and the make-up air unit had troublesome extinguishing pilots. These issues have not been addressed since the kitchen stopped operations. Recommendation would be to replace hoods, ductwork, and mechanicals if this location is pursued based on the future equipment to ensure code requirements are met.

According to the virtual site visit, this building is vacant and no longer in use. General recommendation would be to have all systems and kitchen equipment tested to ensure the equipment and building systems are functioning properly. Pictures do not show the dishwashing, walk-ins, or dry storage rooms to provide an accurate assessment. However, the plans do show the locations - without equipment. The spaces reflected seem adequate.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

According to the Faithful + Gould 2020 FCA Study, South Middlesex Correctional Center is equipped with newer equipment with a few unknowns but most dating 5-10 years old. Pictures also indicate the equipment is in good condition from an aesthetics standpoint. Recommendation would be to test the equipment to ensure it is running properly. However, in terms of years, the equipment should have another 10-15 years of useful life expectancy. Tables, counters, and shelving can be reused, as needed.<sup>1,3,6</sup>

### **2.2.2 Reunification House**

The Reunification House (Figure 2.2.2) is a 1,752 GSF that spans over two-stories. The residential-like building was constructed in 2008 to replace the trailer utilized for the facility's parenting program.<sup>6</sup>

The Design Team did not visit the house during the initial site visit.

Figure 2.2.2 Reunification House from the outside <sup>8</sup>



#### **2.2.2.1 Structural and Exterior Envelope**

This wood-framed structure contains prefabricated wood roof trusses, wood joists, and stick built wood walls with a cast-in-place concrete foundation supported on continuous footings.<sup>6</sup> There have been no structural concerns at this house.<sup>1</sup>

The building's gable roof consists three tab fiberglass reinforced asphalt shingles nailed over a saturated felt underlayment and a structural wood roof deck. Steel gutters and downspouts drain at the perimeter of the roof. Though there are no reported issues or leaks, the roof should be replaced in the next 5-8 years as best practices.<sup>1,6</sup>

There does not appear to be a concern with the building's structural systems, but it should be verified if this project is a viable option for repurposing.<sup>1</sup>

#### **2.2.2.2 Plumbing**

Cold water supply is provided from the domestic cold water main which is made of vintage 1940's ductile iron piping. Domestic cold water enters the house at the ground level. Where it is observable, domestic water supply piping consists of soldered copper tubing. Domestic hot water for the bathrooms and kitchen are generated by point-of-use electric powered water heaters.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study  
8 From DCAMM's Initial Info files

There are no reported plumbing issues.<sup>1,3,6</sup> While it may be reusable if the house is suitable for repurposing, it should be assessed during the schematic design phase.

Plumbing fixtures consists of residential grade vitreous china systems.<sup>6</sup>

The sanitary waste system consists a combination of cast-iron and PVC piping. There's no anticipated repairs or replacement,<sup>6</sup> however it should be reevaluated if the house is determined to be a viable option for reuse.<sup>1</sup>

Natural gas is supplied by a local utility main located along Herring Avenue to service the kitchen and heating and cooling units. The gas lines appear to be in satisfactory condition but should be reevaluated if this building is determined to be a viable option for reuse.<sup>3,6</sup>

### 2.2.2.3 Fire Protection

However, it is outfitted with hard-wired smoke and carbon-monoxide detection systems with back-up batteries.<sup>6</sup>

### 2.2.2.4 Mechanical

The house is heated and cooled by two split systems each containing a heat pump unit mounted externally from brackets at the East elevation. The equipment was manufactured in 2006<sup>6</sup> Each level is considered to be its own zone.<sup>1</sup> A gas-fired air handling unit is located internally at the basement level.

While the split systems are in good operable conditions, both units utilize R-22 refrigerants which, as of 2021, are no longer manufactured. Obtaining replacements could be costly. Additionally, they are nearing the end of their 15-20 year useful lifespan and should be replaced within the next three to five years.<sup>6</sup>

### 2.2.2.5 Electrical

The electrical distribution system was installed in 2008 and appears to be in good working conditions. Emergency power is not provided at the Reunification House.<sup>6</sup>

Lighting at this building consists of residential-grade units with compact fluorescent lamps.<sup>6</sup> Replacement of fixtures is not required but lamps should be changed to LEDs once the compact fluorescent lamps are no longer operable.<sup>1</sup>

## **2.2.3 Automotive Garage**

The Automotive Garage is a one-story building consisting of approximately 900 GSF (Figure 2.2.3). The date of its construction is unknown.

The Design Team did not visit this building during the initial site visit.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
3 Observation made on-site on December 15, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

Figure 2.2.3 Automotive Garage from the outside <sup>8</sup>



### 2.2.3.1 Structural & Exterior Envelope

This garage is a wood-framed structure comprised of prefabricated wood roof trusses, wood joists, and stick built wood walls. The structure sits on continuous footings with a split face concrete masonry unit foundation wall. The structure appears to be in good condition but should be evaluated if this building becomes a viable option for repurposing.<sup>6</sup>

The garage's gable roof is covered with three tab fiberglass reinforced asphalt shingles that are nailed over a saturated felt underlayment and a wood roof deck. The roof drains to perimeter prefinished steel gutters and downspouts.<sup>6</sup> The roof was updated in 2003 but already shows signs of failure. Localized areas of water ingress, continuous roof leaks have been reported, shingles have been detached from the roof, and erosion at the surface of the shingles have been identified. It is recommended that this roof system be replaced.<sup>1,6</sup>

There is a detached wall section at the rear point that is currently concealed and may be of structural concern. This area and the building should be assessed if it is to be repurposed.<sup>1</sup>

### 2.2.3.2 Plumbing

Domestic cold water enters the Automotive Garage structure at the ground level. Where it can be observed, the piping consists of soldered copper tubing.

Domestic hot water for the bathrooms at the garage is generated by point-of-use electric powered water heaters.

Plumbing fixtures consist of residential-grade vitreous china.

The sanitary waste piping consists of a cast-iron and PVC combination.

Natural gas is supplied from a local utility main along Herring Avenue and used at the heating and cooling units. It appears to be in satisfactory conditions.<sup>6</sup>

### 2.2.3.3 Fire Protection

[REDACTED] Fire detection is provided by smoke detectors with internal and external strobes and a fire alarm control panel.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study  
8 From DCAMM's Initial Info files

The fire protection system appears to be in good condition, however it is anticipated that the system will be obsolete and should be removed and replaced in the next three to five years.<sup>6</sup>

#### 2.2.3.4 Mechanical

Heat via a Schwank gas-fired radiant tube heater is provided to the open areas of the structure. The office, restroom, and storage areas are heated by electric powered baseboard heaters.

Only ceiling mounted fans were provided for general air circulation and cooling in the space. Cooling was also achieved by opening windows and/or the large overhead door.<sup>6</sup> Air circulation and cooling was not a primary concern since there were rarely occupants.<sup>1</sup>

#### 2.2.3.5 Electrical

Electrical service is rated at 100 amps and comes from the MCI Framingham's Power Plant. The current system was installed in 2003 and believed to be in operable condition.

Emergency power is not provided at this building.

Lighting is residential-grade and utilizes T-12 and compact fluorescent lamps.<sup>6</sup> It is recommended that the lamps be replaced with LED alternatives once the existing lamps are at the end of their life. If fixtures are not compatible with LED alternative lamps, it is recommended that they be retrofitted or removed and replaced with LED fixtures.<sup>1</sup>

## **2.3 Occupancy and Uses**

### **2.3.1 Main Housing**

This structure includes housing (Figure 2.3.1.1), visitation, intake, food services, laundry, health services, a library and programs, religious services, administrative offices, and warehouse storage. The first floor contains the visitation, intake, administrative, and classroom needs. The basement contains a small gym with equipment, and a kitchen (Figure 2.3.1.2), pantry, and dining area. The kitchen, pantry, and dining areas are located towards the rear of the building where the basement is at grade.

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1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

Figure 2.3.1.1 Inmate Housing in the Main Building<sup>3</sup>



Figure 2.3.1.2 Kitchen in the Main Building<sup>3</sup>



The building has since been vacated of inmates and inmate programs. It currently is a training area for the Framingham Fire Department and serves as a COVID-19 testing site for the neighboring correctional facilities.<sup>1,3</sup>

### **2.3.2 Reunification House**

This house was originally an opportunity for incarcerated mothers to reunite with their families while they remained under the State's custody. Parenting programs were available to these incarcerated mothers, and families had the opportunity to have overnight stays at the house.

The first floor is equipped with a kitchen, bathroom, living room (Figure 2.3.2), dining room, and bedroom. The second floor is utilized for administrative and staff training purposes and does not meet ADA standards. Currently, staff is occupying the Second Floor spaces, but no incarcerated mothers and their families are occupying First Floor.<sup>1</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

3 Observation made on-site on December 15, 2021



Figure 2.3.2 The Living Room at the Reunification House <sup>8</sup>



### **2.3.3 Automotive Garage**

The building was never utilized for its intent. It was originally programmed to function as a vocational space but was utilized as a storage space, and then later a classroom before being vacated.<sup>1</sup> (Figure 2.3.3) Unfortunately, its underutilization is the primary reason why upgrades to ventilation, etc., were never formulated.

Figure 2.3.3 Automotive Garage <sup>9</sup>



## **2.4 Accessibility**

This portion of Study was derived from Jensen Hughes' observations from the December 2, 2021 Virtual Site Visit, the KMA Access Audit Reports, Faithful + Gould's 2020 FCA Report, and other documentation provided by HDR. See Appendix D for the full report.

1 Observation made during virtual site visit conducted on December 1, 2021 and December 2, 2021  
8 From DCAMM's Initial Info files  
9 From Kleinfelder's 2012 MCIF-SMCC Facility Assessment - Global Workshop presentation

## **2.4.1 Campus**

The campus has a relatively flat terrain and poses no topographic challenges for outdoor circulation.<sup>1,12,20</sup>

The campus is located approximately 700 feet away from the MCI/Adesa bus stop. Employees and visitors will arrive to the site via car or bus. If an employee or visitor is coming via car, a parking lot is available on site. There are two parking lots for both the staff and the public - one between South Middlesex Correctional Center and MCI Framingham, and another off the side of the Main Building.<sup>1,12, 20</sup>

Accessibility related alterations to the site include, but are not limited to:

- Convert 1 of the 6 existing accessible parking spaces into a van-designated parking space; signage update would be required;
- Replace the concrete and asphalt walkways leading to the entrances and install two new curb ramps, one at the end of each walkway. Install an asphalt walkway leading to the entrance of the Greenhouse;
- Provide an accessible route from the public sidewalk to the building entrance if public sidewalks are provided adjacent to the site;
- Determine the number of required accessible parking spaces based on the total number of parking spaces provided in the parking facility. Considerations should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided;
- Provide parking lots with designated van accessible parking (one for every six accessible parking spaces) to conform with van accessible parking provisions including signage designating "van accessible" parking. Restripe parking spaces is required; and
- Provide an accessible route to campus amenities (e.g., picnic tables, play area, basketball court, seating areas, and greenhouse).<sup>20</sup>

## **2.4.2 Main Building**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Retrofit the information desk in the First Floor Lobby to include an accessible section;
- Alter the following rooms to be accessibility compliant:
  - First Floor Visiting Area - Visitor, Single-User Toilet Room
  - First Floor Visiting Area - Inmate, Single-User Toilet Room
  - 2nd & 3rd Floors Inmate Toilet & Shower Rooms
  - Single user Toilet Room in the Basement
- Replace existing non-compliant drinking fountains to a drinking fountain that complies with accessibility provisions.
- Provide compliant signage to existing rooms that have non-compliant or no signage;
- Replace non-compliant door hardware throughout the facility where hardware is not compliant;
- Provide the required clear opening width and maneuvering clearances;
- Remove protruding objects along the circulation routes or add cane detection under non-compliant protruding objects along the circulation routes;
- Provide accessible seating in the multipurpose hall and library;
- Provide an adjustable exam table in the existing Exam Room;
- Make improvements inside the First Floor Holding Room;
- Install a sloped threshold at the door to the computer area of the First Floor Library;

1 Observation made during virtual site visit conducted on December 1, 2021 and December 2, 2021

12 Observation made on-site on December 16, 2021

20 From Jensen Hughes' Accessibility Report dated March 25, 2022

- Lower the counter inside the First Floor Laundry Room; and

Enlarge the door frame and replace the door leaf containing narrow doors located in the accessible public and inmate areas throughout the floors. This change includes, but is not limited to, the Classrooms, Library, and Hair Salon.<sup>1,20</sup>

### **2.4.3 Reunification House**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Install new asphalt walkway between the building and the Kids' Play Structure;
- Replace the threshold and hardware of the Entry Door. Install an automatic door opener;
- Make improvements to the inside of the single-user Toilet Room:
  - Relocate the toilet tank
  - Relocate the toilet paper dispenser
  - Lower the mirror above the sink
  - Relocate the shower controls

The second floor would still remain non-ADA-compliant as an elevator does not currently exist at the building.<sup>1,20</sup>

### **2.4.4 Automotive Garage**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Replace the asphalt walkway between the parking lot and the building to be flush with the interior floor
- Replace the door threshold of the entry door
- Make improvements inside the single-user Toilet Room:
  - Lower the mirror above the sink;
  - Relocate the heater away from the toilet<sup>1,20</sup>

## **2.5 Resiliency, Energy, & Sustainability**

### **2.5.1 Campus**

DCAMM requires every project submit a Climate Resiliency Checklist which evaluates the climate change resilience at a site level. It is utilized to ensure that every "state facility can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and function through risk management."

The Climate Resiliency Checklist for South Middlesex Correctional Center was completed during Faithful + Gould's 2020 FCA Study and is utilized for this project.<sup>6</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study  
20 From Jensen Hughes' Accessibility Report dated March 25, 2022



## Climate Resiliency Checklist

### I. Introduction

This checklist is to evaluate climate change resilience at a site level for correctional facilities owned and operated by the Commonwealth of Massachusetts. For DCAMM's purposes, Climate Change Resilience is defined as: "Ensuring state facilities can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and functions through risk management." This checklist focusses on hazards related to flooding, extreme heat, extreme precipitation, & high winds.

Building peak heating and cooling loads can be estimated based on equipment capacities. Electrical demand can be found on utility bills or in CBEI metered energy data where available. For more information, please direct all questions about this checklist to [Timothy.Spencer@mass.gov](mailto:Timothy.Spencer@mass.gov).

### II. Project Information

Project Name			
Project Name:	<i>Facility Conditions Assessment of Correctional Facilities</i>		
Project Address:	<i>135 Western Avenue, Framingham, MA 01702</i>		
Site Name:	<i>South Middlesex Correctional Center</i>		
CAMIS Site Code:	<i>DOC19</i>		
Number of Buildings:	<i>7 buildings on campus; 3 buildings inspected</i>		
CAMIS Project Number:	<i>EPS1802-HS1</i>		
Project Team			
DCAMM Project Manager:	<i>Emmanuel Andrade</i>		
FCA Consultant:	<i>Benjamin Dutton, Faithful+Gould</i>		
Access Consultant:	<i>TBD</i>		
Project Description and Design Conditions			
List the principal Building Uses:	<i>Housing, intake/processing, vocational/educational, recreational, healthcare, food and laundry services, etc.</i>		
What past property damage has occurred from flooding, extreme heat, precipitation, or high winds?	<i>None</i>		
What is the estimated occupancy?	<i>69</i>		
Does this facility house an immovable residential population?	<i>Yes</i>		
Energy Loads and Performance			
Peak Electric (kW):	<i>95 kW</i>		
Heating Capacity (MMbtu):	<i>Uses steam from MCI Framingham</i>		
Cooling Capacity (Tons):	<i>50-ton</i>		
Back-up / Emergency Power System			
Electrical Generation Output:	<i>50 kW</i>	Number of Power Units:	<i>1</i>
System Type:	<i>Generator</i>	Fuel Source:	<i>Diesel</i>
Schedule for testing generators under load:			
<i>Weekly testing of startup protocol</i>			

### III. Extreme Heat Events

Extreme Heat - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Annual Maximum Temperature in 2050:	93.87 °F	Annual Maximum Temperature in 2090:	99.54 °F
Current Cooling Design 0.4% DB Temperature (e.g. from ASHRAE Climate Design Data):	TBC	Change in Annual Max Temperature between 2050 and 2000:	4.15 °F

### IV. Extreme Precipitation Events

Extreme Precipitation - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Average Annual Precipitation in 2050:	43.51 In.	Average Annual Precipitation in 2090:	44.62 In.
Average Annual Precipitation in 2000:	35.70 In.		
10 Year, 24 Hour Design Storm Rainfall:	5.21 In.	Total Impervious Site Area:	119,620 SF
Building Foot Print Area:	16,450 SF	Total Site Area:	317,940 SF

### V. Sea Level Rise and Flooding

Flood Hazard Areas			
For site-specific sea-level-rise & flood hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Is any part of the project site located in the FEMA zone AE (100 yr flood plain with BFE)?	No	Is any part of the project site located in a FEMA zone X (500 year flood plain)?	No
Sea Level Rise / Storm Surge			
Will any part of the project fall within SLOSH Category 1?	No	What minimum level of sea level rise is the project vulnerable to (if any)?	0 Feet
<i>If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!</i>			
Base Flood Elevation (BFE):	N/A	Site elevation at building:	N/A
Lowest occupiable floor elevation:	N/A	Proposed Site Elevation – High:	N/A
Lowest basement floor elevation:	N/A	Proposed Site Elevation – Low:	N/A
Accessible route elevation:	N/A		
List any building uses and critical equipment located below the *BFE (Base Flood Elevation)			
<input type="checkbox"/> Switchgear	<input type="checkbox"/> Emergency Generator	<input type="checkbox"/> Boiler	
<input type="checkbox"/> Transformer	<input type="checkbox"/> Communications	<input type="checkbox"/> Server	
<input type="checkbox"/> Distribution Panel	<input type="checkbox"/> Water heater	<input type="checkbox"/> Elevator pit	
<input type="checkbox"/> Substation	<input type="checkbox"/> Air handling unit	<input type="checkbox"/> Other (list below)	
Other:			
<i>*Base Flood Elevation (BFE): "The computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations are shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles." (FEMA)</i>			

The current LEED v4.1 checklist is far more stringent than LEED v4 as the requirements for each credit has changed. Achieving Location and Transportation and Sustainable Sites will be more challenging than it was in the previous checklist.

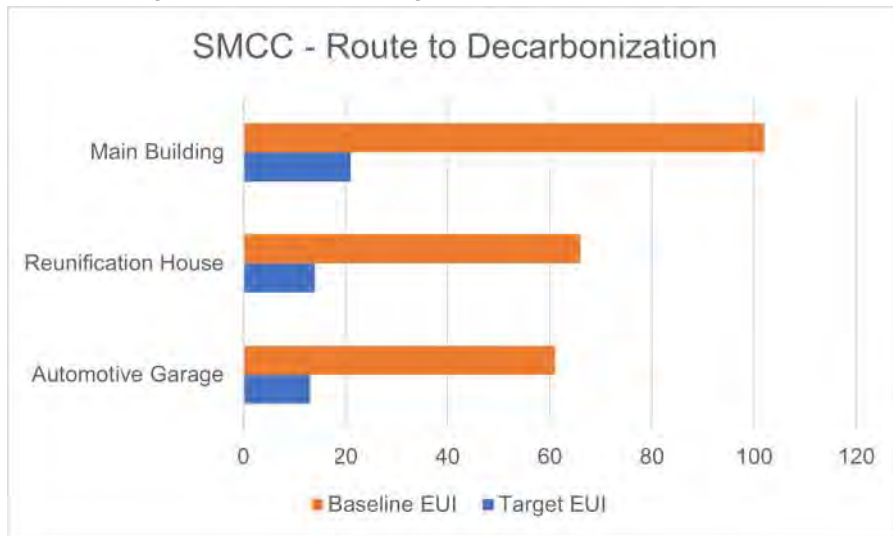
Potentially achievable credits include:

- LT Credit: Sensitive Land Protection  
Option 1 - Previously Developed Land
- LT Credit: Bicycle Facilities  
Case 1: Commercial or Institutional Projects
- LT Credit: Electric Vehicle
- SS Prerequisite: Construction Activity Pollution Prevention
- SS Prerequisite: Environmental Site Assessment
- SS Credit - Site Assessment
- SS Credit - Open Space
- SS Credit - Rainwater Management

This preliminary list requires further investigation and research.

In efforts to work towards achieving Massachusetts Executive Order 594: Leading By Example: Decarbonizing and Minimizing Environmental Impacts of State Government, the use of AIA2030's ZeroTool to provide baseline and target Energy Use Intensities (EUIs). The baseline energy and emission metric is based on CBECS 2003/RECS 2001, but normalized by climate, weather, space type, building size, occupancy, and schedule, as noted on the AIA2030's ZeroTool website. Information such as Annual Energy Purchased and Annual Energy Generated are not factored into this calculation due to lack of information, but the calculations can be adjusted to include them once its known. In order to achieve a carbon neutral building by 2030, the building would currently require an 80% reduction in the baseline. As seen in Figure 2.5.1, any building repurposed will require significant changes to reach decarbonization.

Figure 2.5.1 Baseline and Targeted EUIs towards Decarbonization



1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

20 From Jensen Hughes' Accessibility Report dated March 25, 2022

### **2.5.2 Main Building**

NOTE: Potential LEED credits will be explored once and if it is determined that the Infirmary Administration Building will be reused for the reimagined facility.

The Power Plant's current EUI stands at 102. If this house is repurposed, the target EUI is 21. There may be potential changes to the settings, such as the amount of square footage is dedicated to a certain occupancy use group.

### **2.5.3 Reunification House**

NOTE: Potential LEED credits will be explored once and if it is determined that the Reunification House will be reused for the reimagined facility.

The Reunification House's current EUI stands at 66. If this house is repurposed, the target EUI is 14. There may be potential changes to the settings, such as how the space is classified.

### **2.5.4 Automotive Garage**

NOTE: Potential LEED credits will be explored once and if it is determined that the Automotive Garage will be reused for the reimagined facility.

The Automotive Garage's current EUI stands at 61. If this building is repurposed, the target EUI is 13. There may be potential changes to the settings, such as how the space is classified.

## **2.6 Hazardous Materials**

The following contains information contain a list of materials and finishes installed during a certain year that typically contain hazardous materials. The list was derived from past DCAMM FCA Studies. The following information is not suggesting that hazardous materials exists and only suggests potential follow up to determine if testing and/or abatement is necessary.

### **2.6.1 Main Building**

The Main Building is steel-framed with a steel-framed roof system with precast concrete decking panels, composite floor slabs comprised of concrete over steel, steel I-beams and columns, brick exteriors walls and foundation. The rear of the building contains a four-level balcony. The balcony consists of garages at the lower level, a cantilevered concrete slab, siding enclosed support spaces at the second level and two levels of wood-framed decks comprised of wood columns, deck joists, decking boards and perimeter wood picket railing assemblies. Steam is supplied by the steam plant located at the adjacent MCI-Framingham Property. Steam is distributed through buried piping which connects to the basement level mechanical room. Steam is fed to the kitchen make-up air handling unit and a shell and tube heat exchanger.<sup>1,6</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study

### **2.6.2 Reunification House**

The building envelope consists of a two-story wood framed structure with unpainted wood shingle siding, aluminum insulated windows, wood entrance doors and asphalt shingle roofing. The walls and ceilings are finished with drywall on the interior side. This house includes a kitchen, bathroom, living room and dining room. The building is heated and cooled by two heat pumps. Domestic hot water is provided by a 40-gallon electric water heater. Electric service to the building is supplemented by a series of photovoltaic panels located on the roof.<sup>1,6</sup>

### **2.6.3 Automotive Garage**

The exterior wall system at the Automotive Garage consists of painted wood panel siding over a split face concrete masonry unit base wall. Windows consist of minimally double-glazed steel framed sliding units. Doors consist of a steel panel pedestrian door and an overhead sectional door. Open areas of the Automotive Garage are heated by a gas-fired radiant tube heater.

CDW, the Design Team's HazMat consultant, observed through photographs of all buildings interior finishes consisting of plaster and suspended ceiling tiles, sheetrock and painted CMU walls, vinyl floor tile (VFT), cove base, painted and unpainted concrete floors, tiled wet walls, fiberglass and suspect ACM pipe insulation and fittings, gaskets at valves and fittings on steel pipe, interior windows with glaze. Exterior finishes consist of potential ACM vapor barrier behind facades, roofing materials and windows with caulk and glaze, etc.

Other notable items include older switchgear with ACM panels, a UST pad, transformers, automotive garage use including potential hydraulic fluids and waste oils.<sup>1,6</sup>

## **2.7 Further Investigations / Assessments Needed**

Below is a list of investigations and/or assessments that would be required if a building or campus is determine a potential candidate for reuse:

### **2.7.1 Campus**

- Test the campus emergency power system and determine if its sufficient for the new program.
- Determine if the two secondary buildings are needed or if they can be demolished as they were not included in the Faithful + Gould 2020 FCA report.
- [REDACTED]
- Determine where the current CCTV cameras are located and where insufficiencies exist.
- Locate inmate-accessible phones that require a change to collect call services.
- Identify all plumbing fixture specifications.

### **2.7.2 Main Building**

- Address issues with the existing slate roof. Determine if its more feasible to change the roofing system or to find a slate tile roofing contractor for pre-approval which is reportedly scarce.
- Assess how water infiltration issues on the balcony have affected the roof's EPDM system and the structural integrity of the of the balcony.
- Conduct a visible mold assessment as there have been reports of water infiltration.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
6 From Faithful + Gould's 2020 South Middlesex CC FCA Study



- Steam has caused corrosion in the electrical system and should be assessed for the extent of the damage.
- [REDACTED]
- Test the kitchen to ensure the equipment is running properly.

### **2.7.3 Reunification House**

- Analyze structural system. It is speculated to be acceptable with no documentation.
- Analyze sanitary waste system. It is speculated to be acceptable with no documentation.
- Analyze gas line. It is speculated to be acceptable with no documentation.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.

### **2.7.4 Automotive Garage**

- Analyze the structural system. It is speculated to be acceptable with no documentation. It is also noted that a detached wall section at the rear point of the building is currently concealed and may be of structural concern.

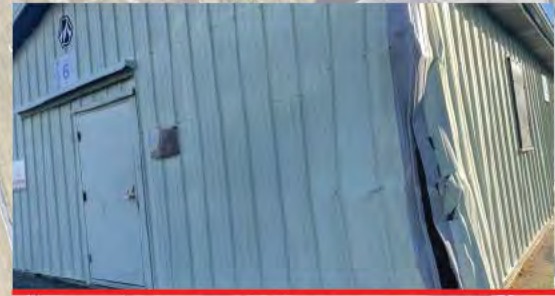
## Section 3: Existing Conditions Documentation and Analysis - Bay State Correctional Center

- 3.1 Campus Description
- 3.2 Building Description & Systems
- 3.3 Uses and Occupancy
- 3.4 Accessibility
- 3.5 Resiliency and Energy, Sustainability
- 3.6 HazMat
- 3.7 Further Investigations / Assessments  
Needed

Figure 3.1 Campus Map

LEGEND

- PROPERTY LINE
- PERIMETER FENCE



**Morton Building (Bldg 6)**  
 Built in 1995  
 Approximately 1,426 GSF  
 Occupancy: Corrections  
 Uses: Inmate Property Storage



**Main Housing (Bldg 2)**  
 Built in 1983  
 Approximately 32,754 GSF  
 Occupancy: Corrections / Cell Block  
 Uses: Housing



**Visitors Building (Bldg 5)**  
 Built in 1992  
 Approximately 6,972 GSF  
 Occupancy: Visitors Center / Information  
 Uses: Visitors Center



**Gate House (Bldg 9)**  
 Built in 1992  
 Approximately 11,312 GSF  
 Occupancy: Gate House  
 Uses: Administration, Sallyport to secured campus

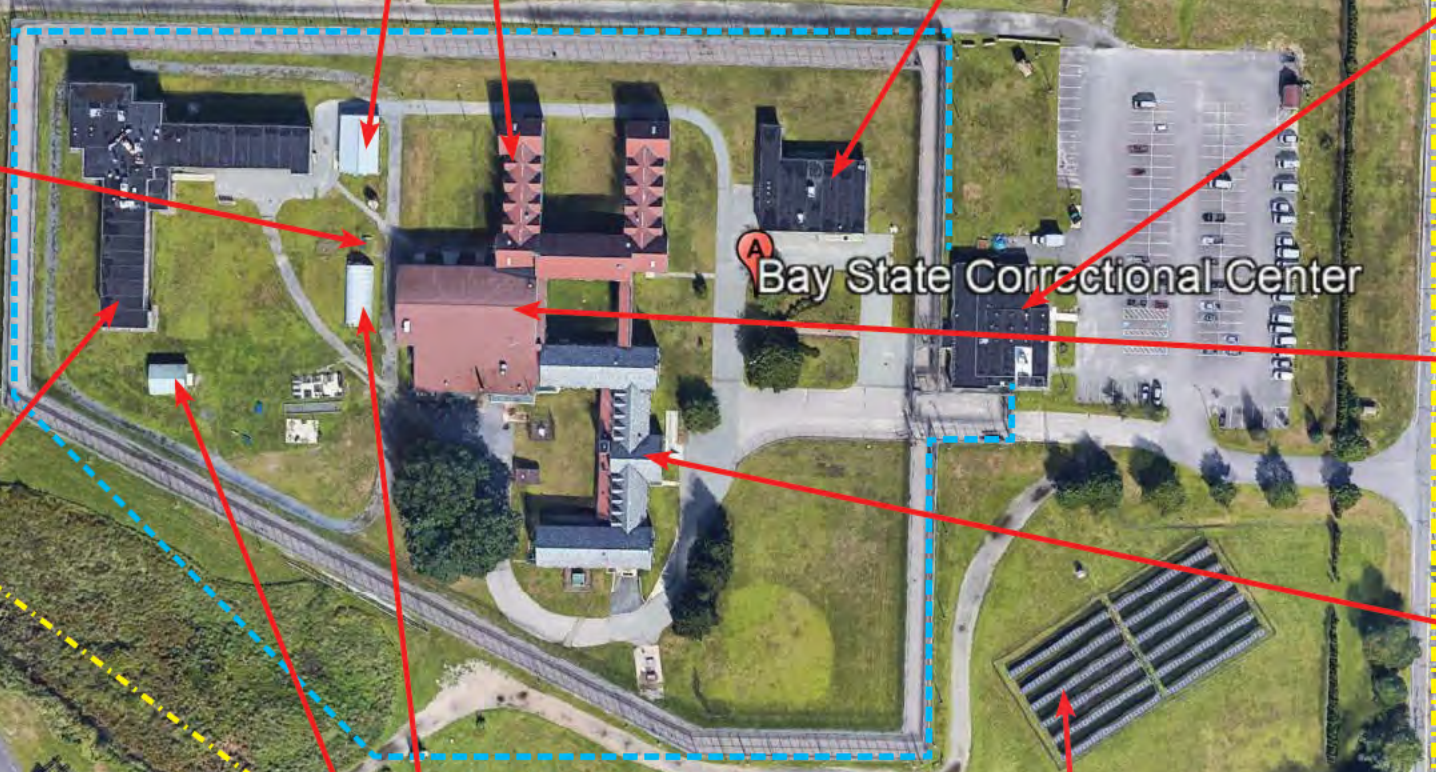
**Quonset Hut & Extension**  
 Built in  
 Approximately 2,185 GSF  
 Occupancy: Residence/Other  
 Uses: Storage

**Water Tower**

**Horticulture Shed**



**Gymnasium (Bldg 3) / Kitchen (Bldg 4)**  
 Built in 1983  
 Approximately: Gymnasium - 5,040 GSF, Kitchen - 7,080 GSF  
 Occupancy: Gym / Kitchen  
 Uses: Gym / Kitchen / Lunch Room



**Modular Housing (Bldg 7)**  
 Built in 1992  
 Approximately 74,496 GSF each  
 Occupancy: Residence  
 Uses: Housing, Hard Cells

**Supply (Bldg 8)**  
 Built in ??  
 Approximately 660 GSF  
 Occupancy: Storage / Equipment  
 Uses: Shed

**Greenhouse**  
 Built in ??  
 Approximately 1034 GSF

**Solar Panel Farm**



**Administration Building (Bldg 1)**  
 Built in 1934  
 Approximately 32,754 GSF  
 Occupancy: Administration  
 Uses: Administration, Offices

### **3.1 Campus Description**

Bay State Correction Center is located in Norfolk, Massachusetts and is comprised of approximately 219,000 GSF distributed over 18 structures (Figure 3.1). The correctional campus officially opened in 1966 as a minimum security facility for 72 male inmates. There have been several major renovations to the campus, particularly the Administration Building, which was originally built in 1934 and renovated twice in 1956 and in 1988.

In late 2015, all inmates on campus were relocated. Since then, facility currently does not function as a correctional center that houses inmates and/or inmate programs. Currently, the campus is occupied by the DOC's Central Transportation Unit and for DOC employee training.<sup>7</sup>

The campus is located approximately 1.7 miles away from the Norfolk train station, which is the closest public transportation node. Everyone coming to the campus arrives via car.<sup>1</sup> Additionally, there are no sidewalks along Clark Street which would make it difficult and dangerous to walk to the correctional center even if public transportation was closer.

A solar panel field exists on the north east portion of the constructed site. They provide 100-125 kW outputs and only supply power for the site.<sup>1</sup> (Figure 3.1B).

Figure 3.1B Solar Panel Field from a distance<sup>12</sup>



The campus functions on a centralized metering system which is located in the Gate House. No sub-metering of building exists. Eversource provides the campus with electricity (on top of the electricity produced by the solar panels on campus).

The DOC provides its own water and wastewater services to the buildings on campus.<sup>1</sup> The system is a central plant off of Old Campbell Road and is currently being upgraded through DCAMM.<sup>15</sup> This water runs on a forced water piping system heated by oil-fired boilers. However, the new executive order may require looking at alternative fuel sources. Sufficient natural gas supply is currently not accessible to the site. There

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021

12 Observation made on-site on December 16, 2021

15 Information received by DCAMM and/or DOC via correspondence

is a high-pressure gas supply line approximately 100'-0" away from the Gate House that was updated approximately eight years ago.

Electrical wiring on campus is a mix of both underground and above ground. Newer additions to the campus bury their wiring underground and within partitions. An underground duct bank is located by the Gate House and is reported to not have any issues attached to it.

There are two generators - one that serves the Gate House and Visitors House, and one that partially serves the Main Building.

The sewer system is approximately 1.5 miles up the road and has the capacity of expansion for servicing this campus. It's currently under renovations so its compliant with an estimated completion date of January 2023. Currently, the effluent sewage system primarily accommodates for male use of the facilities - a women's facility would require a different effluent sewage system.<sup>1</sup>

### **3.1.1 FEMA Flood Zone**

As seen in the FEMA Flood Zone map (Figure 3.1.1A), most of the campus' structures stay clear of the 1% and higher annual chance of flooding based on the Base Flood Elevation (BFE). There are several areas labeled "Zone AE" that fall under the Special Flood Hazard Areas, and would not be suitable for building a new structure without issues. As can be seen, there is little area to build on campus and within the correctional center's boundaries. The area on the southeast corner of the campus' boundaries falls under Zone AE and would not be suitable for any new construction if that becomes an option.<sup>18</sup>

The U.S. Fish and Wildlife Service's National Wetlands Inventory (Figure 3.1.1B) shows the surrounding areas designated as wetlands or with a freshwater pond. Similar to the FEMA Flood Zone Map, the highlighted areas are primarily outside of the correctional center's boundaries. There is an area in the southeast corner that is labeled as a Freshwater Emergent Wetland, therefore new construction would not be allowed.<sup>19</sup>

### **3.1.2 Landscape Architecture**

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

18 FEMA Flood Zone map dated October 2020

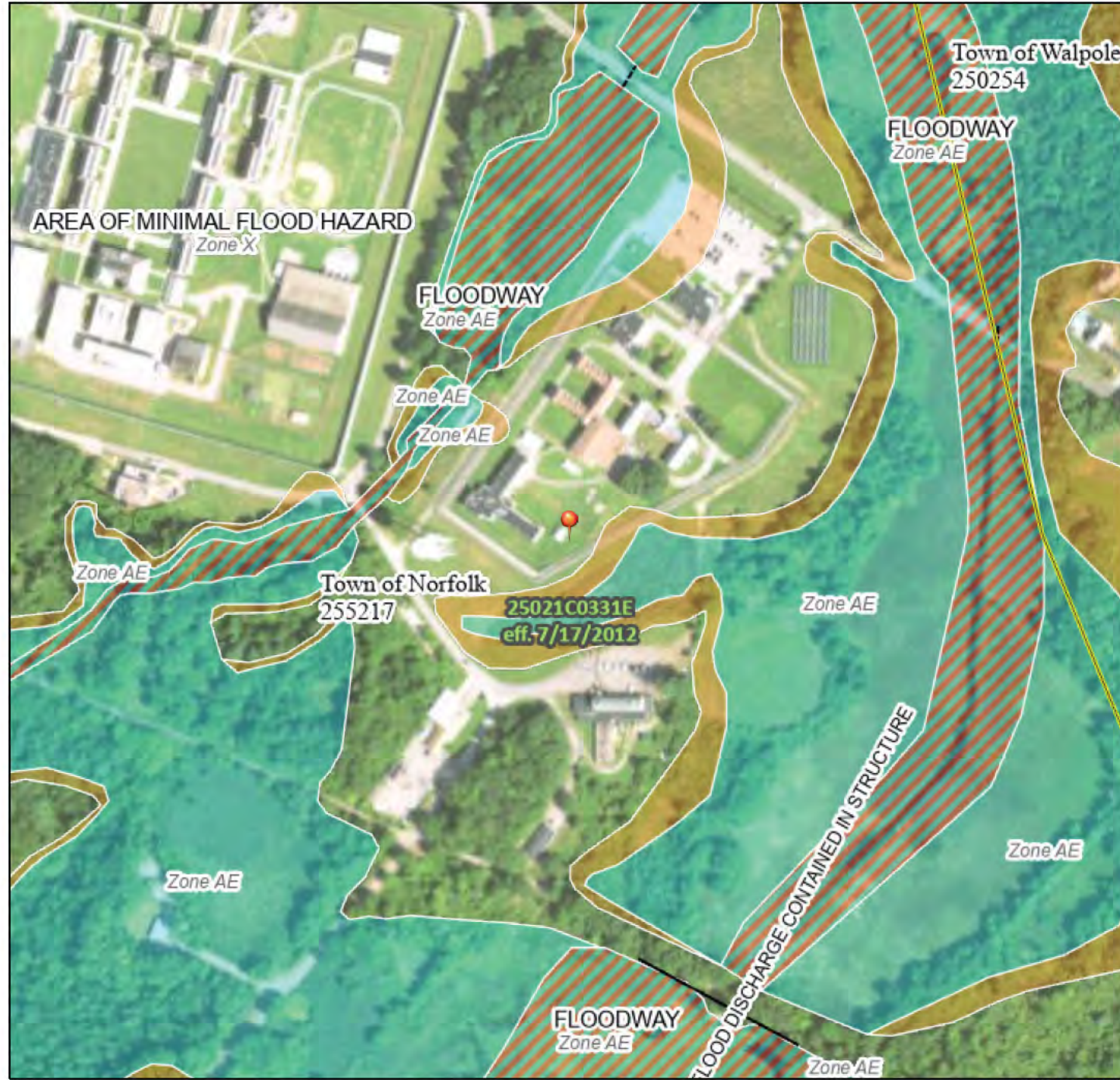
19 From the US Fish & Wildlife Service's National Wetlands Inventory dated March 31, 2022

Figure 3.1.1A Diagram of the FEMA Flood Zones around Bay State Correctional Center<sup>18</sup>

# National Flood Hazard Layer FIRMette



71°18'20"W 42°7'13"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

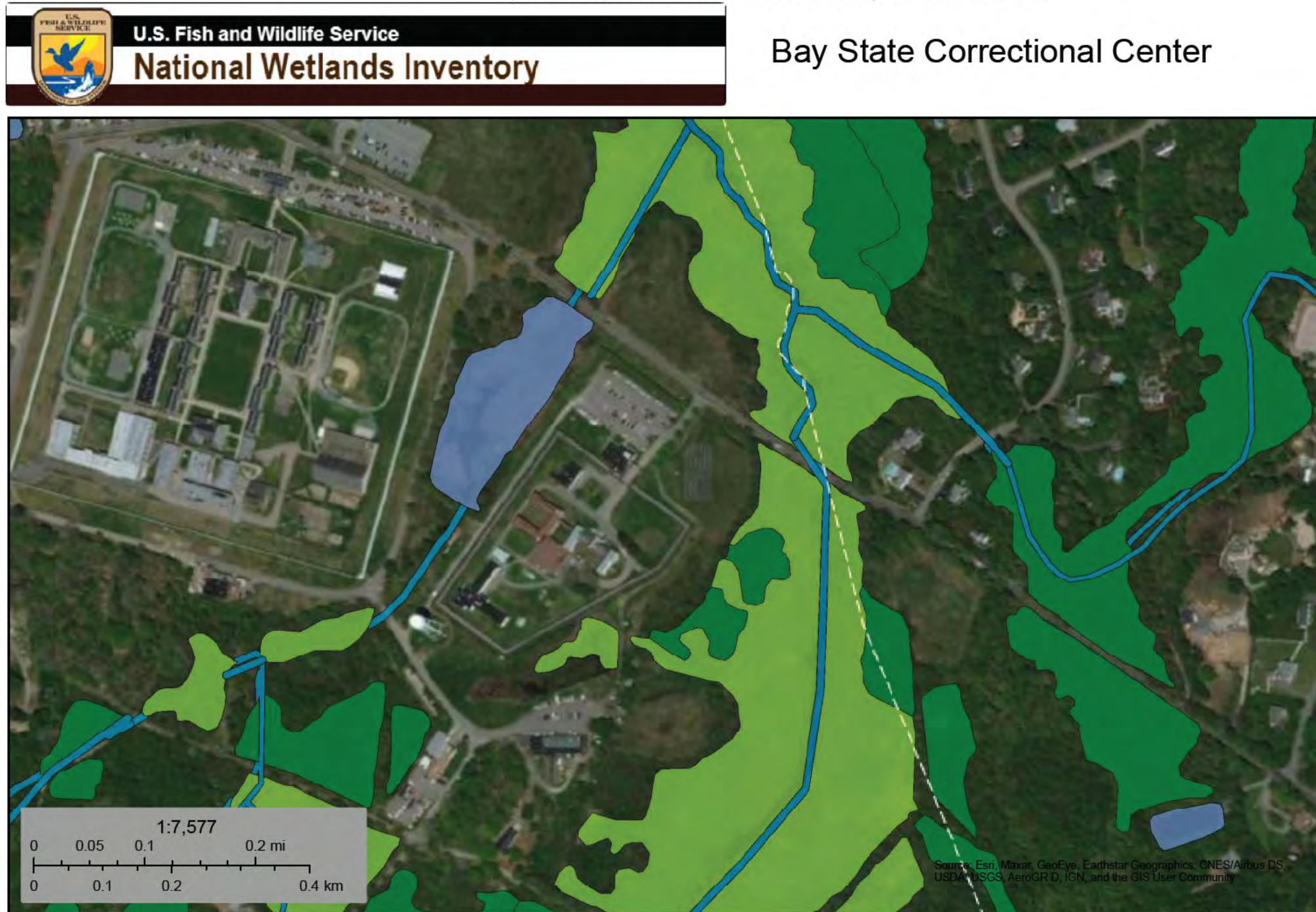
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/31/2022 at 3:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 3.1.1B Diagram of the FEMA Flood Zones around Bay State Correctional Center<sup>19</sup>



March 31, 2022

**Wetlands**

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Estuarine and Marine Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

<sup>19</sup> From the US Fish & Wildlife Service's National Wetlands Inventory dated March 31, 2022

Bay State is located at 28 Clark Street in Norfolk, MA, and faces northwest on the south side of Clark Street. The entry drive to the building entrance is flanked by relatively mature trees, including deciduous shade trees on the left side of the drive and evergreens on the right. There is a solar array on the left side of the drive, oriented to the west-southwest.

Outside the Security Fence

[Redacted text block]

[Redacted text block]

Inside the Security Fence

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

**3.1.3 Campus Security & Fencing**

21 From Shadley Associates' Existing Site Conditions report dated January 18, 2022



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### **3.1.4 Topography & Stormwater Drainage**

The site is relatively flat and does not pose as having topographical issues. Additionally, despite being surrounded by wetlands, the campus is considered dry with occasionally experiences dam failures but does not reach the property's perimeter.<sup>1</sup>

Ponding can occur by the existing softball field which is the only area within the property's perimeter that has a slight drop in topography.<sup>1</sup>

Stormwater management is noted to be in good condition.<sup>11</sup>

### **3.1.5 Pavements and Roadways**

The campus does have an asphalt parking lot north of the Gate House and is capable of accommodating 133 vehicles. It was recently resurfaced in the last ten years and is considered to be in good condition. Proactive measures such as crack filling, seal coating, and re-striping should be made in order to extend the life of the paving.

The vehicular and pedestrian sallyport is located east of the Gate House and serves as the primary entrance

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
11 From Faithful + Gould's 2020 Bay State CC FCA Study  
15 Information received by DCAMM and/or DOC via correspondence

and exit to the parking lot.<sup>1,12</sup> The vehicle gate operator is past due for replacement and hasn't been replaced due to the campus' dormant status. The gate would need to be fully serviced.<sup>15</sup> An outer perimeter roadway exists around the perimeter fence. This roadway is considered to be in fair to good condition with areas of linear cracking. Proactive measures such as crack filling, seal coating, and re-striping should be made in the near future, as well as resurfacing within the next three to five years.

Concrete sidewalks exist within the campus and are in fair conditions with isolated areas of displacement and cracking. It is primarily prominent at the exterior stairs and ramps where water infiltration at the railing assemblies have resulted in a freeze-thaw cracking. It is recommended that these areas are repaired and or replaced on an as-needed basis. This sidewalk path leads into the asphalt track located around the Modular Building. This track also encloses the Supply Building, the Greenhouse, and the Morton Housing. Unfortunately, it has been determined that the track is in poor condition with widespread alligator cracking, edge deterioration, and weed growth. Top-coating the pavement with a new tack coat and wear course is recommended if the campus is repurposed.<sup>1,12</sup>

### **3.1.6 Exterior Recreational Yards**

A softball field, which is noted to be in fair condition, exists on the northeast area within the perimeter fence and southwest of the solar panel field. There is also an outdoor recreational yard with weight lifting equipment on two concrete pads located south of the Gymnasium and east of the Modular Housing. This area has always been underutilized.<sup>1</sup> Despite this scenario, the concrete pads are in fair condition and serviceable for the short term.<sup>11</sup>

### **3.1.7 Campus Fire Alarm / Fire Protection Systems**

The existing communications systems are outdated as they fall under analog systems. Additionally, the existing system experiences ground fault issues.<sup>15</sup> Currently, the fire alarm communications are redirected to the local call center because the site is not currently occupied by inmates.<sup>1</sup>

The fire hydrants on campus have been emptied for flow testing reasons. However, the testing has not taken place for some time as the campus is currently dormant. If this campus is a viable option for reuse, it is possible that the Design Team's engineers will need to perform the tests with DOC present.<sup>1</sup>

The State Department of Public Safety takes no issue with any of the current conditions.<sup>1</sup>

## **3.2 Building Descriptions**

### **3.2.1 Gate House**

This one-story building provides the main access into the medium-security campus. It was part of the 1992 additions added to the campus and is approximately 11,300 GSF (Figure 3.2.1).<sup>8,11</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
8 From DCAMM's Initial Info files  
11 From Faithful + Gould's 2020 Bay State CC FCA Report  
12 Observation made on-site on December 16, 2021  
15 Information received by DCAMM and/or DOC via correspondence

Figure 3.2.1 Front Entrance to the Gate House<sup>8</sup>



### 3.2.1.1 Structural & Building Envelope

The Gate House consists of a combination of structural systems: Dimensional lumber modular framing in the lobby areas on reinforced concrete piers and structural steel beams spanning the piers. The site built and reinforced concrete masonry framing with open-web metal roof trusses throughout the electrical, sallyport, armory, and control areas. The perimeter walls are founded on continuous spread footings.<sup>11</sup>

Structural damage can primarily be observed with the prefabricated campus on site. Any deficiencies noted are based on visual observations and not based on calculations completed by a structural engineer.<sup>1</sup>

The roof is made of a single-ply EPDM membrane roof applied over dimensional lumber joists insulated with batt insulation and wood panel sheeting. The adhered membrane terminates at the perimeter of the roof and on top of the edge flashing. The roof over the field fabricated area is applied over galvanized steel roof decking and 2" rigid insulation. The roof slopes to internal rain leaders that discharge to the site stormwater management system. These systems are original the building's construction.

The roof system is in poor condition and has exceeded the industry standard useful life of 20 to 25 years. It is recommended that this roof be replaced.

The exterior is made of 2" Fedderlite Dryvit panels with expanded polystyrene insulation, reinforcing mesh, and a finish coat. The panels are treated with a urethane sealant at the joints and an applied paint finish on the face. This system appears to be in fair condition with localized impact damage, deteriorating sealants, and soiled paint finish. It is recommended to repair the impacted areas.<sup>11</sup> Though, it is noted that the exterior enclosure is deteriorating and can easily be damaged. This condition may warrant the exploration of a replacement exterior system if the building is repurposed.<sup>1</sup>

Exterior windows are painted steel-framed window units with either polycarbonate resin thermoplastic sheets or single pane security glass. The windows are considered to be in fair condition with failure of sealants connecting the window assembly with the Fedderlite veneers. Sealants should be removed and replaced to maintain a weather-tight exterior.<sup>11</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

8 From DCAMM's Initial Info files

11 From Faithful + Gould's 2020 Bay State CC FCA Study

Doors consist of painted steel panel units.<sup>11</sup>

### 3.2.1.2 Mechanical

Two packaged rooftop air handling units with gas-fired furnaces and DX cooling are utilized at the Gate House. One unit is a 2007 vintage, R-22 packaged RTU with a 3-ton cooling capacity. The second unit is a 2010 vintage R-410 packaged RTU with an 8-ton cooling capacity. Air distribution is created via forced air heating and cooling from the packaged RTUs. These units have an estimated lifespan of 15-years.<sup>1</sup>

Based on the existing conditions during an on-site visit, the mechanical units are beyond repair and should be replaced with new systems.<sup>12</sup>

Rooftop exhaust fans serve the core restrooms. These are determined to be in fair condition and serviceable with an as-needed component replacement.<sup>11</sup>

System controls are limited to low-voltage thermostats serving individual units. They are currently adequate in size, occupancy, and nature of their respective mechanical systems, but are recommended to be upgraded to a modernized system if the building is repurposed.<sup>11</sup>

### 3.2.1.3 Electrical

A 500 KVA, pad-mounted transformer resides in the Gate House and supplies 120/208-volt electrical power to an 1,200-amp Westinghouse switchgear that serves the Gate House, the Visitor Building, and the Morton Building. This system was installed in the early 1990s and undergoes routine thermal scanning and as-needed repairs and component replacements.

The primary electrical service should be serviceable for approximately the next decade. The secondary electrical distribution system, which includes breaker panels, branch wiring and devices, were installed in the late 1980s and early 1990s. These systems have a useful and acceptable lifespan of approximately 50-years with routine thermal scanning and as-needed connection torqueing and component replacement.<sup>11</sup> The distribution system is past its useful life and should be replaced.<sup>12</sup>

A 350-kilowatt Caterpillar, V-8 diesel generator in the Gate House serves its building, The Modular Housing, the Morton Building, and the Visitor Building. The generator was installed in 1990 and had a 516-hour of engine run-time at the time of the Faithful + Gould 2020 FCA Study. It has relatively low operating hours and is likely to be serviceable for the next decade.<sup>11</sup>

The building primarily consists of T-12 and T-8 fluorescent light fixtures and lamps.<sup>11</sup> They are beyond its useful life.<sup>12</sup> It is recommended that upgrades be made to modernize the system to LED fixtures and lamps.<sup>11</sup>

The life safety system does not meet the 2020 NEC article 700 requiring that only life safety loads are circulated to the life safety branch. Standby loads are also connected to the same transfer switch. An MTS for connection to a roll-up generator is also required. This would be considered a code violation and should be upgraded.<sup>12</sup>

The existing fire alarm system is conventional and is recommended to be replaced to a modern system.<sup>12</sup>

<sup>11</sup> From Faithful + Gould's 2020 Bay State CC FCA Study  
<sup>12</sup> Observation made on-site on December 16, 2021

All electrical equipment requires an ARC flash label warning people of high-voltage equipment.<sup>12</sup>

### 3.2.1.4 Plumbing

Domestic hot water is provided via a gas-fired, 40-gallon Ruud Tank system that was installed in 2012. It appears to be in acceptable condition.<sup>11,12</sup>

### 3.2.1.5 Fire Protection

The Gate House's fire protection system includes a [REDACTED]. It is recommended that this system is replaced. The building does not have a structural fire protection system or a fire suppression system.<sup>12</sup>

## **3.2.2 Visitor Building**

This one-story structure (Figure 3.2.2) is located northwest portion of the built campus is approximately 6,972 GSF and was built in 1992 as part of the campus renovations project.<sup>7,11</sup>

Figure 3.2.2 Exterior of the Visitor Building<sup>12</sup>



### 3.2.2.1 Structural and Building Envelope

The Visitor Building consists of dimensional lumber framing on continuous, reinforced concrete spread footings and foundation walls. It is one of three Type-II modular structures on campus.<sup>11</sup>

Structural damage can be primarily observed with the prefabricated building. Any deficiencies noted were based on visual observations and no calculations were completed to support the observation. Should the building be a viable option for repurpose, the structural system will require a full structural analysis.<sup>1,12</sup>

The Visitor Building's roof consists of a single-ply EPDM membrane roof. The adhered membrane terminates at the perimeter of the roof on top of edge flashing. The roof fields slope into internal rain leaders that discharge to the site's stormwater management system. The roof is applied over dimensioned lumber joists

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021  
11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

insulated with batt insulation and wood sheathing.

The roof is in fair conditions but has exceeded its industry standard useful life. A number of performance issues exists such as open flashing, chemical deterioration of the EPDM membrane, bridge base flashing, and ponding water caused by breakdown of roof insulation. It is recommended that the roof system is replaced if the building is a viable option for reuse.<sup>11</sup>

This building's exterior includes a 2" Fedderlite Dryvit panel system with expanded polystyrene insulation, reinforcing mesh, and a finish coat. Panel joints are treated with a urethane sealant and the overall system has an applied paint finish.

The windows are generally made out of painted steel framed units with polycarbonate resin thermoplastic sheets or single pane security glass. Door are primarily painted steel panel units.

The composite wall system are in fair condition with localized impact damage, deteriorating sealants, and soiled paint finish. It is recommended that the exterior be cleaned with pressure washing, sealant reinstallation, and paint finish renewal to restore the integrity of the building envelope.<sup>11</sup>

### 3.2.2.2 Mechanical

This building is heated and cooled by two 2007 and 2010 vintage R-22 and R-410A packaged rooftop air conditioning units with gas furnaces. The R-22 unit has a cooling capacity of 3 tons, and the R-410A unit has a cooling capacity of 8 tons. The air is distributed via forced air methods. This system is at the end of its useful life and should be replaced if the building is to be repurposed.<sup>11</sup>

The Visitor Building utilizes rooftop exhaust fans.<sup>11</sup> These exhaust fans are in fair condition and should be replaced on an as-needed basis.<sup>11,12</sup>

Temperature controls to this building is limited to low-voltage thermostats serving the individual units. This system is outdated and should updated to a direct digital system with low-voltage sensors, actuators, and automated sequences and setpoints.<sup>11,12</sup>

### 3.2.2.3 Electrical

The incoming feed to the Visitor Building starts as a 4,160-volt underground service feed that is distributed via a 500 KVA, oil-filled, pad-mounted service transformer that supplies 120/208-volt electrical power to a 1,200-amp Westinghouse switchgear. This transformer is located in the Gate House.

