Matthew R. Bernier
Associate General Counsel
Duke Energy Florida, LLC.

October 4, 2019

VIA ELECTRONIC FILING

Adam Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Fuel and purchased power cost recovery clause with generating performance incentive factor; Docket No. 20190001-EI*

Dear Mr. Teitzman:

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), DEF's Request for Confidential Classification filed in connection with certain information provided in the direct testimony of Richard A. Polich and Exhibit Nos. ___(RAP-3), ___(RAP-6), ___(RAP-7), and ___(RAP-8), filed on behalf of the Office of the Public Counsel. The filing includes the following:

- DEF's Request for Confidential Classification
- Slip-sheet for confidential Exhibit A
- Redacted Exhibit B (two copies)
- Exhibit C (justification matrix), and
- Exhibit D (affidavit of Jeffrey Swartz)

DEF's confidential Exhibit A that accompanies the above-referenced filing has been submitted under separate cover.

Thank you for your assistance in this matter. Please feel free to call me at (850) 521-1428 should you have any questions concerning this filing.

Respectfully,

s/Matthew R. Bernier

Matthew R. Bernier

MRB/mw
Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchased power cost recovery clause with generating performance incentive factor.	Docket No. 20190001-EI Dated: October 4, 2019

DUKE ENERGY FLORIDA LLC'S
REQUEST FOR CONFIDENTIAL CLASSIFICATION

Duke Energy Florida, LLC ("DEF" or "Company"), pursuant to Section 366.093, Florida Statutes (F.S.), and Rule 25-22.006, Florida Administrative Code (F.A.C.), submits this Request for Confidential Classification for certain information provided in the direct testimony of Richard A. Polich and Exhibit Nos. __ (RAP-3), __ (RAP-6), __ (RAP-7), and __ (RAP-8), filed on behalf of the Office of the Public Counsel ("OPC"), under claim of confidentiality on September 13, 2019. DEF filed its Notice of Intent to Request Confidential Classification on September 13, 2019. The Request is timely. *See* Rule 25-22.006(3)(a)1., F.A.C. In support of this Request, DEF states:

1. Information contained in the testimony of Richard A. Polich, specifically pages ii, 7, 8, and 16 through 22, and Exhibit Nos. __ (RAP-3), __ (RAP-6), __ (RAP-7), and __ (RAP-8), contain information that is "confidential proprietary business information" under Section 366.093(3), Florida Statutes.

2. The following exhibits are included with this request:

(a) Sealed Composite Exhibit A is a package containing unredacted copies of all

the documents for which DEF seeks confidential treatment. Composite Exhibit A is being submitted separately in a sealed envelope labeled "CONFIDENTIAL." In the unredacted versions, the information asserted to be confidential is highlighted in yellow.

(b) Composite Exhibit B is a package containing two copies of redacted versions of the documents for which the Company requests confidential classification. The specific information for which confidential treatment is requested has been blocked out by opaque marker or other means.

(c) Exhibit C is a table which identifies by page and line the information for which DEF seeks confidential classification and the specific statutory bases for seeking confidential treatment.

3. As indicated in Exhibit C, the information for which DEF requests confidential classification is "proprietary confidential business information" within the meaning of Section 366.093(3), F.S. Specifically, the information at issue includes proprietary and confidential third-party owned information, the disclosure of which would impair the third-party's competitive business interests, and if disclosed, the Company's competitive business interests and efforts to contract for goods and services on favorable terms. *See* § 366.093(3)(d) & (e), F.S.; Affidavit of Jeffrey Swartz at ¶¶ 4, 5 and 6. Accordingly, such information constitutes "proprietary confidential business information" which is exempt from disclosure under the Public Records Act pursuant to Section 366.093(1), F.S.

4. More specifically, the information at issue relates to proprietary third-party drawings, pictures, and technical information regarding the third-party's proprietary component design and operation parameters. If DEF cannot demonstrate to its third-party OEM, and others that may enter contracts with DEF in the future, that DEF has the ability to protect those third-parties' confidential

and proprietary business information, third-parties will be less likely to provide that information to DEF – harming DEF's ability to prudently operate its business. *See* § 366.093(3)(d) & (e), F.S.; Affidavit of Jeffrey Swartz at ¶¶ 4, 5 and 6. Furthermore, disclosure of the information could detrimentally impact DEF's ability to negotiate favorable contracts as third-parties may begin to demand a "premium" to do business with DEF to account for the risk that its proprietary information will become a matter of public record, thereby harming DEF's competitive interests and ultimately its customers' financial interests. *See* § 366.093(3)(e), F.S.; Affidavit of Jeffrey Swartz at ¶ 6. Accordingly, such information constitutes "proprietary confidential business information" which is exempt from disclosure under the Public Records Act pursuant to Section 366.093(1), F.S.

5. The information identified as Exhibit "A" is intended to be and is treated as confidential by the Company. See Affidavit of Jeffrey Swartz at ¶ 7. The information has not been disclosed to the public, and the Company has treated and continues to treat the information and contracts at issue as confidential. See Affidavit of Jeffrey Swartz at ¶ 7.

6. DEF requests that the information identified in Exhibit A be classified as "proprietary confidential business information" within the meaning of section 366.093(3), F.S., that the information remain confidential for a period of at least 18 months as provided in section 366.093(4) F.S., and that the information be returned as soon as it is no longer necessary for the Commission to conduct its business.

WHEREFORE, for the foregoing reasons, DEF respectfully requests that this Request for Confidential Classification be granted.

RESPECTFULLY SUBMITTED this 4th day of October, 2019.

*s/Matthew R. Bernier*_____

DIANNE M. TRIPLETT
Deputy General Counsel
299 First Avenue North
St. Petersburg, FL 33701
T: 727-820-4692
F: 727-820