The secondary electrical distribution system generally have a useful life of 50-years and is likely to be in acceptable working condition with routine thermal scanning and as-needed connection torquing and component replacements.<sup>11,12</sup>

The back-up generator for this building is a 350-kilowatt Caterpillar, V-8 diesel generator in the Gate House that serves the Modular Housing, the Gate House, the Morton Building, and the Visitor Building. This generator was installed in 1990.

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
11 From Faithful + Gould's 2020 Bay State CC FCA Study

A 2020 assessment noted that the engine had 516-hours of engine run-time, which is relatively low operating hours. Though it is anticipated to be serviceable for the next ten years.<sup>11,12</sup>

There is no emergency lighting in the building. It is recommended that emergency battery units along the path of egress is installed if this building is repurposed. Additionally, there are deficiencies in the placement of illuminated exit signs that should be addressed.

All electrical equipment requires an ARC flash label warning people of high-voltage equipment.<sup>12</sup>

The lighting system in the building primarily consists of correctional grade fixtures mounted to the ceiling. Fixtures are generally lamped with T-12, T-8, and compact fluorescent lamps. These systems are outdated and at the end of its useful life. It is recommended that the existing systems be replaced or retrofitted to accommodate LED lamps.<sup>11,12</sup>

### 3.2.2.4 Plumbing

Domestic cold water is supplied by a local utility below grade and routed to the core mechanical room of the building. The piping consists of soldered copper piping insulated with FSK faced, fiberglass insulation.

Domestic hot water is supplied by a 40-gallon, gas-fired, tank-type water heater by Ruud that was installed in 2014. This tank failed and has caused damage to the existing floor. It has been repaired and is scheduled to be replaced.<sup>15</sup>

Natural gas is supplied to this building.<sup>11</sup>

### 3.2.2.5 Fire Protection

A dry-pipe sprinkler system is provided for this building. Additionally, it features fire mains on utility water pressure.

[REDACTED]

A modern Notifier NFS 320 system has been installed in the building. It is considered to be relatively new and serviceable for the next decade.<sup>11,12</sup>

## **3.2.3 Administration Building**

This 32,754 GSF, two-story building (Figure 3.2.3) was built in 1934 with major renovations completed in 1956 and in 1986. (The 1986 renovation is under the P86-3 #1B project.<sup>15</sup>) This building is connected to the Main Building dedicated corridors with ramps. The two-story building does contain a small hydraulic, in-ground jack assembly type of elevator that was installed during the 1988 renovation efforts. The elevator consists of a relay logic controller, hydraulic oil tank, in-ground jack assembly, door operator, and steel cab along with related car and hoistway indicators and buttons. It is rated with a capacity of 2,500 4lbs and a speed of 120 feet per minute. It is in fair and reliable working condition. However, the elevator controllers

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are older and obsolete technology with limited replacement parts available. Additionally, the mechanical elements are starting to deteriorate. Replacement of the system to a modernized one is recommended if the building is repurposed.<sup>11</sup>

Figure 3.2.3 Administration Building <sup>8</sup>



### 3.2.3.1 Structural and Building Envelope

This 1934 building was created on conventionally reinforced concrete framing, formed reinforced concrete elevated slabs, and concrete masonry shear walls. The interior columns are founded on isolated concrete spread footings, and the exterior walls are founded on continuous spread footings.<sup>7</sup> Currently, there are no known and/or outstanding issues with the structural system,<sup>1</sup> but this should be confirmed by a structural engineer's analysis to determine if this building is suitable for reuse.

The building's roofing system consists of a grey slate tile roof over what is presumed to be underlayment, wood sheathing, and steel framed roof trusses. The roof also features copper valley flashing, copper ridges, and aluminum perimeter gutters and downspouts. This system was installed approximately 44 years ago and considered to be in fair condition. The typical useful life of this system is approximately 75 years, therefore any deficiencies in the slate tiles themselves can be serviceable with as-needed replacements. The gutters and downspouts are in poor conditions in multiple sections due to heavy snow and ice loads. These gutters and downspouts should be partially or fully replaced.<sup>7</sup>

As can be seen in Figure 3.2.3, the exterior is comprised of concrete masonry units of various sizes in an Ashlar pattern with applied paint and brick veneer exterior corners and chimney details. The brick veneer is laid in a running bond pattern.

The windows are generally made out of painted steel framed units with polycarbonate resin thermoplastic sheets or single pane security glass. Door are primarily painted steel panel units.

The exterior is in generally good condition, however, sealants around the window and door perimeters and at vertical control joints have failed and should be removed and reapplied. Additionally, the soffits and roof

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021

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level trims have areas of failed paint and rotted wood. The gutter failures from heavy snow and ice loads are likely to be the cause of the failed paint and rotted wood. It is recommended that the rotted wood trim areas be removed and replaced and for paint to be reapplied throughout the entire building's exterior. The building also contains ten cracked lintels which should be removed and replaced in the near future.<sup>11,12</sup>

### 3.2.3.2 Mechanical

The original water boiler serving the Administration Building was replaced in 2010 with a Weil-McLain, oil-fired boiler with a rated output of 2,274 MBH. This building features central air conditioning in the form of 50-ton, R-22 reciprocating chiller with an air-cooled condenser. The current model is a 30HL050-530 chiller that was installed in 1998. A pair of 5-horsepower, 133 GPM base mounted pumps (primary and standby) circulate chilled water to heating and ventilating unit #2 serving the core office administrative area and perimeter fan coil units serving the various perimeter office and administrative areas.

The chiller is likely to be at the end of its useful life and should be removed and replaced if the building is determined to be a viable option for repurposing.

The air distribution and ventilation system for this structure includes forced air heating and cooling with rooftop exhaust fans. Heating and ventilating unit #2 which serves the core Administrative offices is equipped with a 30 GPM chilled water coil. The ventilation units range in 1,000 CFM to 10,000 CFM. These fans are in fair condition and should be replaced on an as-needed basis.<sup>11,12</sup>

The controls for these systems include a hybrid digital and pneumatic system with automated logic and pneumatic actuators. The maintenance of this system is intensive, inefficient, and obsolete. It is recommended that the system be replaced with a modern, direct digital system with low-voltage sensors, actuators, and automated sequences and setpoints.

### 3.2.3.3 Electrical

Electricity is supplied to the Administration Building via a 4,160 volt incoming service feed that is distributed through a 750 KVA, oil-filled, pad-mounted service transformer. The transformer is located in a fenced enclosure at the northeast corner of the kitchen supply room and supplies 120/208-volt power to a 2,000 amp Siemens primary electrical switchgear that services this building as well as the Main Housing, Kitchen, and Gymnasium.<sup>11,12</sup>

This system was part of the 1988 renovation and is acceptable conditions. As-needed maintenance should be made and should be sufficient for approximately the next 10 years.

The secondary electrical distribution equipment, which includes breaker panels, branch wiring and devices were installed in the late 1980s to early 1990s with a general useful life expectancy of 50-years with routine thermal scanning and as-needed connection torquing and component replacement. It is likely that this secondary electrical distribution equipment is acceptable with as needed replacements.<sup>11</sup>

Emergency power is supplied through a 125-kilowatt, Kohler diesel generator located in the basement of the kitchen. This generator supplies electricity to the Administration Building, Main Housing, Kitchen, and Gymnasium. It was installed in 1988 and served by a 500-gallon, underground storage tank. It is

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12 Observation made on-site on December 16, 2021

recommended that the generator, emergency power transfer switch, and load centers be replaced as it is not properly sized to carry the full load of the building area it serves.<sup>11</sup>

Light fixtures primarily consist of correctional grade fixtures lamped with T-12, T-8, and compact fluorescent lamps. It is recommended that these fixtures are replaced with LED fixtures even though the existing system is in fair conditions.<sup>11</sup>

### 3.2.3.4 Plumbing

Domestic hot water is supplied by a 2009 vintage Weil McLain oil-fired boiler with a rated capacity of 872 MBH. The 1988 vintage, 757-gallon domestic hot water storage tank provide additional peak demand capacity. It is recommended that late-term replacement of the domestic hot water boiler be replaced to prevent any forced outages.<sup>11,12</sup> The circulator pumps in the basement would normally be serviced on an annual basis, however, due to the campus' dormant status, it is no longer routinely serviced nor is a maintenance team readily available when outages occur.<sup>15</sup>

Sanitary waste piping consists of hub-less, cast-iron construction where it can be observed. It is rerouted to a duplex sewage ejector pump system where they are lifted to the nearest gravity main. A duplex sump pump system below the basement mechanical room below the kitchen lifts greywater and groundwater to the nearest gravity load. The existing wastewater system is noted to be in fair condition with no reported leaks or systemic piping failures. The existing stormwater system appears to be in a good condition with no obvious or reported areas of ponding or erosion. The sump pump systems were installed in the late 1980s - early 1990s expansion efforts and are at the end of their statistical life cycle. It is recommended that this system is updated and replaced if the building is a viable option for repurpose.<sup>11</sup>

### 3.2.3.5 Fire Protection

This 1988 building contains structural fire protection, fire suppression, and fire detection systems in place.

The fire alarm system is in a state of disrepair and is no longer supported by the manufacturer. This system will require replacement to a modern system if the building is a viable option for repurpose. The replacement will include new devices, as-needed wiring and conduit, and control panels installed in compliance with modern code requirements.

## **3.2.4 Main Housing**

This 75,762 GSF, multiple winged, 3-story structure (Figure 3.2.4) was built in 1988 as an addition to the Administration Building.<sup>7</sup> No elevator exists in this building, but it is connected to the Administration Building which does include a conveyance system.<sup>12</sup>

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Figure 3.2.4 Administration Building (left) and the Main Building addition (right)<sup>11</sup>



### 3.2.4.1 Structural and Building Envelope

This structure consists of reinforced concrete masonry and precast concrete elevated slabs. Both the interior and perimeter masonry walls are supported on continuous footings. They appear to be in good condition.<sup>11</sup> However, due to reported leaks and moisture issues, the structural system should be assessed by the Design Team if the building is repurposed.<sup>1</sup>

The roof is comprised of a pitched asphalt roofing system over what's presumed to be engineered wood trusses with wood panel sheathing, underlayment, and three-tab architectural shingles.<sup>11</sup> There are no perimeter gutters or downspouts.<sup>11,12</sup> This roof is believed to be original to the construction.

Despite its age, the asphalt roofing system appears to be in good condition with no significant curling, fracturing, detaching, or eroding shingles. However, it is still recommended that the shingles and underlayment are replaced if the Main Housing is repurposed. Gutters and downspouts should also be incorporated to the building.<sup>11</sup>

The building's exterior walls are made of split face and red-tinted concrete masonry units.<sup>11,12</sup> This system appears to be in good conditions with the exception of sealant failures connecting the windows and doors to the exterior walls. Existing sealants should be removed and reapplied correctly. The sealants at the vertical seams appear to be deteriorating and should be removed and reapplied.

The soffits and roof level trim show areas of failure and rotted wood due to lack of gutters. It is recommended that exterior painted elements be repainted and that the failed soffit and trim be replaced.

Exterior window assemblies include painted steel-framed with polycarbonate resin thermoplastic sheets or single paned security glass. They are considered to be in fair conditions with exterior gasket deterioration and some surface corrosion at the exterior framing members. It is recommended that the windows be replaced if the building is repurposed.<sup>11</sup>

Doors are primarily painted steel panel units.<sup>11</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

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### 3.2.4.2 Mechanical

The mechanical system servicing the Main Building is a 1988 vintage Cleaver Brooks Series 100M, oil-fired boiler with a rated output of 2,193 MBH. A pair of 7.5 horsepower primary heating water circulating pump (primary and standby) service the boiler and six inline circulating pumps (primary and standby) that are mounted overhead in the main mechanical room servicing the Administration Building, Main Housing, Gymnasium, and Kitchen.

The oil-fired boilers were last replaced in 2009.<sup>1</sup> The rest of the system has been in service for 30+ years with only as-needed repairs and component replacements completed. However, due to its age, it is likely that the system is at the end of its useful life and should be replaced.<sup>11,12</sup>

Recent heating water pump replacements have been installed, but it is recommended that the original heating water pumps be replaced to prevent any future forced outages.

Air distribution, ventilation, and exhaust is limited to rooftop exhaust fans serving the bathrooms and smoke exhaust fans serving the core area and housing wings.

The Main Housing's radiant heating and natural ventilation is adequate for its "current occupancy classification" <sup>11</sup> though the building is not currently occupied. The mechanical units and ventilation should be reassessed for housing inmates if the building is to be repurposed.<sup>1</sup>

Temperature controls are limited to pneumatic thermostats centrally located on each floor which are adequate for the size, occupancy, and nature of their respective mechanical systems.<sup>11</sup> It is recommended that these controls be replaced with a modern system if this building is repurposed and if an all new mechanical system is installed as recommended.<sup>12</sup>

### 3.2.4.3 Electrical

A 750-KVA, oil-filled, pad mounted transformer located in a fenced enclosure at the northeast corner of the Kitchen supplies 120/208-volt power to a 2,000-amp Siemens primary electrical switchgear that serves the Main Building, as well as the Administration Building, the Kitchen, and the Gymnasium. This system was installed to accommodate the additions made to the Administration Building.

The secondary electrical distribution equipment that includes breaker panels, branch wiring and devices were installed in the late 1980s to early 1990 and are considered vintage. They generally have a useful life of approximately 50-years with routine thermal scanning and as-needed connection torquing and component replacement.

Emergency power to the Main Housing is provided by a 125-kilowatt, Kohler diesel generator in a purpose-built mechanical room in the basement of the Kitchen. It was installed in 1988 and served by a 500-gallon, underground storage tank. The generator serves a 400-amp automatic transfer switch and 400-amp distribution panel board serving life safety systems and other critical building loads. Though the generator was never properly sized to carry the full load of the buildings it serves. It is recommended that the back-up generator be replaced so its systems are capable of carrying the peak load of the Administration Building,

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Main Housing, the Kitchen, and the Gym.<sup>11,12</sup>

The life safety system does not currently meet the 2020 NEC article 700 requiring that only life safety loads are circuited to the life safety branch. Standby loads are also connected to the same transfer switch. An MTS for connection to a roll-up generator is also required. The current system's set-up is considered non-code compliant.<sup>12</sup>

The existing fire alarm system is conventional and is recommended to be replaced.<sup>12</sup>



All electrical equipment requires an ARC flash label warning people of high voltage equipment.<sup>12</sup>

The existing lighting system is primary comprised of correctional grade fixtures lamped with T-12, T-8, and compact fluorescent elements. It is recommended that the fixtures and lamps be upgraded to accommodate for LED technology.<sup>11,12</sup>

#### 3.2.4.4 Plumbing

Domestic hot water is produced by a 2009 vintage, Weil McLain oil-fired boiler with a rated capacity of 872 MBH / 757-gallons. The domestic hot water has undergone ongoing maintenance, repair, and renovation efforts and is currently considered adequate. However, it is recommended that they're replaced prior to 2030 to prevent any forced outages.<sup>11</sup>

#### 3.2.4.5 Fire Protection

The building is equipped with structural protection, a fire suppression system, and a fire detection system.

As previously noted, the fire alarm system is in a state of despair and no longer supported by the manufacturer and will need to be replaced if the building is repurposed. It will require new devices, as-needed wiring and conduit, and new control panels that are in compliance with the modern code requirements.<sup>11,12</sup>

### **3.2.5 Kitchen / Gymnasium**

The Kitchen and Gymnasium (Figure 3.2.5) share a structure located south of the Main Building and the Administration Building. The structure also aids in creating a closed courtyard between the three buildings.

11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

Figure 3.2.5 Exterior of Kitchen / Gymnasium <sup>8</sup>



This building was built in 1988 as part of the large campus renovation. The Kitchen is approximately 7,080 GSF and the Gymnasium is approximately 5,040 GSF. The structure is one story and connect with the Administration Building at the first floor. <sup>7</sup>

### 3.2.5.1 Structural and Building Envelope

This building consists of conventionally reinforced concrete framing, formed, reinforced concrete elevated slabs and concrete shear walls. The interior columns are on isolated concrete spread footings and the exterior walls are on continuous concrete spread footings. <sup>11</sup>

The lack of proper roof drainage and downspouts may contribute to moistures issues within the building and structural system. Further assessment will be required if this building is a potential candidate for reuse. <sup>1</sup>

The roofing system includes a pitched asphalt roofing system over what is presumed to be a structural steel truss attic roof structure faced with wood panel sheathing, underlayment, and red, three-tab architectural shingles. <sup>11</sup>

The roof was replaced in June 2005<sup>15</sup> and is in good condition with no significant instances of curled, fractured, detached, or eroded shingles. However, it is still recommended that the asphalt shingles and underlayment are replaced if the building is a viable option for repurpose. Additionally, the gutters and downspouts should be removed and replaced. <sup>11</sup>

The structure's exterior wall system features broken face and red-tinted concrete masonry units. The windows are generally made out of painted steel framed units with polycarbonate resin thermoplastic sheets or single pane security glass. Door are primarily painted steel panel units.

The exterior wall system appears to be in good condition with areas of concern. The sealants around the window and door perimeters and at vertical control joints have failed and should be removed and

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reapplied. Additionally, the soffits and roof level trims have areas of failed paint and rotted wood. The gutter failures from heavy snow and ice loads are likely to be the cause of the failed paint and rotted wood. It is recommended that the rotted wood trim areas be removed and replaced and for paint to be reapplied throughout the entire building's exterior.<sup>11,12</sup>

### 3.2.5.2 Mechanical

As part of the 1988 expansion efforts, a vintage Cleaver Brooks Series 100M, oil-fired boiler was installed to provide heating loads to both the Kitchen and Gymnasium, as well as the Main Housing. The rated output is 2,193 MBH. A pair of 7 1/2 horsepower primary heating water circulating pumps (primary and standby) serve the boilers and six inline circulating pumps (primary and standby) mounted overhead in the main mechanical room.<sup>11,12</sup> If the Kitchen and/or Gymnasium is a viable option for repurposing, it is recommended that the existing system be replaced with a new, modern one as it is beyond repair.<sup>12</sup>

While recent heating water pumps replacements have been made, it is recommended that any original heating water pumps be replaced to prevent any forced outages. The direct buried, 15,000 gallon fuel storage tank should be replaced with an above ground containment.<sup>11,12</sup>

The kitchen uses rooftop exhaust fans for its exhaust needs while the gymnasium uses a centrifugal in-line fan to provide exhaust to this portion of the building. The exhaust fans are in fair condition and should be replaced on an as-needed basis.<sup>11,12</sup>

Controls for these systems are a hybrid digital / pneumatic system with automated logic and pneumatic actuators. It is recommended that these controls be replaced with a completely digital and modernized system with low-voltage sensors, actuators, and automated sequences and setpoints.<sup>11</sup>

### 3.2.5.3 Electrical

The incoming feed to the Kitchen and Gymnasium starts as a 4,160-volt service feed that is distributed via a 7850 KVA, oil-filled, pad-mounted service transformer. The transformer is a 120/208-volt power to 2,000-amp Siemens primary electrical switchgear. This system is part of the 1990 expansion efforts, therefore it is original to the building. The secondary electrical distribution system generally have a useful life of 50-years and is likely to be in acceptable working condition with routine thermal scanning and as-needed connection torquing and component replacements.<sup>11</sup>

The kitchen is not properly equipped with GFI protection for all of its equipment. These outlets will be required to be equipped with GFI protection if the building is renovated for reuse.<sup>12</sup>

If the building is a viable option for re-use, the Design Team should analyze and determine if the walk-in coolers and freezers are connected to the emergency back-up system. This inquiry has never been verified.<sup>1</sup>

The emergency power is supplied by a 125-kilowatt Kohler diesel generator in a purpose-built mechanical room located in the basement of the kitchen. This generator also serves the Administration Building and Main Housing. This generator is original to the building's construction (1988) and is served by a 500-gallon, underground storage tank. The generator serves a 400-amp automatic transfer switch and a 400-amp distribution panelboard serving life safety systems and other critical building loads.<sup>11</sup>

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During the 2020 FCA, it was noted that the generator is not properly sized to carry the full load of the building areas it serves. It is recommended that the generator is replaced if the building is repurposed. Additionally, an emergency power transfer switch and load centers with a system capable of carrying the full peak load of the Administration Building, the Main Housing, and the Kitchen / Gymnasium of approximately 400-kilowatts be installed.<sup>11</sup>

The lighting system in the building primarily consists of correctional grade fixtures mounted to the ceiling. Fixtures are generally lamped with T-12, T-8, and compact fluorescent lamps. These systems are outdated and at the end of its useful life. It is recommended that the existing systems be replaced or retrofitted to accommodate LED lamps.<sup>11,12</sup>

### 3.2.5.4 Plumbing

Domestic cold water is supplied by a local utility below grade and routed to the core mechanical room of the building. The piping consists of soldered copper piping insulated with FSK faced, fiberglass insulation.

Domestic hot water is served by an 83-gallon, 623 MBH, oil-fired water heater by Boch that was installed in 2015. This system was installed before the site was decommissioned and should be serviceable for the next decade.

Sanitary waste piping generally consists of hub-less, cast-iron construction where it can be observed. They are routed to a duplex sewage ejector pump system where they are lifted to the nearest gravity main. A duplex sump pump system is located in the Mechanical Room located in the Basement and lifts the greywater and groundwater to the nearest gravity main. This sump pump system is original to the building's construction and are at the end of their statistical life. There have not been any reported issues, but it is recommended that this sump pump is replaced if the building is to be repurposed.

Additionally, the grease trap serving the kitchen is original the building. Although it is routinely emptied and there are no reported issues, it is near the end of its statistical life and should be replaced if the building is repurposed.<sup>11,12</sup>

When the facility was in operation, the lift station, which belongs to Bay State Correctional Center,<sup>15</sup> would periodically clog up due to clogging from the kitchen and from inmate usage and tampering.<sup>1</sup> The lift station was repaired in 2008 and 2019,<sup>15</sup> but are likely to experience the same issues if the facility is reoccupied.

### 3.2.5.5 Fire Protection

Automatic, wet-pipe fire sprinklers are installed in this building, however the area is not completely covered. Full coverage will be required if the building is renovated for reuse.

The building does have structural fire protection and fire detection systems. However, the fire alarm system are in a state of disrepair and are no longer supported by the manufacturer. This system will be required to be updated if the building is renovated for reuse.<sup>11,12</sup>

The kitchen hood is on a separate fire suppression system.<sup>1</sup>

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### **3.2.6 Modular Housing**

The Modular Housing is an L-shaped building (Figure 3.2.6) that was built in 1992 as part of the renovations efforts that year. This two-story building contains approximately 74,496 GSF. This building is located on the south west corner of the built campus and contains a walking track around it.<sup>7</sup>

Figure 3.2.6 Exterior of the Modular Housing<sup>8</sup>



#### **3.2.6.1 Structural and Building Envelope**

This modular structure is one of three Type II modular, dimensional lumber wood framing structures - the other two being the Gate House and the Visitor Building.<sup>7</sup> The structural framing sits on continuous, reinforced concrete spread footings and foundation walls.<sup>11</sup>

There are several locations identified to potentially having structural issues. The most observed and noticeable were located in the bathroom where sagging and soft flooring exists, which typically indicates deterioration of the wood framing over the crawl space. There is an office located on the First Floor that has substantial floor damage due to water leakage (See Section 3.6.5).<sup>12</sup> A full structural analysis should be conducted if the building is a viable option for repurposing.

The roof to this building consists of a single-ply EPDM membrane roof. The adhered membrane terminates at the perimeter of the roof on the top edge flashing. The roof has internal rain leaders that discharge to the site's stormwater management system. This has led to structural deficiencies on the first floor office. The roof is applied over dimensional lumber joists insulated with batt insulation and wood panel sheathing. The roof is original to the construction.

The roof is original to the building and has exceeded its industry standard useful life of approximately 20-25 years. The roof also has a number of performance issues such as open flashing, chemical deterioration of the EPDM membrane, bridge base flashing, and ponding water caused by breakdown of roof insulation. It is recommended that the roof system is replaced if the building is a viable option for reuse.<sup>11</sup>

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This building's exterior includes a 2" Fedderlite Dryvit panel system with expanded polystyrene insulation, reinforcing mesh, and a finish coat. Panel joints are treated with a urethane sealant and the overall system has an applied paint finish.

This composite insulated wall panel system was found to be in fair condition with localized impact damage, deteriorating sealants, and soiled paint finishes. If this building is a viable option for repurpose, the exterior finishes should be updated and to include pressure washing, sealant, and paint finish renewal to restore the integrity of the building envelope.

The windows are generally made out of painted steel framed units with polycarbonate resin thermoplastic sheets or single pane security glass. Door are primarily painted steel panel units.<sup>11,12</sup>

### 3.2.6.2 Mechanical

This building is heated with gas-fired rooftop furnaces. The dayrooms and central control areas at the intersection of the two housing wings are heated and cooled by 2012 vintage packaged rooftop air-conditioning units with gas-fired furnaces. Forced air heating and cooling is utilized in this building.<sup>11,12</sup> If this building is a viable candidate for reuse, the systems should be replaced with new systems as the current systems are beyond repair.<sup>12</sup> The original Hastings rooftop furnace is in poor condition and needs to be replaced as it is beyond its useful life.

The west wing on the First Floor does not have a return duct in the corridor like the other housing corridors. If this building is repurposed, an return duct will need to be located and installed.<sup>12</sup>

Rooftop exhaust fans serve the bathrooms located in the core of the building. These exhaust fans are in fair condition and should be replaced on an as-needed basis.<sup>11</sup>

Temperature controls to the mechanical systems are limited to low-voltage thermostats for each individual unit. It is recommended that the controls are updated to a modernized system if this building is to be repurposed. Such system should be direct digital with low-voltage sensors, actuators, and automated sequences and setpoints.<sup>11,12</sup>

### 3.2.6.3 Electrical

The incoming feed to the Modular Building starts as a 4,160-volt underground service feed that is distributed via a 500 KVA, oil-filled, pad-mounted service transformer that supplies 120/208-volt electrical power to a 1,200-amp Westinghouse switchgear. This transformer is located in the Gate House.

The secondary electrical distribution system generally have a useful life of 50-years and is likely to be in acceptable working condition with routine thermal scanning and as-needed connection torquing and component replacements.<sup>11</sup>

The back-up generator for this building is a 350-kilowatt Caterpillar, V-8 diesel generator in the gate house that serves the Modular Housing, the Gate House, the Morton Building, and the Visitor Building. This generator was installed in 1990.

A 2020 assessment noted that the engine had 516-hours of engine run-time, which is relatively low operating hours. Though it is anticipated to be serviceable for the next ten years.<sup>11,12</sup>

11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

There is no emergency lighting in the building. It is recommended that emergency battery units along the path of egress is installed if this building is repurposed.

All electrical equipment requires an ARC flash label warning people of high-voltage equipment.<sup>12</sup>

The lighting system in the building primarily consists of correctional grade fixtures mounted to the ceiling. Fixtures are generally lamped with T-12, T-8, and compact fluorescent lamps. These systems are outdated and at the end of its useful life. It is recommended that the existing systems be replaced or retrofitted to accommodate LED lamps.<sup>11,12</sup>

### 3.2.6.4 Plumbing

Domestic cold water is supplied by a local utility below grade and routed to the core mechanical room of the building. The piping consists of soldered copper piping insulated with FSK faced, fiberglass insulation.

This building's domestic hot water is served by four gas-fired, 89-gallon, tank-type water heaters by Ruud that were installed between 2002 and 2006. While they are operational, elevated duty cycles and system criticality generally warrant schedule replacement in the near term.

Sanitary waste piping is generally of hub-less, cast-iron construction where it can be observed. It is routed to a duplex sewage ejector pump system where it is lifted to the nearest gravity main.

Natural gas service is provided to this building and appears to be in good condition. However, if this building is to be repurposed, it should be assessed by the Design Team.<sup>11,12</sup>

### 3.2.6.5 Fire Protection

An automatic, wet-pipe fire sprinkler system is identified in the Modular Building. From an initial look, it appears the building is fully sprinklered. However, if this building is determined to be a viable option for reuse, the sprinkler head locations should be reviewed to ensure proper coverage is provided and that the placement is code compliant.

[REDACTED]

A modern Notifier NFS 320 system has been installed in the building. It is considered to be relatively new and serviceable for the next decade.<sup>11,12</sup>

## **3.2.7 Morton Building**

This one-story correctional building (Figure 3.2.7) is located north of the Modular Building and is approximately 1,426 GSF. The structure was built in 1992 as part of the campus renovations project.<sup>7,11</sup>

The Design Team did not tour the inside of this building during the initial site visits that occurred in December 2021.

7 Design Selection Board (DSB)'s Initial Advertisement dated January 13, 2021  
11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

Figure 3.2.7 Exterior of the Morton Building<sup>12</sup>



### 3.2.7.1 Structural and Building Envelope

The Morton Building's structural system includes a steel-framed Butler type building (a pre-engineered metal building typically used for light purposes) on a concrete foundation.<sup>11</sup>

Although no specific structural issues were reported, the building's structural integrity should be thoroughly assessed.

The roof of the Morton Building consists of prefinished corrugated steel roofing sheets placed in a gable fashion. This system appears to be in good condition. As-needed maintenance should be sufficient until it is determined that the building is a potentially viable option for reuse, in which case would require a full analysis.<sup>11</sup>

The exterior wall system consists of prefinished corrugated steel panels. These panels have incurred noticeable damage (Figure 3.2.7).

The windows and doors consist of painted wood framed sash units containing glazing units. The doors consist of painted steel panel doors.

The windows are noted to be in fair condition. There are noted etching and clouding in the polycarbonate panels and deterioration of the exterior gaskets and some surface corrosion at the exterior of the framing members. Ongoing repair will be necessary. There is failure of the sealants installed between the window frames and exterior wall. This condition should be replaced in order to maintain the building watertight.

The doors are considered to be in good condition and should not need replacement.<sup>11</sup>

### 3.2.7.2 Mechanical

The Morton Building's only mechanical system consists of a through window air conditioning unit. This appears to be in good working condition and any replacement would be easily achievable. There are no exhaust outlets in this building nor are there any temperature controls beyond what's included in the air conditioning unit.<sup>11</sup>

11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

### 3.2.7.3 Electrical

The incoming feed to the Morton Building starts as a 4,160-volt underground service feed that is distributed via a 500 KVA, oil-filled, pad-mounted service transformer that supplies 120/208-volt electrical power to a 1,200-amp Westinghouse switchgear. This transformer is located in the Gate House.

The secondary electrical distribution system generally have a useful life of 50-years and is likely to be in acceptable working condition with routine thermal scanning and as-needed connection torquing and component replacements.<sup>11</sup>

The back-up generator for this building is a 350-kilowatt Caterpillar, V-8 diesel generator in the gate house that serves the Modular Housing, the Gate House, the Morton Building, and the Visitor Building. This generator was installed in 1990.

A 2020 assessment noted that the engine had 516-hours of engine run-time, which is relatively low operating hours. It is anticipated to be serviceable for the next ten years.<sup>11,12</sup> If the Morton Building is determined to be a viable option for reuse, the engine should be analyzed to determine the serving buildings' needs and requirements.

The lighting system in the building primarily consists of correctional grade fixtures mounted to the ceiling. Fixtures are generally lamped with T-12, T-8, and compact fluorescent lamps. These systems are outdated and at the end of its useful life. It is recommended that the existing systems be replaced or retrofitted to accommodate LED lamps.<sup>11,12</sup>

### 3.2.7.4 Plumbing

Domestic cold water is supplied by a local utility below grade and routed to the core mechanical room of the building. The piping consists of soldered copper piping insulated with FSK faced, fiberglass insulation.

It is unknown if a domestic hot water system exists. The Design Team should inspect for evidence of a domestic hot water system if the building is potentially a viable option for repurposing.

### 3.2.7.5 Fire Protection

It is unknown if a structural fire protection, fire suppression system, or fire detection system is provided in the building. If the building is a potentially viable option for repurposing, the Design Team should investigate for evidence of a fire protection system.<sup>1,12</sup>

## **3.3 Uses and Occupancy**

### **3.3.1 Gate House**

The Gate House, which is located adjacent to the gated sallyport was intended to monitor and provide access to approved personnel and or vehicles into the perimeter. With the exception of periodic training by the Central Transportation Unit, this building is primarily vacant.<sup>1</sup>

11 From Faithful + Gould's 2020 Bay State CC FCA Study  
12 Observation made on-site on December 16, 2021

The Gate House is large enough for training spaces and small group gatherings (Figure 3.3.1.1). An internal sallyport with robust metal sliding doors controlled by remote release and manual is located in the building (Figure 3.3.1.2). The sallyport connects the lobby to the perimeter portion of the campus.<sup>12</sup>

Figure 3.3.1.1 Training area in the Gate House <sup>12</sup>



Figure 3.3.1.2 Internal sallyport in the Gate House <sup>12</sup>



### **3.3.2 Visitor Building**

This building utilizes an open Group Visiting area with programmed side rooms (Figure 3.3.2). There are male and female restrooms and a Children's Play Area. Four smaller and private attorney consultation rooms are available for use. Additionally, there are holding cells and inmate search rooms for when inmates enter and exit the building. There are also staff toilets, a janitor's closet, and a utility room.<sup>12</sup>

<sup>12</sup> Observation made on-site on December 16, 2021

Figure 3.3.2 Typical Inmate Cell in the Modular Housing<sup>12</sup>

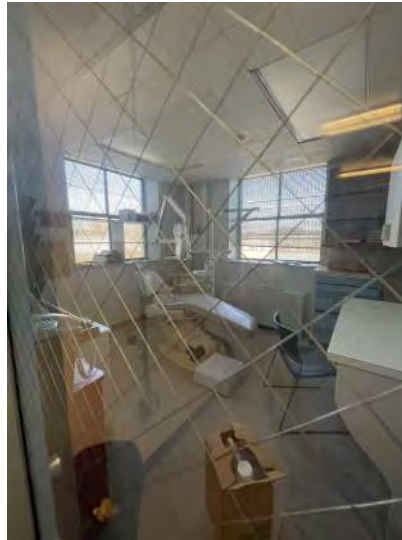


The Visitor Building is currently used as a COVID Testing Center for MCI Norfolk- which is west of the Bay State Correction Center campus.<sup>1</sup>

### **3.3.3 Administration Building**

The spaces in this building were primarily utilized for educational, vocational, and recreational programs for inmates. A Health Services Unit (HSU) and a dental office (Figure 33.3.1) are located on the first floor of this building. Only oxygen tanks are stored in the building - there is no dedicated Storage Room nor is there a code requirement to have one at its past use's capacity.

Figure 3.3.3.1 Dental Office on the First Floor<sup>12</sup>



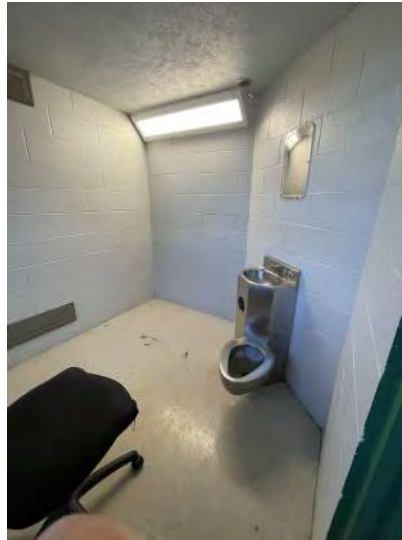
Dining is also located on the east wing of the First Floor. A Visitor's Room is located in the west wing of the First Floor.

The First Floor also contained an intake room with holding cells (Figure 3.3.3.2) and property storage, etc.<sup>1,12</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

12 Observation made on-site on December 16, 2021

Figure 3.3.3.2 Holding Cell in the Intake Area <sup>12</sup>



Laundry facilities are located in central wing of the Basement towards the east end (Figure 33.3.3).<sup>12</sup>

Figure 3.3.3.3 Laundry facilities in the Basement <sup>12</sup>



The basement also contains an office space that appears to be utilized to house maintenance plans, notes, and contracts (Figure 3.3.3.4).<sup>12</sup>

<sup>12</sup> Observation made on-site on December 16, 2021



Figure 3.3.3.4 Basement Office Area<sup>12</sup>



### **3.3.4 Main Housing**

The Main Housing was primarily used for correctional housing purposes. There are hard cells located along a double loaded corridor on the North and South wings. Additionally, there are cells on one side of the central wing with a large dayroom on the opposite side. The dayroom is physically and visually accessible to the enclosed courtyard. This courtyard was intended for inmates and visitors but was never actually utilized<sup>1,12</sup> which was solely an operational/staff preference rather than any physical issues.<sup>15</sup>

Shared inmate bathroom facilities are located where the North and South wings meet the Central wing.

There are accessible bedrooms - two are located at the ends of each wing, one accessible bedroom is located where South and Central Wings intersection, and two accessible bathrooms are located where the North and Central Wings intersect.<sup>1,12</sup>

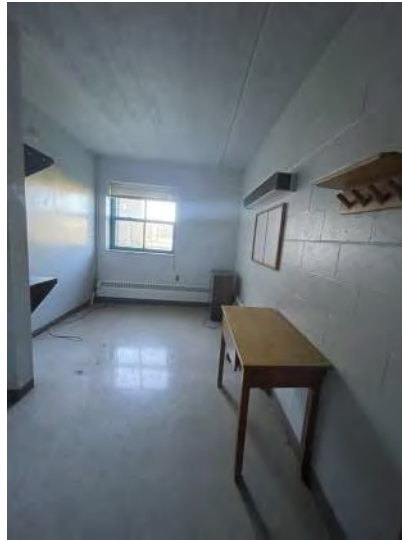
Cells (Figure 3.3.4) were likely to be double occupancy with a bunk bed layout.<sup>12</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

12 Observation made on-site on December 16, 2021

15 Information received by DCAMM and/or DOC via correspondence

Figure 3.3.4 Typical hard cell located in the Main Building<sup>12</sup>



### **3.3.5 Kitchen / Gymnasium**

Although the campus was decommissioned, the kitchen was tested to ensure all equipment is in working condition in the event that the State needed to utilize the site due to the COVID-19 pandemic.<sup>1</sup> The kitchen has not been periodically checked and/or tested since said testing.<sup>15</sup>

Inmate labor was used for all kitchen services. If it is not fully, inmates were heavily assisting in the kitchen.

Originally, the kitchen was designed to accommodate feeding all inmates on campus. Meals would be brought to the Modular Housing and Main Housing buildings. The remaining inmates on campus would eat at the adjacent Dining Room in shifts.<sup>1</sup>

Based on the 1988 Stull & Lee floor plans and the estimated population of 200 inmates, the facility is oversized. The Department of Justice (DOJ)'s kitchen space requirement is 10 square feet (minimum) per inmate. At a population of 200 inmates, a minimum of 2,000 square feet would be required. The scaled image shows the kitchen to be approximately 3,261 square feet (Figure 3.3.5.1).

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

12 Observation made on-site on December 16, 2021

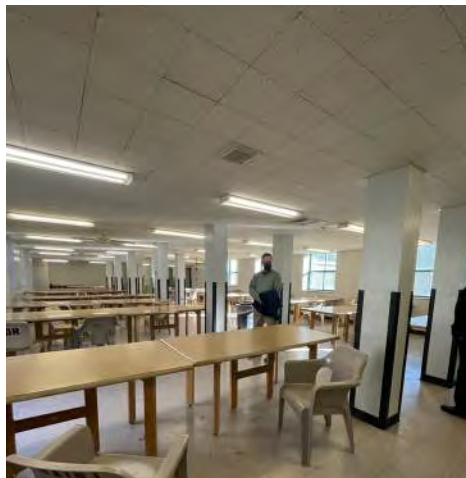
15 Information received by DCAMM and/or DOC via correspondence

Figure 3.3.5.1 Kitchen<sup>12</sup>



The DOJ's dining space requirement is 12-15 square feet per inmate, which, at 200 inmates, would equate to approximately 2,400 - 3,000 square feet. No plans of the space exist, however, based on the December 16, 2021 site visit, photos indicate that there may adequate space (Figure 3.3.5.2). However, room measurements will be required to verify the size of the space if this building is utilized for reuse.<sup>12</sup>

Figure 3.3.5.2 Dining Room<sup>12</sup>



Based on photos from the previously mentioned site visit, it appears that the space is in good condition - this visual assessment includes finishes and equipment.<sup>12</sup>

The existing kitchen equipment was purchased in 1986 and 1991 with some additional components purchased in 1992.<sup>15</sup>

Given that most of the equipment is beyond twenty years old and either at or reach its useful life, the general recommendation is to remove and replace the equipment with new energy efficient and modern units as they will be beyond life expectancy if the building is reused. If any equipment is desired to remain it would need to be tested to ensure it is performing adequately.

<sup>12</sup> Observation made on-site on December 16, 2021

<sup>15</sup> Information received by DCAMM and/or DOC via correspondence

Tables, counters, and shelving can be reused as needed.

The hoods look to be original and are therefore no UL listed and non-compliant. The hood would need to be replaced to meet recent code updates and requirements.

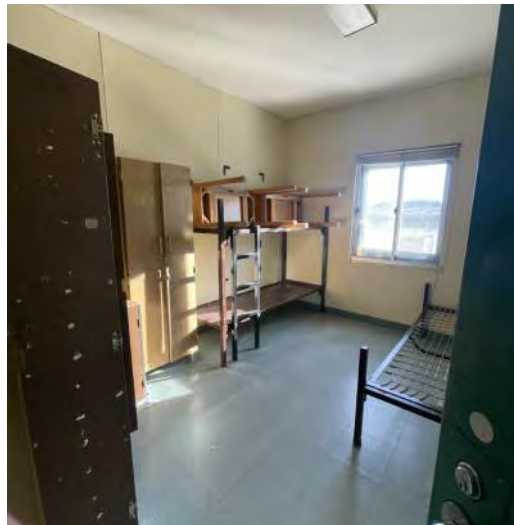
The walk-in refrigerator and freezers appear to need cosmetic updates. If the building is to be reused, it would require the Design Team to assess for inefficiencies such as air leakage, mechanicals, and refrigeration performance. The recommendation is to have the units tested and if the construction (walls, floors, and ceilings) is in good shape, seal gaps if needed, and only replace the refrigeration components (lines, condenser, evaporator) to newer, energy efficient units.

A general recommendation on the cookline would be to remove fryers and open burners in favor for other equipment that can meet the dietary demands required and not pose a significant safety risk.<sup>1,12</sup>

### **3.3.6 Modular Housing**

This L-shaped building was utilized to house the influx of inmates in the early 1990s. The rooms were relatively large and could fit two beds, but likely contained a mix of single and bunk beds. Closet units were also provided for each person in the cell. Toilet and sink (combi) units were not located in the rooms (Figure 3.3.6).

Figure 3.3.6 Typical Inmate Cell in the Modular Housing<sup>12</sup>



Shared Inmate Bathrooms were located in the central area of the L-shaped building.

A Barbershop exists in the central area that connects the two wings.<sup>12</sup>

### **3.3.7 Morton Building**

Morton Building was originally used to house inmate property and is reported to have never accommodated inmate housing. It is currently unoccupied.<sup>1</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

12 Observation made on-site on December 16, 2021

### **3.4 Accessibility**

This portion of Study was derived from Jensen Hughes' observations from the December 2, 2021 Virtual Site Visit, the KMA Access Audit Reports, Faithful + Gould's 2020 FCA Report, and other documentation provided by HDR. See Appendix D for the full report.

#### **3.4.1 Campus**

Arrival to the campus is limited to vehicle as there is no public transportation or pedestrian access to the campus. There are no sidewalks along Clark Street.

The campus provides a single parking lot for both the staff and the public.

The campus is relatively flat and does not have topographical challenges to outdoor circulation between buildings and throughout the site. However, while the campus does not pose as an accessibility issue, most buildings are elevated between two to four feet above the ground plane, thus requiring stairs and ramps.

Accessibility related alterations to the site include, but are not limited to:

- Provide an accessible route from the public sidewalk to the building entrance if public sidewalks are provided adjacent to the site;
- Determine the number of required accessible parking spaces based on the total number of parking spaces provided in the parking facility. Considerations should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided;
- Provide parking lots with designated van accessible parking (one for every six accessible parking spaces) to conform with van accessible parking provisions including signage designating "van accessible" parking. Restripe parking spaces is required; and
- Provide an accessible route to the Greenhouse <sup>1, 20</sup>

#### **3.4.2 Gate House**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct the concrete ramp leading to the public, front entrance. Modifications are necessary to provide access up to and into the building;
- Gut-renovate the Men's and Women's multi-user toilet rooms for public use to be fully accessible; and
- Modify the existing counter to accommodate for an accessible service counter.<sup>1,20</sup>

#### **3.4.3 Visitor Building**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct the concrete ramp leading to the public, front entrance;
- Remove the existing stairs and design/construct a new accessible concrete ramp (that does not currently exist) leading to the inmate entrance;

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
20 From Jensen Hughes' Accessibility Report dated March 25, 2022

- Gut-renovate the Men's and Women's Shared Inmate Toilet Rooms for public use to be fully accessible;
- Gut renovate the single-user Inmate Toilet Rooms to be fully accessible;
- Remove and replace the existing drinking fountain with an accessible model as the existing one does not comply with accessibility provisions; and
- Enlarge or modify the existing holding cell which lacks sufficient turning space for accessibility.<sup>1</sup>

20

### **3.4.4 Administration Building**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct the concrete ramp leading to the front entrance;
- Reconstruct the concrete ramp off the staff, rear exit door and install a new asphalt walkway between the ramp and the driveway;
- Modify the existing counter to accommodate for an accessible service counter;
- Replace the combi-unit inside the holding cell on the First Floor to accommodate a new ADA compliant combi-unit;
- Replace the cabinetry inside the four exam rooms and dental offices in the HSU with ADA-compliant cabinets;
- Provide an adjustable height exam table in the Exam Rooms;
- Update non-accessible room signage throughout the facility with compliant type;
- Enlarge or modify the existing holding cell which lacks sufficient turning space for accessibility;
- Replace the door hardware within all public and inmate areas on the First and Second Floors to be ADA-compliant;
- Install three accessible hi-low drinking fountains in the following locations:
  - One in the First Floor Lobby
  - Two inside the First and Second Floor Housing Units; and
- Address/Modify the deficiencies in the kitchen requiring accessibility improvements.<sup>1,20</sup>

### **3.4.5 Main Housing**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Replace the door threshold and reconstruct the exterior concrete landing at the two exit doors on the First Floor (Exits #18 & 20); Install new concrete ramps between each exit landing and driveway;
- Resurface both interior ramps between the Administration Building and Main Housing on the First and Second Floors;
- Provide accessible, audible fire alarms in the accessible cells as they were not required at the time of construction;
- Gut renovate the four Shared Inmate Bathrooms on the First and Second Floors. The Shared Inmate Bathrooms on the 3rd Floor are not required to be fully accessible as the elevator does not reach said floor;
- Install one, accessible hi-low drinking fountain in each housing units on the First and Second Floors;
- Replace the door hardware within all inmate areas through the First and Second Floors; and
- Update non-accessible room signage to be code compliant.<sup>1,20</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021  
20 From Jensen Hughes' Accessibility Report dated March 25, 2022

### **3.4.6 Kitchen / Gymnasium**

The Kitchen was not included in the original accessibility assessment completed in 2020. If the Kitchen is determined to be a viable option for repurposing, an accessibility assessment will need to be conducted.

The following includes a list of accessibility issues in the Gymnasium that are required to be addressed if this building is determined to be repurposed:

- Replace the door threshold;
- Reconstruct the exterior concrete landing at the four exits (#15, 16-1, 16-2, and 17);
- Replace and/or install new asphalt walkway between each exit landing and the main walkway;
- Address the multiple deficiencies in the Toilet Room serving the Gymnasium which may likely require a significant alteration to fully comply with accessible provisions; and
- Replace existing drinking fountains with accessible hi-lo fountains to comply with accessibility provisions.<sup>1,20</sup>

### **3.4.7 Modular Housing**

The following includes a list of accessibility issues that are required to be addressed if this building is determined to be repurposed:

- Reconstruct the concrete ramp leading to the front entrance;
- Remove stairs and install concrete ramp at the rear exit door at the East Corridor on the First Floor;
- Make improvements inside the Toilet and Shower Rooms within the East Corridor of the First Floor; and
- Replace the sink in the Barber Shop to comply with accessibility provisions.<sup>1,20</sup>

### **3.4.8 Morton Building**

The Morton Building was not assessed for accessibility as it only houses inmate property and does not include any other occupancy use group.<sup>1</sup>

## **3.5 Resiliency, Energy, & Sustainability**

### **3.5.1 Campus**

DCAMM requires every project submit a Climate Resiliency Checklist which evaluates the climate change resilience at a site level. It is utilized to ensure that every "state facility can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and function through risk management."

The Climate Resiliency Checklist for Bay State Correctional Center was completed during Faithful + Gould's 2020 FCA Study and is utilized for this project.<sup>11</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

11 From Faithful + Gould's 2020 Bay State CC FCA Study

20 From Jensen Hughes' Accessibility Report dated March 25, 2022



## Climate Resiliency Checklist

### I. Introduction

This checklist is to evaluate climate change resilience at a site level for correctional facilities owned and operated by the Commonwealth of Massachusetts. For DCAMM's purposes, Climate Change Resilience is defined as: "Ensuring state facilities can be operated or adapted to resist and recover from the effects of hazards in a timely and efficient manner. This includes ensuring the preservation, restoration, or improvement of its essential basic structures and functions through risk management." This checklist focusses on hazards related to flooding, extreme heat, extreme precipitation, & high winds.

Building peak heating and cooling loads can be estimated based on equipment capacities. Electrical demand can be found on utility bills or in CBEI metered energy data where available. For more information, please direct all questions about this checklist to [Timothy.Spencer@mass.gov](mailto:Timothy.Spencer@mass.gov).

### II. Project Information

Project Name			
Project Name:	<i>Facility Conditions Assessment of Correctional Facilities</i>		
Project Address:	<i>28 Clark Street, Norfolk, Massachusetts 02056</i>		
Site Name:	<i>Bay State Correctional Facility</i>		
CAMIS Site Code:	<i>DOC07</i>		
Number of Buildings:	<i>11 Buildings</i>		
CAMIS Project Number:	<i>EPS1802-HS1</i>		
Project Team			
DCAMM Project Manager:	<i>Emmanuel Andrade</i>		
FCA Consultant:	<i>Benjamin Dutton, Faithful+Gould</i>		
Access Consultant:	<i>TBD</i>		
Project Description and Design Conditions			
List the principal Building Uses:	<i>Housing, intake/processing, vocational/educational, recreational, healthcare, food and laundry services, etc.</i>		
What past property damage has occurred from flooding, extreme heat, precipitation, or high winds?	<i>None</i>		
What is the estimated occupancy?	<i>267</i>		
Does this facility house an immovable residential population?	<i>Yes</i>		
Energy Loads and Performance			
Peak Electric (kW):	<i>581 kW</i>		
Heating Capacity (MMbtu):	<i>12,000 MMBtu in total</i>		
Cooling Capacity (Tons):	<i>90-ton in total</i>		
Back-up / Emergency Power System			
Electrical Generation Output:	<i>1000 kW</i>	Number of Power Units:	<i>1</i>
System Type:	<i>Generator</i>	Fuel Source:	<i>Diesel</i>
Schedule for testing generators under load:			
<i>Weekly testing of startup protocol</i>			



### III. Extreme Heat Events

Extreme Heat - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Annual Maximum Temperature in 2050:	93.7 °F	Annual Maximum Temperature in 2090:	99.37 °F
Current Cooling Design 0.4% DB Temperature (e.g. from ASHRAE Climate Design Data):	TBC	Change in Annual Max Temperature between 2050 and 2000:	4.17 °F

### IV. Extreme Precipitation Events

Extreme Precipitation - Design Conditions			
For site-specific hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Average Annual Precipitation in 2050:	43.13 In.	Average Annual Precipitation in 2090:	44.39 In.
Average Annual Precipitation in 2000:	37.07 In.		
10 Year, 24 Hour Design Storm Rainfall:	5.09 In.	Total Impervious Site Area:	21,446 SF
Building Foot Print Area:	217,027 SF	Total Site Area:	937,500 SF

### V. Sea Level Rise and Flooding

Flood Hazard Areas			
For site-specific sea-level-rise & flood hazard information by address for Massachusetts, please visit: <a href="http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023">http://massgis.maps.arcgis.com/apps/webappviewer/index.html?id=930e4afb48c14cdca6b6e71b393fe023</a>			
Is any part of the project site located in the FEMA zone AE (100 yr flood plain with BFE)?	No	Is any part of the project site located in a FEMA zone X (500 year flood plain)?	No
Sea Level Rise / Storm Surge			
Will any part of the project fall within SLOSH Category 1?	No	What minimum level of sea level rise is the project vulnerable to (if any)?	0 Feet
<i>If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!</i>			
Base Flood Elevation (BFE):	N/A	Site elevation at building:	N/A
Lowest occupiable floor elevation:	N/A	Proposed Site Elevation – High:	N/A
Lowest basement floor elevation:	N/A	Proposed Site Elevation – Low:	N/A
Accessible route elevation:	N/A		
List any building uses and critical equipment located below the *BFE (Base Flood Elevation)			
<input type="checkbox"/> Switchgear	<input type="checkbox"/> Emergency Generator	<input type="checkbox"/> Boiler	
<input type="checkbox"/> Transformer	<input type="checkbox"/> Communications	<input type="checkbox"/> Server	
<input type="checkbox"/> Distribution Panel	<input type="checkbox"/> Water heater	<input type="checkbox"/> Elevator pit	
<input type="checkbox"/> Substation	<input type="checkbox"/> Air handling unit	<input type="checkbox"/> Other (list below)	
Other:			
<i>*Base Flood Elevation (BFE): "The computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations are shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles." (FEMA)</i>			

The current LEED v4.1 checklist is far more stringent than LEED v4 as the requirements for each credit has changed. Achieving Location and Transportation and Sustainable Sites will be more challenging than it was in the previous checklist.

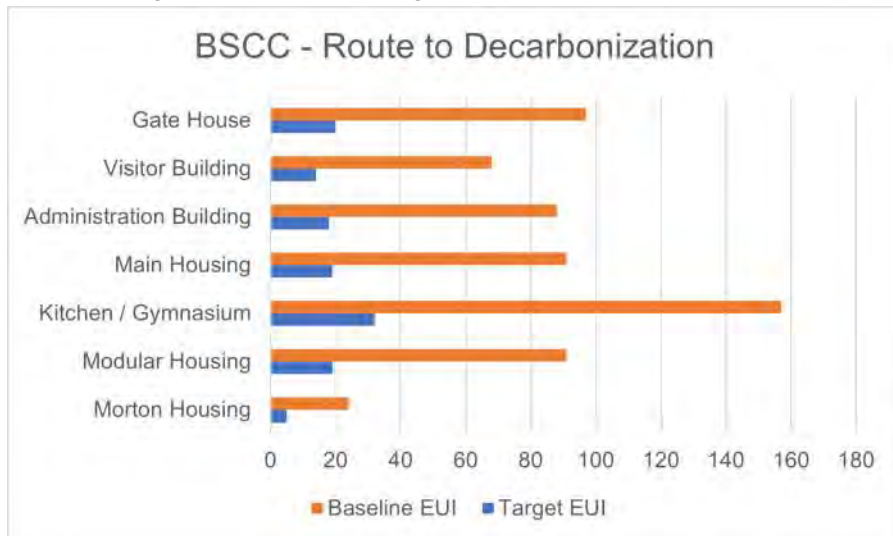
Potentially achievable credits include:

- LT Credit: Sensitive Land Protection  
Option 1 - Previously Developed Land
- LT Credit: Bicycle Facilities  
Case 1: Commercial or Institutional Projects
- LT Credit: Electric Vehicle
- SS Prerequisite: Construction Activity Pollution Prevention
- SS Prerequisite: Environmental Site Assessment
- SS Credit - Site Assessment
- SS Credit - Open Space
- SS Credit - Rainwater Management

This preliminary list requires further investigation and research.

In efforts to work towards achieving Massachusetts Executive Order 594: Leading By Example: Decarbonizing and Minimizing Environmental Impacts of State Government, the use of AIA2030's ZeroTool to provide baseline and target Energy Use Intensities (EUIs). The baseline energy and emission metric is based on CBECS 2003/RECS 2001, but normalized by climate, weather, space type, building size, occupancy, and schedule, as noted on the AIA2030's ZeroTool website. Information such as Annual Energy Purchased and Annual Energy Generated are not factored into this calculation due to lack of information, but the calculations can be adjusted to include them once its known. In order to achieve a carbon neutral building by 2030, the building would currently require an 80% reduction in the baseline. As seen in Figure 3.5.1, any building repurposed will require significant changes to reach decarbonization.

Figure 3.5.1 Baseline and Targeted EUIs towards Decarbonization



### **3.5.2 Gate House**

NOTE: Potential LEED credits will be explored once and if it is determined that the Gate House will be reused for the reimagined facility.

The Gate House's current EUI stands at 97. If this building is repurposed, the target EUI is 20. There may be potential changes to the settings such as the operational hours of the building.

### **3.5.3 Visitor Building**

NOTE: Potential LEED credits will be explored once and if it is determined that the Visitors Building will be reused for the reimagined facility.

The Visitors Building's current EUI stands at 68. If this building is repurposed, the target EUI is 14. There may be potential changes to the settings such as the operational hours of the building.

### **3.5.4 Administration Building**

NOTE: Potential LEED credits will be explored once and if it is determined that the Administration Building will be reused for the reimagined facility.

The Administration Building's current EUI stands at 88. If this building is repurposed, the target EUI is 18. There may be potential changes to the settings, such as how much space is allocated for each occupancy use.

### **3.5.5 Main Housing**

NOTE: Potential LEED credits will be explored once and if it is determined that the Main Housing will be reused for the reimagined facility.

The Main Housing's current EUI stands at 91. If this building is repurposed, the target EUI is 19.

### **3.5.6 Kitchen / Gymnasium**

NOTE: Potential LEED credits will be explored once and if it is determined that the Kitchen / Gymnasium will be reused for the reimagined facility.

The Kitchen / Gymnasium's current EUI stands at 157. If this building is repurposed, the target EUI is 32.

### **3.5.7 Modular Housing**

NOTE: Potential LEED credits will be explored once and if it is determined that the Modular Housing will be reused for the reimagined facility.

The Modular Housing's current EUI stands at 91. If this building is repurposed, the target EUI is 19. These numbers are subject to change as certain settings may be adjust such as the amount of square feet is allotted per use group.

### **3.5.8 Morton Building**

NOTE: Potential LEED credits will be explored once and if it is determined that the Morton Housing will be reused for the reimagined facility.

The Morton Building's current EUI stands at 24. If this building is repurposed, the target EUI is 5. These numbers are subject to change as certain settings may be adjust such as the amount of square feet is allotted per use group and the use group are subject to change based on what is most appropriate for the original use of the building.

## **3.6 Hazardous Materials**

The following contains information contain a list of materials and finishes installed during a certain year that typically contain hazardous materials. The list was derived from past DCAMM FCA Studies and information provided by the DOC. The following information is not suggesting that hazardous materials exists and only suggests potential follow up to determine if testing and/or abatement is necessary.

### **3.6.1 Gate House**

The exteriors of the Gate House consists of a panel system with expanded polystyrene insulation, reinforcing mesh and a finish coat. <sup>1,11</sup>

### **3.6.2 Visitor Building**

The exteriors of the Visitor Building consists of a panel system with expanded polystyrene insulation, reinforcing mesh and a finish coat. <sup>1,11</sup>

### **3.6.3 Administration Building**

The exterior wall system at the Administration Building and kitchen portion consists of CMU with an applied paint finish and brick veneer accents at the exterior corners. The Administration Building are heated with oil-fired boilers and forced hot water heating. <sup>1,11</sup>

Air quality testing is recommended for this building as it has been unoccupied for several years. <sup>1</sup>

In the Intake Area, there is damage to the ceiling with what appears to be paint peeling from the substrate (Figure 3.6.3). It is recommended that this area be further investigated to understand if there is any water damage or mold. <sup>12</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

11 From Faithful + Gould's 2020 Bay State CC FCA Study

12 Observation made on-site on December 16, 2021

Figure 3.6.3 Damage and paint peeling from Intake Area<sup>12</sup>



### **3.6.4 Main Housing**

Constructed in 1983, Main Housing is a three-level structure with approximately 75,762 gross square feet of floor area. The Main Housing are heated with oil-fired boilers and forced hot water heating.<sup>1,11</sup>

Air quality testing is recommended for this building as it has been unoccupied for several years.<sup>1</sup>

### **3.6.5 Kitchen / Gymnasium**

The Kitchen is constructed over a partial basement area and the Gymnasium is consists of a single-story structure over a concrete slab-on-grade. The exterior wall system at the Kitchen portion consists of CMU with an applied paint finish and brick veneer accents at the exterior corners. The Kitchen and Gymnasium, are heated with oil-fired boilers and forced hot water heating.<sup>1,11</sup>

### **3.6.6 Modular Housing**

Constructed in 1992, Modular Housing is a two-level inmate dormitory with an estimated floor area of 74,496 square feet. The exterior of Modular Housing consists of a panel system with expanded polystyrene insulation, reinforcing mesh and a finish coat. The Modular Housing Building is heated with gas-fired rooftop furnaces.<sup>1,11</sup>

There is a history of locations with mold due to water leakage. Remediation to the affected areas were completed shortly after the observation. However, the areas should be checked to see if mold has returned.

The Office on the First Floor has significant water damage and should be tested for mold (Figure 3.6.6).<sup>12</sup>

1 Observation made during the virtual site visit(s) conducted on December 1, 2021 and December 2, 2021

11 From Faithful + Gould's 2020 Bay State CC FCA Study

12 Observation made on-site on December 16, 2021

Figure 3.6.6 Water damage located on the walls and floors of Office<sup>12</sup>



### **3.6.7 Morton Building**

The exterior wall system at the Morton Building consists of prefinished corrugated steel wall panels.<sup>1,11</sup>

## **3.7 Further Investigations / Assessments Needed**

Below is a list of investigations and/or assessments that would be required if a building or campus is determine a potential candidate for reuse:

### **3.7.1 Campus**

- A licensed professional to conduct flow tests to the campus' fire hydrants with a DOC personnel present to determine if the flow rate is acceptable since the campus has been dormant for several years.
- Compile a list of plumbing fixtures installed on campus. Manufacturer, model number, and location to be included in this schedule.

### **3.7.2 Gate House**

- Assess the structural integrity as there are no calculations to make a determination.
- Assess the feasibility of repairing or replacing the existing exterior system.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify rated partitions.

### **3.7.3 Visitors Building**

- Analyze and assess the structural damage to the building. Faithful + Gould's FCA notes that visible observations of failure exists but no calculations were made.
- Through the use of thermal scanning, determine inefficiencies/issues in the secondary electrical distribution system.
- Assess how many hours are required for the back-up generator as it currently provides 516 hours

- of engine run-time which is low for the buildings its serving.
- There are deficiencies in illuminated exit sign locations. Determine where they are missing and require to be added/replaced.
- Assess the domestic hot water system, which was installed just prior to the site's decommissioning. Determine its usability for the new program.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify rated partitions.

### **3.7.4 Administration Building**

- Determine if reported leaks and moistures issues have compromised the structural system.
- Conduct a suspected visual mold assessment to determine if the reported leaks and moistures issues have caused mold growth.
- Determine the proper size for the back-up generator.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify rated partitions.
- Determine the damage caused by failed paint and rotted wood at the building's soffits and roof level trims.
- Identify where the 10 cracked lintels are located and the extent of the cracking.

### **3.7.5 Main Building**

- Structural support system should be assessed due to reported leaks and moisture issues
- HazMat should check for mold as there have been reported leaks and moisture issues.
- Assess any exterior building wall damage due to lack of rain gutters and failing sealants, etc.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify rated partitions.

### **3.7.6 Kitchen / Gymnasium**

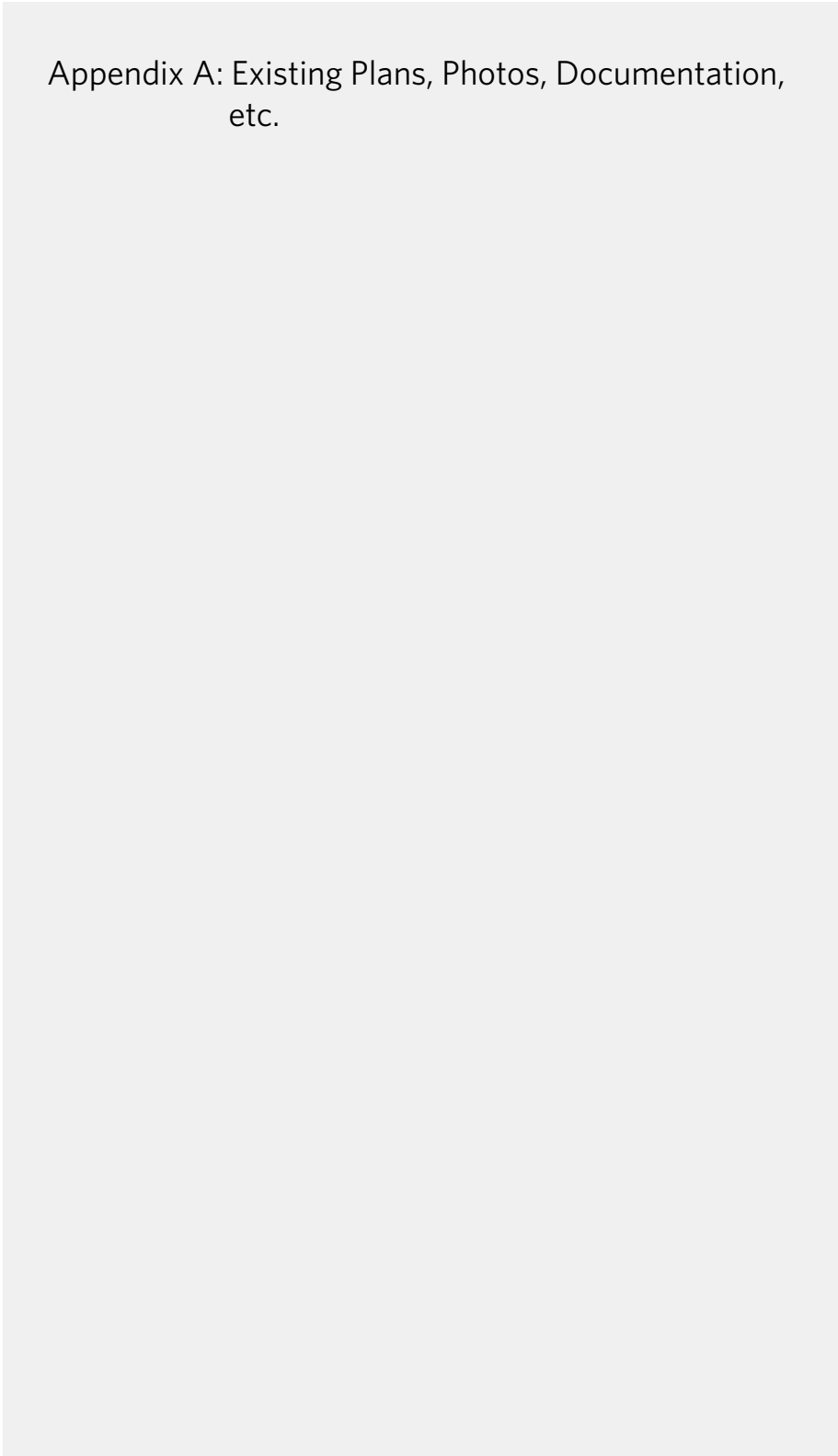
- Verify if walk-in-coolers and freezers connect to the emergency back-up system.
- Determine if there are inefficiencies such as air leakages, mechanicals, and refrigeration performance to the walk-in refrigerator and freezer.
- Determine the damage caused by failed paint and rotted wood at the building's soffits and roof level trims.
- Determine the damage caused by failed paint and rotted wood at the building's soffits and roof level trims.
- Determine if it is feasible/possible to retrofit the existing fluorescent light fixtures to accommodate LED lamps.
- Identify rated partitions.
- Determine where the fire sprinkler heads are needed to achieve code compliance coverage.

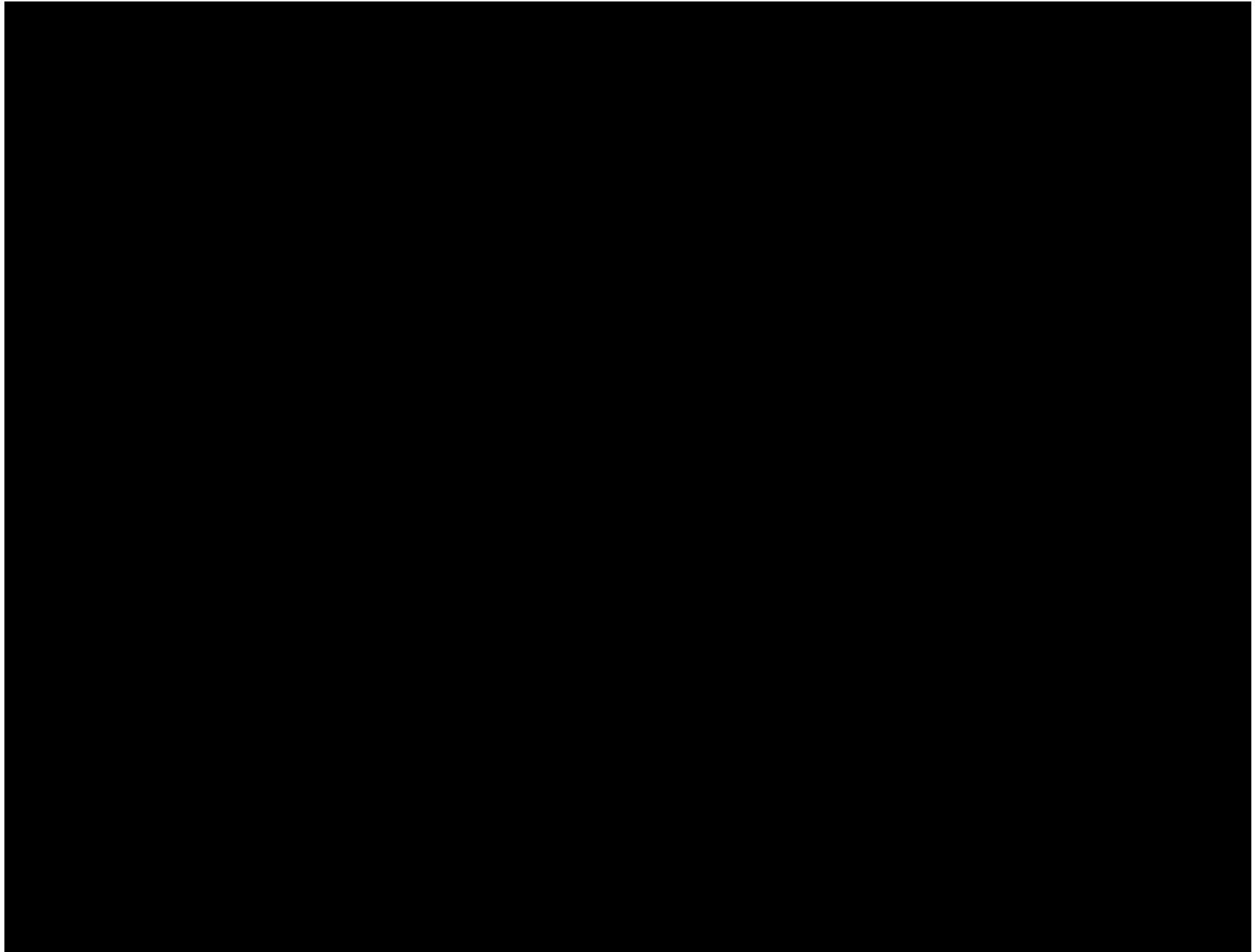
## Section 4: Appendices

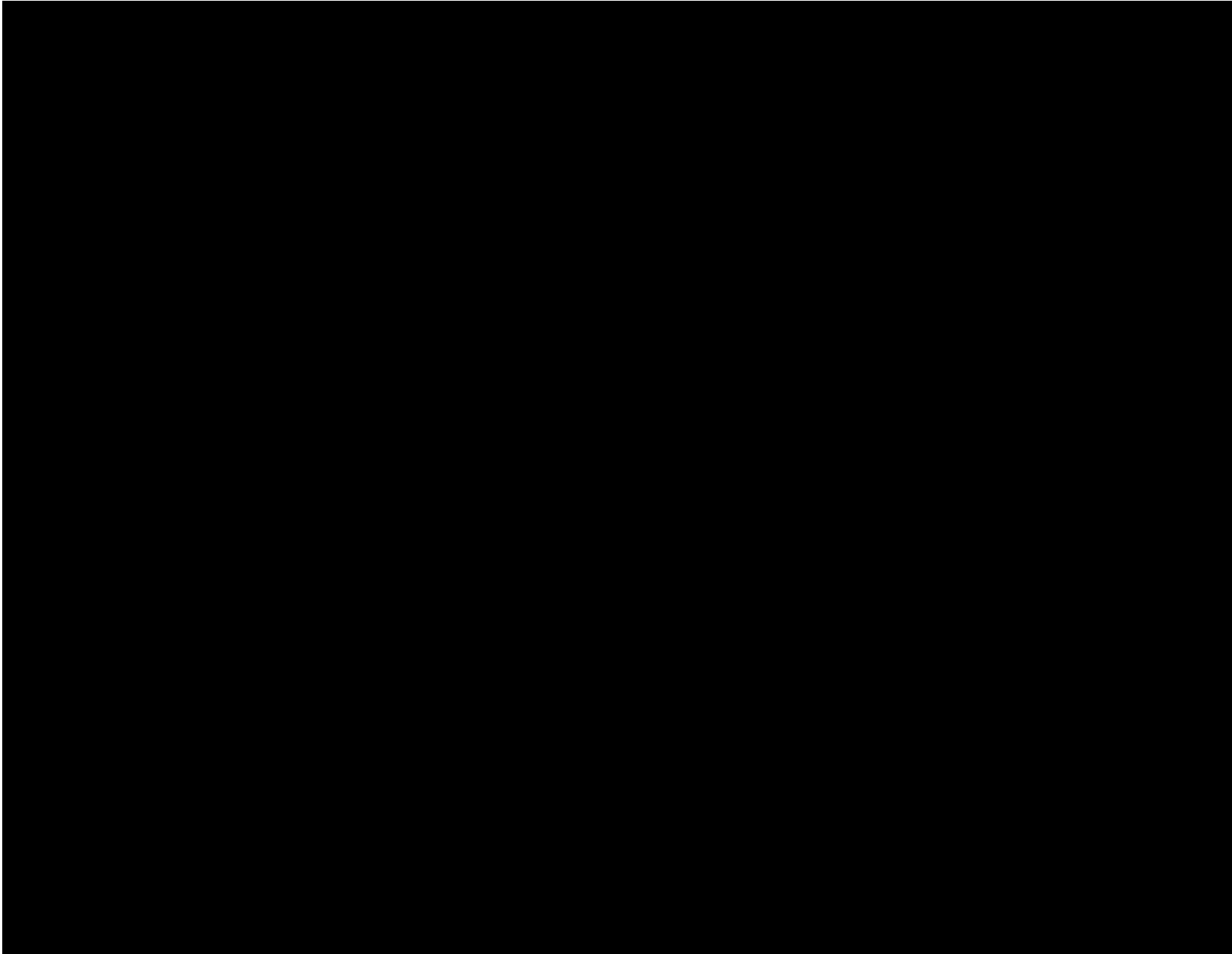
- Appendix A Existing Plans, Photos, Documentation, etc.
- Appendix B MACRIS Database Report for MCI Framingham
- Appendix C Tighe & Bond's Wetlands Memorandum for South Middlesex Correctional Center
- Appendix D Jensen Hughes' Accessibility Report

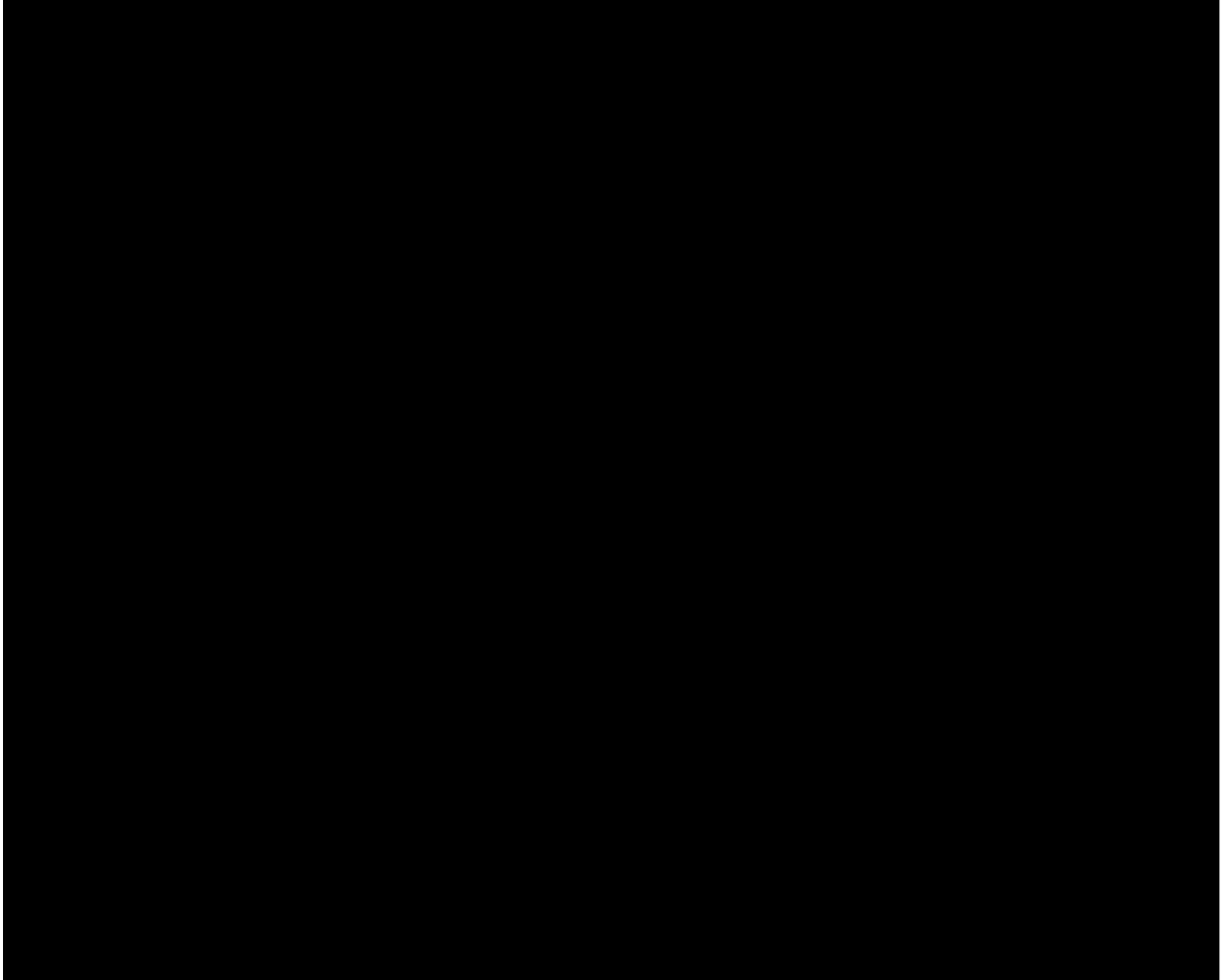


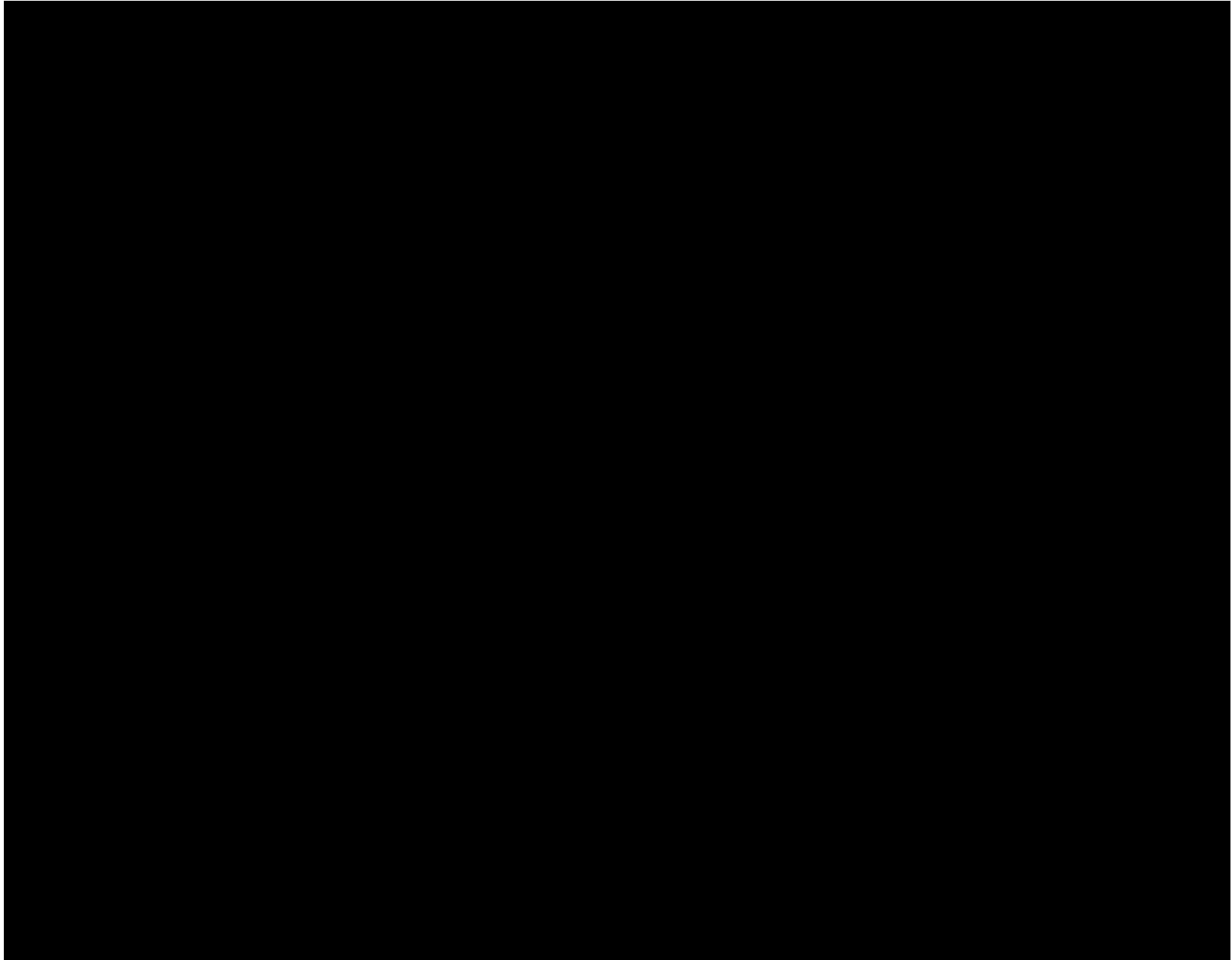
Appendix A: Existing Plans, Photos, Documentation,  
etc.

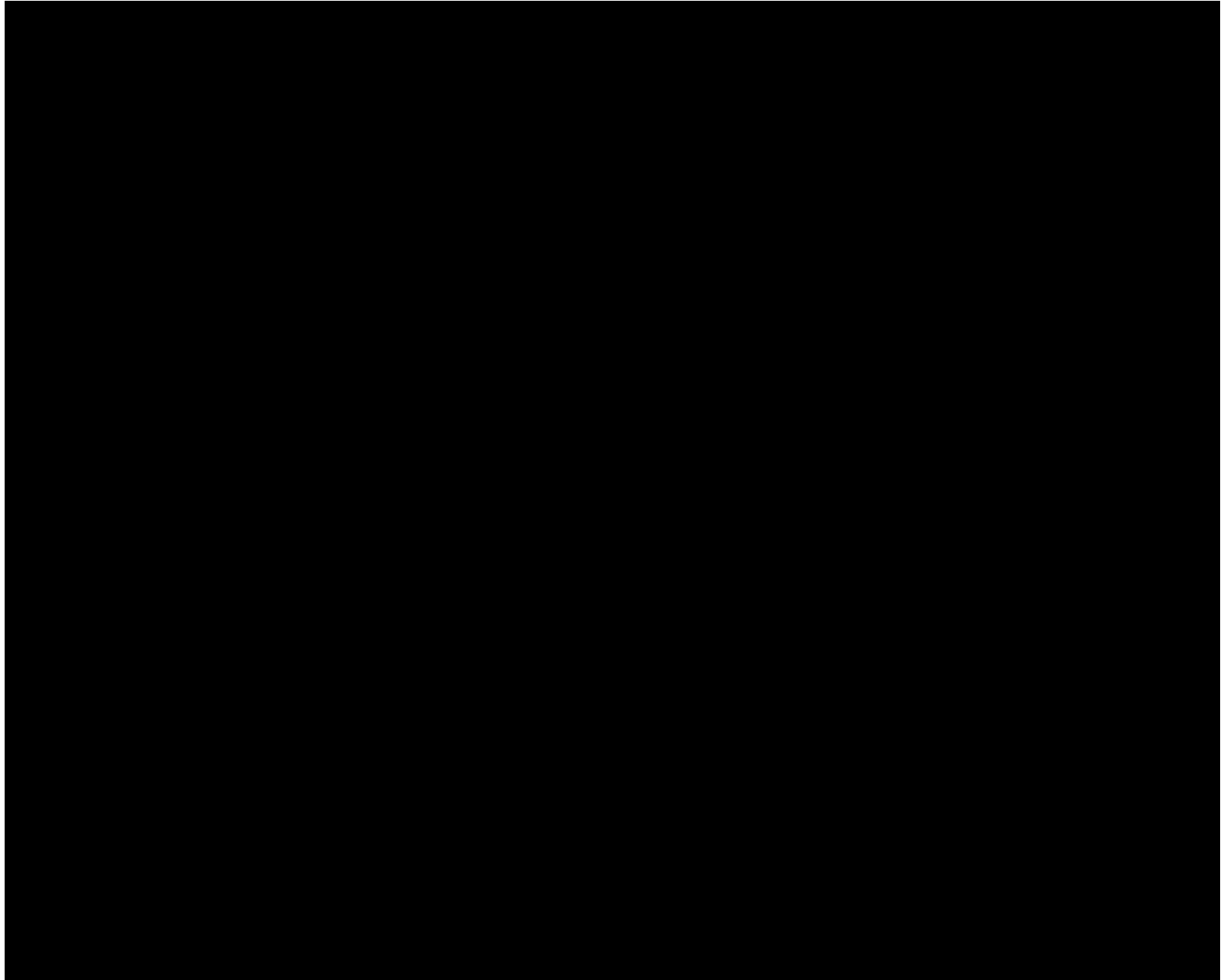


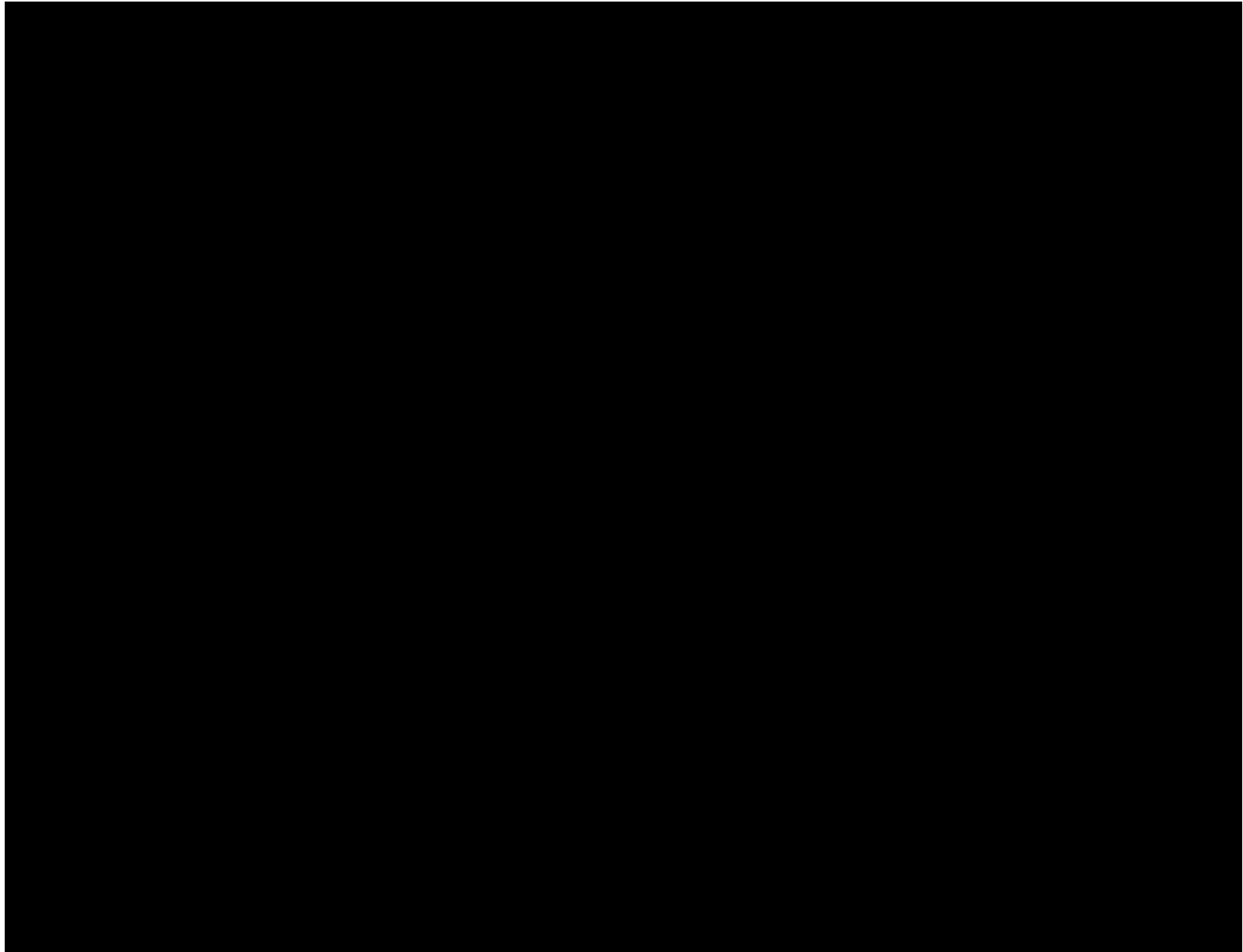


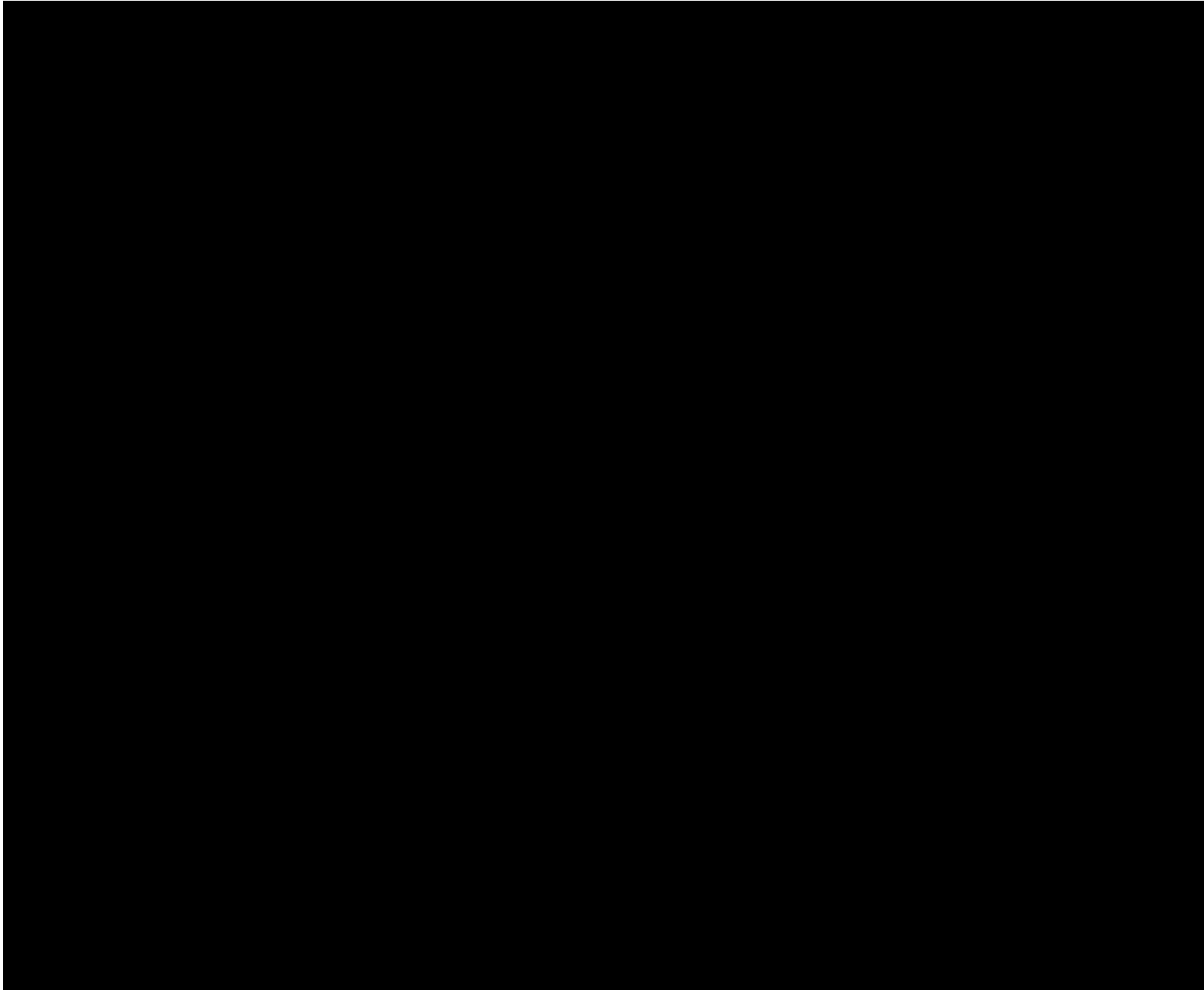




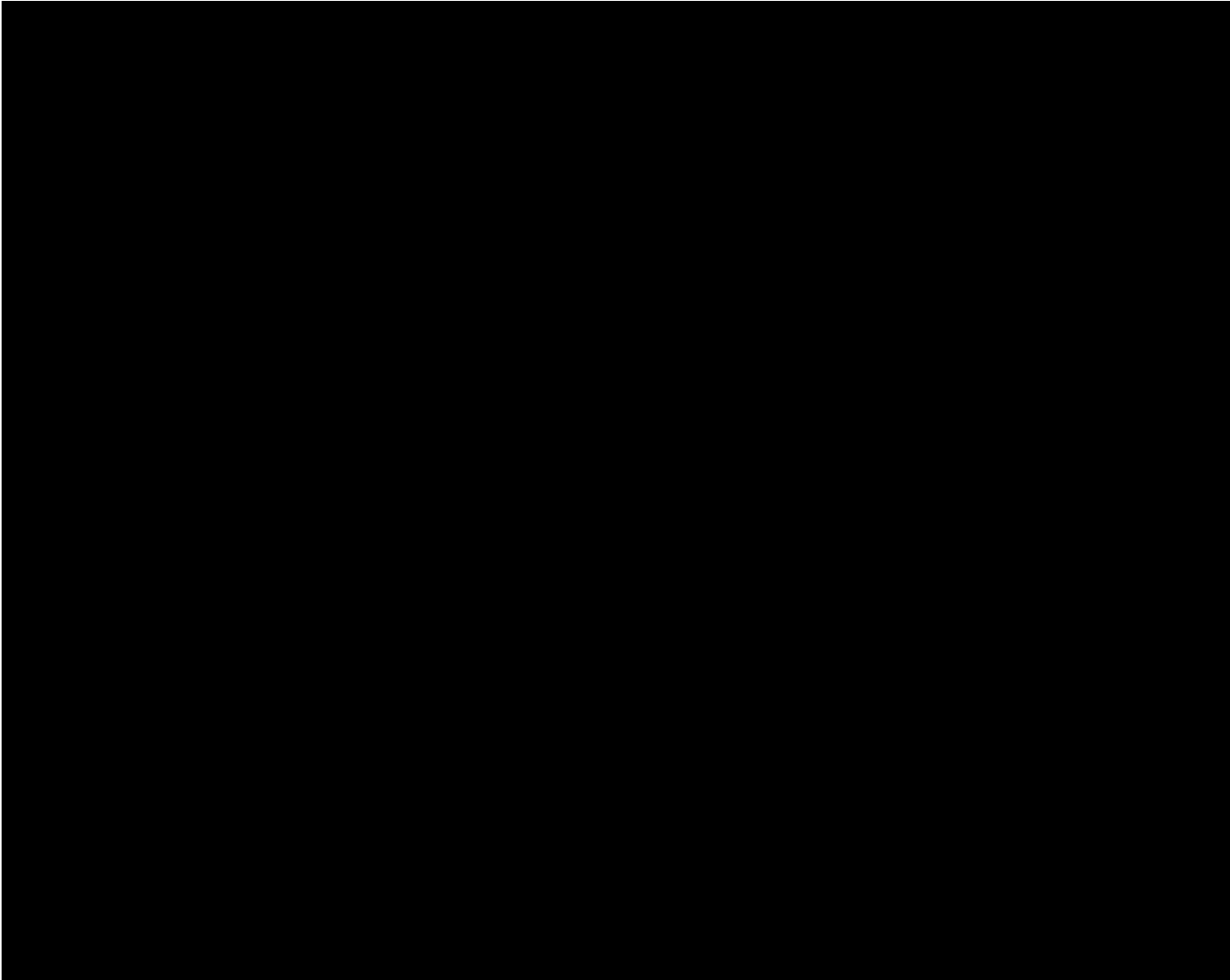


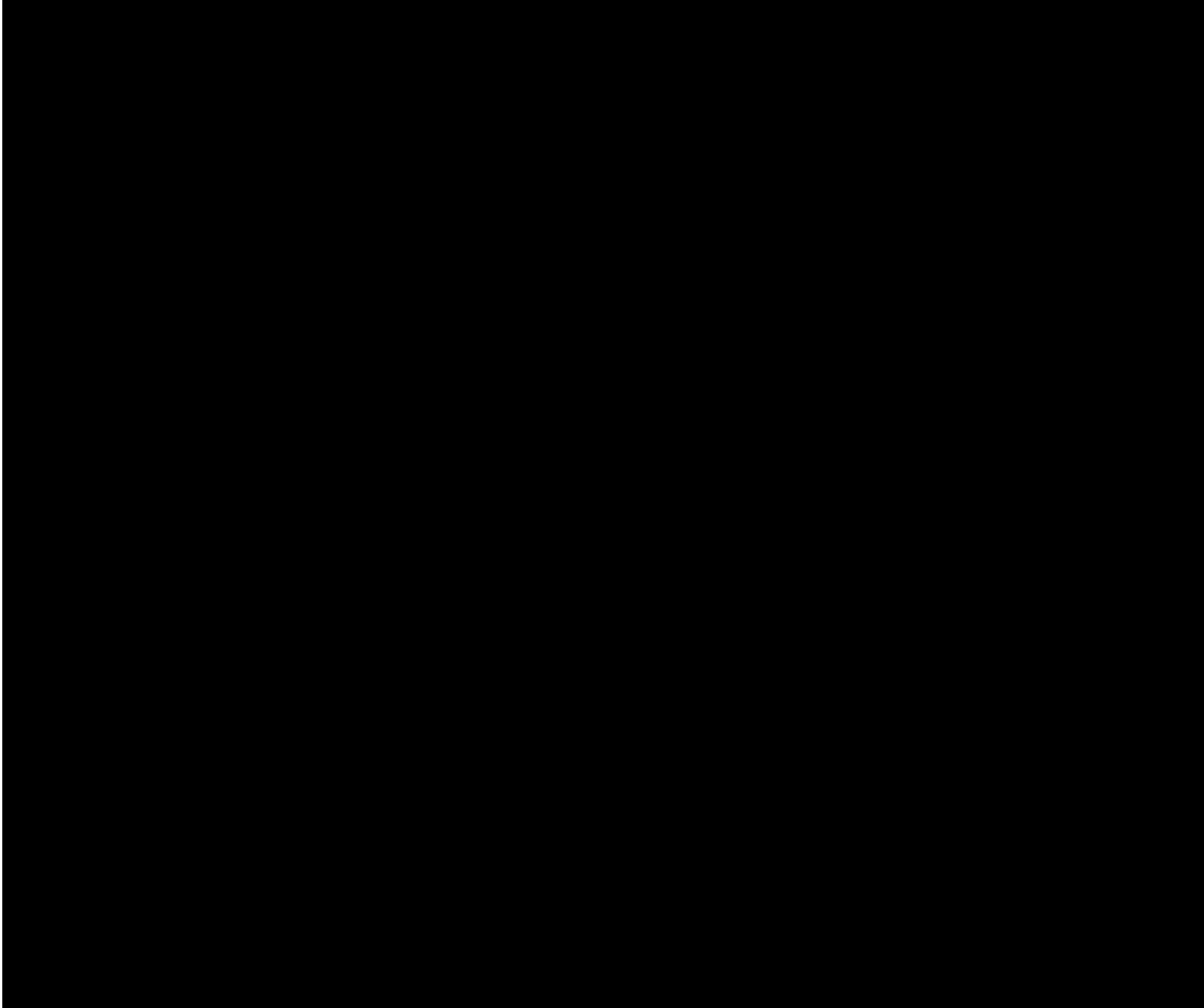


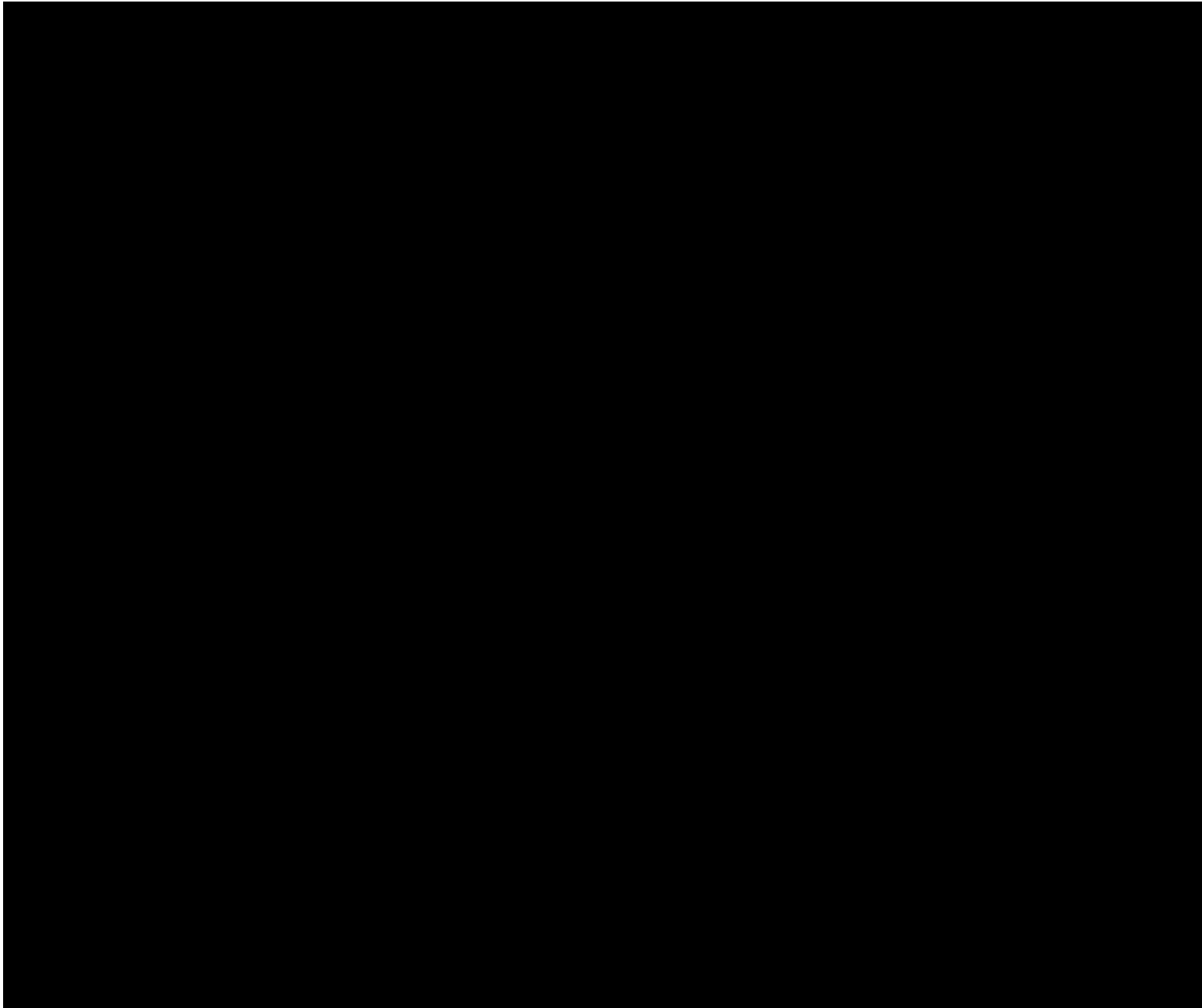


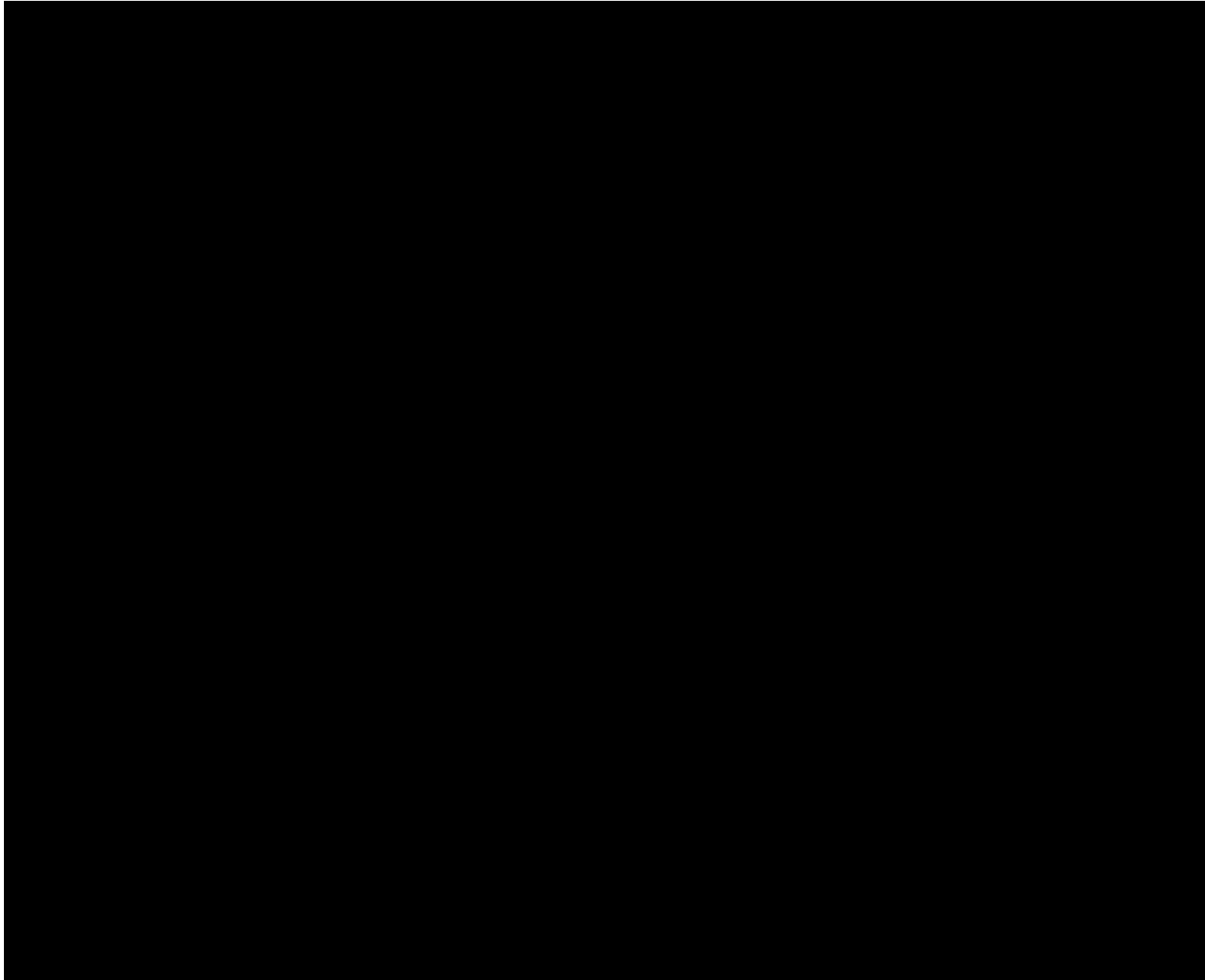


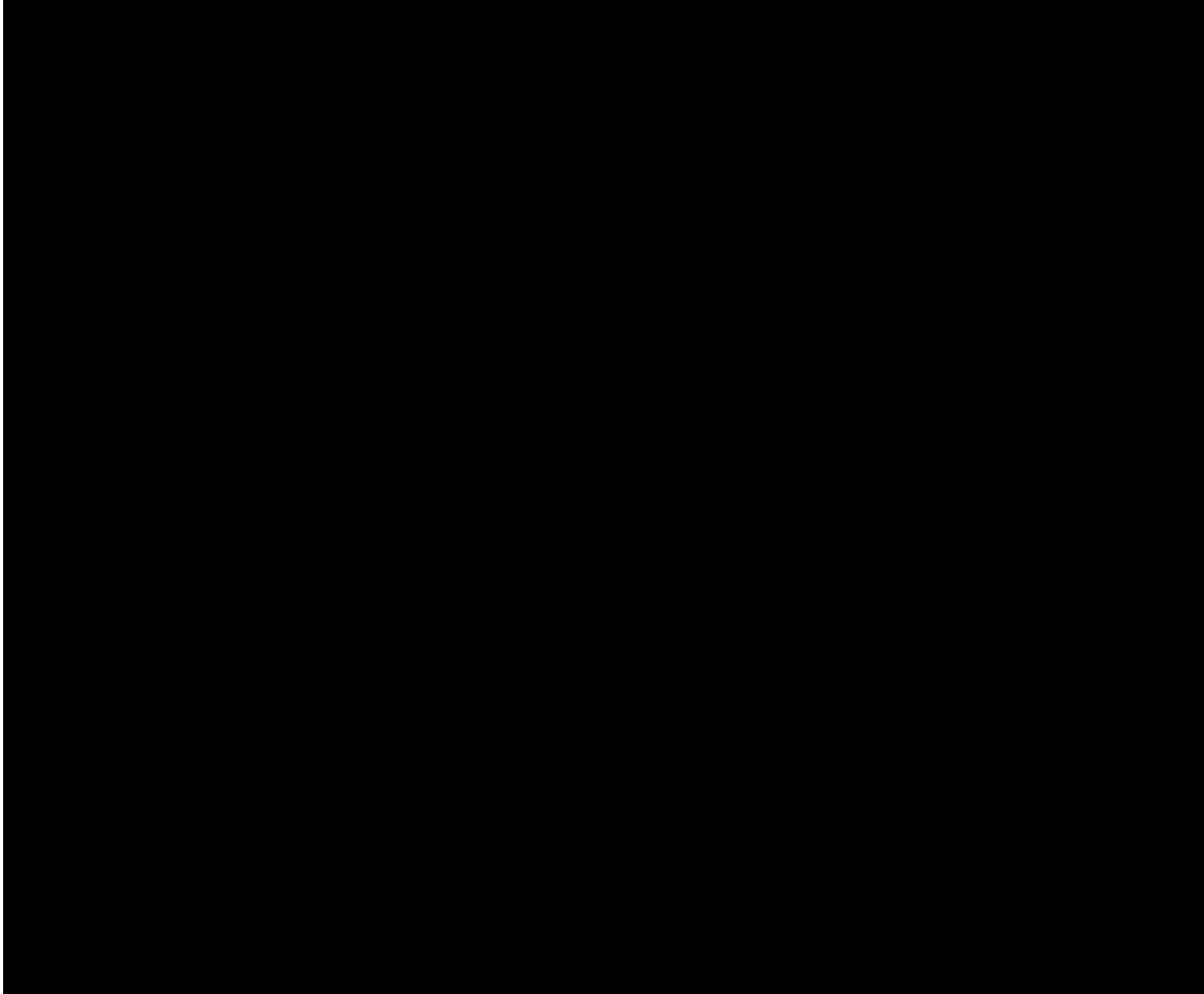


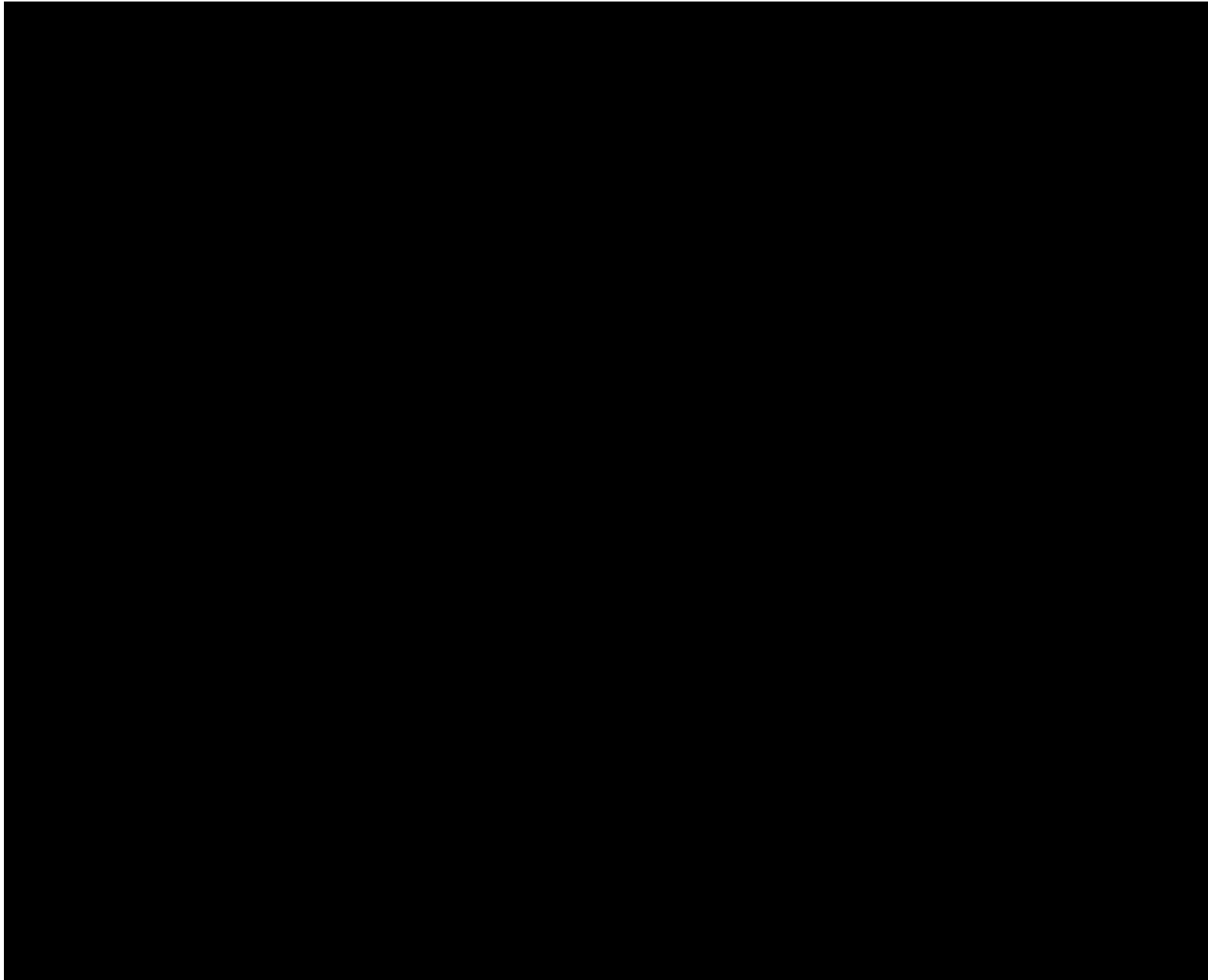


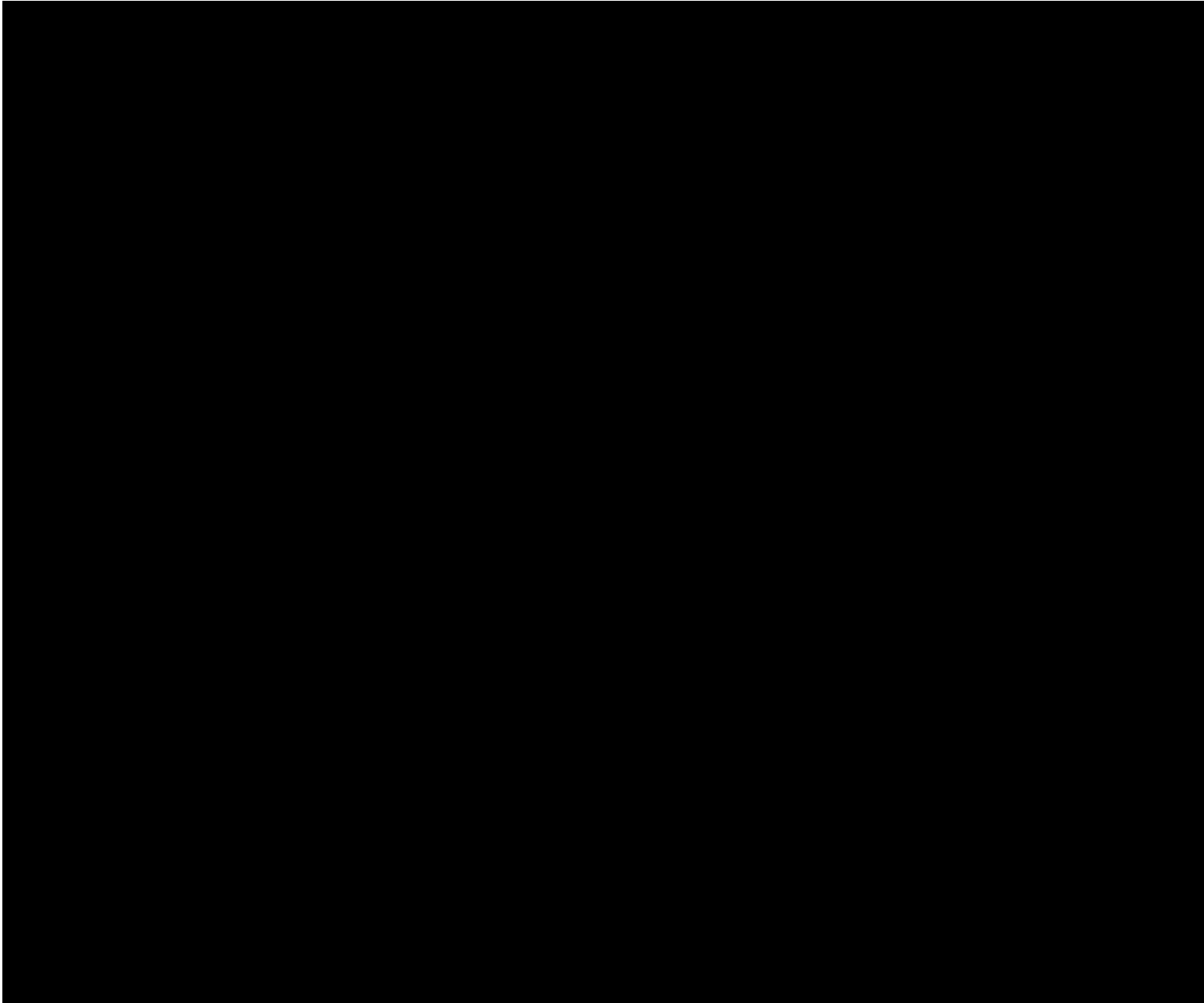


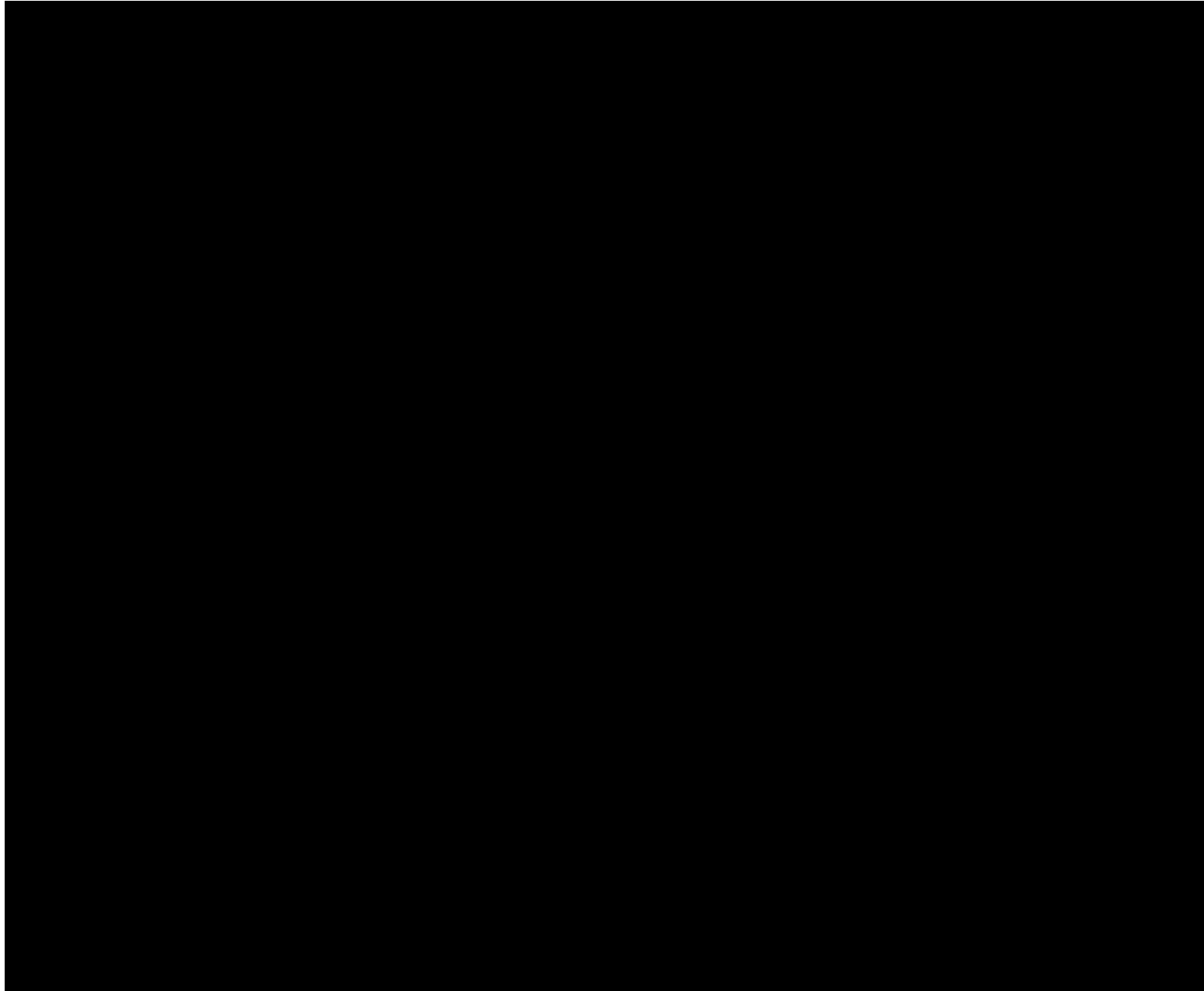




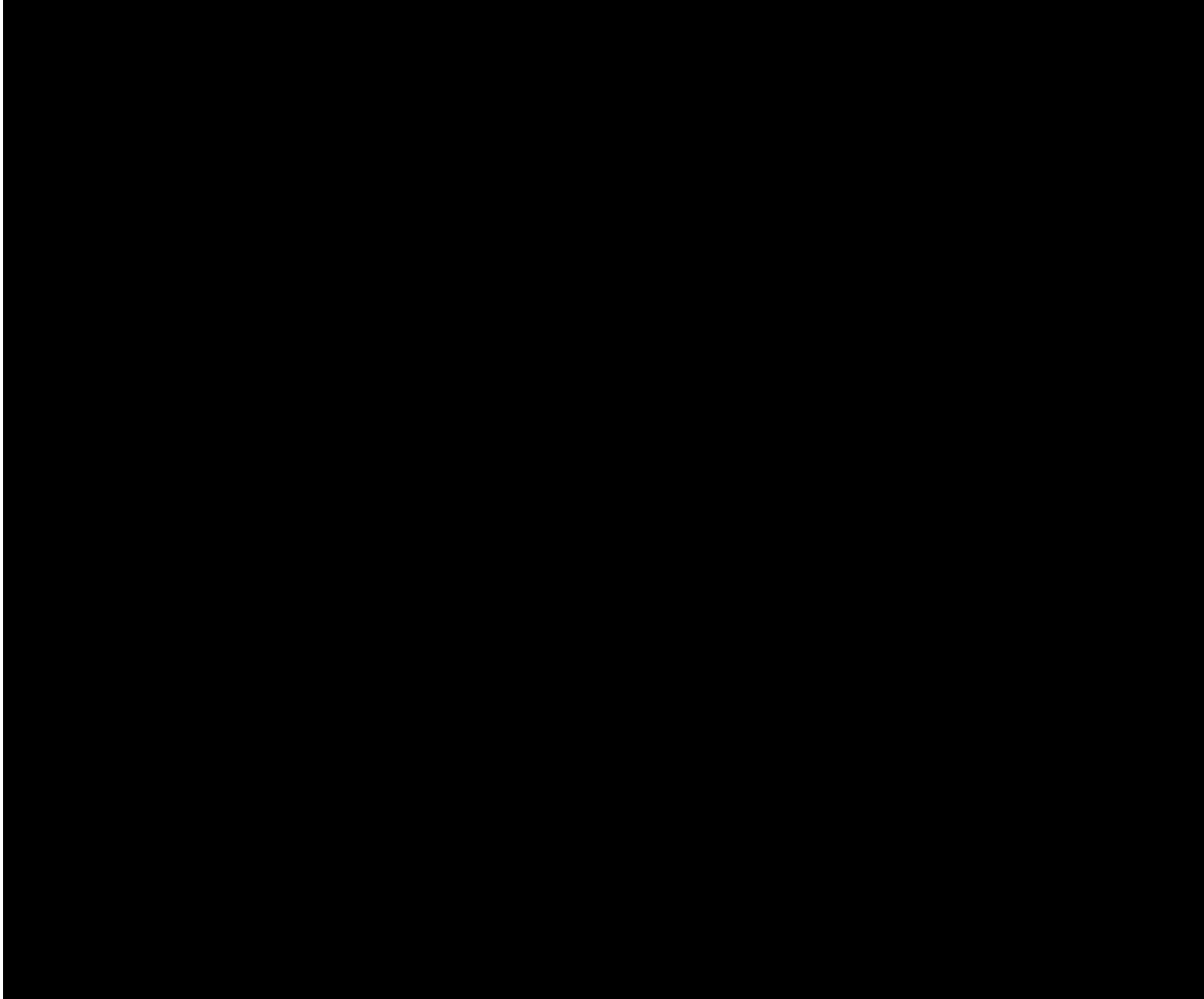


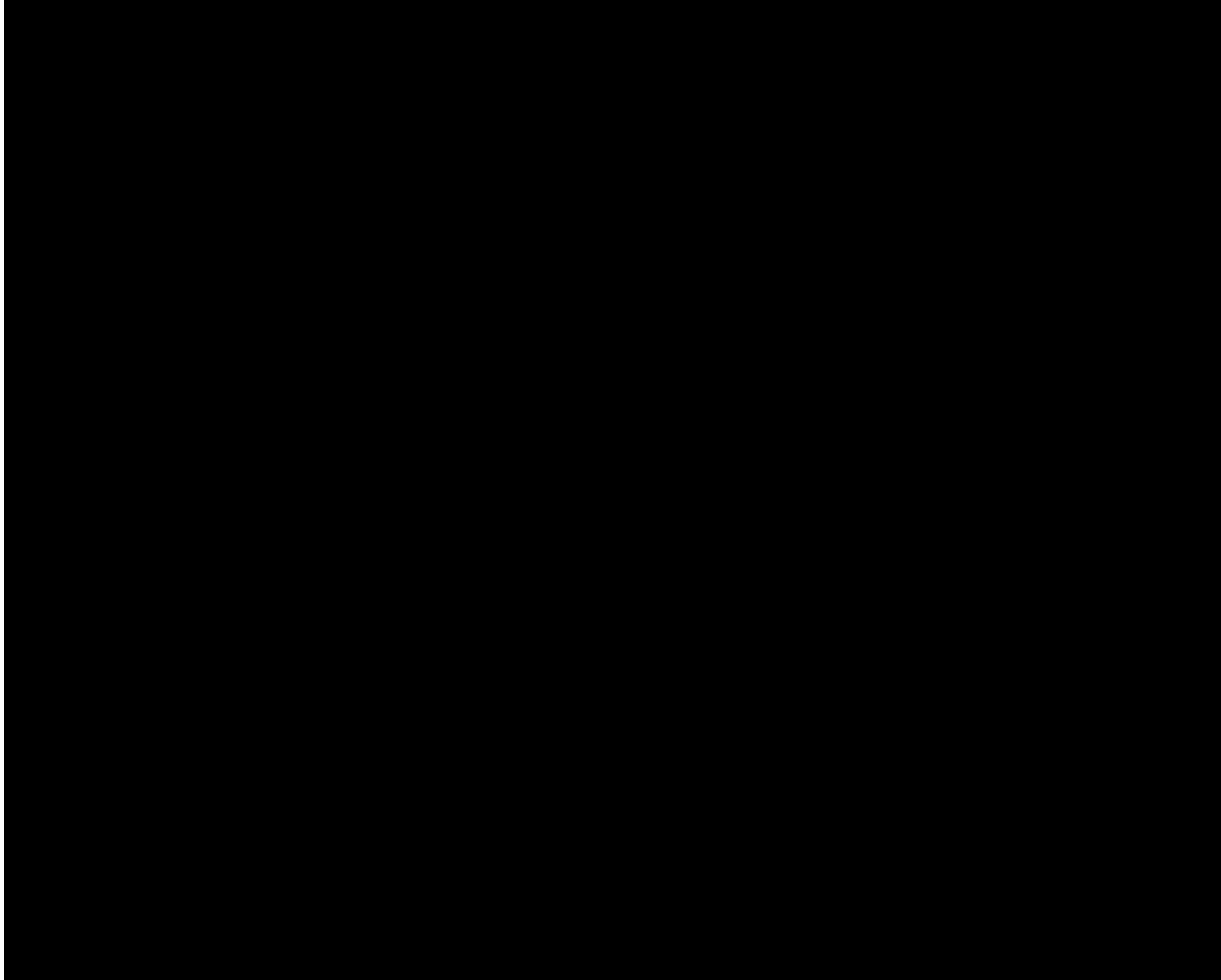


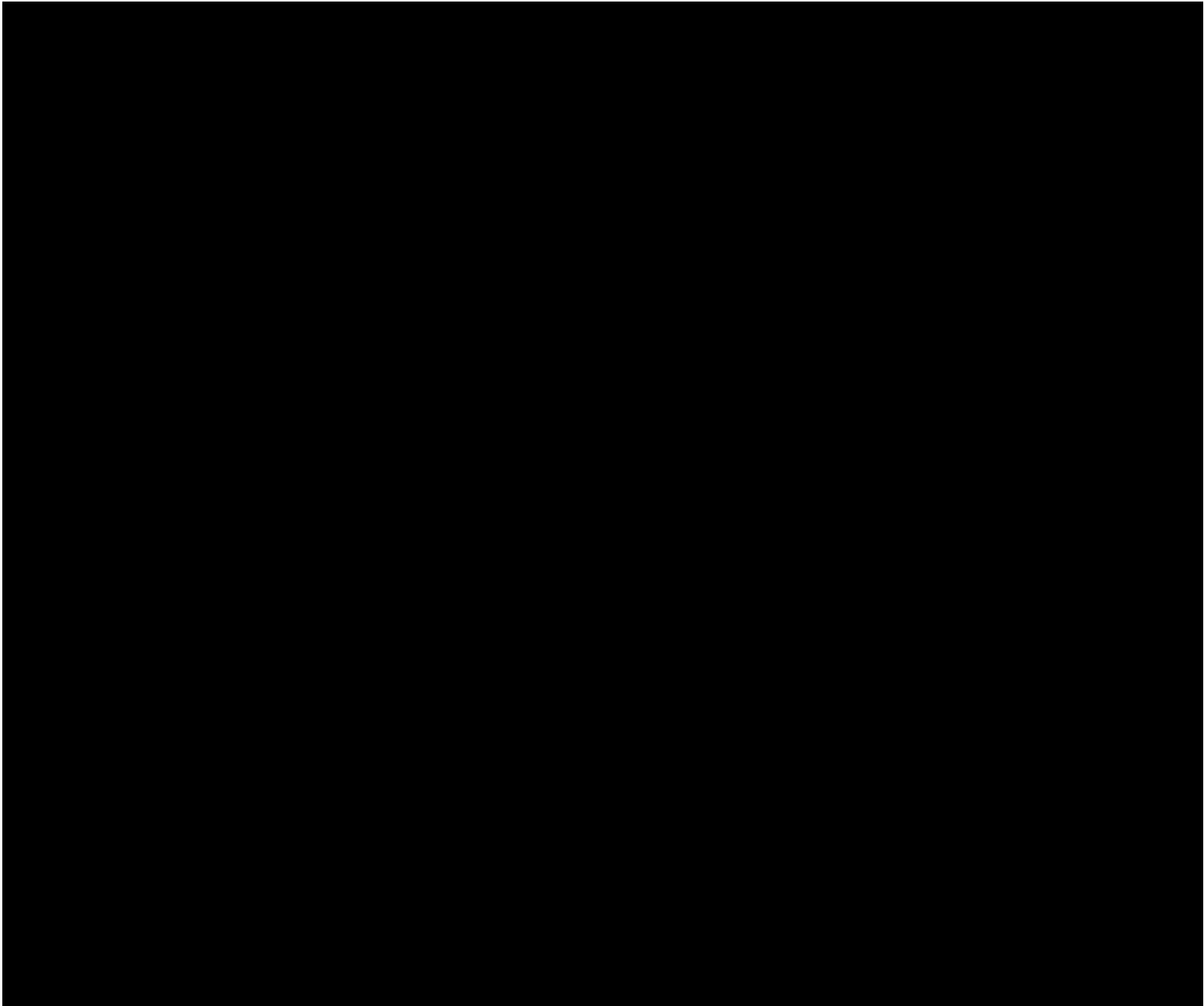


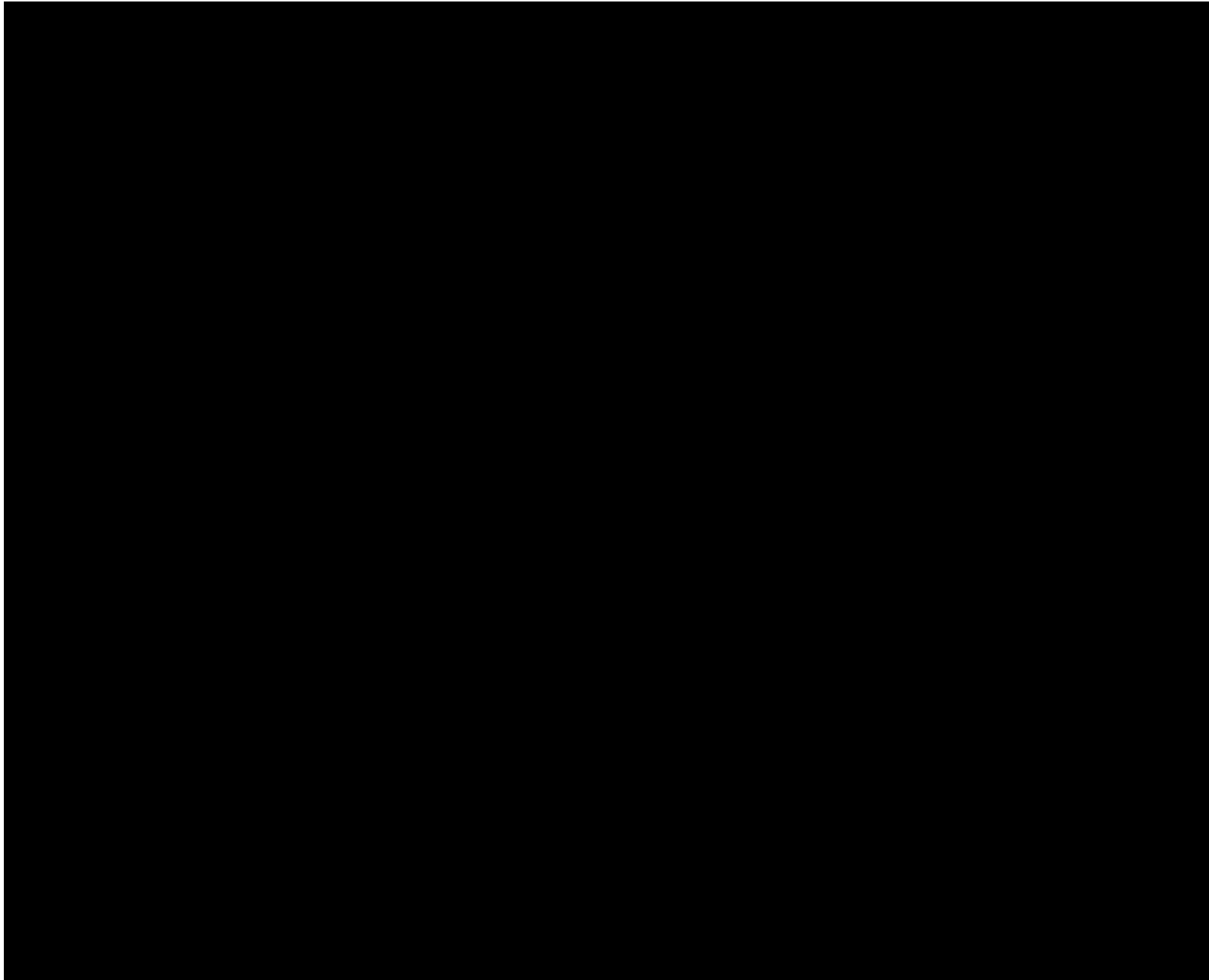


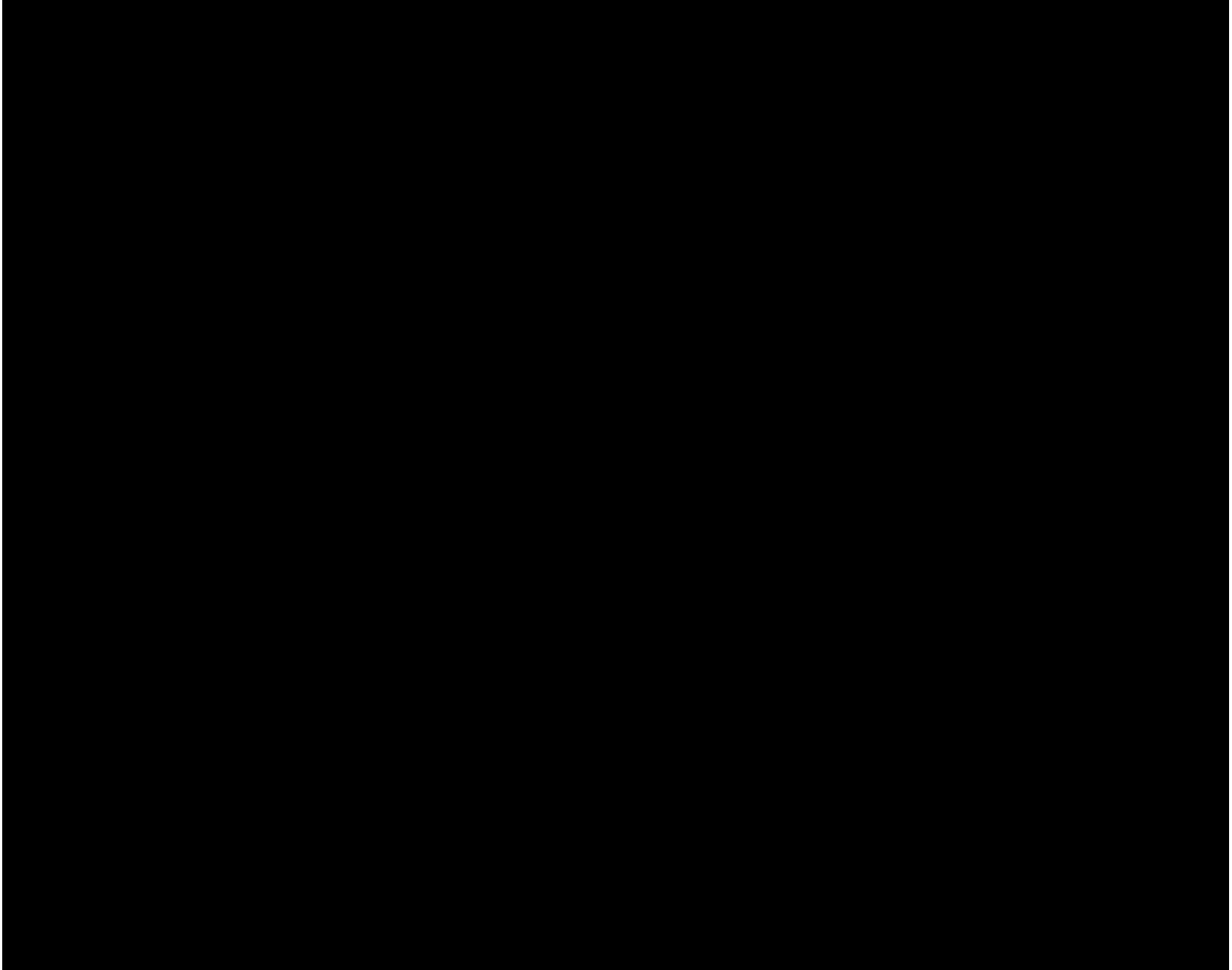


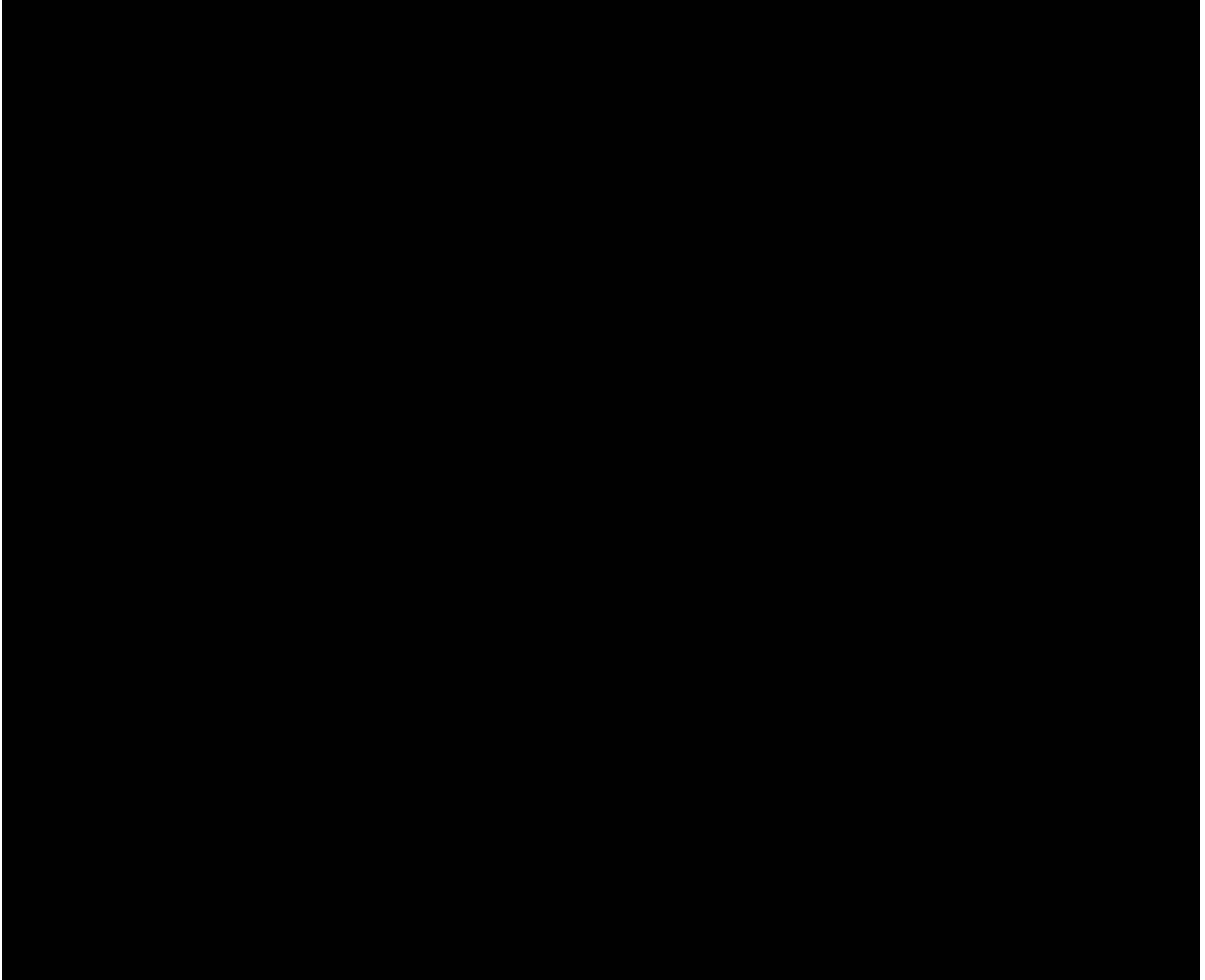


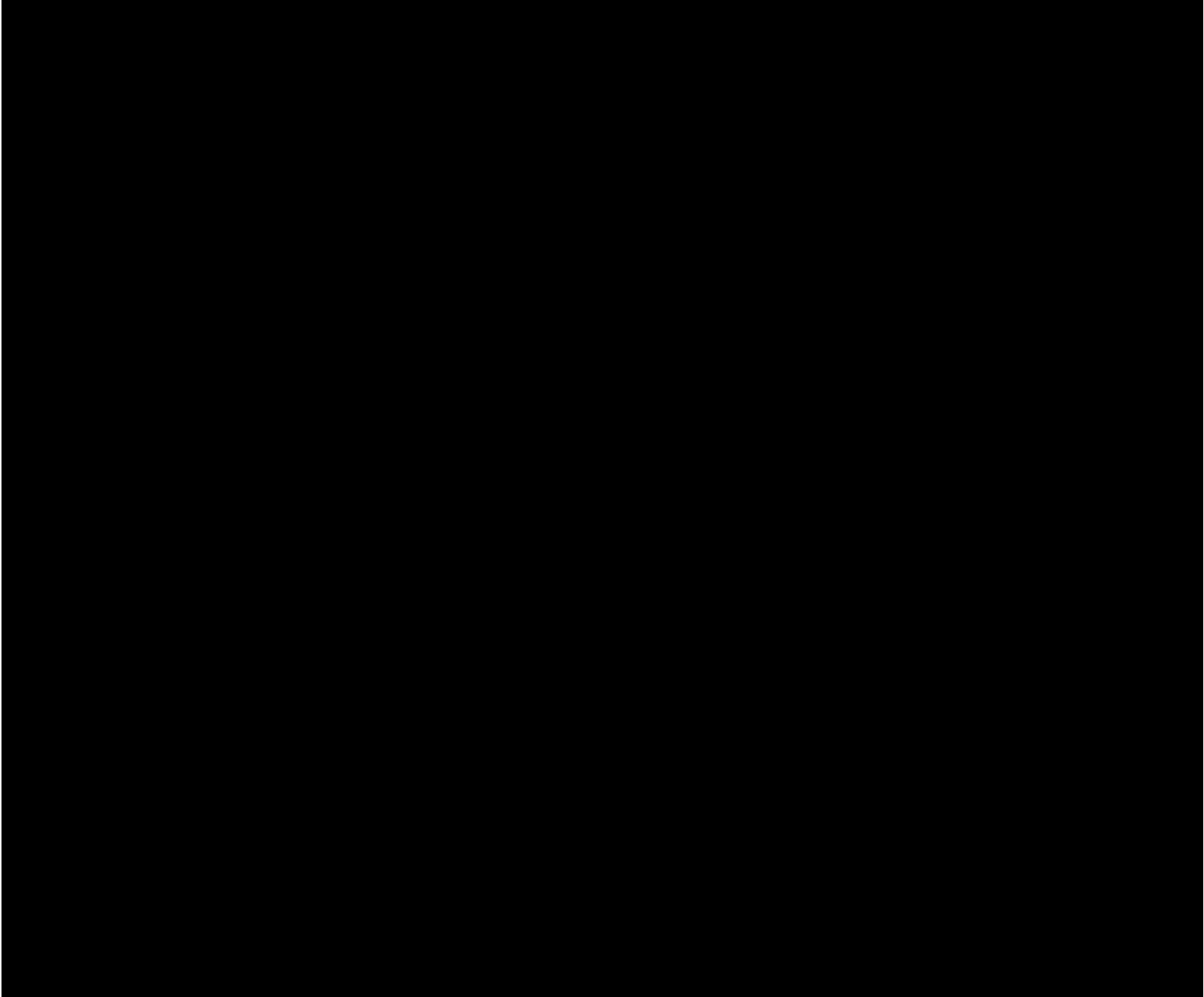


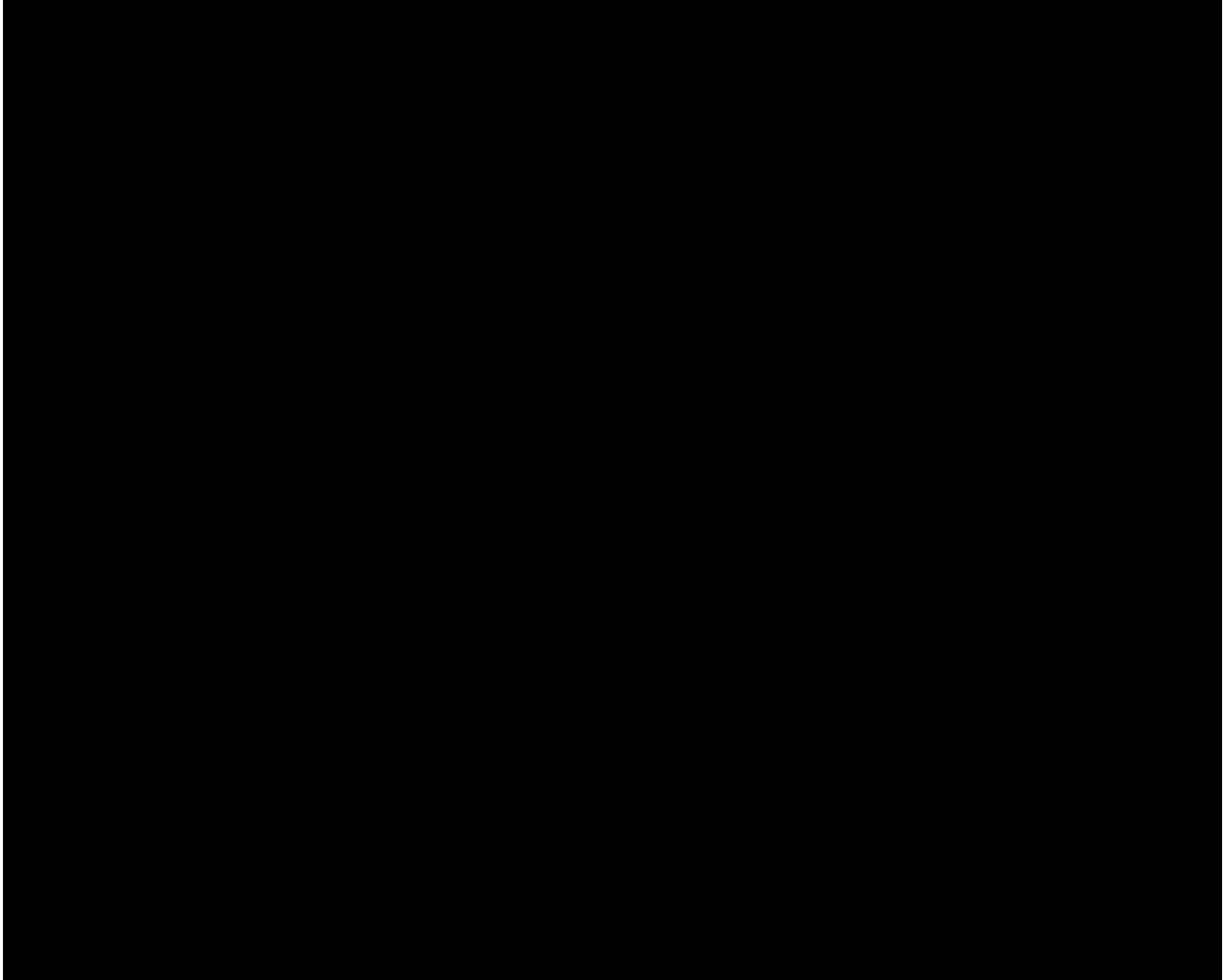




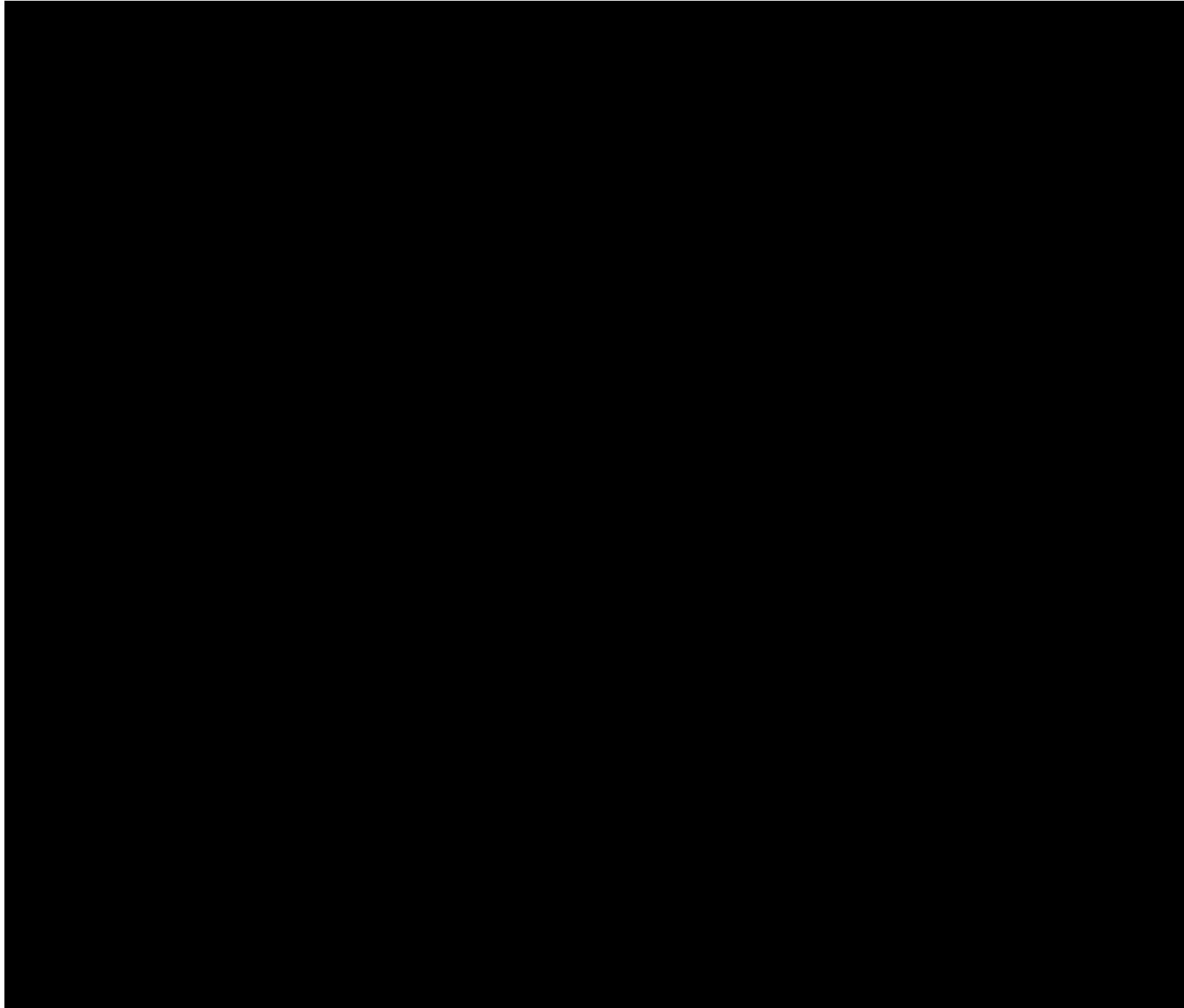


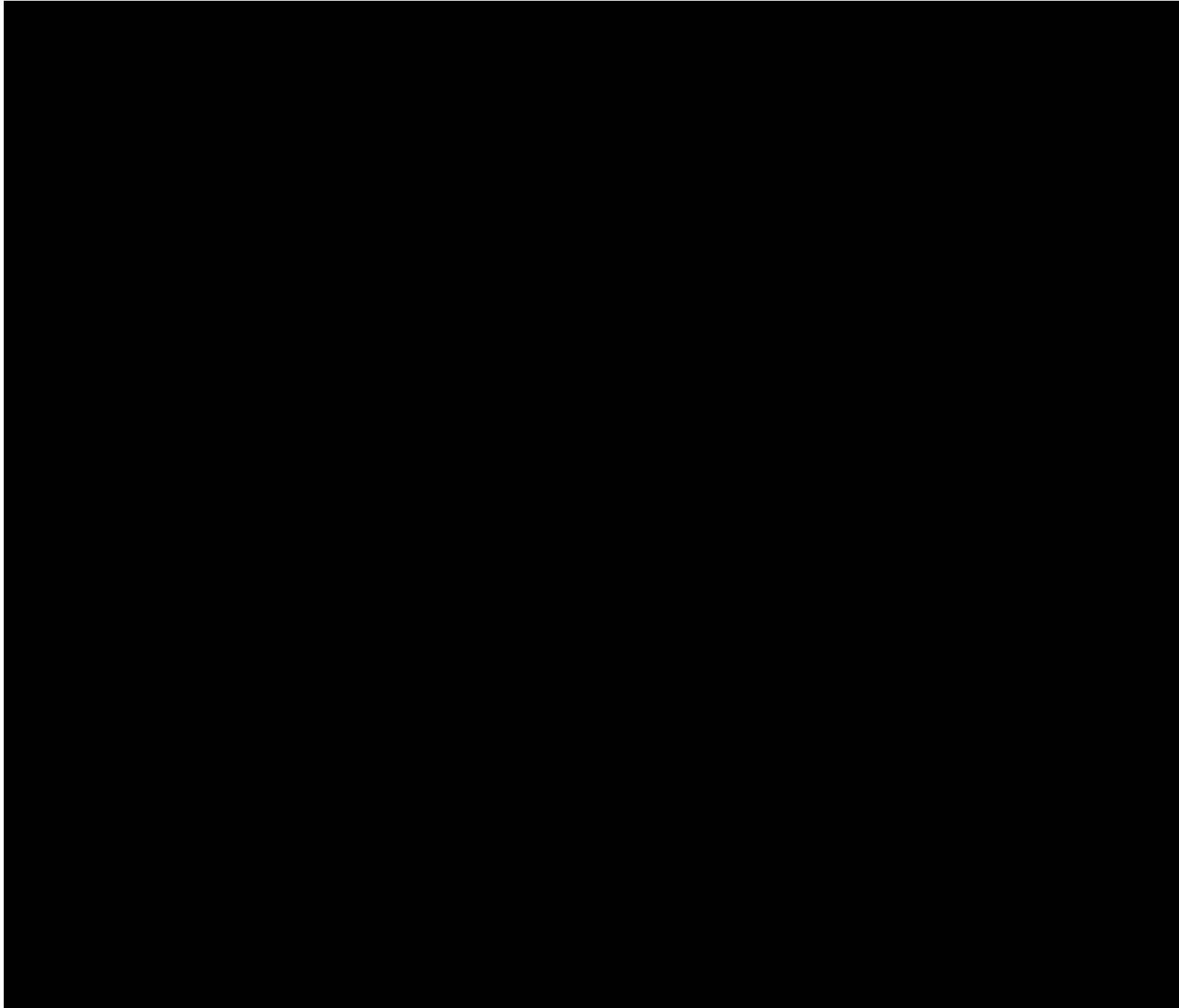


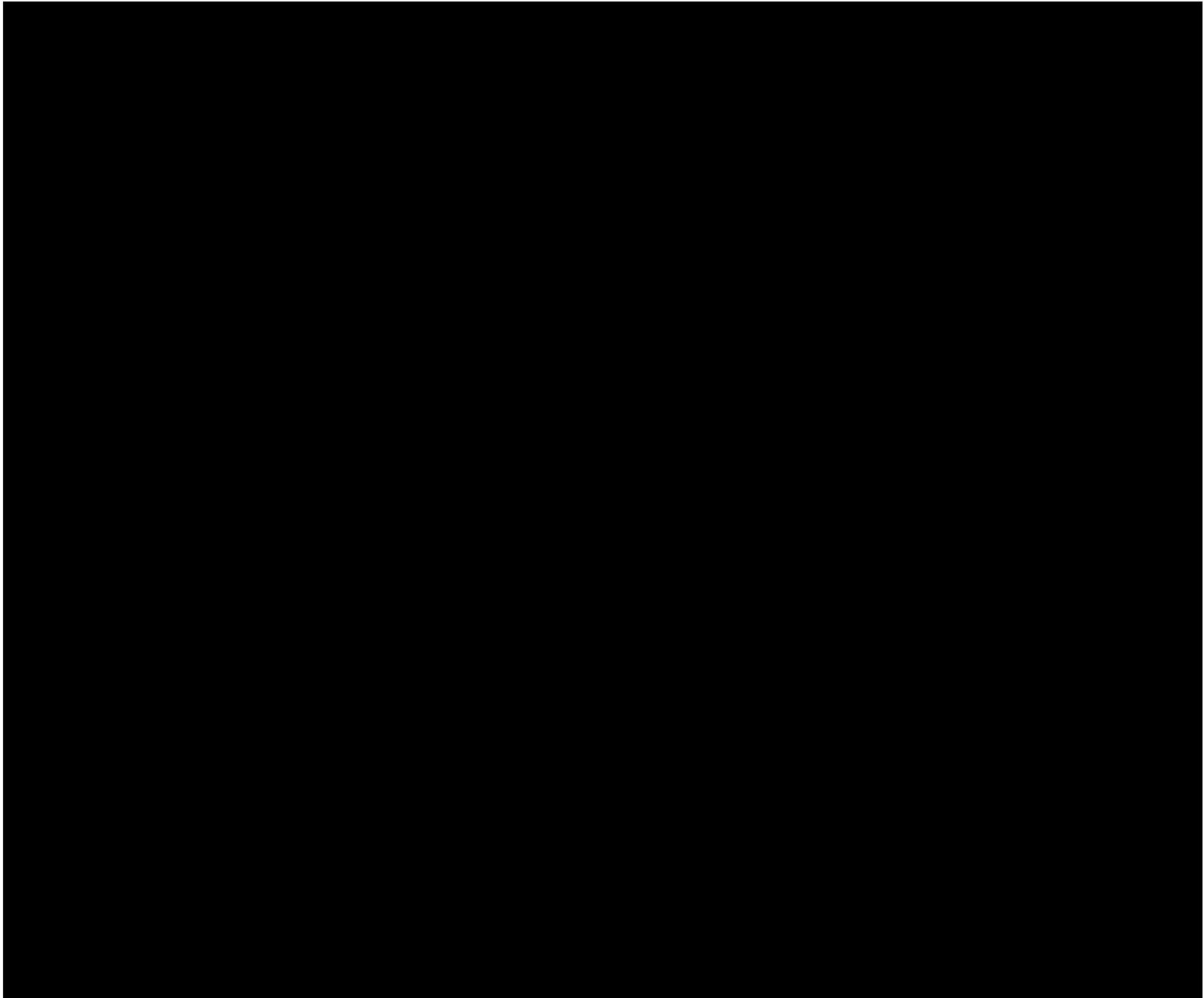


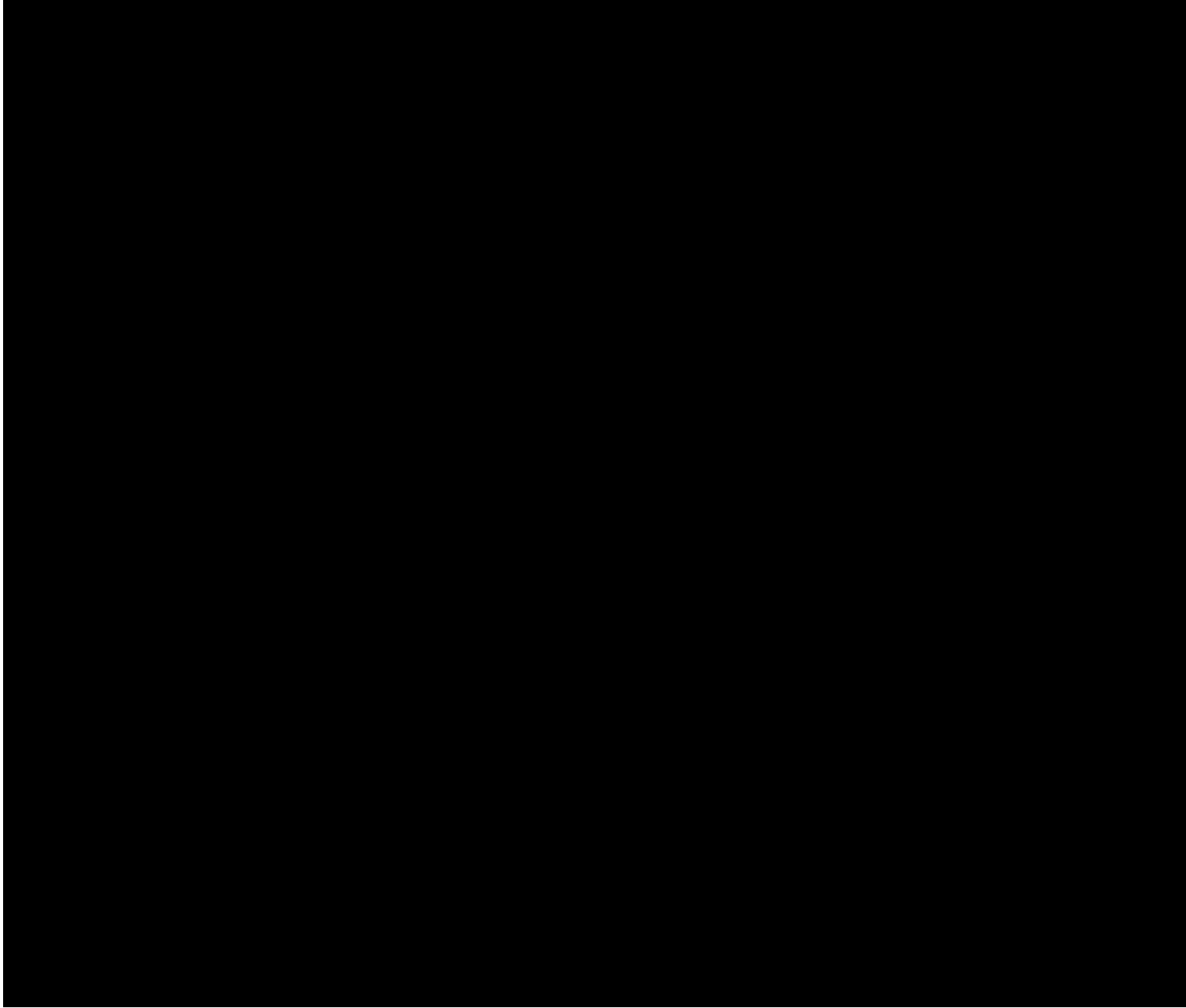


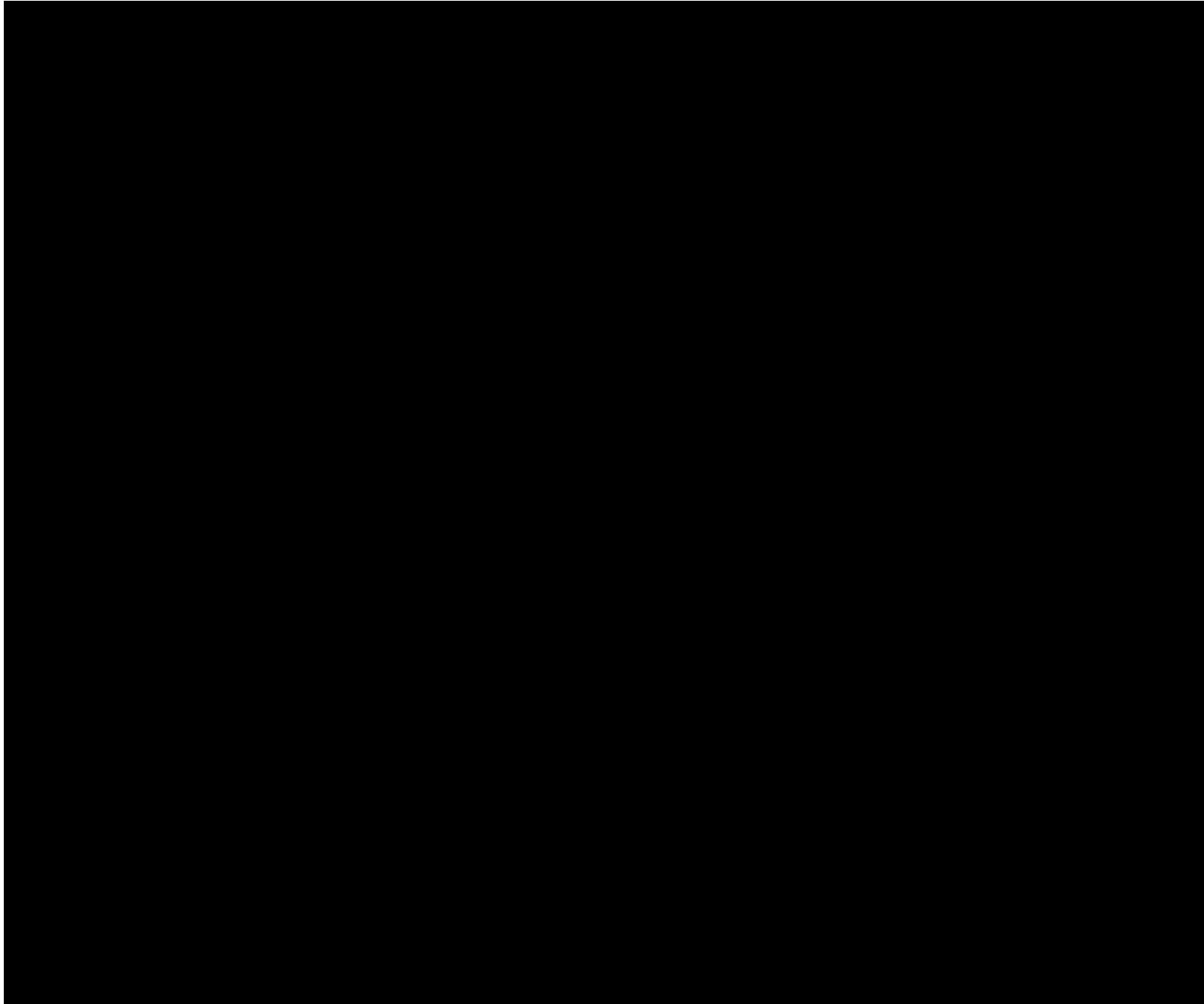


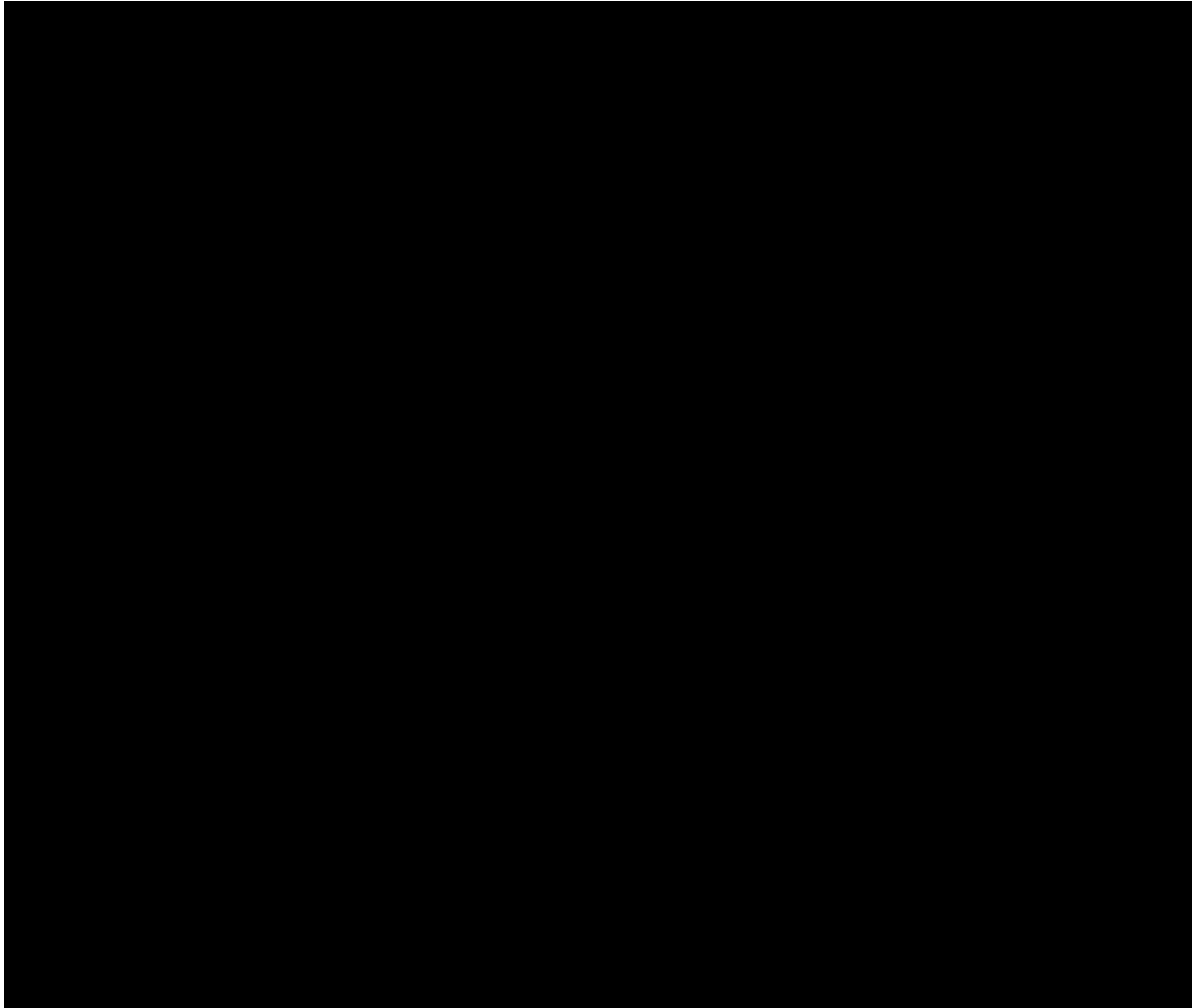


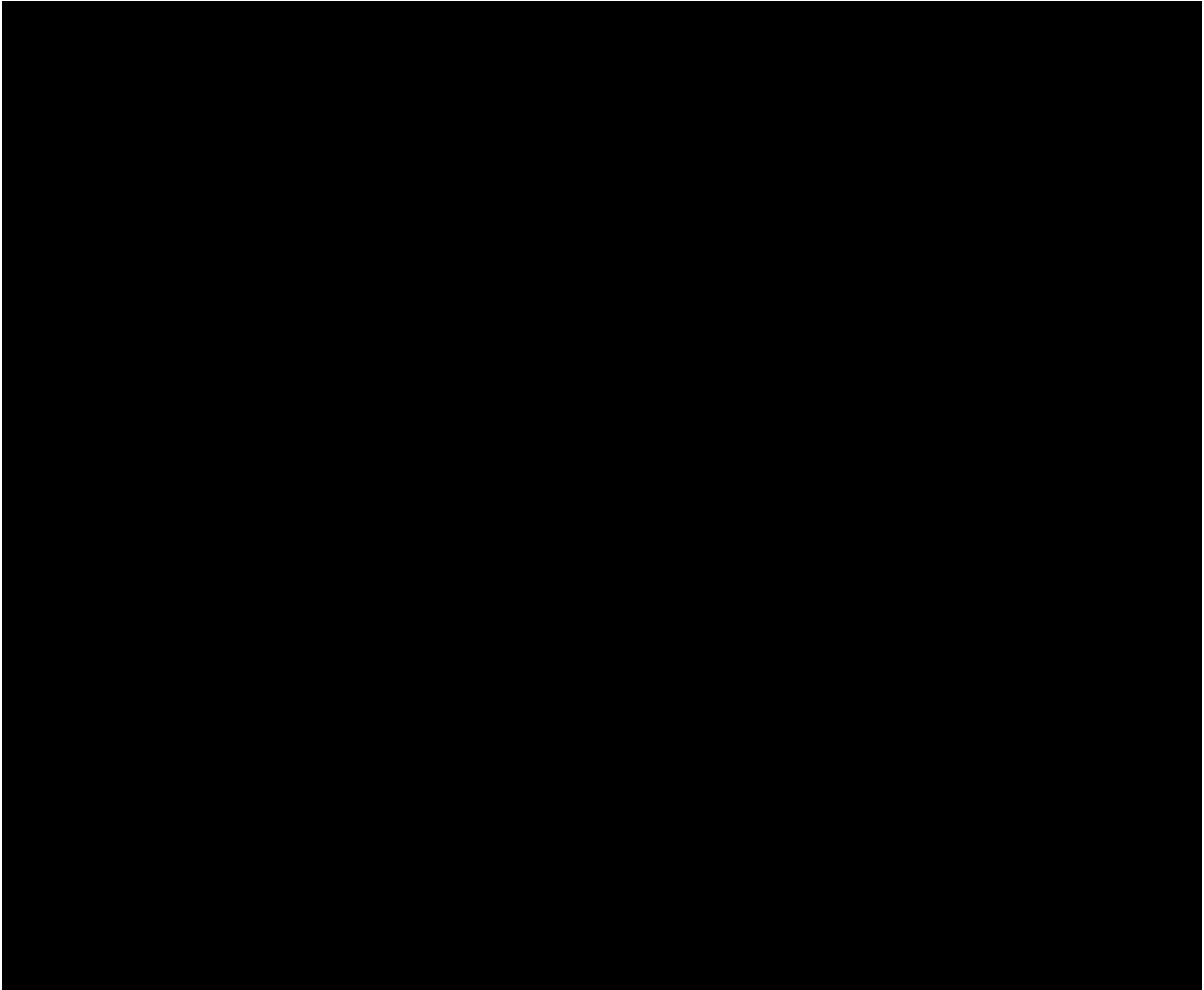


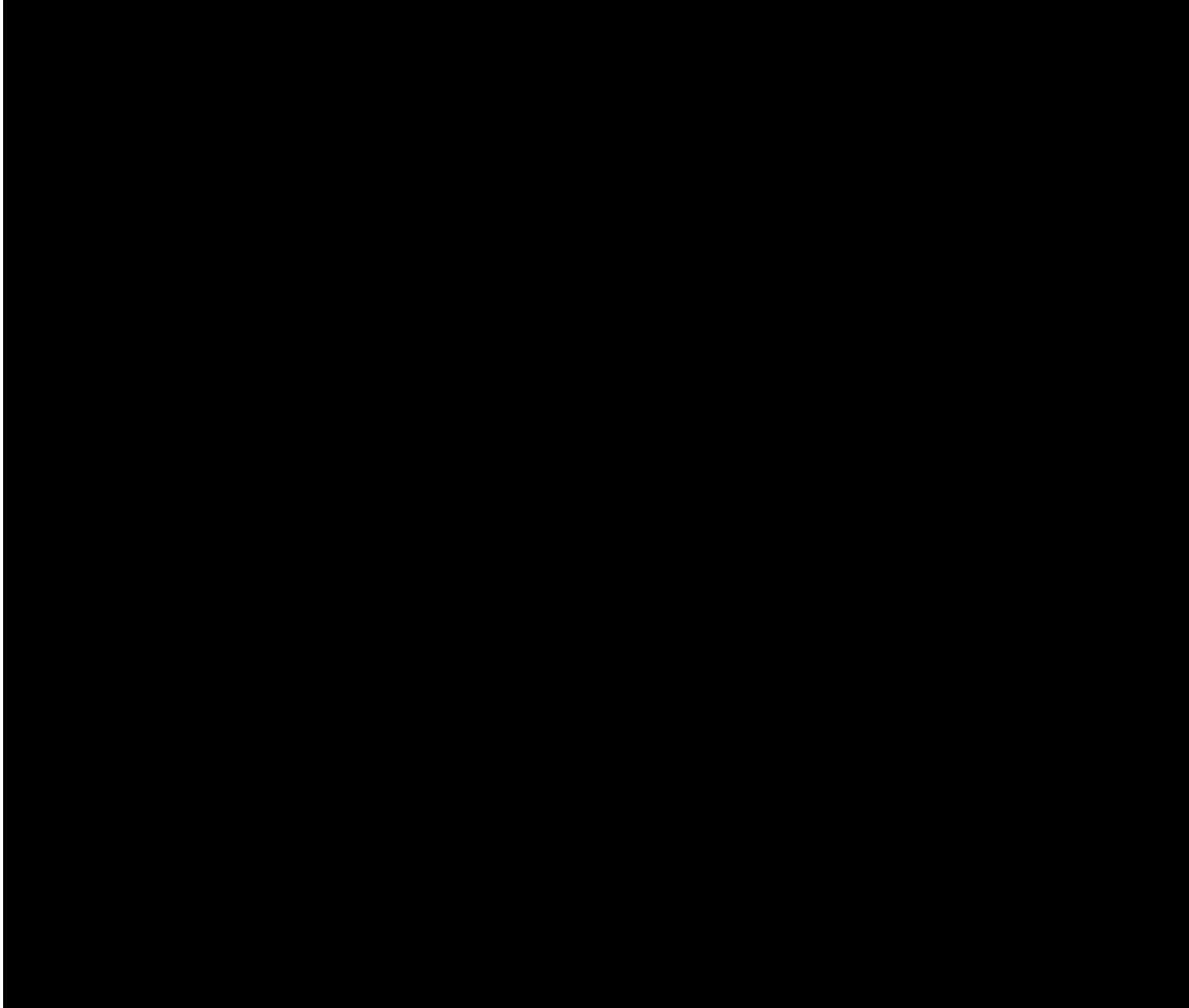




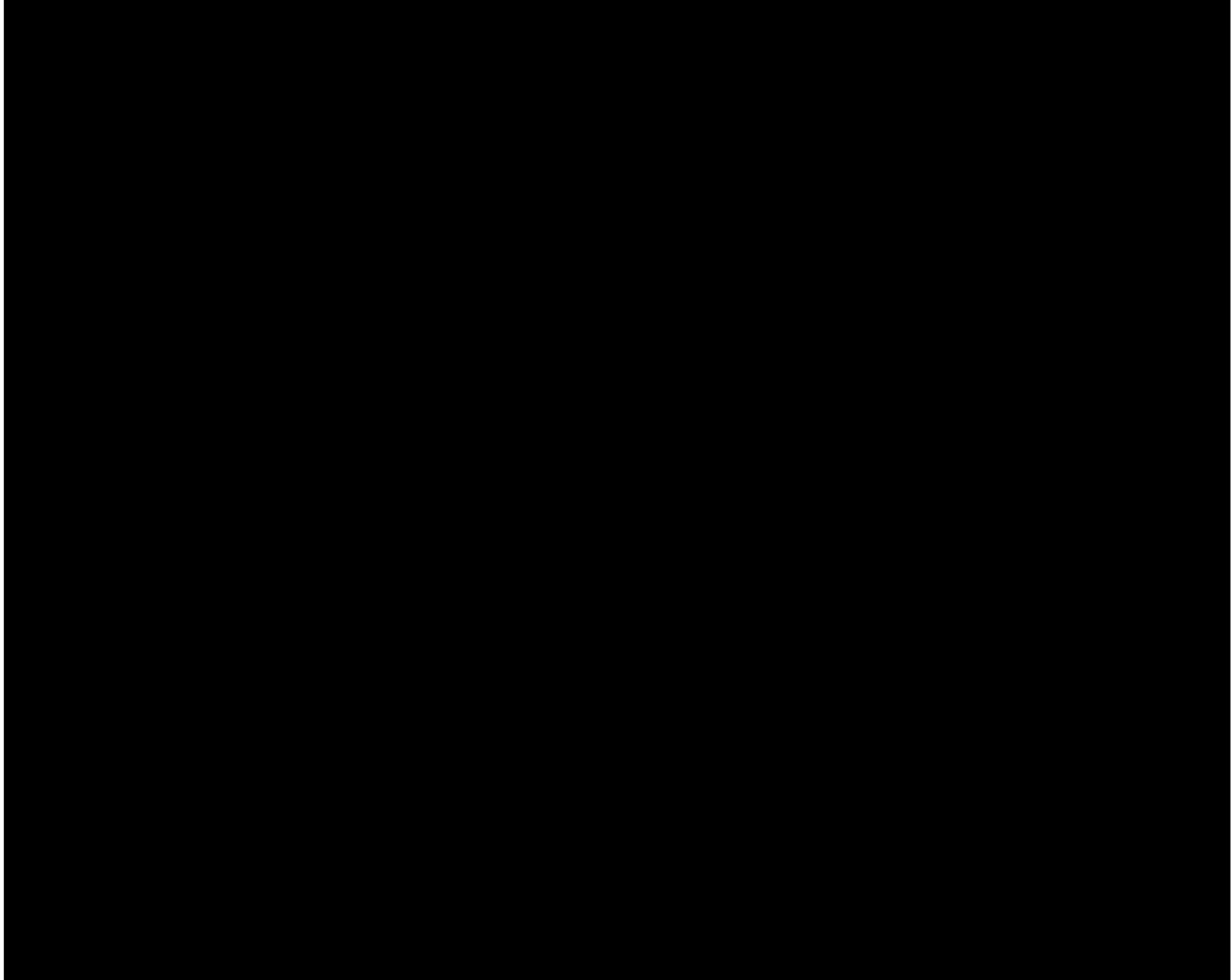


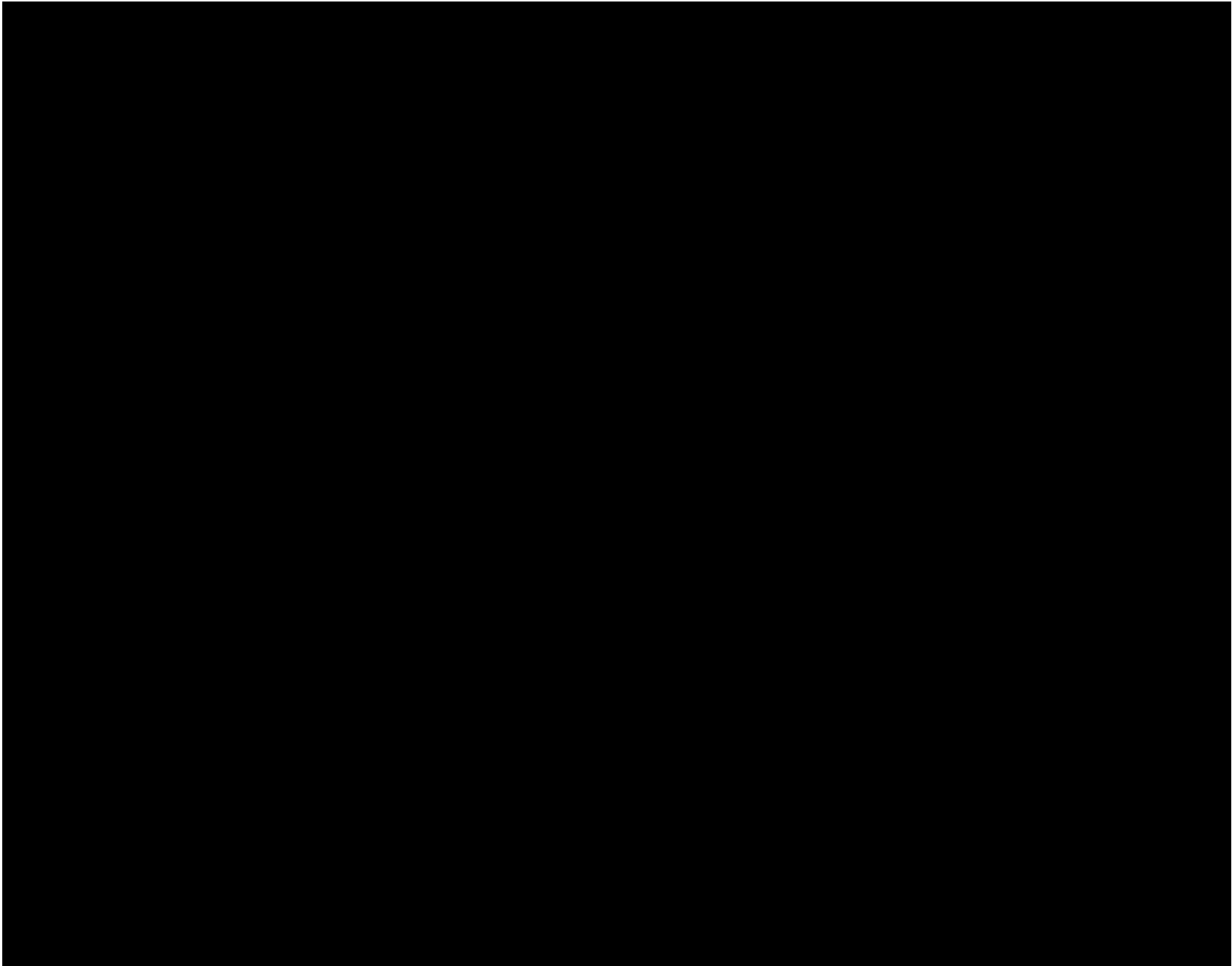


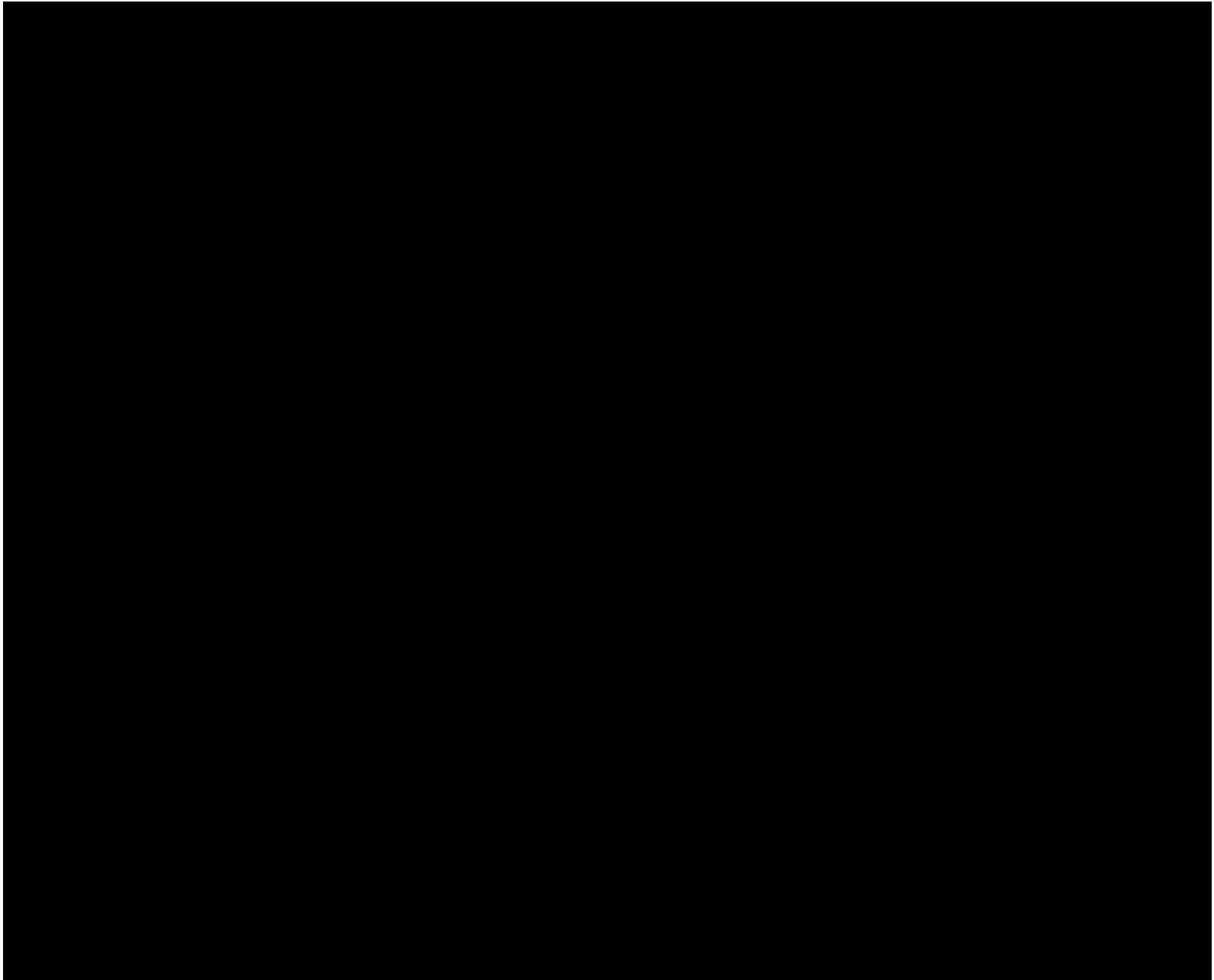


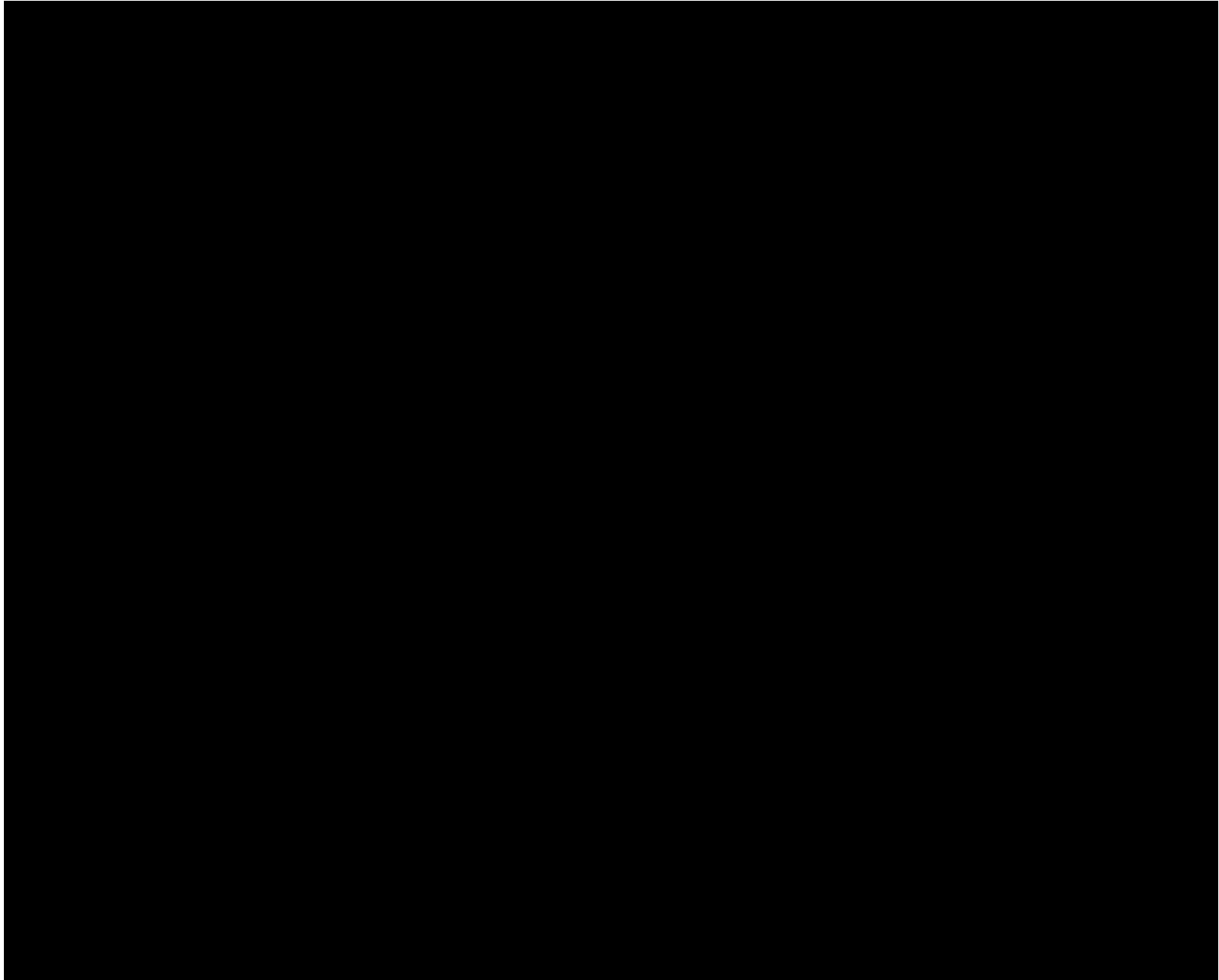


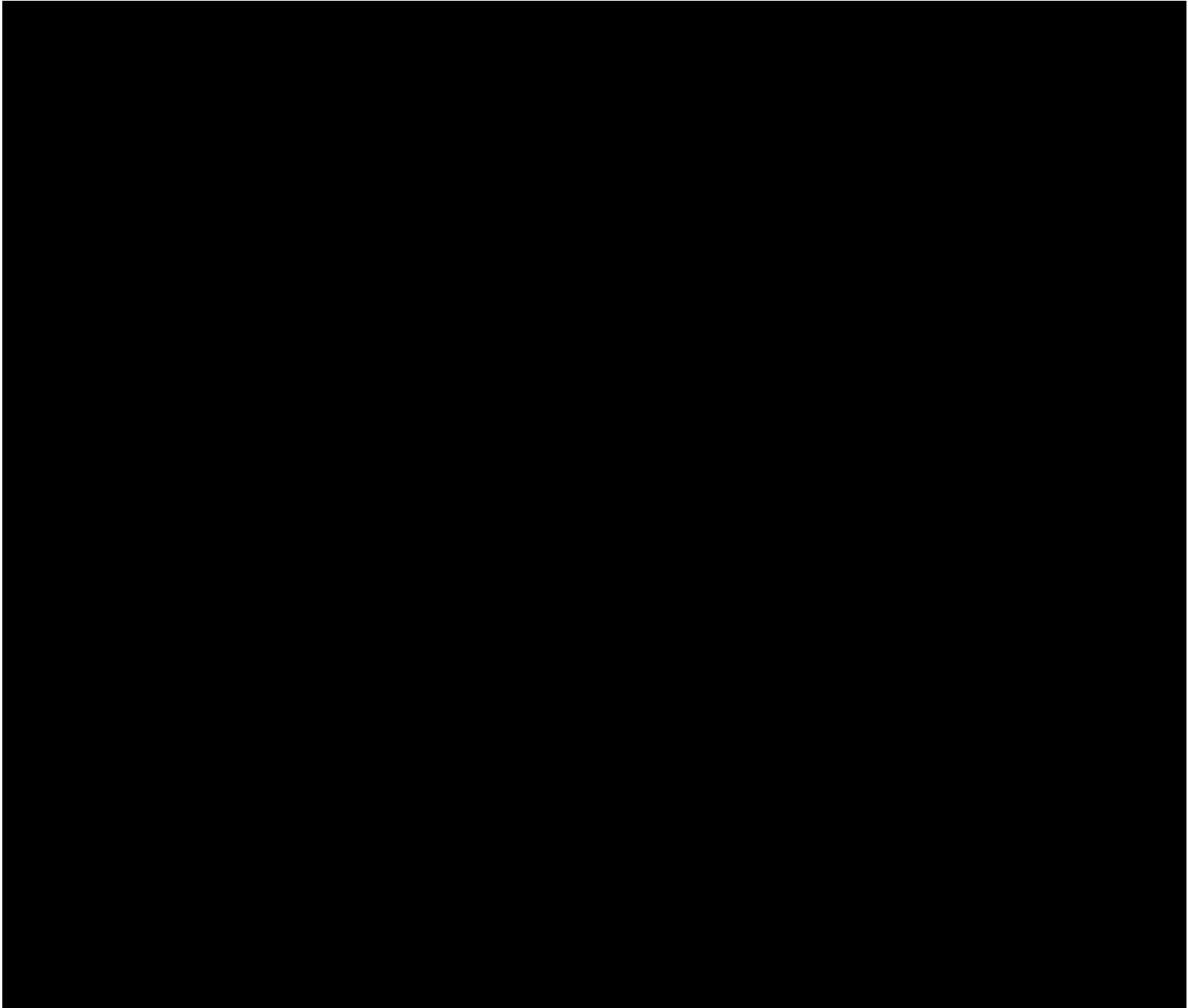


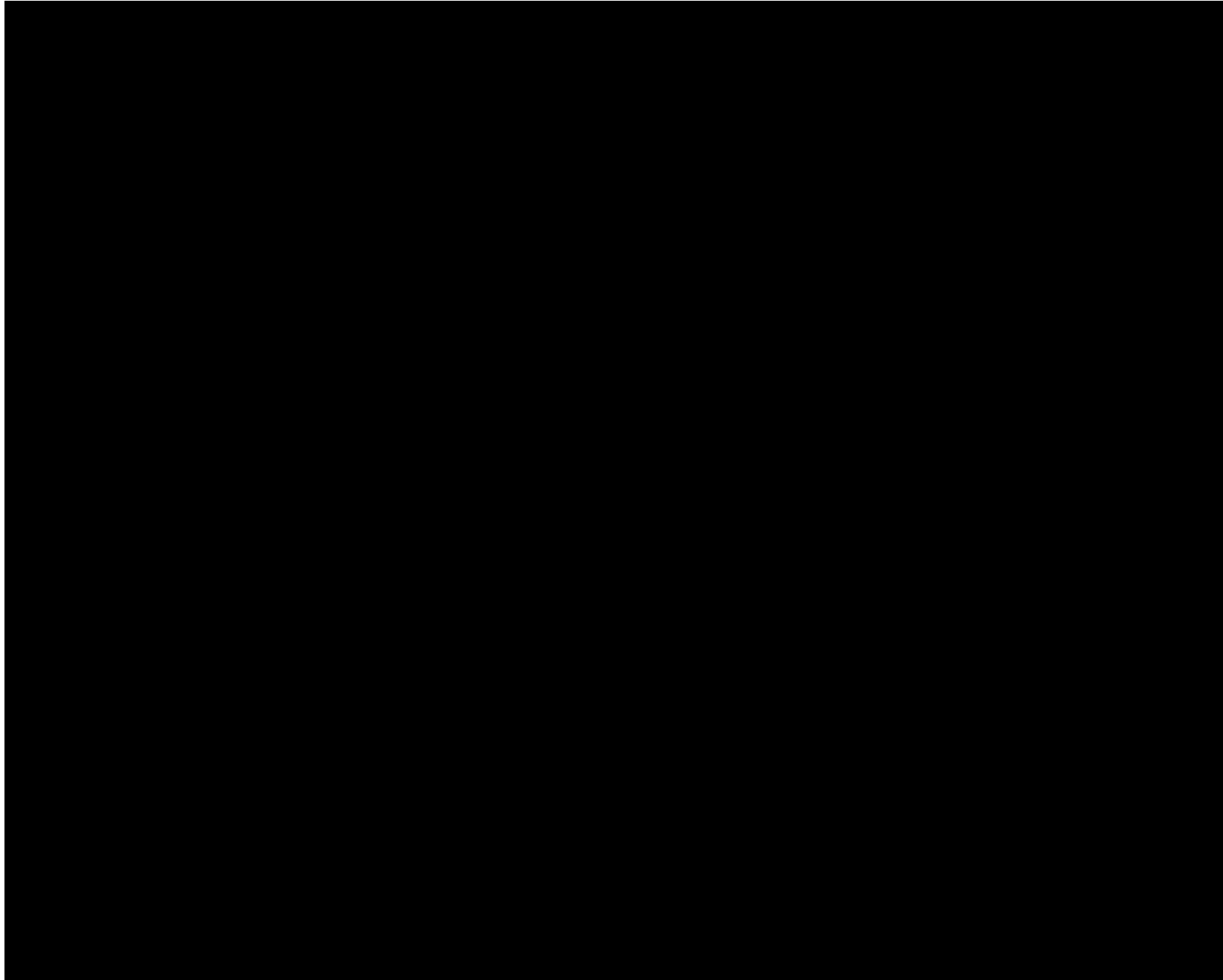


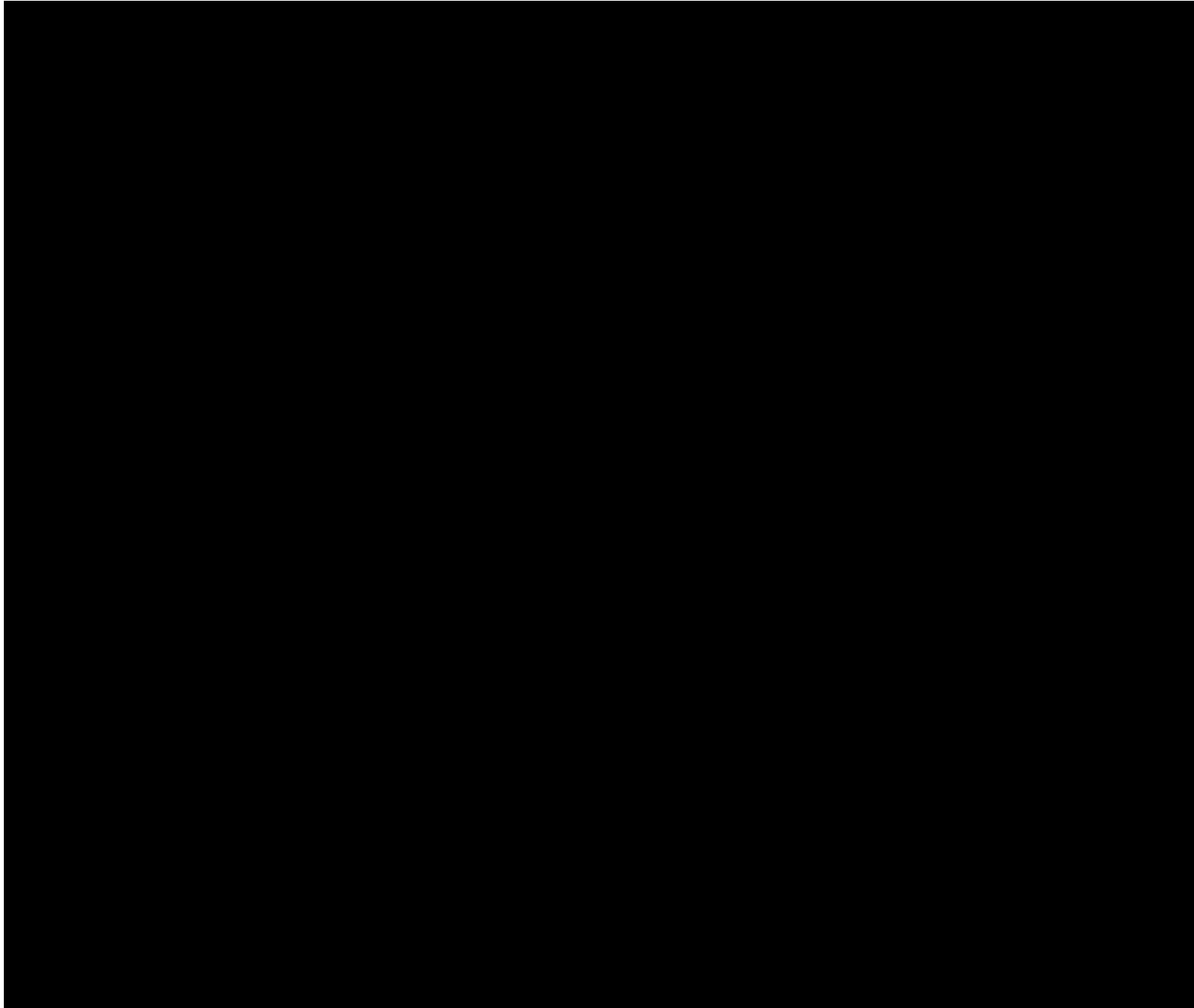


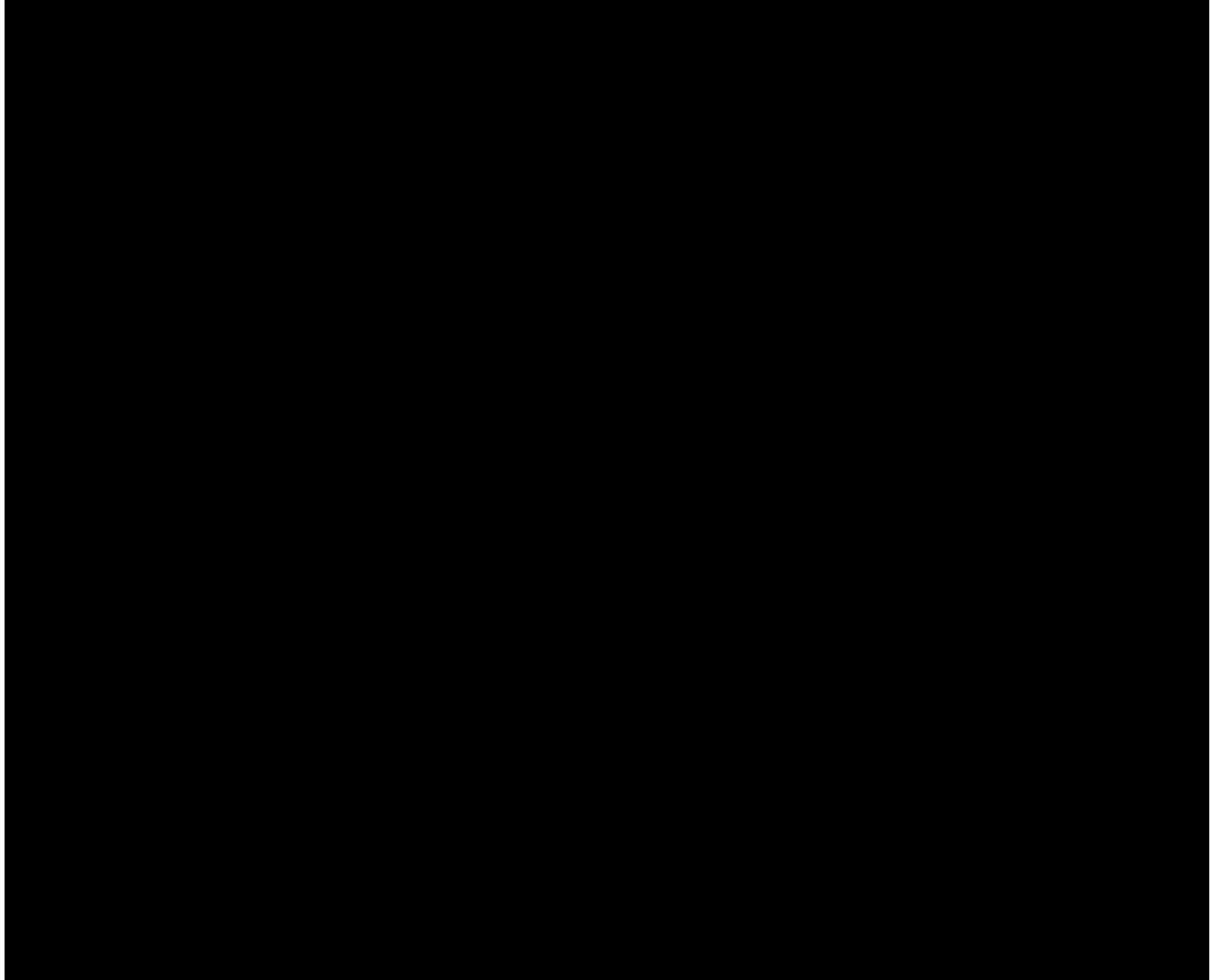




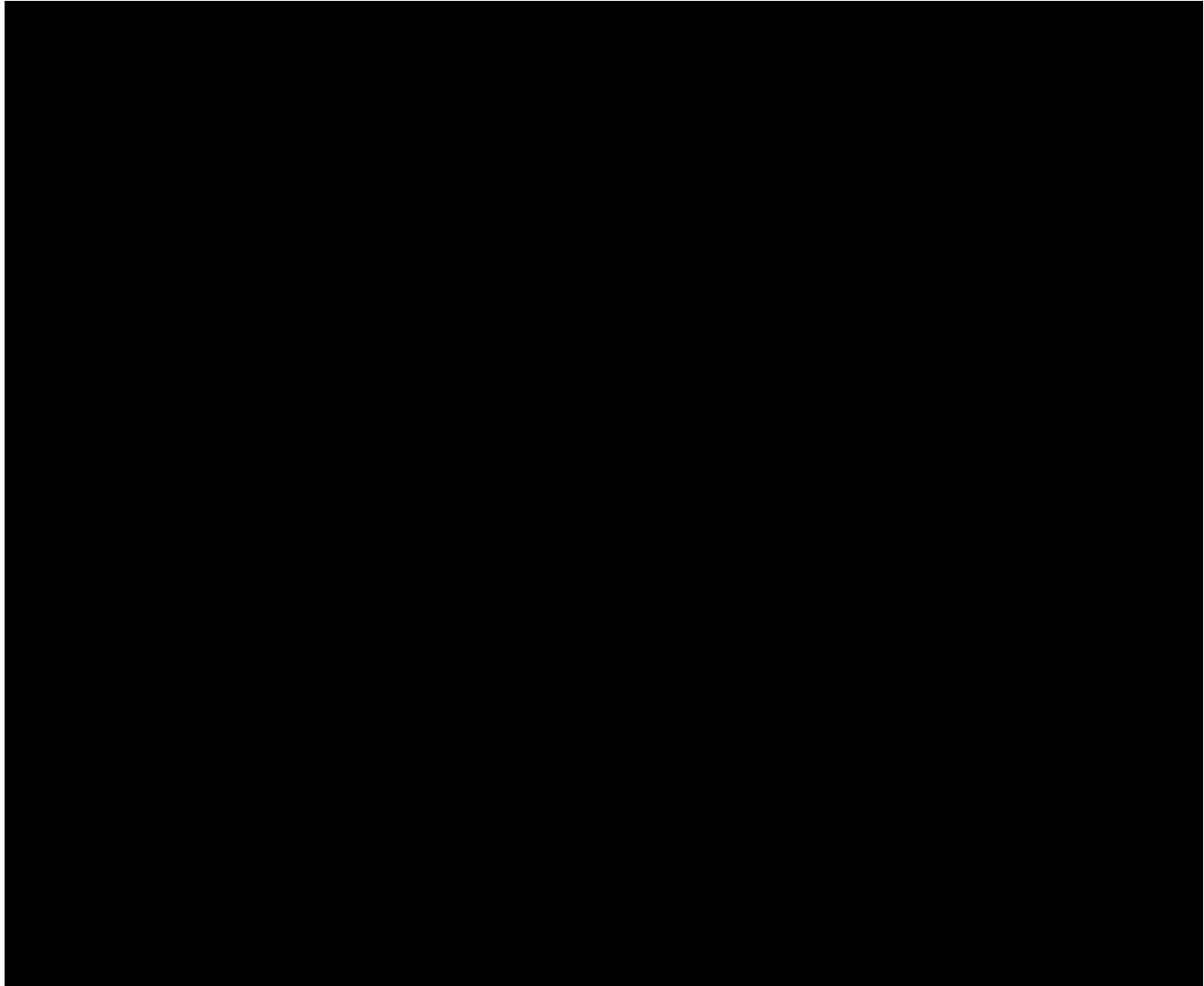




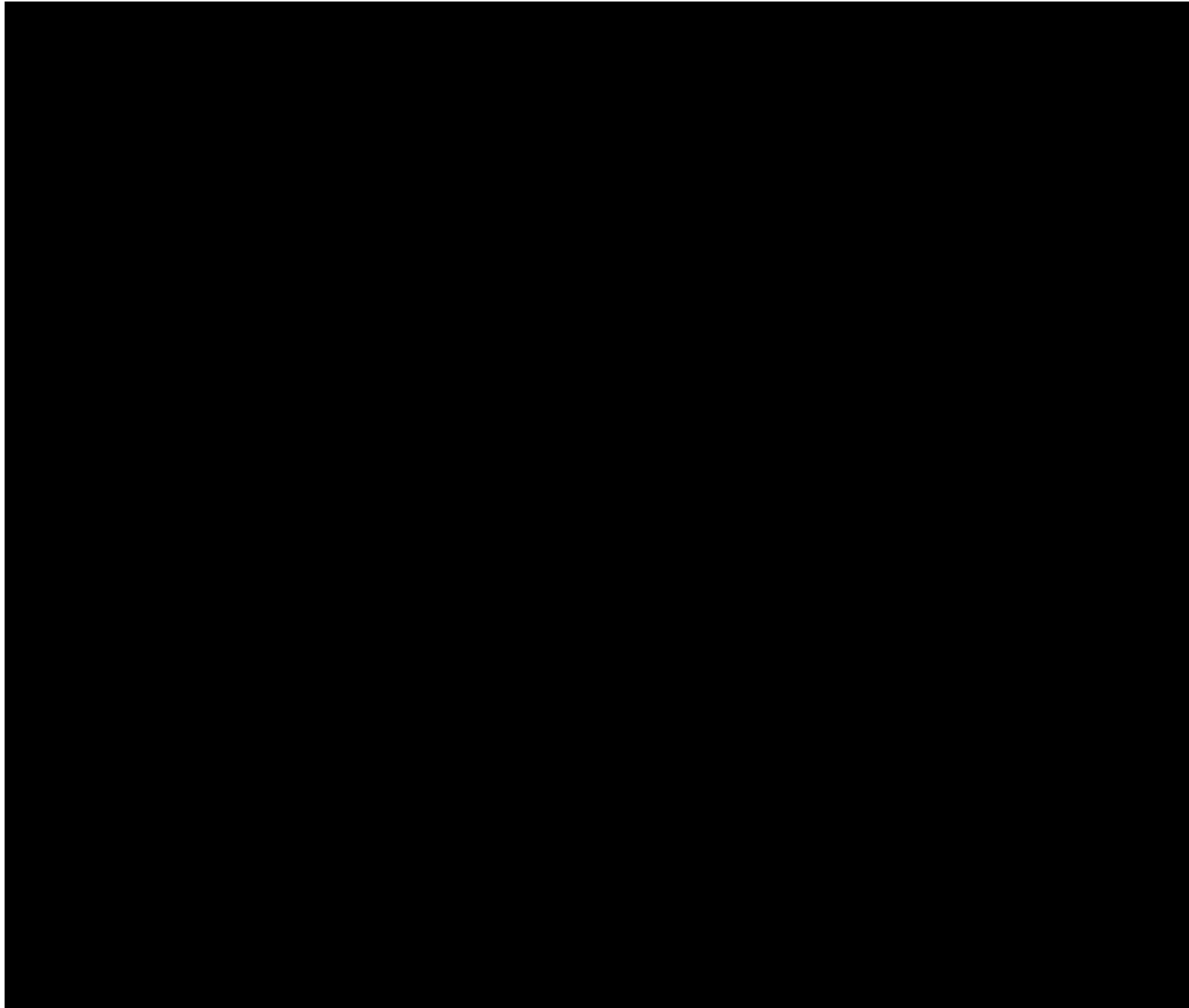


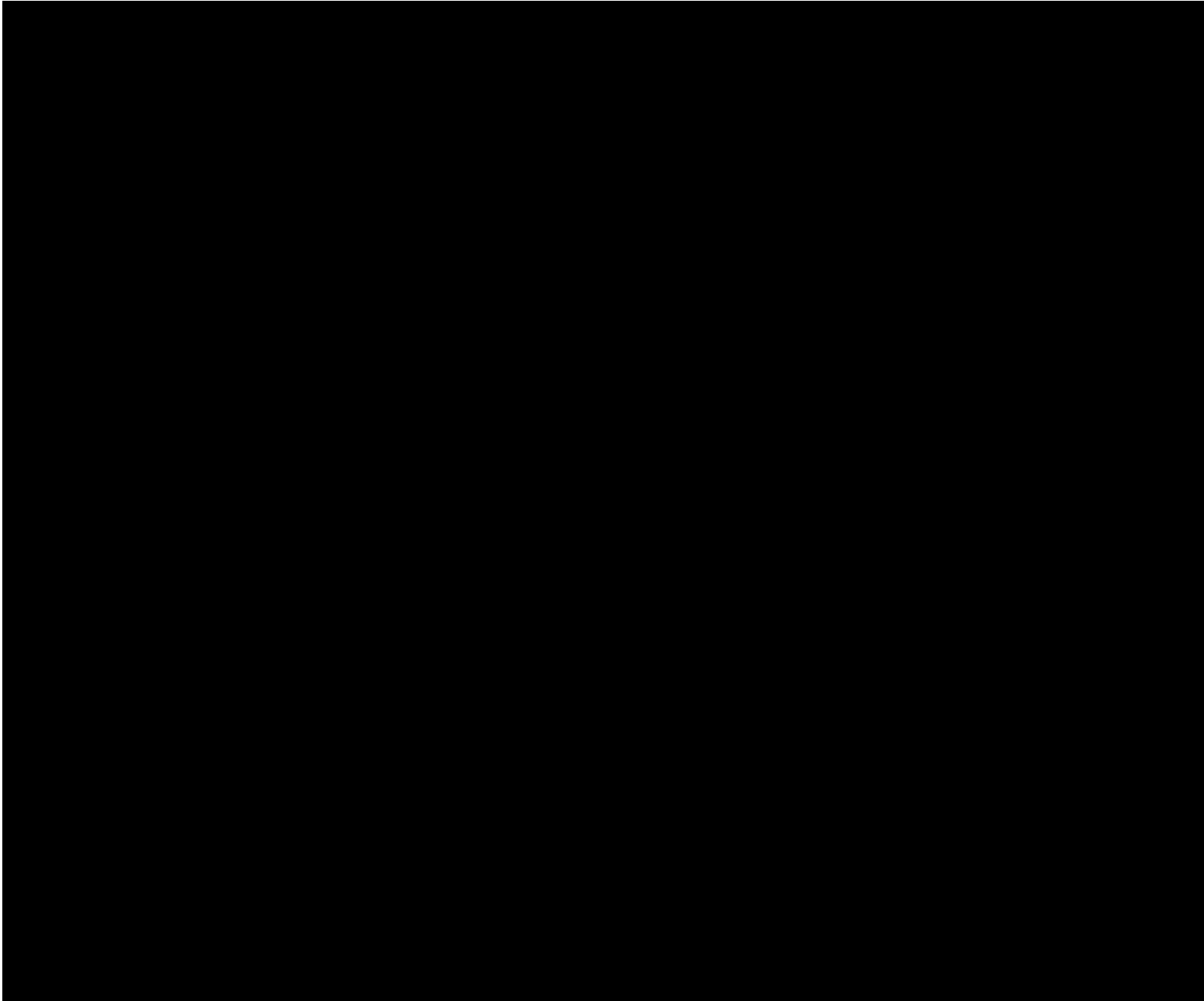


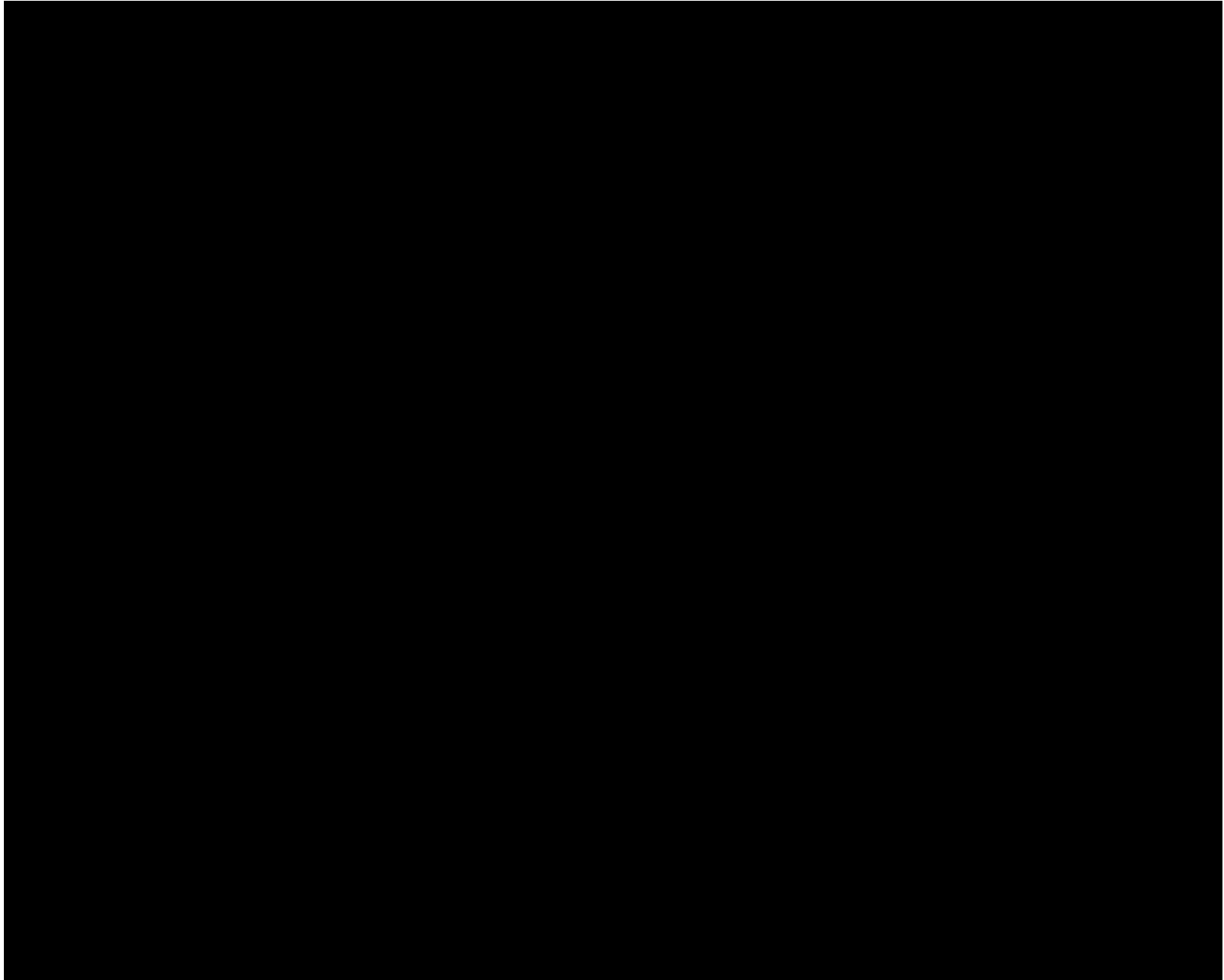


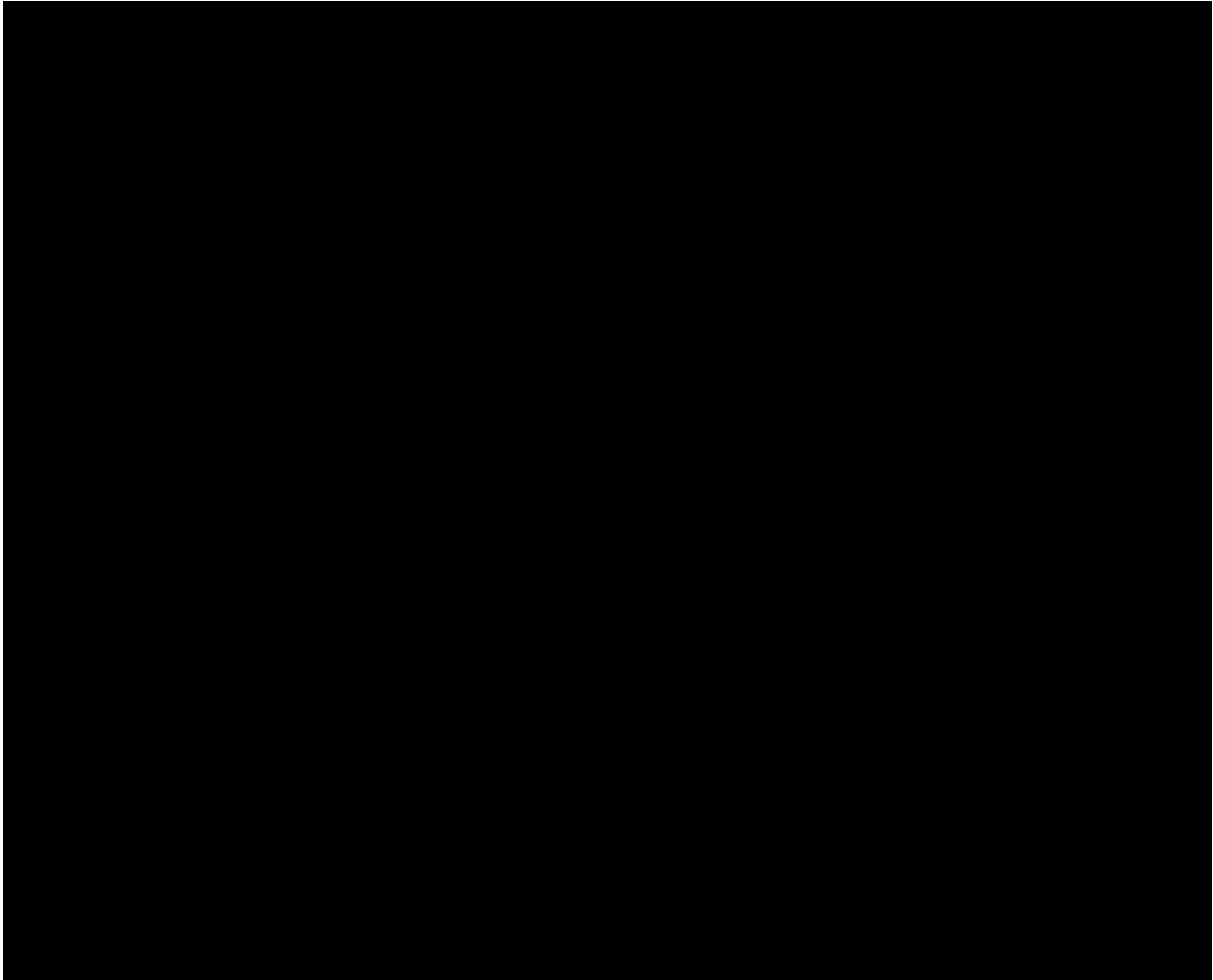


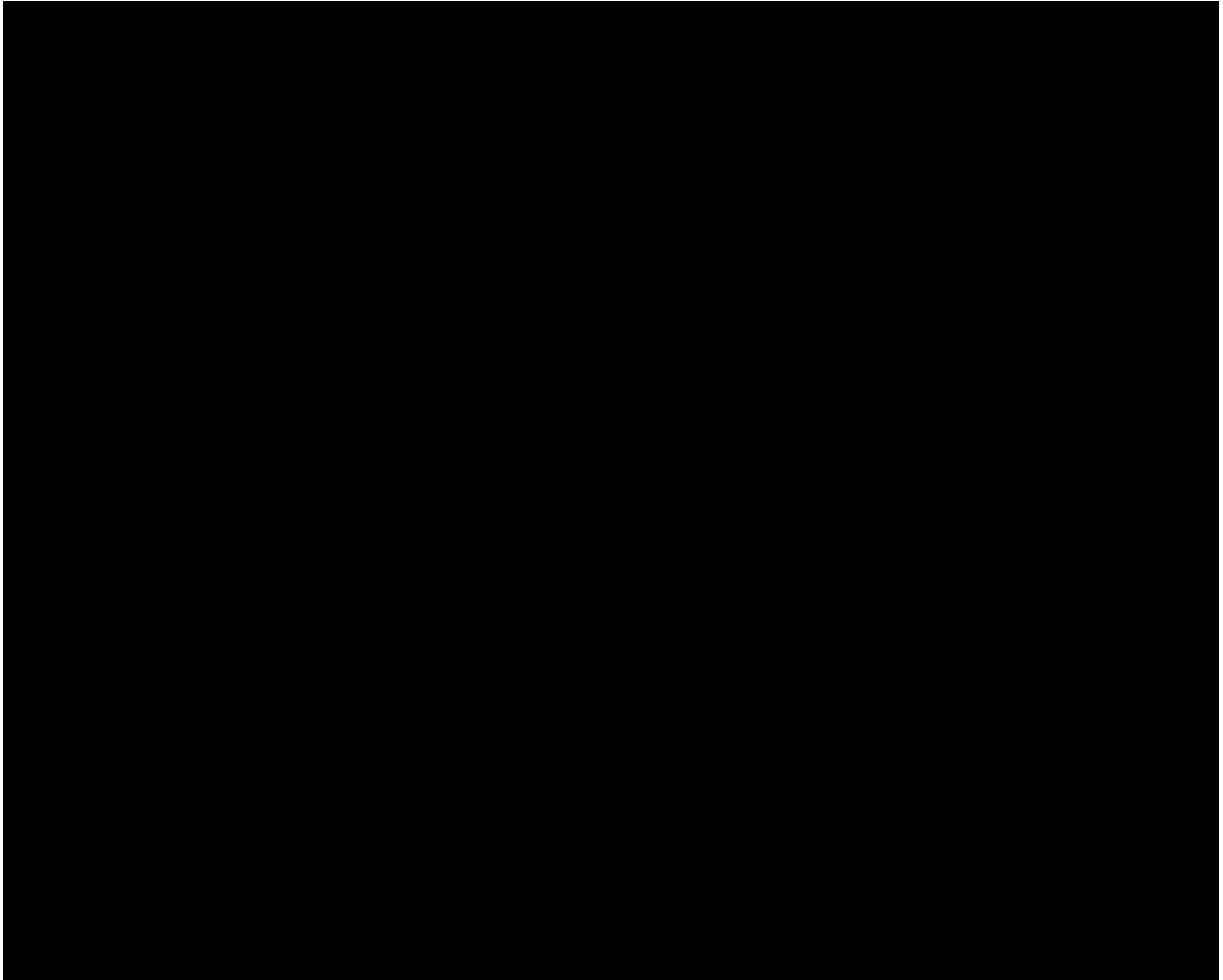


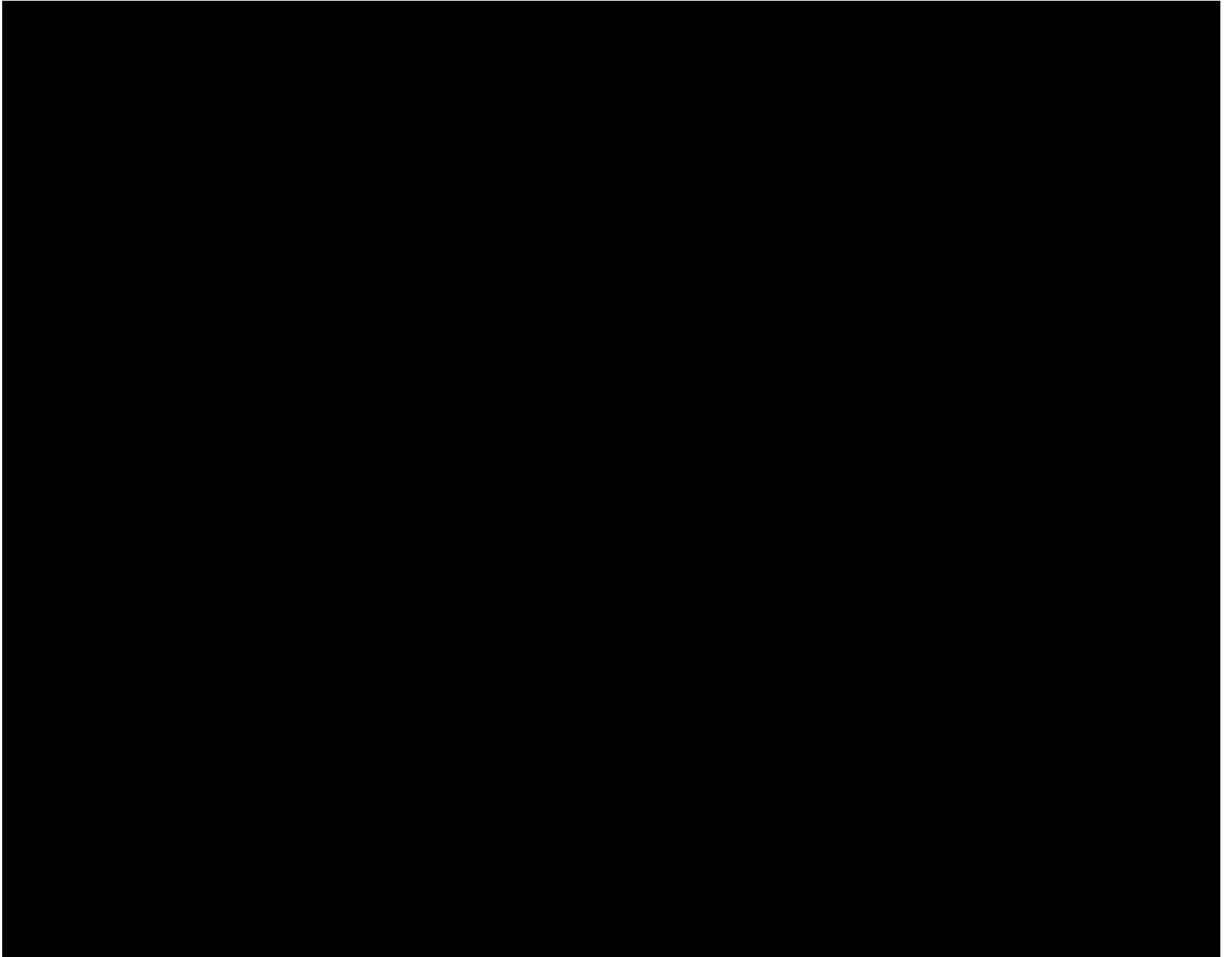




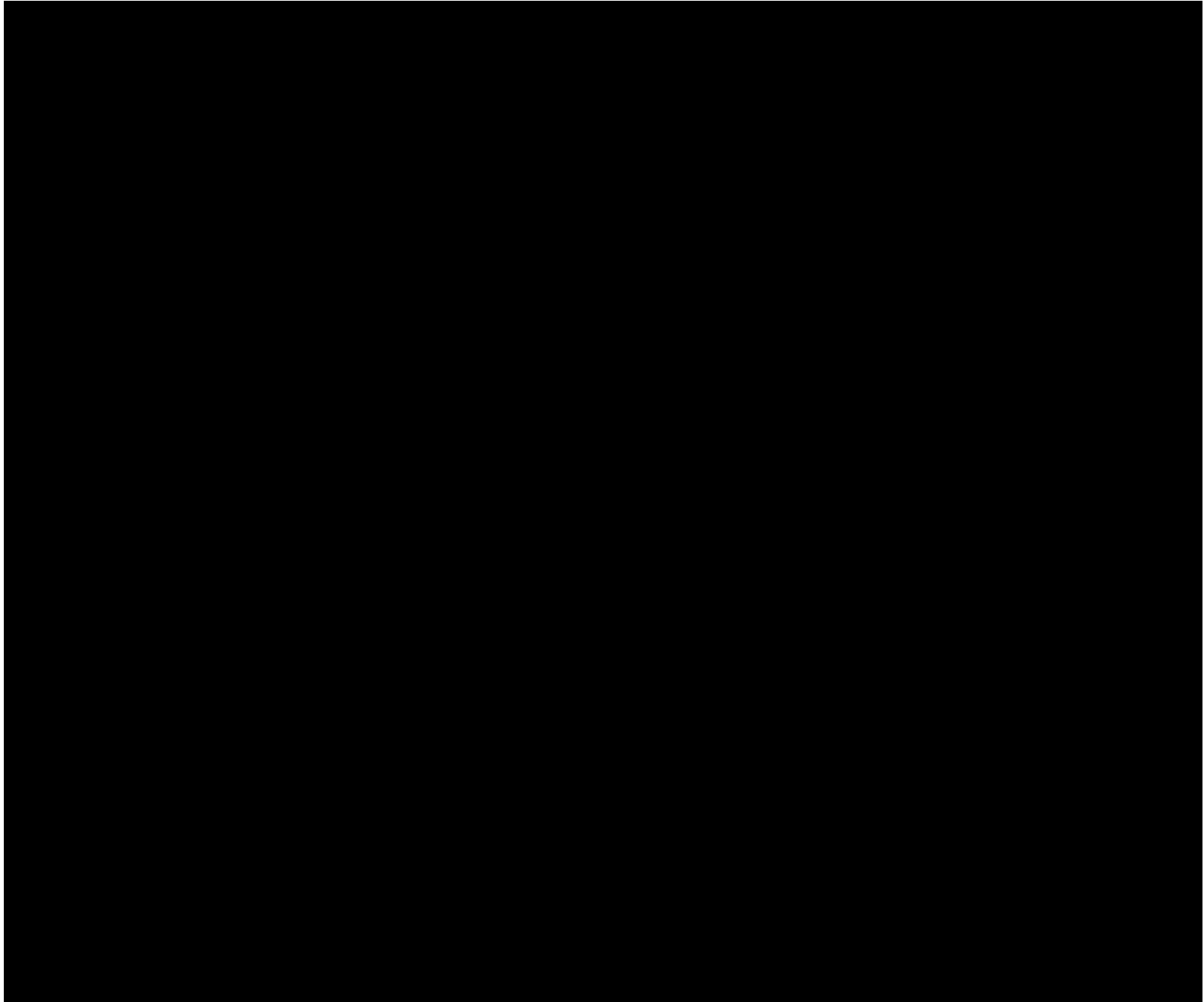


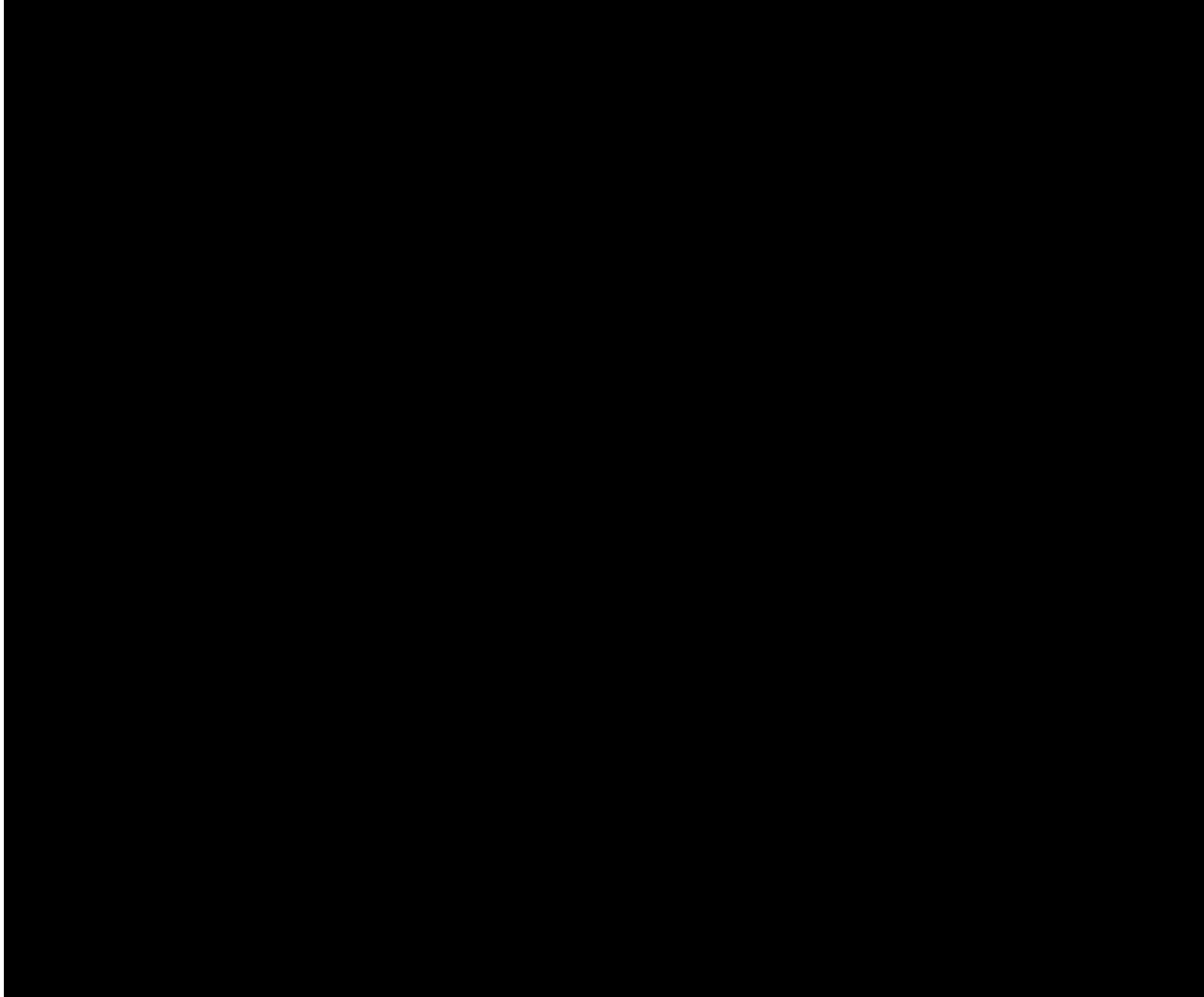


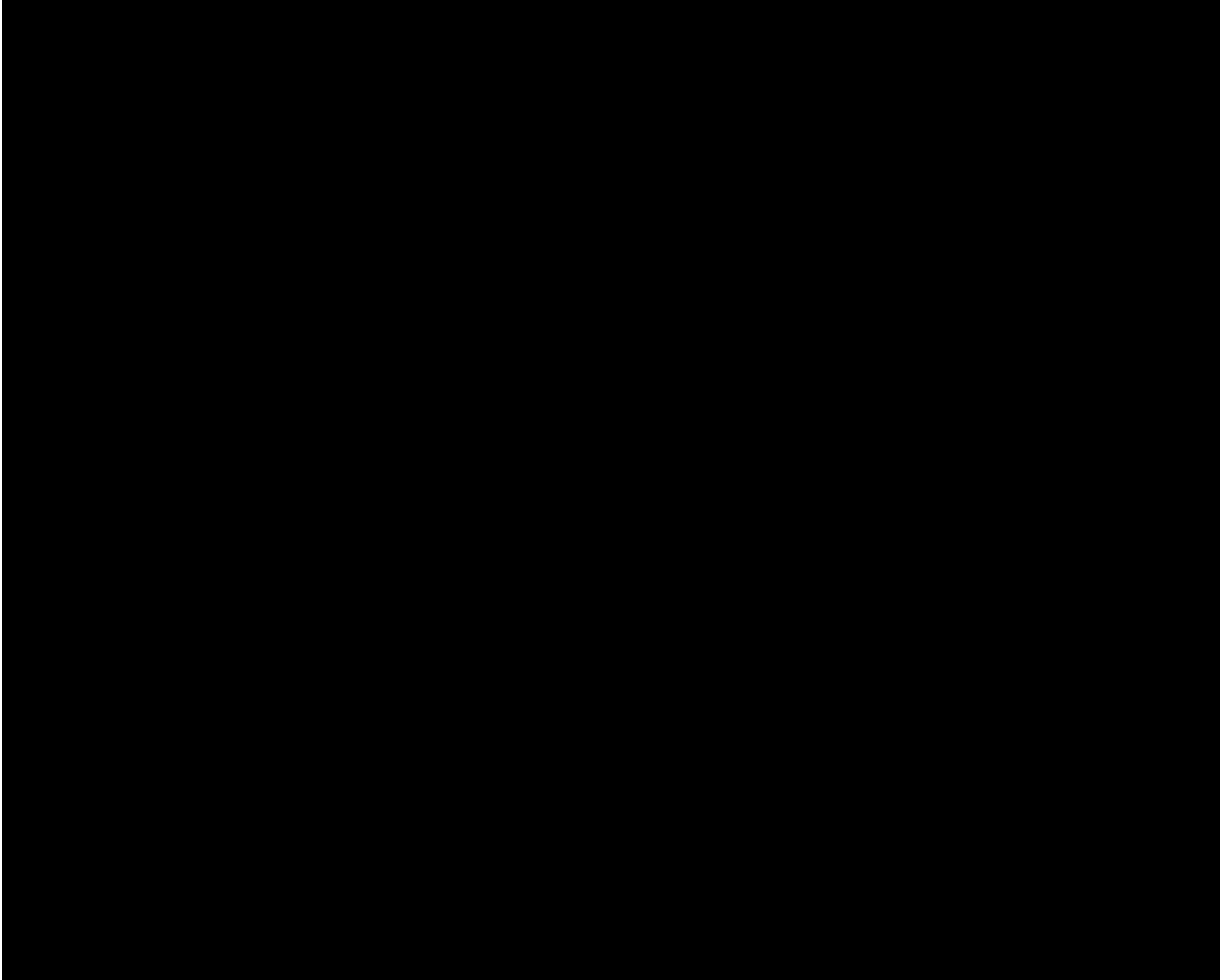


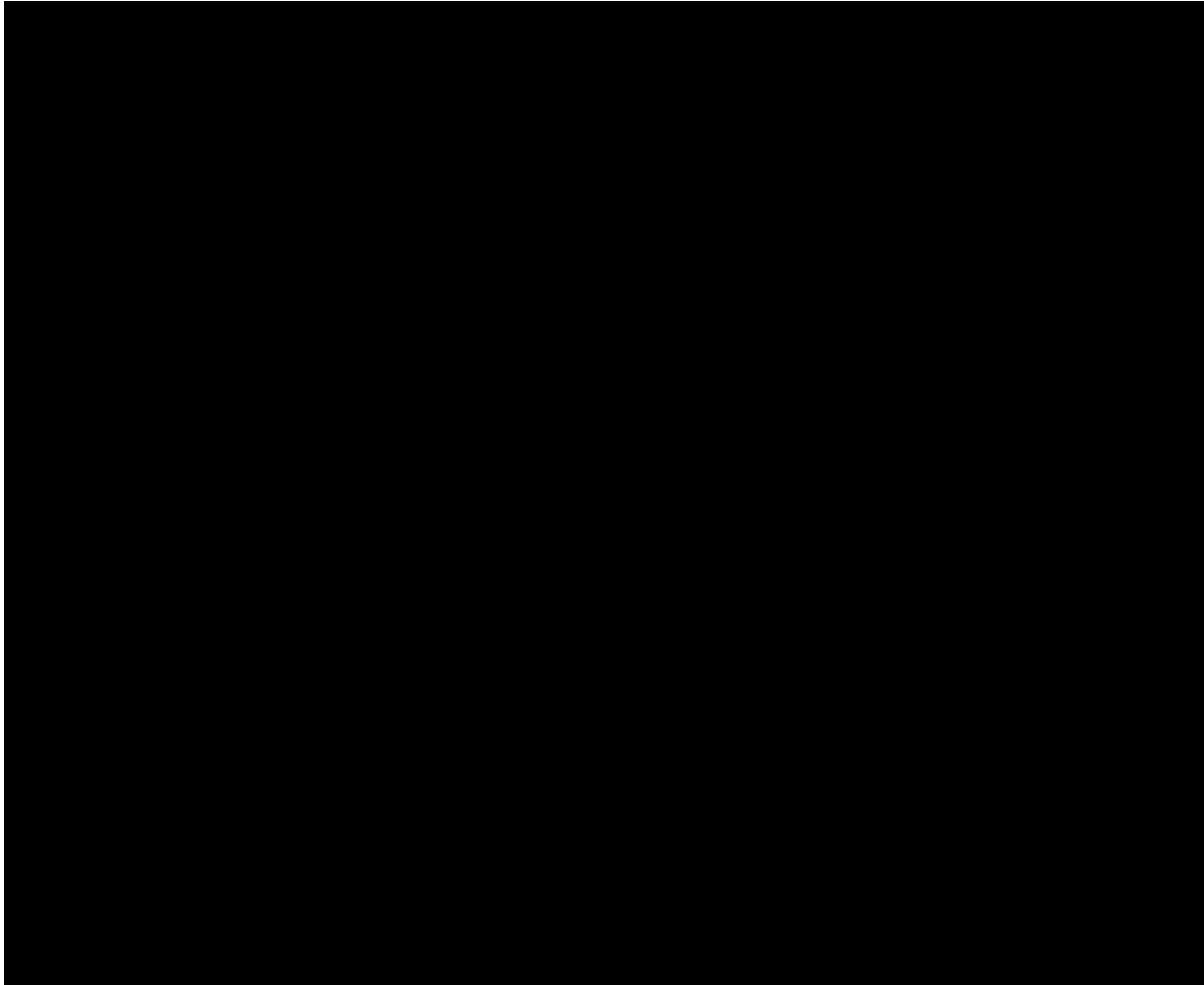


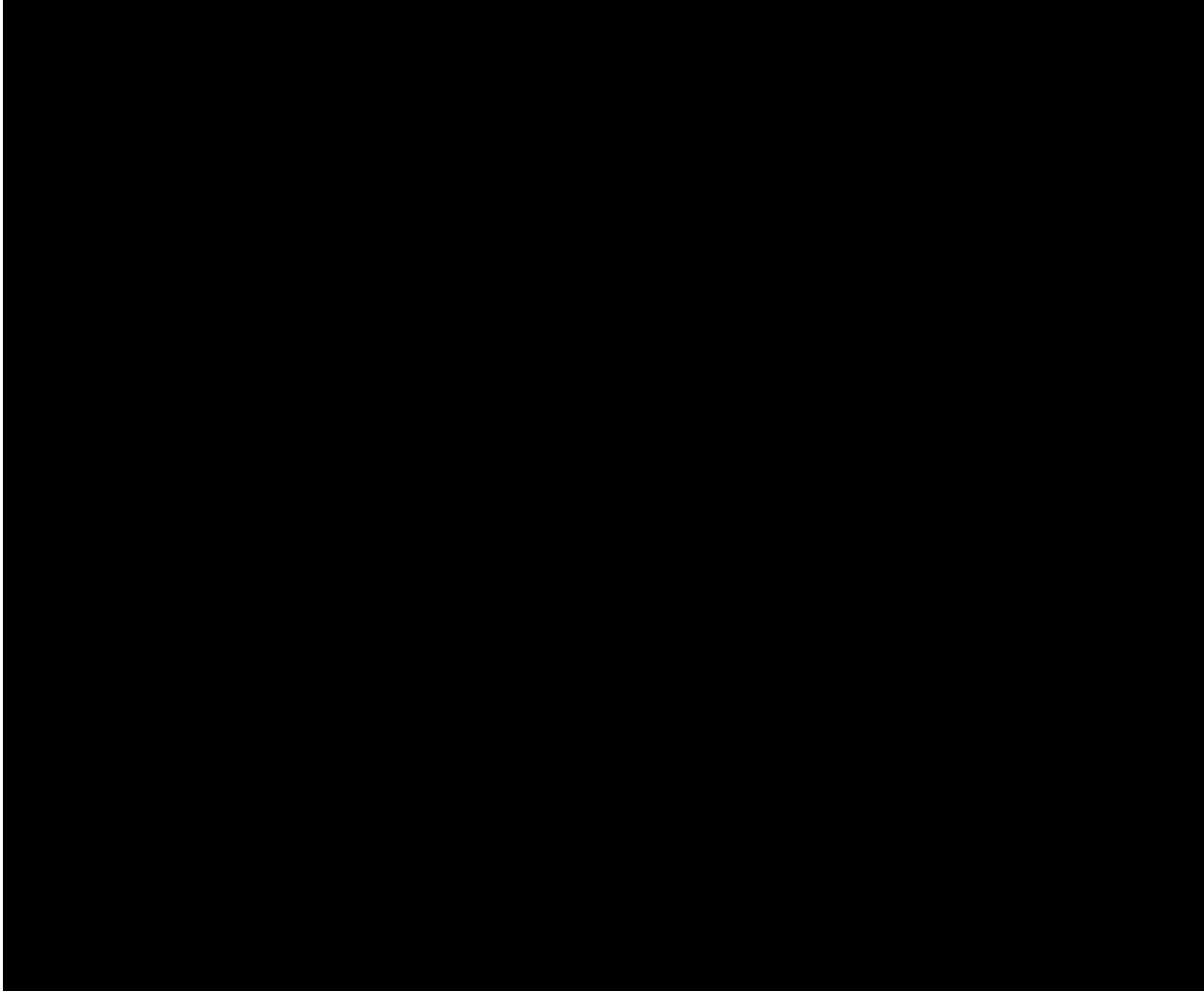


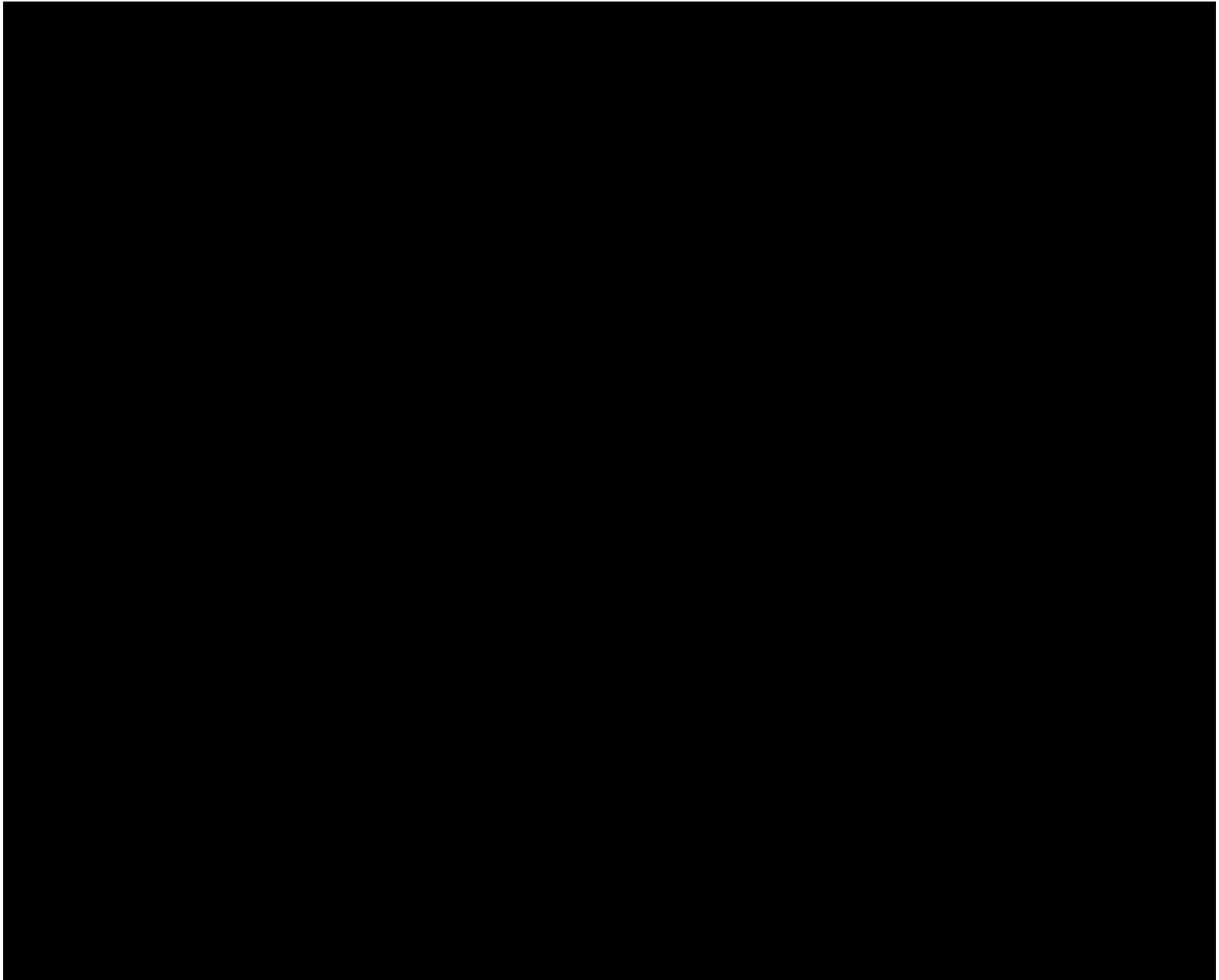


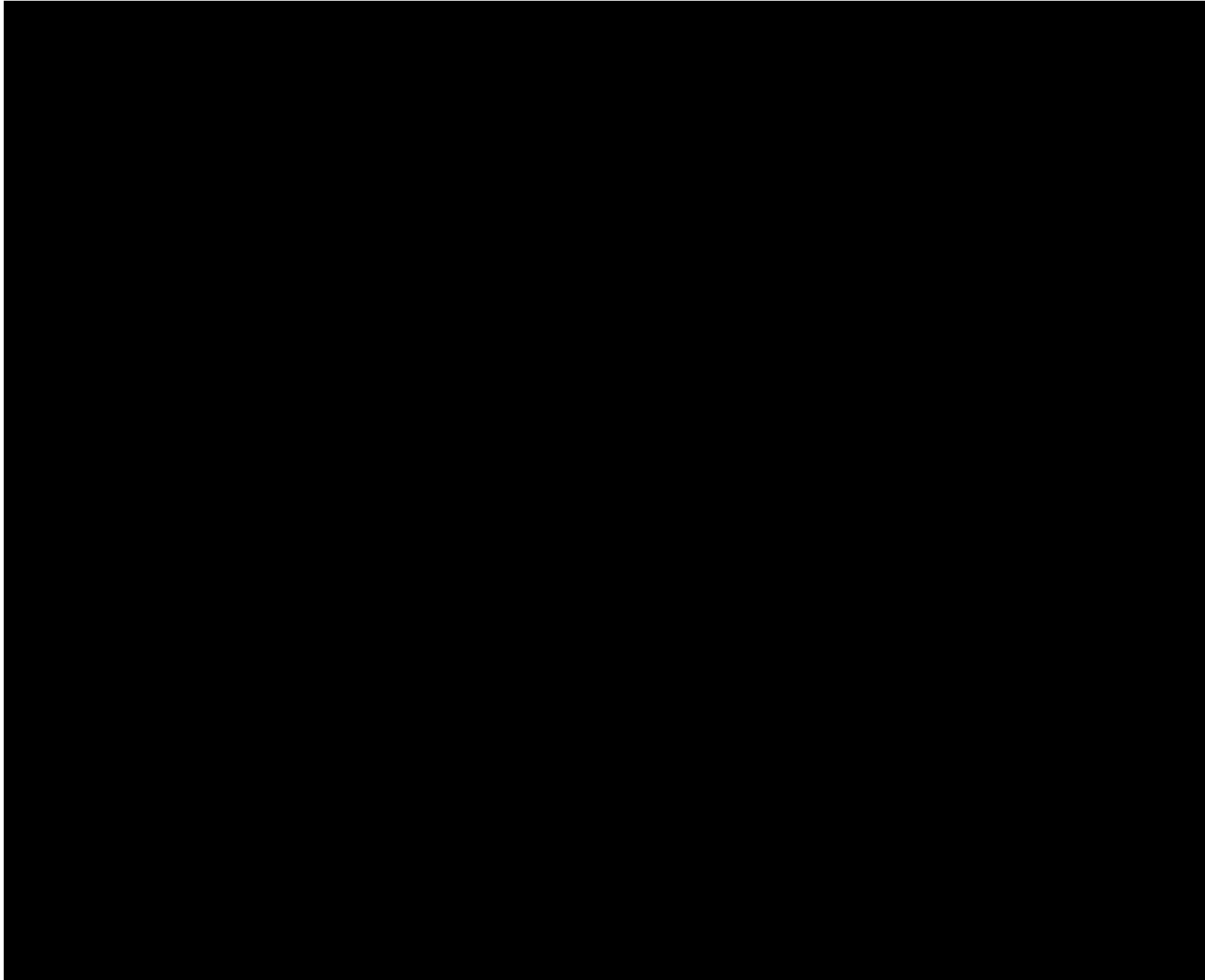


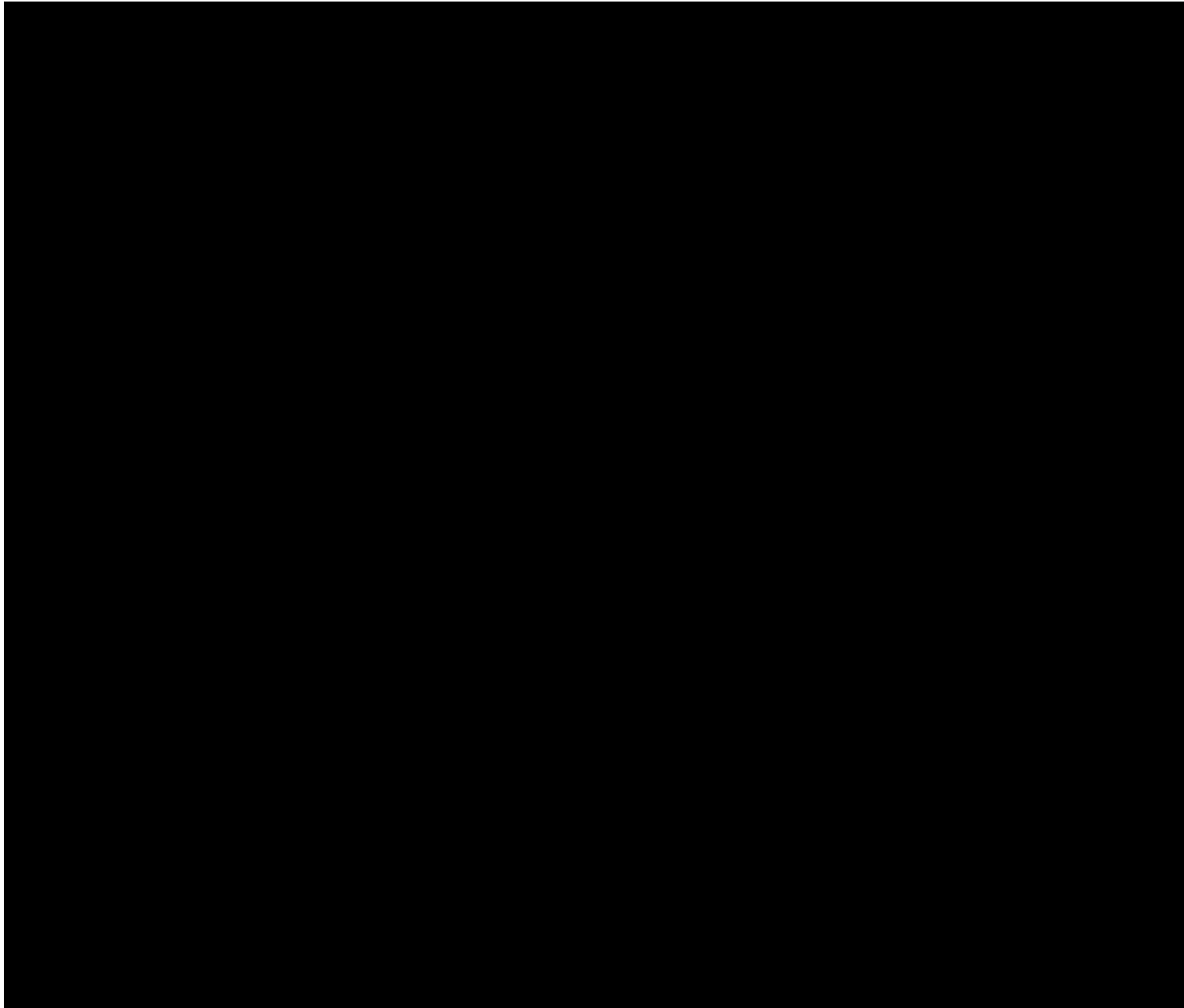




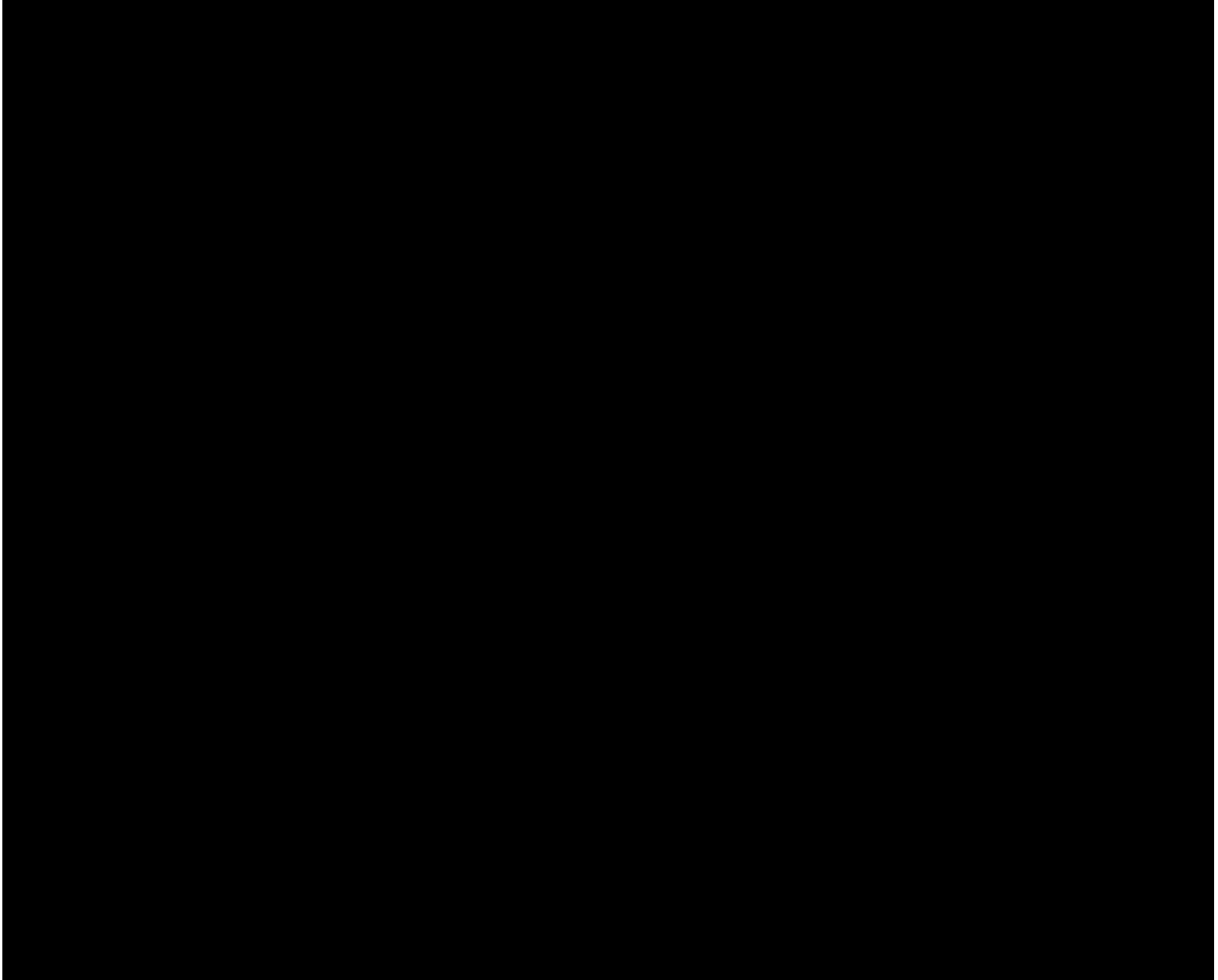


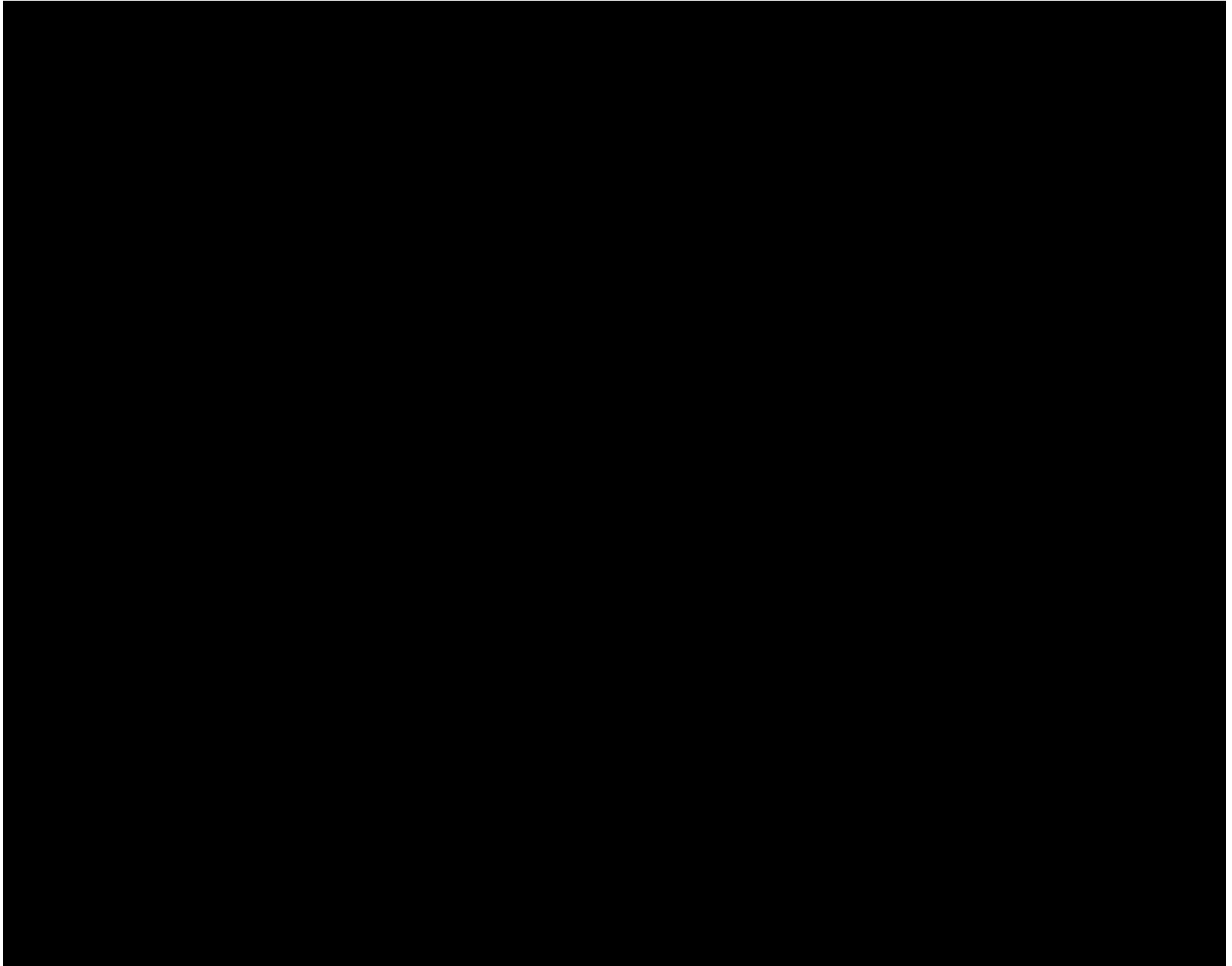


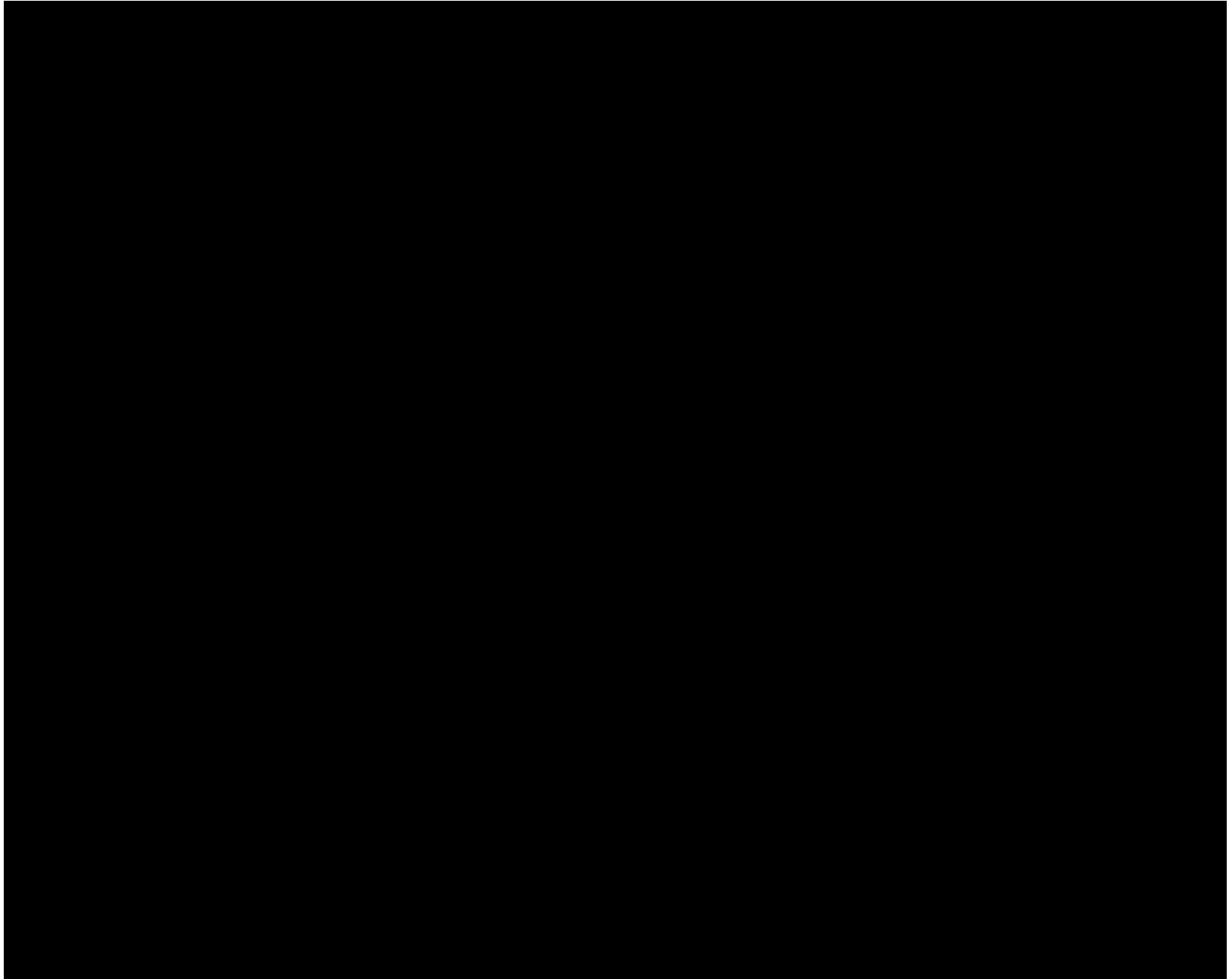


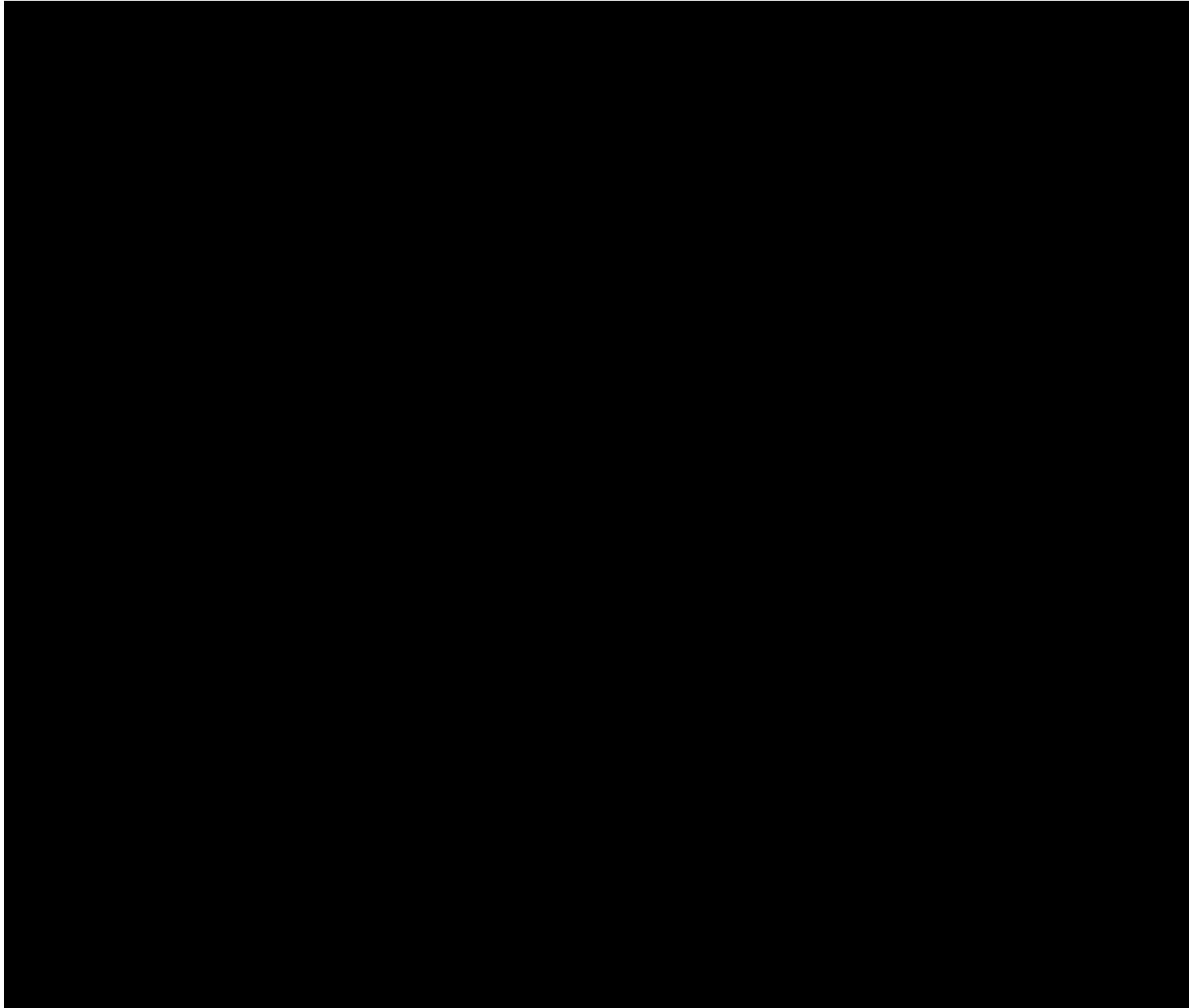


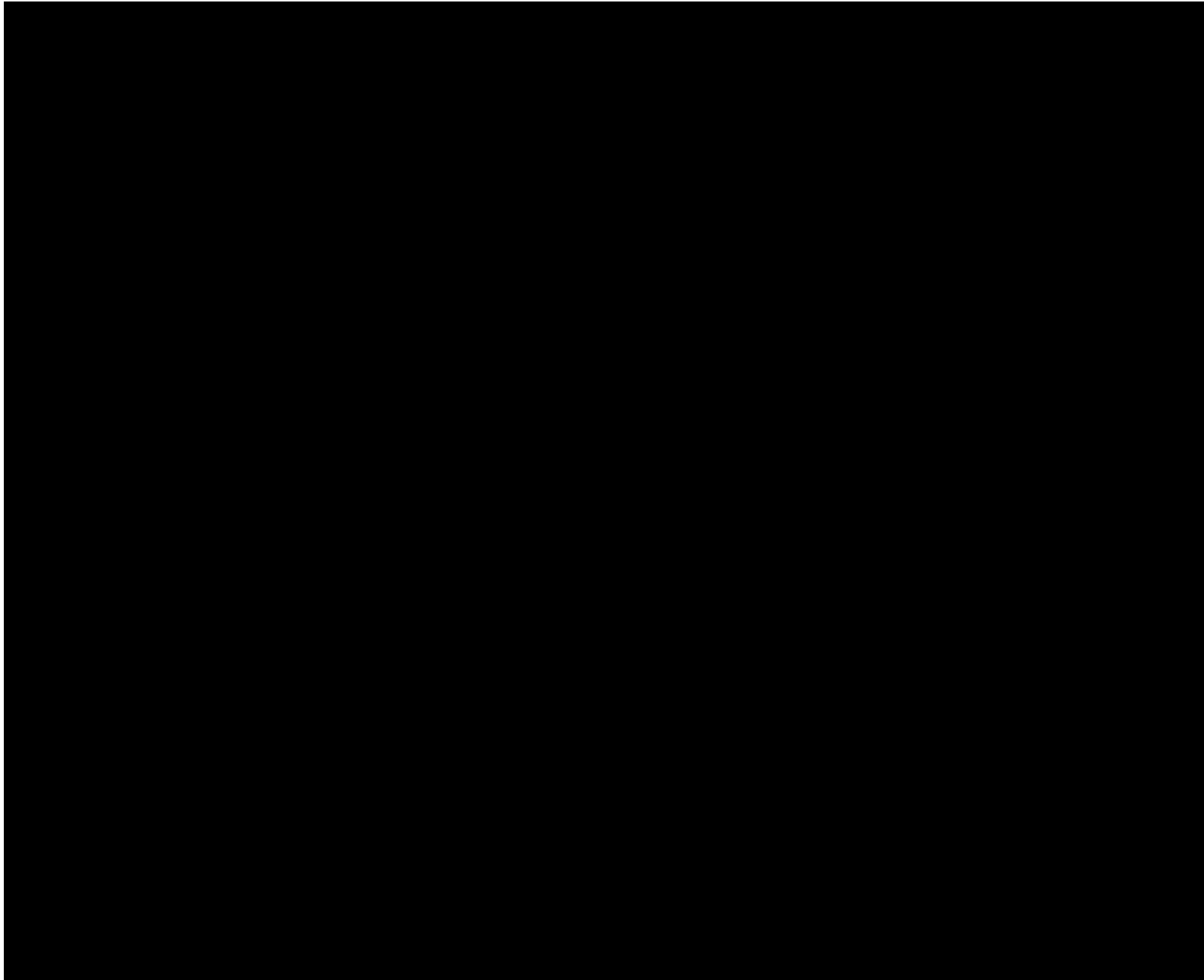


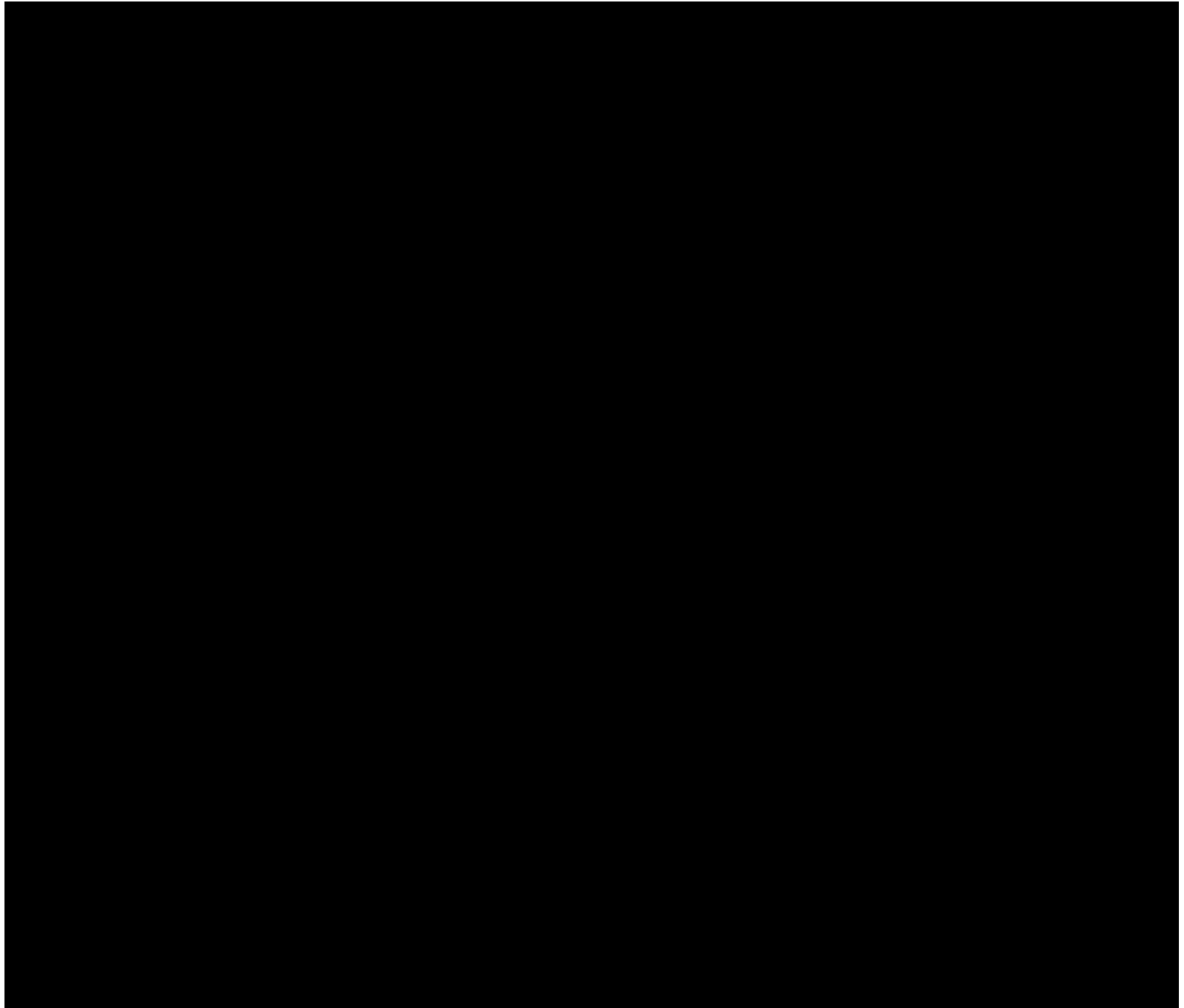


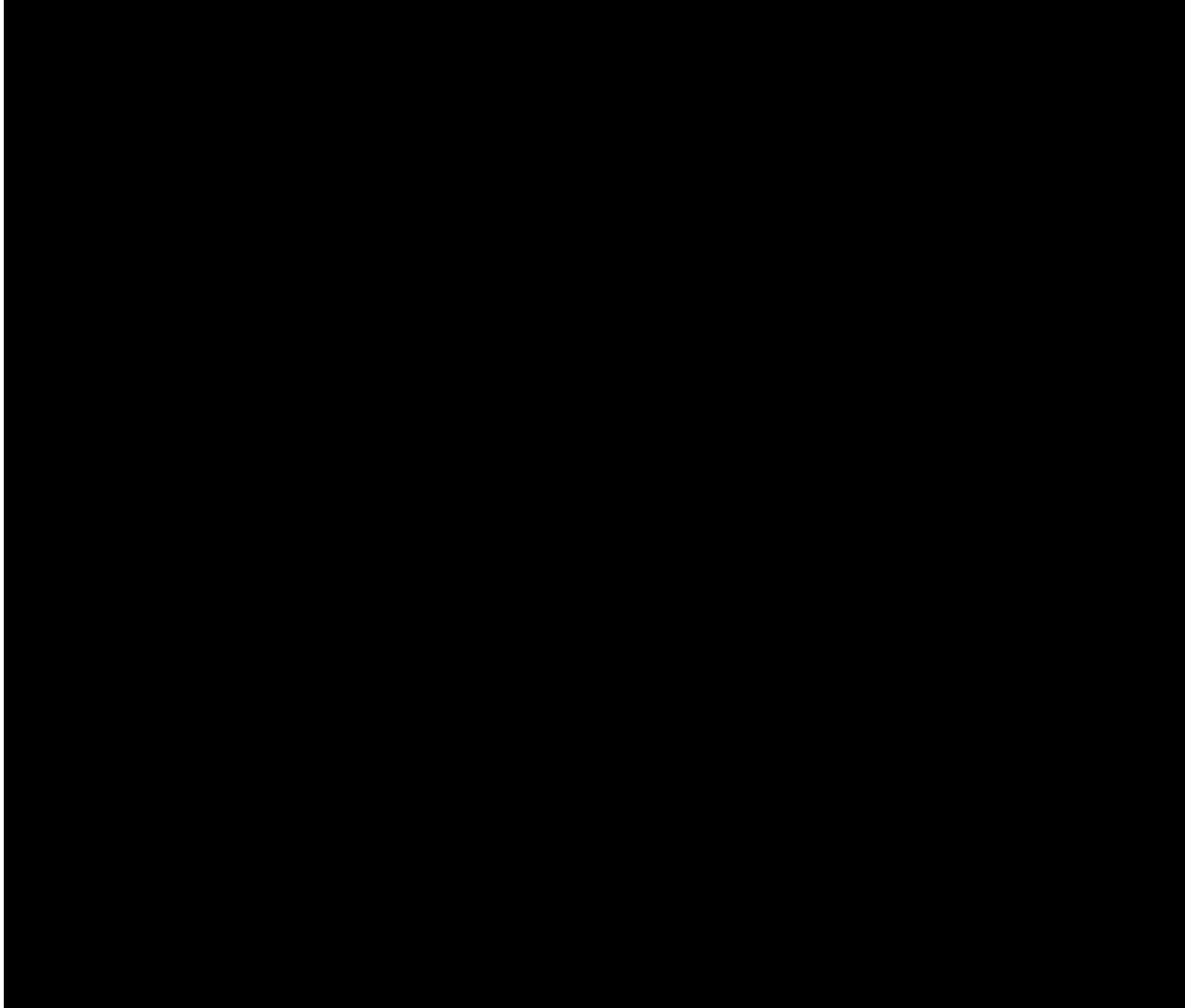


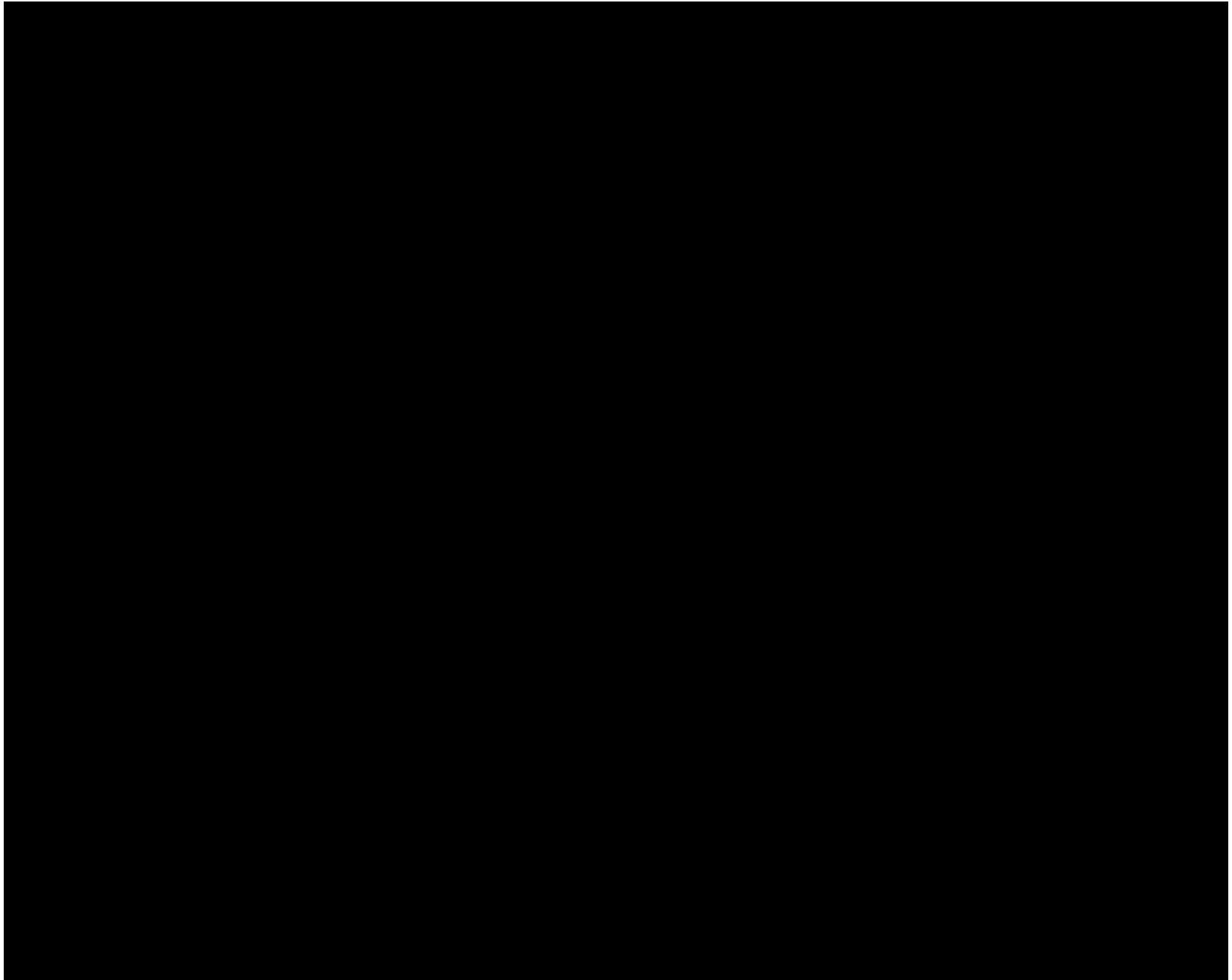






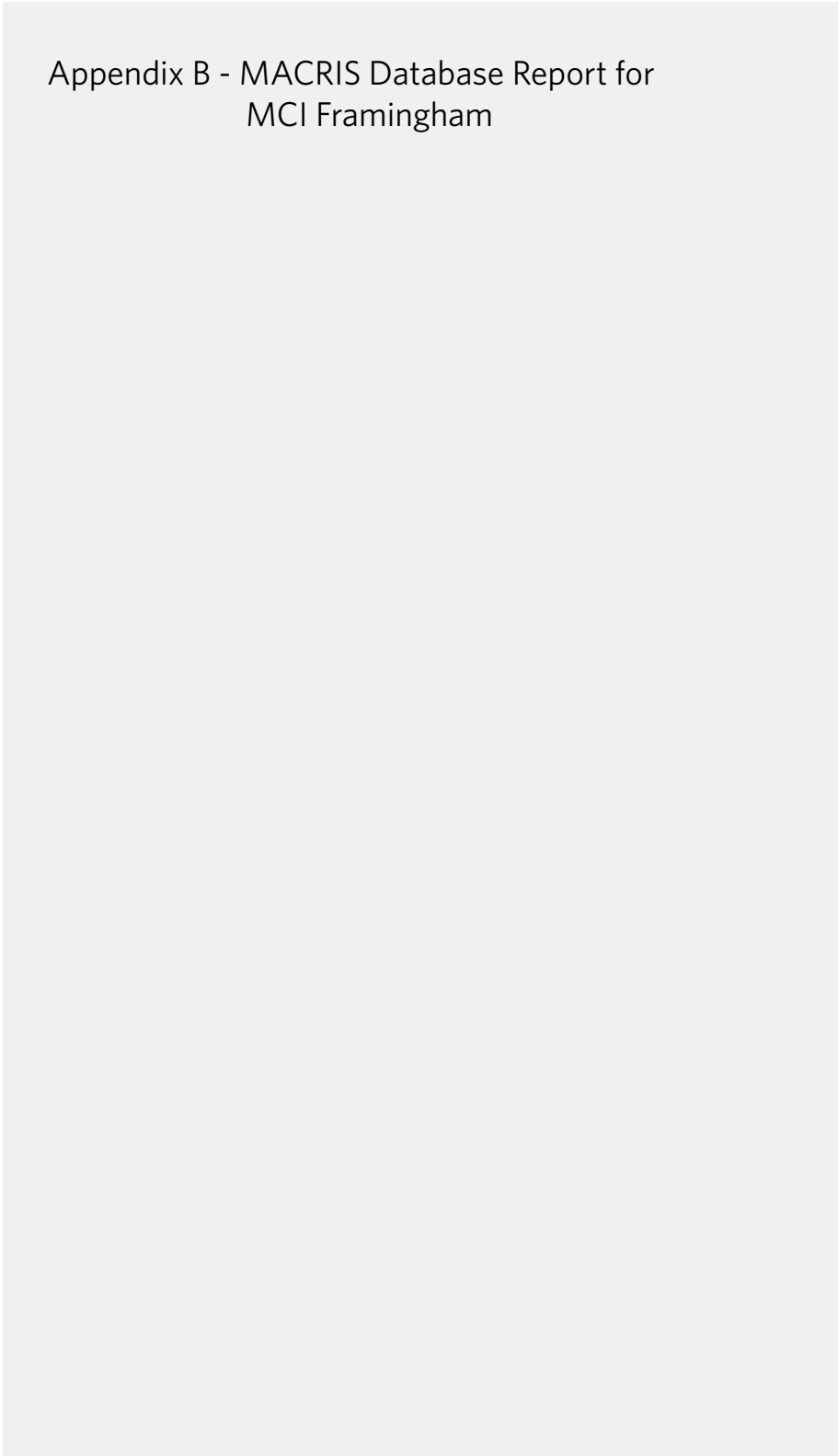








Appendix B - MACRIS Database Report for  
MCI Framingham



## Massachusetts Cultural Resource Information System

### Scanned Record Cover Page

<b>Inventory No:</b>	FRM.H
<b>Historic Name:</b>	Massachusetts Correctional Institution For Women
<b>Common Name:</b>	MCI Framingham
<b>Address:</b>	
<b>City/Town:</b>	Framingham
<b>Village/Neighborhood:</b>	South Framingham
<b>Local No:</b>	
<b>Year Constructed:</b>	
<b>Architect(s):</b>	
<b>Architectural Style(s):</b>	
<b>Use(s):</b>	Penal Institution
<b>Significance:</b>	Architecture; Law; Politics Government; Social History
<b>Area(s):</b>	
<b>Designation(s):</b>	
<b>Building Materials(s):</b>	



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

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Commonwealth of Massachusetts  
Massachusetts Historical Commission  
220 Morrissey Boulevard, Boston, Massachusetts 02125  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

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**FORM A - AREA**

MASSACHUSETTS HISTORICAL COMMISSION  
MASSACHUSETTS ARCHIVES BUILDING  
220 MORRISSEY BOULEVARD  
BOSTON, MASSACHUSETTS 02125

Assessor's Sheets USGS Quad Area Letter Form Numbers in Area

141-2,141-2, 142-12, 142-13, 147-11	Framingham	H	See data sheet
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**Photograph**



**Town/City:** Framingham

**Place (neighborhood or village):** South Framingham

**Name of Area:** Massachusetts Correctional Institution for Woman (MCI Framingham)

**Present Use:** Penal Institution

**Construction Dates or Period:** 1877-1989

**Overall Condition:** Good

**Major Intrusions and Alterations:** Dormitories and Administrative Offices constructed between 1985-1989

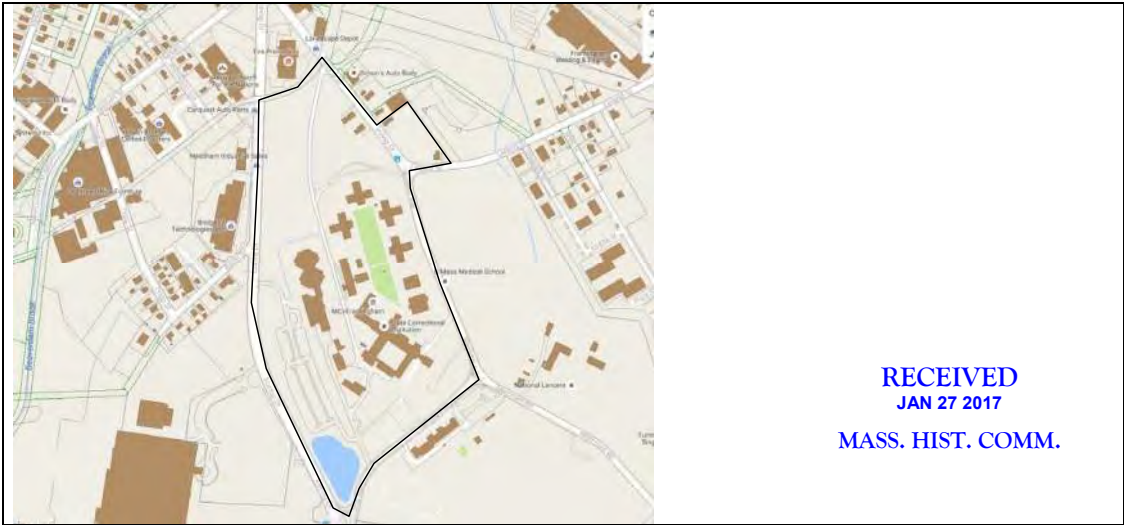
**Acreage:** 41.761

**Recorded by:** Geoffrey E. Melhuish

**Organization:** Epsilon Associates, Inc.

**Date (month/year):** November 2016

**Locus Map**



see continuation sheet  
4/11

Follow Massachusetts Historical Commission Survey Manual instructions for completing this form.

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM MCI-FRAMINGHAM  
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Recommended for listing in the National Register of Historic Places.  
*If checked, you must attach a completed National Register Criteria Statement form.*

Use as much space as necessary to complete the following entries, allowing text to flow onto additional continuation sheets.

**ARCHITECTURAL DESCRIPTION**

Describe architectural, structural and landscape features and evaluate in terms of other areas within the community.

MCI Framingham, 26 Loring Drive, is located southeast of downtown Framingham to the south of the intersection of Loring Drive and Irving Street. MCI Framingham is an assemblage of mid-nineteenth to late twentieth century wood frame and brick masonry structures comprised of several residential properties including a Greek Revival residence (predates MCI Framingham), Superintendents house, administration buildings, powerhouse, garage/carpenter shop, tool crib, dormitories, hospital and several small associated wood frame buildings and storage sheds. Several of the buildings maintain architectural integrity including the superintendent's house, old administration building, garage/carpenter shop, power plant, and tool crib. The approximately 41 acre property contains rolling open terrain with buildings oriented around a central open field. Access is provided by a paved drive off Loring Drive. The entry drive off of Loring Drive leads to a small parking lot to the south of the main entrance. Paved paths throughout the institution provide access to all of the buildings. Since the initial MHC Area Form was completed in 1979, a fire station/headquarters building for the Town of Framingham was constructed in 1994 to the north of MCI Framingham at the intersection of Loring Drive and Irving Street.

The Superintendent's House (1877) at MCI Framingham is a two-and-one-half story brick Victorian Eclectic which is connected to the southeast wall of the Old Administration Building by a porte-cochere which extends from the rear (northwest) elevation of the building. The building adopts a rectangular plan on a raised granite block foundation. The southeast facing façade is dominated by a latter addition two-tiered brick and wood porch that rests on a poured concrete foundation. The building terminates in a hipped roof sheathed with slate with copper flashing. A central deck at the hip is surrounded by decorative cast-iron cresting. A corbelled cornice at the eave features a band of bricks laid in a saw-tooth pattern. Elevations of the building are finished in red brick laid in a common bond. Windows are symmetrically placed and are uniform in size. The openings feature granite sills and segmentally arched brick hoods above with granite keystones. The majority of the window openings feature two-over-two double-hung wood sash, with several openings infilled with plywood. Basement windows below each window bay are set into the granite foundation and feature a segmental arch of two brick courses above.

The Old Administration Building (1877) is a large three-and-one-half story brick Victorian Eclectic with multiple three-story wings projecting out from the north and south elevations. Three of the five original wings in the old building were partially removed between 1966 and 1969. The building adopts an irregular plan on a raised granite block foundation. The main block terminates in a hipped roof with intersecting gables. The gable ends feature a parapet end wall. The slate has been removed from the hipped roof and the gables and appears to be covered with a rubber membrane. A decorative brick cornice is featured along the eave. Walls of the building are constructed of red brick laid in a common bond. Windows are symmetrically placed and are uniform in size. The openings feature granite sills and segmentally arched brick hoods above with granite keystones. The majority of the window openings feature six-over-six double-hung wood sash, with several openings infilled with one-over-one replacement sash and others infilled with plywood (south). Basement windows below each window bay are set into the granite foundation and feature a segmental arch of two brick courses above. The wings at three-stories tall sit just below the height of the main block. The wings terminate in side gable roofs sheathed with slate. Walls of the wings are constructed of red brick laid in a common bond. Similar to the main block, windows are symmetrically placed and are uniform in size. However, while some of the wings feature openings like the main block with granite sills and segmentally arched brick hood, other wings feature third floor openings with a granite lintel. Also similar to the main block, the majority of the window openings feature six-over-six double-hung wood sash with several openings are infilled with one-over-one replacement sash windows and others infilled with

Continuation sheet 1

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
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plywood (south). Basement windows below each window bay are set into the granite foundation and feature a segmental arch of two brick courses above. An open interior courtyard formed by the wings at the southwest corner is used as a garden space for the prison.

The Garage/Carpenter Shop (ca 1920) is a two-story brick building with Colonial Revival influences. The building is located east of the Old Administration Building. The building adopts an irregular plan with a central block and two wings; one on the south elevation and the other to the north. The east facing façade of the central block is three bays wide with a sliding track wood door located at the north end, a pedestrian door to the south and a single 12-light fixed wood sash at the south end of the façade. Both the pedestrian door and window feature a segmental arch above the opening. The central block terminates in a hipped roof sheathed with asphalt shingles. A wood cupola is centered on the roof. A corbelled cornice at the eave features a band of bricks laid in a saw-tooth pattern much like the cornice of the Superintendent's residence. Walls of the building are constructed of red brick laid in a common bond with a decorative brick belt-course located between the first and second floors. A small one-story, one-bay wide by one-bay deep wing projects from the south elevation of the central block. This wing is capped by a shallow pitched hip roof sheathed with copper. A one-story block with exposed ground floor along the west location projects from the north elevation of the central block. Punched window openings dominate the east elevation. The majority of the window openings feature paired six-over-six double-hung wood sash; however, several window openings are infilled with plywood.

The Power Plant (ca 1920) is a two-story brick building with an attached two-story wing is located to the west of the Old Administration Building. The building is capped by a flat roof with parapet. A soldier course of bricks capped by a decorative band of angled bricks marks the cornice. A berm and concrete retaining wall along the east elevation gives the appearance that the east elevation is only one-story. The two-bay wide by five bay deep building faces east. Brick piers are located at each end of the façade. At the south end of the facade is a paired six-light over two panel wood door set within an arched surround. A three-course segmental arch headed is located above the opening. A pair of six-over-six double-hung wood sash are located to the north of the entry and features a similar arched header with brick sill. Five symmetrical punched openings marked by brick sills and lintels are located along the south elevation on the first and ground floor. To the north, is a two-story brick block with similar cornice detailing. To the west of the power plant is a large round masonry smokestack.

The Tool Cr b (ca 1920) is located north of the powerhouse. The one-story wood frame building adopts a rectangular plan on a poured concrete foundation. The west elevation of the tool cr b features a walk-out basement. The building is capped by a shallow pitched side gable roof sheathed with asphalt shingles and is clad with painted shiplap siding. Access is provided by a paired batten wood door centered on the east façade. Three fixed twelve-light windows originally were located on the south elevation; only one survives with the others infilled by a smaller sash window and a wood panel.

Between 1963 and 1966, the Health Services Building and four dormitory "cottages" (Algonquin, Laurel, Pioneer, Townline) were constructed to the north of the Old Administration Building. The two-story Health Services Building is located immediately north of the Old Administration Building. The Health Services Building is constructed of brick and concrete on a poured concrete foundation. The building is capped by a built up flat roof and features punched window openings on each of the elevations. The four cottages are identical in their plan and construction. The brick and concrete cottages are T-shape in plan and set on poured concrete foundations. They are one-story tall and capped by a built up flat roof.

Located at the northeast corner of the campus between two of the cottages (Algonquin and Townline) is a one-story, one-bay wide by one-bay deep poured concrete Pump House constructed between 1971-1978. The Pump House is capped by hipped roof sheathed with standing metal seam.

Two additional dormitories (Modular and Brewster) are located to the south of the cottages and to the northeast of the Old Administration Building. Modular was constructed in 1985 and is a one-story wood frame building sheathed with vertical board sheathing and capped by a built up flat roof. Wood skirting obscures the foundation. Brewster was

*Continuation sheet 2*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
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constructed in 1989 and is a two-story wood frame building sheathed with vertical board sheathing with two bands of plywood; one band covers the foundation while another is located between the first and second floor. The building is capped by a built up flat roof.

Several small support structures are located in the immediate vicinity of the health services building and dormitories and include two, one-story wood-frame Guard Houses constructed ca. 2000, two greenhouses, constructed ca. 2010, a one-story, vinyl-clad modular constructed ca. 2010 and a wood-frame garden shed constructed ca. 2012.

At the east end of the complex is the two-story multi-colored brick Betty Cole Smith Building constructed in 1988. Named after the prison Superintendent between 1958 and 1973 and the last Superintendent to occupy the Superintendent's House as a residence. The building is capped by a built up flat roof. The building currently functions as the Administration office and the office of the Superintendent as well as the public entrance of the facility. A wing to the north of the main block contains additional inmate housing.

Southwest of the Betty Cole Smith Building is the primary parking lot for staff and visitors. The parking lot was added c. 1988. At the north end of the parking lot is a bronze bell which originally hung in the Old Administration Building. The bell is supported by cast iron "A" stands with a cast iron yoke and features a wood wheel with cast iron spokes. The bell is inscribed below the shoulder bead "WILLIAM BLAKE and CO. formerly H. HOOPER & CO. BOSTON, MA AD 1877."<sup>1</sup> A plaque on the yoke reads "Dedicated to all the men and woman of MCI Framingham who have devoted their careers to public Service. MCI Framingham EST.1877 Dedicated 2012. At the south end of the parking lot is a retention pond added when the parking lots were constructed. A vehicle trap or a double-gated checkpoint for vehicles entering the facility, is located to the east of the retention pond and parking lot. A ca. 1988 one-story, wood-frame guard house is located within the trap. The three-bay wide by two-bay deep vinyl clad building is capped by a built up shed roof.

### HISTORICAL NARRATIVE

*Explain historical development of the area. Discuss how this relates to the historical development of the community.*

At the time of its original construction in 1877, MCI Framingham located on in the town of Sherborn and originally named the Reformatory for Woman, Sherborn. In 1932, as a result of changes in the boundaries between Sherborn and Framingham, the prison was renamed the Reformatory for Woman, Framingham. The name was changed again in 1955 to its current name after the Department of Correction was organized. The institution was the second institution established exclusively for adult woman in the United States, the first was the Indiana Woman's Prison established in Indianapolis, Indiana in 1873. Today, MCI Framingham is the oldest institution of its type still in operation in its original location.

The institution was created pursuant to Chapter 385 of the Act of 1874, Section 1 when the commissioners of prisons were authorized to "select and determine a plan and to purchase an eligible site within the limits of the Commonwealth, and to cause to be erected thereon, a suitable prison for a reformatory prison for woman convicts, with accommodations for five hundred prisoners..."

A site in Sherborn was approved in 1874 and the architectural drawings were completed by May of 1875, by Boston Architect George Ropes. George Ropes practiced architecture in Boston both in private practice (1859-1861 and 1864-1877) and in partnership with Samuel J.F. Thayer (1862-1863). Ropes commissions, include the Victorian Gothic Noble School and Annex (1874) at 321 Princeton Street, Boston (BOS.132); the Victorian Gothic District 13 Police Station

<sup>1</sup> The bell was cast by William Blake & Co., which was formerly known as HN Hooper & Co. William Blake was an apprentice to Paul Revere. Blake went on to partner with Henry N. Hooper.

Continuation sheet 3

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
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(1873) at 28 Seaverns Ave, Boston (BOS.10142) and the Second Empire Massachusetts State Prison Warden's House (1878) at 965 Elm Street, Concord (CON.451) to name a few.

The reformatory's first Superintendent was Eudora C. Atkinson who served from 1877 to 1880. The 1879 Report to Massachusetts Commissioners of Prisons indicates that in its first year the prison held 794 women. Well higher than the intended 500.

From the start, the prison fought to improve conditions and advance reforms. Under the direction of Superintendent Atkinson, an income-producing work program was begun and a "ticket to leave" program was initiated where prisoners were sent out to private homes for domestic service. Under the direction of Ellen Cheney Johnson between 1884 and 1899, the reformatory aimed not only to incarcerate but to change the lives of inmates through work and other productive activities. In a speech given June 15, 1897 at a Symposium on Crime, Alfred Webb of the Statistical and Social Inquiry Society of Ireland discussed what he saw on a visit of the prison in 1896, "the prison is managed throughout on the principal of reward rather than punishment, of kindness rather than severity, of drawing out the affections and cultivating the responsibilities...the place is a model of order, cleanliness, and neatness."

Late nineteenth and early twentieth century maps do not detail the prison or if a building is show, many times, it is identified as "State of Mass" property without showing much detail of the building(s). The prison is first shown in great detail on the 1882 O.H. Baily Birds Eye map of South Framingham from the northwest looking southeast and from the 1888 O.H. Baily Birds Eye map of South Framingham looking northeast from the southwest. Both images show the Superintendents House attached to the Old Administration building. Numerous wings are show projecting out from the central block of the old administration building including a power plant with smoke stack along the west elevation of one of the wings.

Twentieth century aerial images show development of the prison spreading first to the west with the development of the garage/carpenters shop, the power plant, and the tool cr b in the early twentieth century and then to the north with the health services building and four dormitory "cottages" (Algonquin, Laurel, Pioneer, Townline) between 1963 and 1966. The one-story pump house near the cottages was constructed between 1971-1978. Two additional dormitories (Modular and Brewster) were added in 1985 and 1989, respectively. At the east end of the complex is the two-story "new" Administration Building, named the Betty Cole Smith Building named after the prison superintendent between 1958 and 1973 and the last superintendent to occupy the Superintendent's House as a residence. The Betty Cole Smith Building was constructed in 1988. Several small support structures added since include two guard houses constructed ca. 2000, two greenhouses, constructed ca. 2010, a one-story, vinyl-clad modular constructed ca. 2010 and a wood-frame garden shed constructed ca. 2012.

Today MCI Framingham serves as a medium-security correctional facility for female offenders. The prison houses both state and county offenders, as well as those awaiting sentencing. There are prisoners of a variety of classification levels housed in the dormitories on the site.

One property, the Joseph Phipps House (FRM.304) at 364 Irving Street predates the construction of MCI Framingham. Constructed in the Greek Revival style, the house dates from the mid-nineteenth century. The 1979 Massachusetts Historical Commission Form B for the Joseph Phipps House indicates that the house was built by Joseph Phipps on the family homestead between 1845 and 1847. In 1857, Joseph Phipps sold the property to Helen Bullard, and in the 1880s the property was purchased by the Commonwealth as part of the Women's Reformatory and was used as guard housing into the late twentieth century.

Located on the same parcel as the Joseph Phipps House but historically with the address of 8 Leland Street is a mid to late nineteenth century residence which utilizes the fundamental story-and-a-half gable form popular during the period without showing any stylistic orientation. The property first appears on the 1885 Barnes and Jenks map of South Framingham along with 364 Irving Street as "State of Mass" property. This property likely predates MCI Framingham

*Continuation sheet 4*

**INVENTORY FORM A CONTINUATION SHEET**  
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however lack of any stylistic ornamentation, boarded-up windows, and an unknown interior plan, the building's construction date is difficult to date.

One object, The Richard Wayte Stone Marker (FRM.908) also predates the institution. The marker is located on Western Road at the intersection with Leland Road and marked the southern boundary of Richard Wayte's grant in 1658, and the historic Framingham-Sherborn boundary. The marker is inscribed;

W

May 29  
1822

Galim  
Bullard

—  
S | F

The 1980 Massachusetts Historical Commission Form C - Monuments (FRM.908) indicates that the marker was installed "To replace an Oak Tree marked with a W to mark the southern boundary of Richard Wayte's Grant in 1658, for services rendered in the early Indian Wars."

**BIBLIOGRAPHY and/or REFERENCES**

- Aerial Images. 1957, 1963, 1966, 1969, 1971, 1978, 1992, 1995, 2001, 2003, 2005, 2008, 2010, 2012. [online at <http://www.historicaerials.com>]
- Annual Report of the Board of Prison Commissioners of Massachusetts. Boston: Wright & Potter Printing Company, various years. [online at <https://books.google.com>].
- Annual Report of the Reformatory Prison for Woman. Boston: Wright & Potter Printing Company, various years. [online at <https://books.google.com>].
- Barns & Jenks. *Atlas of Framingham, Mass.* Pittsfield: Jas. P. Beirne, 1895. [online at <http://www.historicmapworks.com>]
- Baily, O.H. *Map of South Framingham, Massachusetts.* Boston: O.H. Baily and Company Publishers, 1882. [online at <http://www.historicmapworks.com>]
- \_\_\_\_\_. *Map of South Framingham, Massachusetts.* Boston: O.H. Baily and Company Publishers, 1895. [online at <http://www.historicmapworks.com>]
- Beard, Christine S. *Superintendent's House M.C.I. Framingham, Framingham, MA. HABS/HAER Level II Documentation Report.* Natick, MA: Christine S. Beard Associates. 1990. Prepared for HMFA Architects, INC., Cambridge, MA. [Massachusetts Historical Commission]
- Evans, E. Emerson & L. Dennison. Massachusetts Historical Commission Form C- Monuments for the W Stone Marker. Framingham, MA: Framingham Planning Department & Framingham Historical Commission. 1980. [Massachusetts Historical Commission]
- Massachusetts Correctional Institution – Framingham & South Middlesex Correctional Center Facilities Planning Study. Prepared by Kleinfelder for the Division of Capital Asset Management and Maintenance. 2014 [Department of Correction]
- Roper, S & L. Dennison. Massachusetts Historical Commission Area A-Area Survey for the Massachusetts Correctional Institution for Woman. Framingham, MA: Framingham Planning Department. 1979. [Massachusetts Historical Commission]
- \_\_\_\_\_. Massachusetts Historical Commission Form B- Building for the Joseph Phipps House. Framingham, MA: Framingham Planning Department. 1979. [Massachusetts Historical Commission]
- Walker, George H. *Atlas of Middlesex County, Massachusetts.* Boston: George H. Walker & Company, 1889. [online at <http://www.historicmapworks.com>]

Continuation sheet 5



**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Webb, Alfred. *The Sherborn Mass. Reformatory Prison for Woman*. Journal of the Statistical and Social Inquiry Society of Ireland. Dublin: Sealy, Bryers and Walker. 1902, pp 326-333. [online at <https://books.google.com>].



Continuation sheet 6

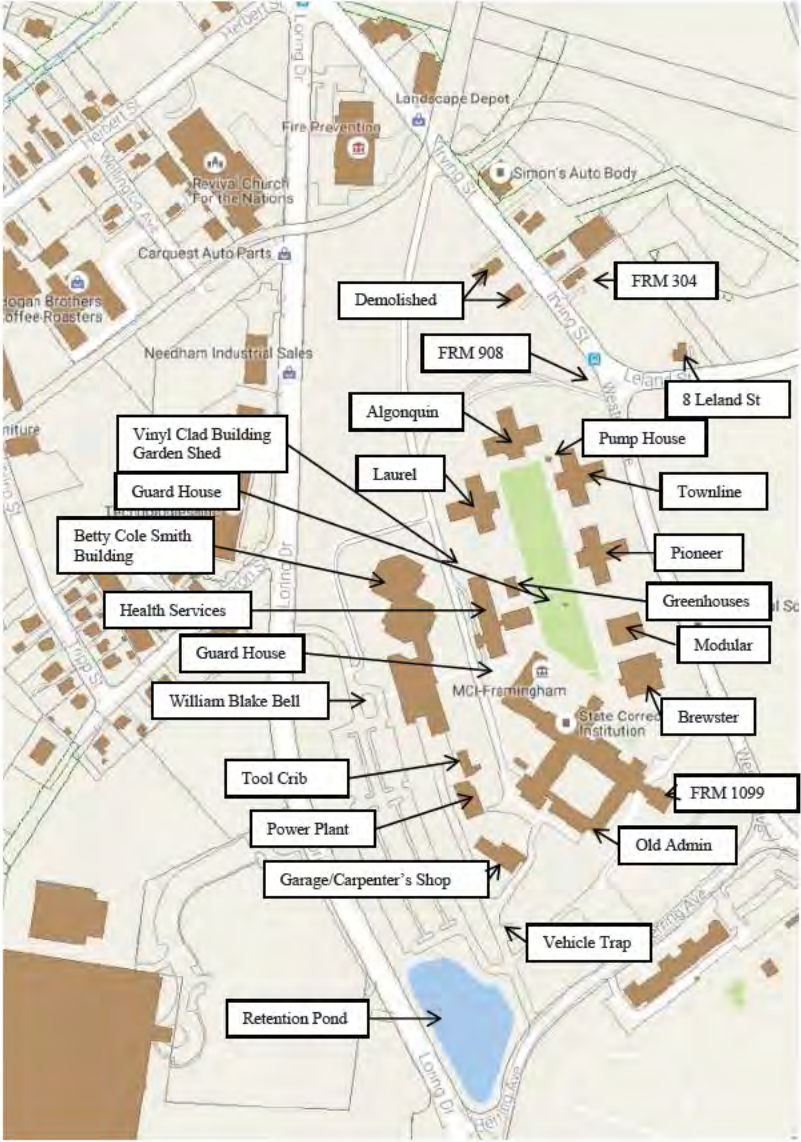
**Data Sheet**  
**MCI-Framingham Area H**  
**Framingham, MA**

<b>MHC #</b>	<b>Assessor's #</b>	<b>Resource</b>	<b>Address</b>	<b>Date</b>	<b>Form/Style</b>
304	142-13-4490-000	Joseph Phipps House	364 Irving Street	1845-1847	Greek Revival
1182	142-13-4490-000	Residence	8 Leland Street	Mid-Nineteenth Century	No style
908	142-12-1661-000	Richard Wayte Stone Marker	26 Loring Drive	1822	
1099	142-12-1661-000	MCI Superintendent's House	26 Loring Drive	1877	Victorian Eclectic
1183	142-12-1661-000	Old Administration Building	26 Loring Drive	1877	Victorian Eclectic
976	142-12-1661-000	William Blake and Co Bell	26 Loring Drive	ca 1877	
1184	142-12-1661-000	Garage/Carpenter Shop	26 Loring Drive	ca 1920	No style
1185	142-12-1661-000	Power Plant	26 Loring Drive	ca 1920	No style
1186	142-12-1661-000	Tool Crib	26 Loring Drive	ca 1920	No style
1187	142-12-1661-000	Health Services	26 Loring Drive	1963	No style
1188	142-12-1661-000	Laurel Cottage	26 Loring Drive	1963	No style
1189	142-12-1661-000	Algonquin Cottage	26 Loring Drive	1963	No style
1190	142-12-1661-000	Pioneer Cottage	26 Loring Drive	1963	No style
1191	142-12-1661-000	Townline Cottage	26 Loring Drive	1963	No style
1192	142-12-1661-000	Pump House	26 Loring Drive	1963	No style
1193	142-12-1661-000	Vehicle Trap	26 Loring Drive	ca 1988	No style
1194	142-12-1661-000	Modular	26 Loring Drive	1985	No style
1195	142-12-1661-000	Brewster	26 Loring Drive	1989	No style
1196	142-12-1661-000	Betty Cole Smith Building	26 Loring Drive	1988	No style
977	142-12-1661-000	Retention Pond	26 Loring Drive	ca 1988	
1197	142-12-1661-000	Guard House	26 Loring Drive	ca 2000	No style
1198	142-12-1661-000	Guard House	26 Loring Drive	ca 2000	No style
1199	142-12-1661-000	Vinyl Clad Modular	26 Loring Drive	ca 2010	No style
1200	142-12-1661-000	Greenhouse	26 Loring Drive	ca 2010	No style
1201	142-12-1661-000	Greenhouse	26 Loring Drive	ca 2010	No style
1202	142-12-1661-000	Garden Shed	26 Loring Drive	ca 2012	No style

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Superintendent's House (FRM.1099) and Old Administration Building, view northeast



Old Administration Building, view southwest

*Continuation sheet 8*

**INVENTORY FORM A CONTINUATION SHEET**  
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220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Interior courtyard of Old Administration Building, view south



Garage/Carpenter's Shed, view west

*Continuation sheet 9*

**INVENTORY FORM A CONTINUATION SHEET**  
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220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Power Plant, view west



Tool Crib, view northwest

*Continuation sheet 10*

**INVENTORY FORM A CONTINUATION SHEET**  
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Health Services Building, view northeast



Laurel , view northwest

*Continuation sheet 11*

**INVENTORY FORM A CONTINUATION SHEET**  
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Algonquin, view north



Townline, view east

*Continuation sheet 12*



**INVENTORY FORM A CONTINUATION SHEET**  
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220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Pioneer, view southeast



Pump House, view east

*Continuation sheet 13*

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220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Modular, view southeast



Brewster, view southeast

*Continuation sheet 14*

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220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

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Guard House, view south



Guard House, view south

*Continuation sheet 15*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM MCI-FRAMINGHAM

Area Letter Form Nos

H See data sheet



Greenhouses, view northeast



Vinyl Clad Building, view north

*Continuation sheet 16*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM MCI-FRAMINGHAM

Area Letter Form Nos

H	See data sheet
---	----------------



Garden Shed, view west



Betty Cole Smith Building, view northeast

*Continuation sheet 17*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM      MCI-FRAMINGHAM  
Area Letter      Form Nos

H	See data sheet
---	----------------



William Blake and Co. Bell, view west



Vehicle Trap, view southeast

*Continuation sheet 18*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM      MCI-FRAMINGHAM  
Area Letter      Form Nos

H	See data sheet
---	----------------



Retention Pond, view south



364 Irving Street (FRM.304), view northeast

*Continuation sheet 19*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM MCI-FRAMINGHAM

Area Letter Form Nos

H	See data sheet
---	----------------



8 Leland Street, view northwest



Richard Wayte Stone Marker (FRM.908), view west

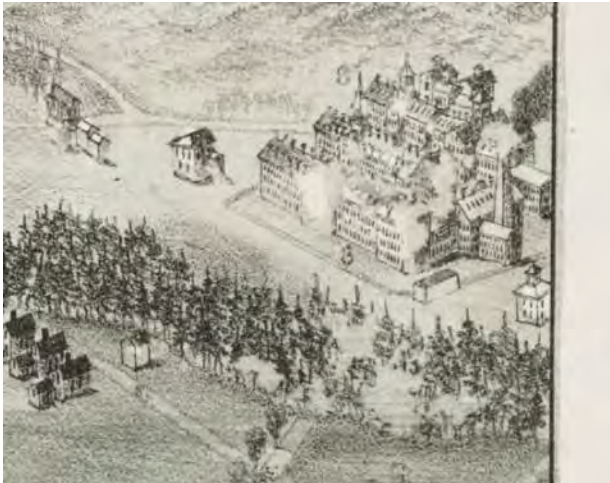
*Continuation sheet 20*



**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM      MCI-FRAMINGHAM  
Area Letter    Form Nos

H	See data sheet
---	----------------



1882 O.H. Baily South Framingham Birds-Eye



1888 O.H. Baily South Framingham Birds-Eye

*Continuation sheet 21*

**INVENTORY FORM A CONTINUATION SHEET**  
MASSACHUSETTS HISTORICAL COMMISSION  
220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

FRAMINGHAM      MCI-FRAMINGHAM  
Area Letter      Form Nos

H	See data sheet
---	----------------



n.d. Framingham Public Library Local History



n.d. Framingham Public Library Local History

*Continuation sheet 22*

**FORM A - AREA SURVEY**

MASSACHUSETTS HISTORICAL COMMISSION  
 Office of the Secretary, State House, Boston

Form numbers in this area	Area no.
304	H

FRM. H

1. Town Framingham

Name of area (if any) Massachusetts Correctional Institution for Women

General date or period late 19th - early 20th century

Area uniform (explain):

Style? Yes

Condition? yes, good

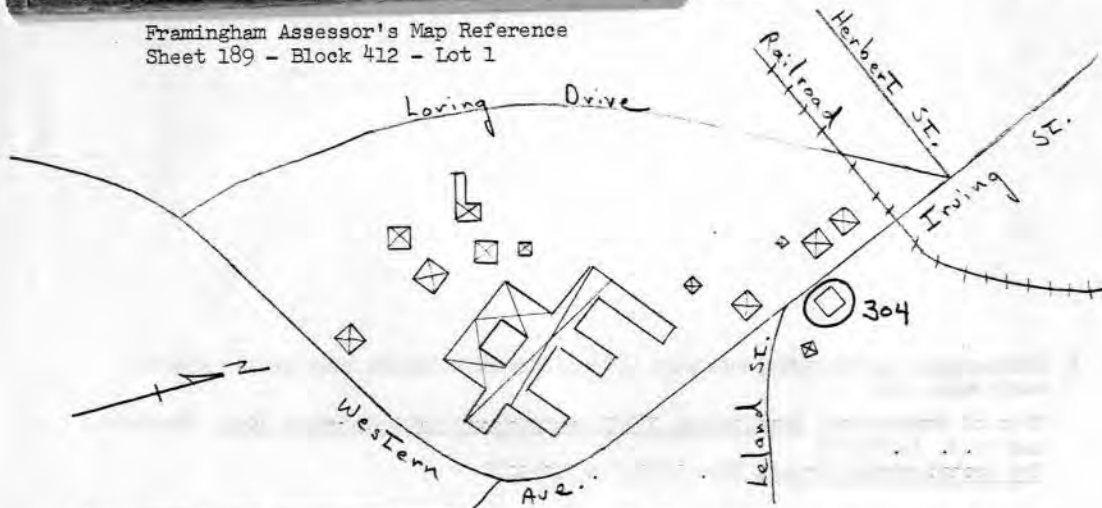
Type of ownership? yes, public

Use? Yes, prison

Area involved. Indicate any historic forms B thru F, using corresponding numbers, if any) and indicate north on Form B.



Framingham Assessor's Map Reference  
 Sheet 189 - Block 412 - Lot 1



DO NOT WRITE IN THIS SPACE
USGS Quadrant _____
MHC Photo no. _____

6. Recorded by S. Roper; L. Dennison  
 Organization Framingham Planning Dept.  
 Date 12/4/79

(over)

FRM. H

7. Historical data. Explain the historical/architectural importance of this area.

The Massachusetts Correctional Institution for Women is the second oldest institution established exclusively for adult women in the United States. Originally built as a factory, it became the State Reformatory Prison for Women in 1876. At this time the land on which the reformatory stands was in Sherborn, but this land was given to Framingham in 1913.

Three of the five original wings of the old building have been partially removed over the years.

8. Bibliography and/or references such as local histories, deeds, assessor's records, early maps, etc.

Town of Framingham, Framingham, 275th Anniversary Commemorative Book, Framingham n.d. (p.78-79)  
The Architectural Forum, Nov. 1945, p. 112-113



Original yellow form: Eligibility file \_\_\_\_\_  
 copies: 1 inventory form \_\_\_\_\_  
 \_\_\_\_\_ (own file/w/ corresp.) \_\_\_\_\_  
 Macris \_\_\_\_\_  
 NR director \_\_\_\_\_

FRM. H

Community: FRAMINGHAM

**MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER**

Date Received: 11/20/89      Date Due: 12/20/89      Date Reviewed: 12/20/89

Type: Individual      District (Attach map indicating boundaries)

Name: MCI - Framingham      Inventory Form:

Address: Irving Road + Loring Drive

Requested by: SSA

Action:      Honor      ITC      Grant      R & C      Other:

Agency: DCPO/DOC      Staff in charge of Review:

<p><b>INDIVIDUAL PROPERTIES</b></p> <p><input checked="" type="checkbox"/> Eligible</p> <p><input type="checkbox"/> Eligible, also in district</p> <p><input type="checkbox"/> Eligible <u>only</u> in district</p> <p><input type="checkbox"/> Ineligible</p> <p><input type="checkbox"/> More information needed</p>	<p><b>DISTRICTS</b></p> <p><input type="checkbox"/> Eligible</p> <p><input type="checkbox"/> Ineligible</p> <p><input type="checkbox"/> More information needed</p>
<b>CRITERIA:</b>	A                      B                      C                      D
<b>LEVEL:</b>	Local                      State                      National
<b>STATEMENT OF SIGNIFICANCE</b> by <u>Suzanne Hollister</u>	

MCI Framingham is an intact example of a 19th c prison complex. The prison, which was established in 1876, was originally constructed as a factory. The facility is the second oldest ~~the~~ correctional institution exclusively built for women in the country.

Although there has been some demolition and new construction over time, the complex retains its integrity of materials, feeling, workmanship, and design. Many out buildings, including the power ~~the~~ house ~~and~~ workshop/stables; and guard duplex ~~housing have been maintained~~ are extant.

The commandant's house has been somewhat altered w/ the addition of porches + a circular greenhouse (ca. 1910) It is connected to the cell blocks 10/86 via a catwalk

Appendix C - Tighe & Bond's Wetlands  
Memorandum for South Middlesex  
Correctional Center



## **Wetland Delineation Memorandum South Middlesex Correctional Center 135 Western Avenue, Framingham, Massachusetts**

**TO:** Sean Foley, Deputy Director, Department of Correction  
**FROM:** Breeka Li Goodlander, Environmental Scientist  
**COPY:** Amanda J. Houle, PWS, CERP, Senior Environmental Scientist; Giovanni G. Cáceres, Construction Coordinator III  
**DATE:** May 11, 2021

On April 22, 2021, Tighe & Bond wetland scientists visited the South Middlesex Correctional Center (SMCC) property located at 135 Western Avenue in Framingham, Massachusetts, to delineate the wetland resource areas on and adjacent to the project site and evaluate the jurisdictional status of each resource area.

This technical memorandum provides a site description and summary of resource areas identified at the project site. Information in this memorandum was determined based on direct observations made during the site visit and a review of information available through the Massachusetts Geographic Information System (MassGIS) and other online resources. This memorandum has been written so it may be inserted into future permit applications for proposed activities at the SMCC property. Figures depicting the wetland locations are included in Attachment A, Wetland Delineation Data Forms are included in Attachment B, and a photo log is included in Attachment C.

### **Project Site**

The project site is located at the South Middlesex Correctional Center at 135 Western Avenue in Framingham, Massachusetts. The project area is comprised of one parcel (147-21-0456) owned by the Commonwealth of Massachusetts and operated by the Department of Correction, that totals approximately 22.07 acres in size. Currently, the north-northwestern portion of the property consists of a secured state correctional facility and an associated recreational yard bordering on a wetland to the southeast. Massachusetts Correctional Institution – Framingham is located to the north of the project area across Western Avenue. Loring Drive confines the parcel to the west and Merchant Road forms the eastern parcel boundary.

### **Methodology of Resource Area Investigations**

Wetland resource area evaluations were conducted on April 22, 2021. Resource areas were delineated in accordance with Delineating Bordering Vegetated Wetlands (BVW) under the Massachusetts Wetlands Protection Act (March 1995), the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (January 1987), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (January 2012). Attachment B contains the Army Corps of Engineers Wetland Delineation Data Forms. Wetland resource areas are depicted on the enclosed site plan (Figure 1). Based on the delineation methodology, the following resource areas were identified:

- **Bordering Vegetated Wetlands (BVW):** As defined in 310 CMR 10.55(2)(a), Bordering Vegetated Wetlands are "*freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes.*" A Palustrine Scrub-Shrub (PSS) wetland with

pockets of Palustrine Emergent (PEM) wetland occupies the eastern portion of the parcel and is connected to Course Brook, an offsite perennial watercourse. This wetland is identified as Wetland 1A and is described in further detail below.

- **Inland Bank:** As defined in 310 CMR 10.54(2)(a), inland Bank is “*the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain or, in the absence of these, it occurs between a water body and an upland.*” Bank associated with a manmade pond was delineated to the northwest of the SMCC parcel and is identified as Wetland 2A which is described in further detail below.
- **Bordering Land Subject to Flooding (BLSF):** As defined in 310 CMR 10.57(1)(a), Bordering Land Subject to Flooding is “*an area which floods from a rise in a bordering waterway or water body. Such areas are likely to be significant to flood control and storm damage prevention*”. In conjunction, as defined in 310 CMR 10.57(2)(a)(3), “*the boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm*”. BLSF occurs within the southeastern portion of the parcel and is described in further detail below.

## Description of Wetland Resource Areas

The section below provides a detailed description of the wetland resource areas identified within the project area. Site photographs are provided in Attachment C.

### Wetland 1A

Wetland 1A is a BVW delineated by sequentially-numbered flag series 1A-1 through 1A-34. As mentioned previously, this wetland is best classified as a PSS with pockets of PEM. This BVW is located in the east-southeast region of the parcel and the wetland boundary follows a consistent elevation along a slight break in slope between the wetland and an open field. Large portions of the wetland contained mucky soils saturated at the surface and areas of standing water at the time of site visit.

This wetland is dominated by sandy soils (10YR 3/3) with redox depletions (10YR 4/6) showing in the pore linings. Subtle pit and mound microtopography was observed throughout the wetland. Dominant wetland vegetation was comprised of common reed (*Phragmites australis*), glossy buckthorn (*Rhamnus cathartica*), cattail (*Typha latifolia*), tussock sedge (*Carex stricta*), red maple (*Acer rubrum*), sensitive fern (*Onoclea sensibilis*), and cinnamon fern (*Osmundastrum cinnamomeum*).

Wetland 1A is regulated as a BVW and is afforded a jurisdictional 100-foot Buffer Zone under the WPA. This BVW is also provided a locally-regulated 30-foot No Alteration Zone and a 125-foot Buffer Zone under the Framingham Wetlands Protection Bylaw.

### Wetland 2A (Inland Bank)

Wetland 2A consists of a segment of inland Bank and is delineated by flag series 2A-1 through 2A-15. This Bank coincides with the Mean High Water Line and confines a manmade freshwater pond northwest of SMCC that borders on Western Avenue. This Bank is segmented by a chainlink fence.

Areas upgradient of the bank were comprised of maintained lawn, and other vegetation was observed to include Kentucky blue grass (*Poa pratensis*), red maple (*Acer rubrum*), pitch pine



(*Pinus rigida*), ornamental Bradford pear (*Pyrus calleryana*), and common greenbrier (*Smilax rotundifolia*).

This Bank is afforded a jurisdictional 100-foot Buffer Zone under the WPA. In addition, the Framingham Wetlands Protection Bylaw regulates a 30-foot No Alteration Zone and a 125-foot Buffer Zone.

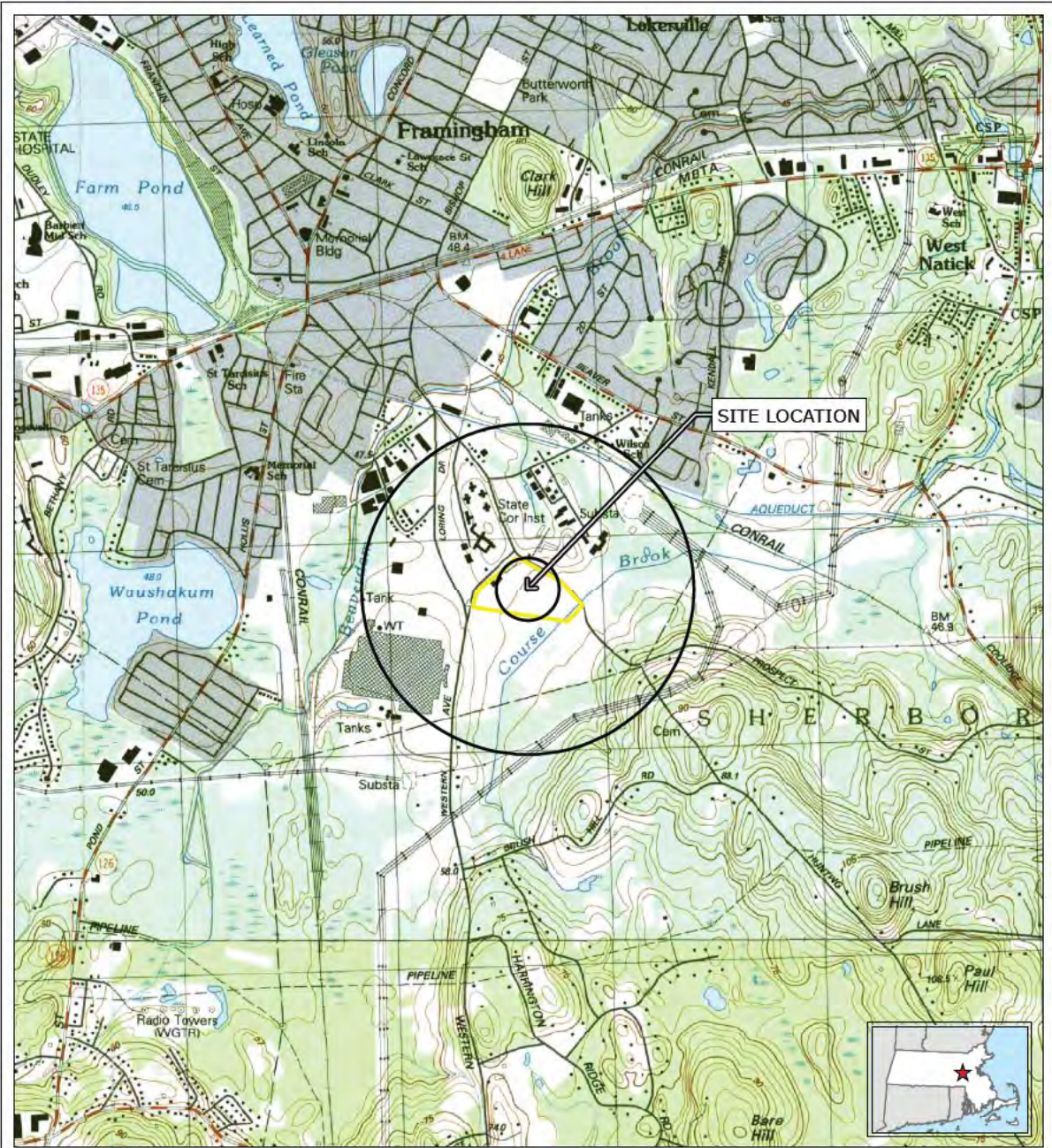
### **Bordering Land Subject to Flooding**

The Federal Emergency Management Agency (FEMA) flood map (Panel No. 25017C0519F, effective July 7, 2014) was consulted to evaluate the presence of Bordering Land Subject to Flooding (BLSF). According to the FEMA Flood Insurance Rate Map (FIRM), the southeastern portion of the property falls within two flood hazard areas, Zone A and Zone AE. Zone AE is an area with 1% annual chance of flooding with a base flood elevation (BFE) of 153.5 feet. Zone A is an area with 1% annual chance of flooding without a BFE. The remainder of the property parcel falls within Zone X. Accordingly, those areas mapped as Zone A and AE are regulated as BLSF.

### **Summary**

Within the boundaries of 135 Western Avenue, three jurisdictional resource areas were identified. These areas are subject to federal, state, and local jurisdiction. According to the WPA, BVW and inland Bank as well as land within 100-feet fall within jurisdiction. Additionally, land within 125 and 30-feet of these resource areas fall within the jurisdiction of the Framingham Conservation Commission under their Wetlands Bylaw. Any impacts to these areas will need to be permitted through the Framingham Conservation Commission. Direct impacts to wetlands may require additional state and federal permitting.

**ATTACHMENT A**  
**FIGURES**

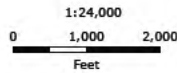


**Legend**  
 Approximate Site Parcel

**FIGURE 1**  
**SITE LOCATION**  
 South Middlesex Correctional Center  
 135 Western Avenue  
 Framingham, Massachusetts

**Tighe & Bond**

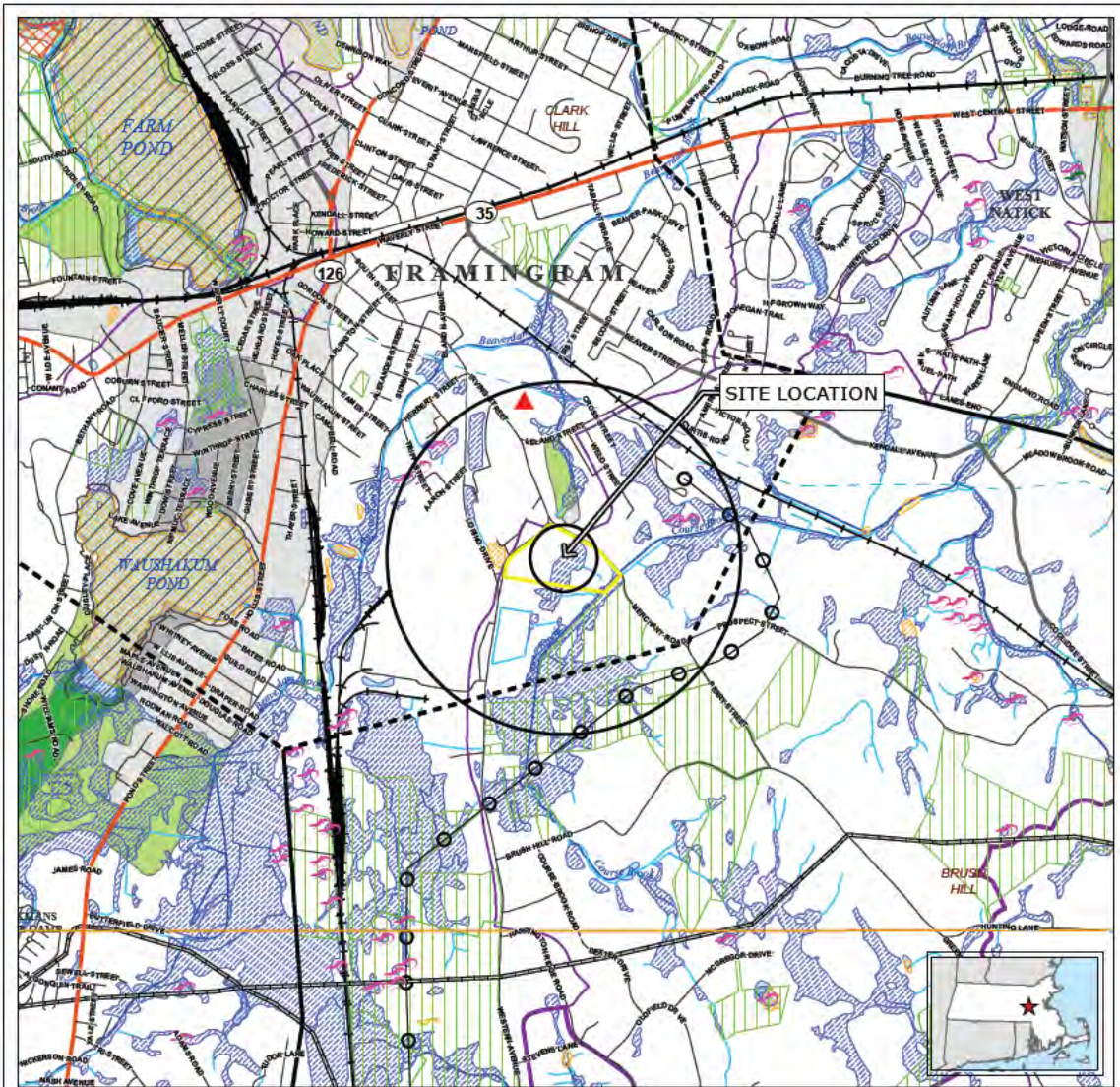
Based on USGS Topographic Map for Framingham, MA Revised 1987. Holliston, MA Revised 1987. Contour Interval Equals 3m. Circles indicate 500-foot and half-mi is radii



May 2021

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M-506



Legend	
NHESP Certified Vernal Pools	Aqueducts
NHESP Potential Vernal Pools	Hydrologic Connections
Non-Landfill Solid Waste Sites	Stream/Intermittent Stream
Proposed Well	Power Line
Emergency Surface Water	Pipeline
Commonly Public Water Supply - Surface Water	Track or Trail
Commonly Public Water Supply - Groundwater	Trains
Non-Commonly Non-Transient Public Water Supply	Public Surface Water Supply Protection Area (Zone A)
Non-Commonly Transient Public Water Supply	DEP Approved Wellhead Protection Area (Zone I)
Limited Access Highway	DEP Approved Wellhead Protection Area (Zone II)
Multi-Lane Highway, NOT Limited Access	DEP Interim Wellhead Protection Area (IWPA)
Other Numbered Highway	Protected and Recreational Open Space
Major Road - Collector	Solid Waste Landfill
Minor Street or Road	Area of Critical Environmental Concern (ACEC)
Major Drainage Basin	NHESP Priority Habitats for Rare Species
Sub Drainage Basin	NHESP Estimated Habitats for Rare Wildlife
MassDEP Open Water	MassDEP Not In expected Wetlands
MassDEP In and Wetlands	Pub to State Water Supply (PSWS)
MassDEP Coastal Wetlands	Vernal Bodies
MassDEP Not In expected Wetlands	Non-Potential Drinking Water Source Area - High Yield
Pub to State Water Supply (PSWS)	Non-Potential Drinking Water Source Area - Medium Yield
Vernal Bodies	Potentially Productive Medium Yield Aquifer
Non-Potential Drinking Water Source Area - High Yield	Potentially Productive High Yield Aquifer
Non-Potential Drinking Water Source Area - Medium Yield	County Boundary
Potentially Productive Medium Yield Aquifer	Town Boundary
Potentially Productive High Yield Aquifer	USGS Quadrangle Sheet Boundary
County Boundary	Approximate State Parcel
Town Boundary	
USGS Quadrangle Sheet Boundary	
Approximate State Parcel	

**FIGURE 2**  
**PRIORITY RESOURCES**  
 South Middlesex Correctional Center  
 135 Western Avenue  
 Framingham, Massachusetts

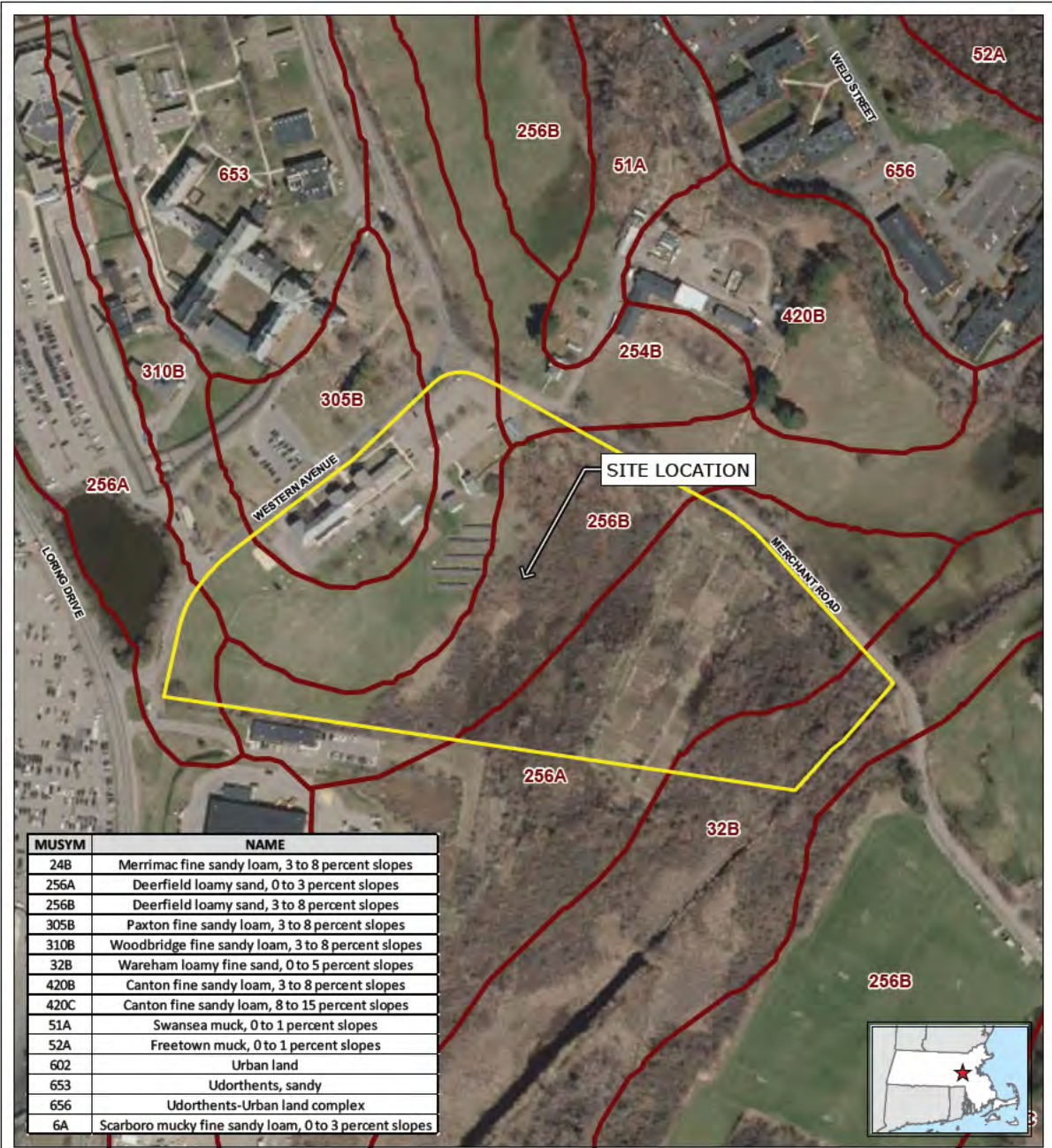
Data source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology  
 Circles indicate 500-foot and half-mile radii.  
 Data valid as of May 2021.

May 2021

1:24,000

0 1,000 2,000  
Feet

V:\Projects\1114\111406\Corrector\111406\SMCC\_Fram\framMA\_PriorityResources.mxd (Exported by: AFWaldenberg 3/10/2021 8: 3:20 AM) H-5085



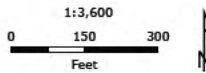
MUSYM	NAME
24B	Merrimac fine sandy loam, 3 to 8 percent slopes
256A	Deerfield loamy sand, 0 to 3 percent slopes
256B	Deerfield loamy sand, 3 to 8 percent slopes
305B	Paxton fine sandy loam, 3 to 8 percent slopes
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes
32B	Wareham loamy fine sand, 0 to 5 percent slopes
420B	Canton fine sandy loam, 3 to 8 percent slopes
420C	Canton fine sandy loam, 8 to 15 percent slopes
51A	Swansea muck, 0 to 1 percent slopes
52A	Freetown muck, 0 to 1 percent slopes
602	Urban land
653	Udorthents, sandy
656	Udorthents-Urban land complex
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes

**Legend**

- Approximate Site Parcel
- Soil Boundary

**Tighe & Bond**

Based on MassGIS Color Orthophotography (2019)  
 Soil data downloaded from MassGIS.



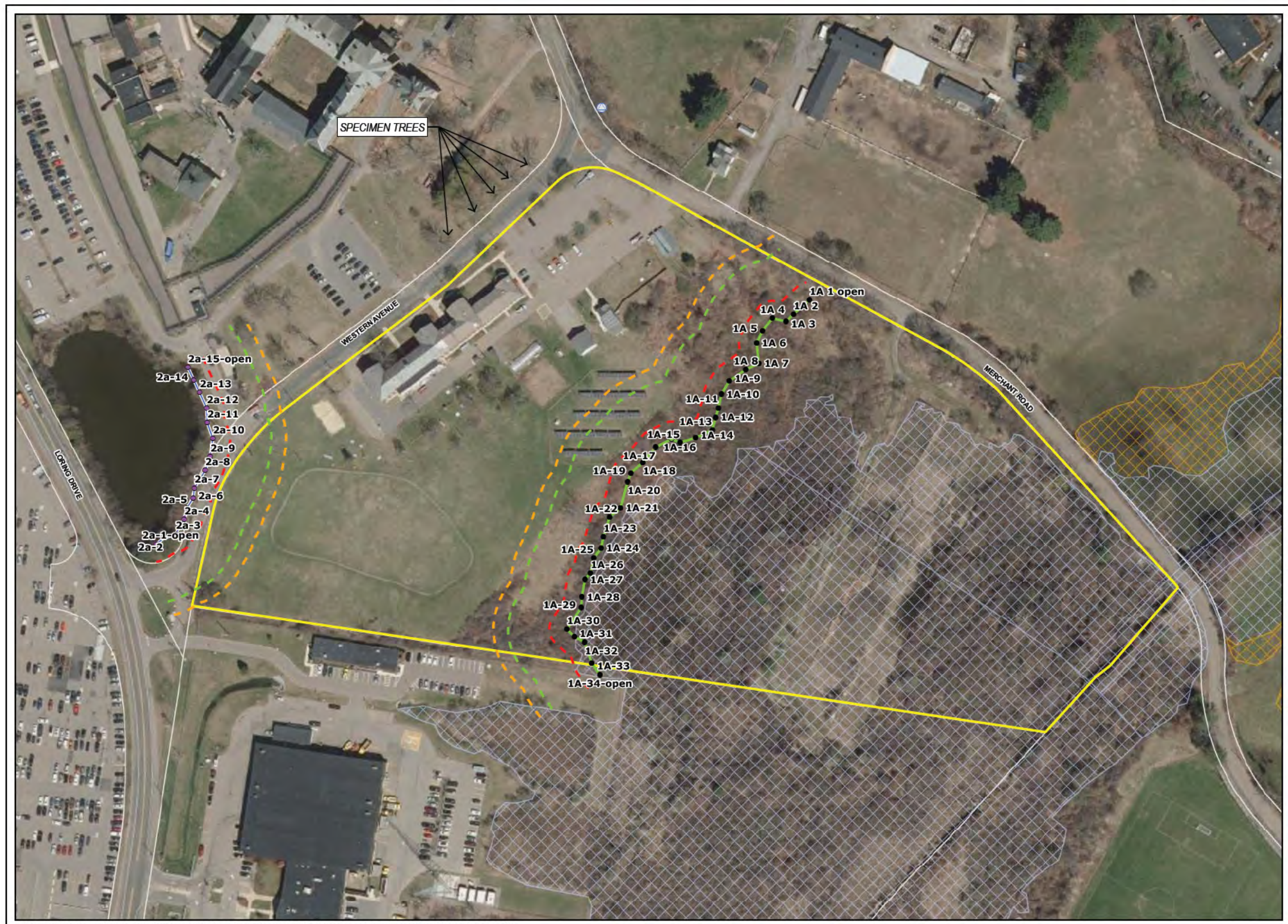
**FIGURE 3  
 SOIL MAP**

South Middlesex Correctional Facility  
 135 Western Drive  
 Framingham, Massachusetts

May 2021

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M-5086



**FIGURE 4  
ORTHOGRAPH**

**LEGEND**

- Wetland Flag
- Bank Flag
- ⊗ Culvert
- 30-foot No Alteration Zone
- 100-foot Buffer Zone
- 125-foot Buffer Zone
- Wetland Boundary
- Bank
- ⊗ 100 Year Flood Zone
- ⊗ 500 Year Flood Zone
- Approximate Site Parcel

**LOCUS MAP**

0 75 150  
 Feet  
 1:1,800

**NOTES**

1. Based on MassGIS Color Orthophotography (2019)
2. Framingham Parcels (FY20) downloaded from MassGIS and are approximate.
3. FEMA Flood Data: MassGIS, 2021.

**South Middlesex  
Correctional Center**  
 135 Western Avenue  
 Framingham, Massachusetts  
  
 May 2021

Tighe&Bond

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M-5086

**ATTACHMENT B**  
WETLAND DELINEATION DATA FORMS

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: South Middlesex Correctional Center City/County: Framingham Sampling Date: 4/22/2021  
 Applicant/Owner: Massachusetts Department of Corrections State: MA Sampling Point: UPL-1A-21  
 Investigator(s): Breeka Li Goodlander, Dana B. Vesty, Tighe & Bond Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.264647 Long: -71.405294 Datum: WGS194  
 Soil Map Unit Name: 310B Woodbridge fine sandy loam NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Sample point taken from a maintained lawn.	

**HYDROLOGY**

Wetland Hydrology Indicators	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes <u>x</u> No _____ Depth (inches): <u>18</u> Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	



**VEGETATION – Use scientific names of plants.**

Sampling Point: UPL-1A-21

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  <b>Prevalence Index worksheet</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>160</u></td> <td>x 4 = <u>640</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>160</u> (A)</td> <td><u>640</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>        </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>160</u>	x 4 = <u>640</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>160</u> (A)	<u>640</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>160</u>	x 4 = <u>640</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>160</u> (A)	<u>640</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
1. <u>Quercus alba</u>	15	Yes	FACU																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>15</u> =Total Cover																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																				
1. <u>Lonicera japonica</u>	25	Yes	FACU																	
2. <u>Rosa multiflora</u>	25	Yes	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
<u>50</u> =Total Cover																				
<b>Herb Stratum</b> (Plot size: <u>5</u> )																				
1. <u>Poa pratensis</u>	75	Yes	FACU																	
2. <u>Taraxacum officinale</u>	10	No	FACU																	
3. <u>Glechoma hederacea</u>	10	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
<u>95</u> =Total Cover																				
<b>Woody Vine Stratum</b> (Plot size: <u>15</u> )																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
_____ =Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Maintained lawn.																				
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width:20%; text-align: center;">Yes <u>        </u></td> <td style="width:20%; text-align: center;">No <u>        </u></td> </tr> </table>				<b>Hydrophytic Vegetation Present?</b>	Yes <u>        </u>	No <u>        </u>														
<b>Hydrophytic Vegetation Present?</b>	Yes <u>        </u>	No <u>        </u>																		

**SOIL**

Sampling Point: UPL-1A-21

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/3	100					Sandy	
8-11	10YR 3/3	70	10YR 5/8	30	D	M	Sandy	
11-18	10YR 5/6	98	10YR 3/4	2	D	M	Loamy/Clayey	Standing water at 18"
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> High Chroma Sands (S11) (LRR K, L) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Marl (F10) (LRR K, L) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)				<b>Indicators for Problematic Hydric Soils<sup>3</sup></b> <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)				
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
<b>Restrictive Layer (if observed)</b> Type: _____ Depth (inches): _____				Hydric Soil Present?      Yes ___ No <u>X</u>				
Remarks: Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ( <a href="http://soils.usda.gov/use/hydric">http://soils.usda.gov/use/hydric</a> )								



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: South Middlesex Correctional Center City/County: Framingham Sampling Date: 4/22/2021  
 Applicant/Owner: Massachusetts Department of Corrections State: MA Sampling Point: WET-1A-20  
 Investigator(s): Breeka Li Goodlander, Dana B. Vesty, Tighe & Bond Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.265072 Long: 71.403789 Datum: WGS1984  
 Soil Map Unit Name: 256B Deerfield loamy fine sand NWI classification: PSS1E  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators</b> <u>Primary Indicators (minimum of one is required check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations</b> Surface Water Present? Yes <u>x</u> No _____ Depth (inches): <u>0</u> Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes <u>x</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: Spring peepers present during site visit. Some areas of standing water.	

**VEGETATION – Use scientific names of plants.**

Sampling Point: WET-1A-20

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
1. <u>Cornus racemosa</u>	20	Yes	FAC	
2. <u>Acer rubrum</u>	20	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	40 =Total Cover			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				
1. <u>Rosa multiflora</u>	10	Yes	UPL	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	10 =Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5</u> )				
1. <u>Phragmites australis</u>	75	Yes	FACW	
2. <u>Onoclea sensibilis</u>	10	No	FACW	
3. <u>Osmundastrum cinnamomeum</u>	10	No	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	95 =Total Cover			
<b>Woody Vine Stratum</b> (Plot size: <u>15</u> )				<b>Hydrophytic Vegetation Indicators</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
	=Total Cover			
Remarks: (Include photo numbers here or on a separate sheet.)          				<b>Definitions of Vegetation Strata</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**SOIL**

Sampling Point: WET-1A-20

<b>Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/3	100					Sandy	
12-18	10YR 3/3	95	10YR 4/6	5	D	PL	Sandy	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup></b>					
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R,		<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)					
<input type="checkbox"/> Histic Epipedon (A2)	<b>MLRA 149B)</b>		<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)					
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)		<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)					
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)		<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)					
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)		<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)					
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)					
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Red Parent Material (F21)					
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)					
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Marl (F10) (LRR K, L)		<input type="checkbox"/> Other (Explain in Remarks)					
<input checked="" type="checkbox"/> Dark Surface (S7)								
<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
<b>Restrictive Layer (if observed)</b>						<b>Hydric Soil Present?</b>		
Type: _____						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Depth (inches): _____								
<b>Remarks:</b> Soils appear disturbed. Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ( <a href="http://soils.usda.gov/use/hydric">http://soils.usda.gov/use/hydric</a> )								

**ATTACHMENT C**  
SITE PHOTOGRAPHS

**Attachment C - Photographic Log**



**Client:** South Middlesex Correctional Facility      **Job Number:** M-5086-01  
**Site:** 135 Western Avenue, Framingham, Massachusetts

<b>Photograph No.:</b> 1	<b>Date:</b> 4/22/2021	<b>Direction Taken:</b> Northwest
<b>Description:</b> A view of South Middlesex Correctional Facility from UPL-1A-21.		

<b>Photograph No.:</b> 2	<b>Date:</b> 4/22/2021	<b>Direction Taken:</b> West
<b>Description:</b> A view of Wetland 1A, facing west.		

**Attachment C - Photographic Log**



**Client:** South Middlesex Correctional Facility      **Job Number:** M-5086-01  
**Site:** 135 Western Avenue, Framingham, Massachusetts

<b>Photograph No.:</b> 3	<b>Date:</b> 4/22/2021	<b>Direction Taken:</b> Southeast
<b>Description:</b> A view of Wetland 1A, facing southeast.		
		

<b>Photograph No.:</b> 4	<b>Date:</b> 4/22/2021	<b>Direction Taken:</b> North
<b>Description:</b> A view of inland Bank confining an unnamed pond, facing north.		
		



Attachment C - Photographic Log



Client: South Middlesex Correctional Facility Job Number: M-5086-01  
Site: 135 Western Avenue, Framingham, Massachusetts

Photograph No.: 5	Date: 4/22/2021	Direction Taken: North
Description: A view of the area upgradient from inland Bank, facing north.		
		

Appendix D: Jensen Hughes' Accessibility Report



*Memo*

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	March 25, 2022
To:	Grace Lee (HDR)
From:	Josh Rucker (Jensen Hughes)
cc:	Todd Pearson (Jensen Hughes); Eric Cote (Jensen Hughes)
Subject:	DCAMM Study and Design of a Correction Facility for Women

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*1.0 Introduction*

The goal of the DCAMM Study and Design of a Correction Facility for Women project is to determine a consensus solution for either the replacement or renovation of existing correctional centers for women, which will be informed by the recommendations of the strategic planning effort.

Currently, the female population is housed at MCI Framingham and South Middlesex Correctional Center, two correctional centers directly adjacent to each other in Framingham, MA. The project will also consider Bay State Correctional Center, a dormant correctional center in Norfolk, MA currently occupied by Department of Corrections (DOC) employees, as a viable option for the smaller female population currently housed by DOC. While other site alternatives may also be considered, at the present time, Bay State Correctional Center has been identified as the only potential site if the project goals cannot be achieved within MCI Framingham and South Middlesex Correctional Center.

*2.0 Purpose*

This report documents high level accessibility issues and/or considerations categorized by correctional center through review of the following documentation provided by HDR:

- + PowerPoint of 12/02/2021 Virtual Site Visit #2 dated 12.2.2021
- + KMA Access Audit Reports
- + Information on Accessibility Compliant for Faithful & Gould provided by DCAMM's Statewide Accessibility Initiative
- + Other documentation provided by HDR

Further review of referenced documentation is advised for additional details and information as this is not intended to be an exhaustive list.

*3.0 Applicable Codes and Standards*

The following sections outline selected accessibility obligations under the Americans with Disabilities Acts (ADA) and 521 CMR in regard to alterations. Where alterations are conducted, they must fully conform with the

( DCAMM Study and Design of a Correction Facility for Women )

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applicable provisions of the ADA, including the 2010 ADA Standards for Accessible design, along with 521 CMR (Massachusetts Architectural Access Board). This report does not assess program accessibility as related to the ADA or the full and fair cash value of the building(s) as related to 521 CMR obligations as it is beyond the scope of this analysis.

### 3.1. AMERICANS WITH DISABILITIES ACT (ADA)

As a public entity, the Department Corrections is subject to Title II regulations of the Americans with Disabilities Act (ADA). In general, a public entity may not deny the benefits of its programs, activities, and services to individuals with disabilities because its facilities are inaccessible. A public entity's services, programs, or activities, when viewed in their entirety, must be readily accessible to and usable by individuals with disabilities. This standard, known as "program accessibility," applies to all existing facilities of a public entity. Alterations to an existing facility is not necessarily required as policy changes or other alternative nonstructural methods may provide program accessibility, however, alterations may be the most efficient method of providing program accessibility. When alterations are conducted, alterations are to conform with the 2010 ADA Standards for Accessible Design.

### 3.2. 521 CMR (MASSACHUSETTS ARCHITECTURAL ACCESS BOARD)

In order to fully determine 521 CMR accessibility compliance obligations stipulated by a proposed alteration, the full and fair cash value of the existing building must be established and compared to the construction cost of an alteration and any other work performed in the building in the previous or subsequent 36 months from a construction project's permit date. The value of buildings owned, constructed, or renovated by the Commonwealth of Massachusetts are determined by the replacement cost.

In the case where the cost of the work performed as part of an alteration is 30% or more of the full and fair cash value of the building, the entire building, exclusive of employee only work areas, is required to comply fully with the new construction accessibility requirements of 521 CMR (521 CMR §3.3.2). Otherwise, variances for specific nonconforming features of accessibility to remain noncompliant may be applied for where repairs are determined by the Massachusetts Architectural Access Board (MAAB) to be impractical ("excessive cost with little benefit" or "technologically infeasible") (521 CMR §4.1). Note that such variances granted by MAAB do not necessarily relieve the owner of their obligations to comply with applicable federal requirements, such as those found under the ADA.

Alterations where the work performed amounts to less than 30% of the full and fair cash value of the building are subject to 521 CMR §3.3.1. In general, all work performed is to conform with new construction provisions under 521 CMR.

## 4.0 Bay State Correctional Center

The Bay State Correctional Center is located at 28 Clark Street in Norfolk, MA and was originally constructed prior to the effective date of the Americans with Disabilities Act (ADA). KMA conducted an accessibility audit on August 20, 2019, of seven (7) buildings on the campus. Through review of the documentation provided by HDR, including the KMA Access Audit Report, Jensen Hughes has noted the following accessibility issues/considerations:

### 4.1. EXTERIOR/SITE

- + The site terrain is relatively flat and conducive to providing compliant accessible routes and circulation between buildings and throughout the site.
- + Arrival to the campus is by vehicle only. There is no public transit or pedestrian access to the campus and therefore no accessible route from a public right of way is provided. In the case public sidewalks are

(DCAMM Study and Design of a Correction Facility for Women)

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provided adjacent to a site, an accessible route is required from the public sidewalk to the building(s) entrance(s).

- + Parking is provided in one surface lot made available to both members of the staff and public. The number of accessible parking spaces is generally based on the total number of parking spaces provided in a parking facility. Consideration should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided.
- + Signage with the International Symbol of Accessibility is not provided at the accessible parking spaces. One (1) in every six (6) accessible parking spaces are to conform with van accessible parking space provisions including signage designating 'van accessible' parking.
- + Most buildings are elevated between two (2) and four (4) feet and require a ramp for access. Some existing ramps have excessive slopes and do not provide a compliant landing and/or compliant handrails.

#### 4.2. GATEHOUSE

- + The route to the building entrance and into the building has deficiencies including a non-compliant ramp and door threshold. Modifications are necessary to provide access up to and into the building.
- + There is no compliant accessible service counter in the Lobby. A portion of a service counter is required to be accessible. Modification to the existing counter is required.
- + Toilet rooms in the Lobby have deficiencies and require accessibility improvements.

#### 4.3. VISITOR BUILDING

- + The route to the building entrance has deficiencies including a non-compliant ramp requiring reconstruction of the ramp.
- + The ramp at the rear exit of the building is not accessible and requires reconstruction.
- + Toilet rooms serving the Visiting Area have deficiencies and require accessibility improvements.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + The holding cell lacks sufficient turning space for accessibility. The room will need to be enlarged/modified to provide compliant accessibility clearances.

#### 4.4. ADMINISTRATION BUILDING

- + The route to the building entrance has deficiencies including a non-compliant ramp requiring reconstruction of the ramp.
- + The ramp at the rear exit of the building is not accessible and requires reconstruction.
- + There is no compliant accessible service counter in the Lobby and dispensary. A portion of a service counter is required to be accessible. Modification to the existing counter is required.
- + Toilet rooms have deficiencies and require accessibility improvements.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + The holding cell and inmate waiting room lacks sufficient turning space for accessibility and does not provide an accessible bench. The room will need to be enlarged/modified to provide compliant accessibility features.
- + Exam rooms do not provide an adjustable height exam table nor accessible cabinets.
- + There is room signage throughout the facility that is not accessible and should be replaced with compliant type.
- + There are deficiencies in the kitchen requiring accessibility improvements.

#### 4.5. MAIN HOUSING

- + There are deficiencies at exit doors of the building and require a ramp construction.

(DCAMM Study and Design of a Correction Facility for Women)

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- + Interior ramps have multiple deficiencies requiring reconstruction of the ramp(s).
- + Inmate toilet and shower rooms on the first and second floors have multiple deficiencies likely requiring a significant alteration to fully comply with accessibility provisions.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + There is room signage throughout the facility that is not accessible and should be replaced with compliant type.
- + Door hardware throughout the facility is not compliant and should be replaced with lever/compliant type hardware.

#### 4.6. GYMANSIUM

- + There are deficiencies at exit doors of the building and require construction of an accessible route to the main walkway.
- + There are multiple deficiencies in the toilet room serving the Gymnasium likely requiring a significant alteration to fully comply with accessibility provisions.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.

#### 4.7. MODULAR BUILDING

- + There are deficiencies at exit doors of the building and require construction of an accessible route to the main walkway.
- + Toilet rooms on east and west corridor have deficiencies and require accessibility improvements.
- + The sink in the Barber Shop is not compliant. Upon replacing the sink should be accessible.

#### 4.8. GREENHOUSE

- + The Greenhouse Building is not on an accessible route. Construction of an accessible route with a compliant walking surface from the main walkway to the entrance is required.

### 5.0 MCI Framingham

The MCI-Framingham campus is located at 99 Loring Drive in Framingham, MA and was originally constructed prior to the effective date of the Americans with Disabilities Act (ADA). KMA conducted an accessibility audit on July 18, 2019, of selected buildings on the campus. Through review of the documentation provided by HDR, including the KMA Access Audit Report, Jensen Hughes has noted the following accessibility issues/considerations:

#### 5.1. EXTERIOR/SITE

- + There are significant site challenges due to steep terrain that prevent accessible routes between buildings/facilities.
- + Arrival to the campus is by vehicle and public transit. There is no sidewalk provided from the public right of way to the building entrance(s) and therefore no accessible route from a public right of way is provided. In the case public sidewalks are provided adjacent to a site, an accessible route is required from the public sidewalk to the building(s) entrance(s).
- + Parking is provided in one surface lot made available to both members of the staff and public. The number of accessible parking spaces is generally based on the total number of parking spaces provided in a parking facility. Consideration should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided.

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- + There is a smaller staff-only lot provided. Accessible parking is required in parking facilities dedicated for employees only.
- + The parking lot(s) lack designated van accessible parking. One (1) in every six (6) accessible parking spaces are to conform with van accessible parking space provisions including signage designating 'van accessible' parking. Restriping of parking spaces is required.
- + Accessible parking spaces do not provide compliant access aisles. Restriping of parking spaces is required.
- + There are deficiencies along the accessible route from the parking to the building entrance including excessive slope(s) and changes in level.
- + Amenities (e.g., Drinking fountains and benches) are not located on an accessible route.

#### 5.2. BETTY COLE SMITH BUILDING

- + There is no accessible route from the back yard to the picnic tables.
- + The rear door landing has an excessive slope.
- + The toilet rooms in the Visitor Waiting Room, Inmate Visitation Area (inmate and visitor) have deficiencies and require accessibility improvements.
- + The Inmate toilet and shower room have deficiencies and require accessibility improvements.
- + Service counters are not accessible. A portion of a service counter is required to be accessible. Modification to the existing counter(s) is required.
- + The drinking fountains in the Visitor Waiting Room and Visitation Area does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + Existing rooms signage is not accessible or is not provided. Compliant room signage is required.
- + Accessible seating is not provided in the dining hall.
- + The ATU and CCU housing cells have deficiencies and require accessibility improvements.
- + The sink and toilet in the Medical Room are not accessible and require modifications.

#### 5.3. OLD ADMINISTRATION

- + The ramp to the building entrance has deficiencies including an excessive slope and non-compliant handrails requiring reconstruction of the ramp.
- + Based on the information reviewed, it appears there are multiple deficiencies throughout the building that require significant alterations to for accessibility compliance.

#### 5.4. OLD SUPERINTENDENT HOUSE

- + Based on the information reviewed, it appears there are multiple deficiencies throughout the building that require significant alterations to for accessibility compliance.

#### 5.5. INFIRMARY ADMINISTRATION BUILDING

- + Based on the information reviewed, it appears there are multiple deficiencies throughout the building that require significant alterations to for accessibility compliance.

#### 5.6. BREWSTER BUILDING

- + The ramp to the building entrance has deficiencies including an excessive slope requiring reconstruction of the ramp.
- + Inmate toilet and shower rooms have multiple deficiencies likely requiring a significant alteration to fully comply with accessibility provisions.
- + The sink in the pantry area is not accessible and requires modification.

#### 5.7. MODULAR UNIT

- + There is no accessible route to the building entrance. Construction of a ramp is required.

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- + Inmate toilet and shower rooms have multiple deficiencies likely requiring a significant alteration to fully comply with accessibility provisions.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + The sink in the pantry area is not accessible and requires modification.

#### 5.8. LATP COTTAGES

- + Inmate toilet and shower rooms have multiple deficiencies likely requiring a significant alteration to fully comply with accessibility provisions.
- + The drinking fountain does not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + The sink in the pantry area is not accessible and requires modification.

#### 5.9. MAINTENANCE

- + There is no accessible route to the building entrance. Construction of a ramp is required.
- + Inmate toilet and shower rooms have multiple deficiencies likely requiring a significant alteration to fully comply with accessibility provisions.

### 6.0 South Middlesex Correctional Center

The South Middlesex Correctional Center is located at 135 Western Ave in Framingham, MA and was originally constructed prior to the effective date of the Americans with Disabilities Act (ADA). KMA conducted an accessibility audit on July 22, 2019, of selected buildings on the campus. Through review of the documentation provided by HDR, including the KMA Access Audit Report, Jensen Hughes has noted the following accessibility issues/considerations:

#### 6.1. EXTERIOR/SITE

- + The site is relatively flat and does not appear to pose accessibility challenges in regard to accessible circulation.
- + Arrival to the campus is by vehicle and public transit. There is no sidewalk provided from the public right of way to the building entrance(s) and therefore no accessible route from a public right of way is provided. In the case public sidewalks are provided adjacent to a site, an accessible route is required from the public sidewalk to the building(s) entrance(s).
- + There are two parking lots made available to both members of the staff and public. The number of accessible parking spaces is generally based on the total number of parking spaces provided in a parking facility. Consideration should be given to quantify the number of accessible parking spaces required separately based on the intended users (e.g., staff, public) to assure sufficient number of accessible parking spaces are provided.
- + The parking lot(s) lack designated van accessible parking. One (1) in every six (6) accessible parking spaces are to conform with van accessible parking space provisions including signage designating 'van accessible' parking. Restriping of parking spaces is required.
- + There are deficiencies along the accessible route from the parking to the building entrance including excessive slope(s) and changes in level.
- + Amenities (e.g., picnic tables, play area, basketball court, volleyball court, seating areas, greenhouse) are not located on an accessible route.

#### 6.2. MAIN BUILDING

- + The Visitor and Inmate toilet room(s) in the Visitor Area, and Inmate multiuser toilet room on the 2<sup>nd</sup> floor, have deficiencies and require accessibility improvements.



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- + The Inmate toilet and shower rooms on the 2<sup>nd</sup> and 3<sup>rd</sup> floor and single user toilet room in the basement have multiple deficiencies and require significant alterations to for accessibility compliance.
- + Service counters are not accessible. A portion of a service counter is required to be accessible. Modification to the existing counter(s) is required.
- + Drinking fountains do not comply with accessibility provisions. An accessible drinking fountain(s), when provided, is required.
- + Existing rooms signage is not accessible or is not provided. Compliant room signage is required.
- + Door hardware throughout the facility does not comply and some doors do not provide the required clear opening width and maneuvering clearance.
- + There are protruding objects along interior circulation routes and there is no cane detection under some stairs.
- + Accessible seating is not provided in the multipurpose hall and library.
- + Housing cells have deficiencies and require accessibility improvements.
- + No adjustable exam table is provided in the exam room.

### 6.3. REUNIFICATION HOUSE

- + The entry door threshold, hardware, and maneuvering clearance do not comply and require modification(s).
- + The single-user toilet room has deficiencies and requires accessibility improvements.
- + There is no accessible route to the kids' play structure/area.

### 6.4. AUTO GARAGE

- + The route to the building entrance has excessive slope(s).
- + The entry door threshold does not comply and requires modification.
- + The single-user toilet room has deficiencies and requires accessibility improvements.

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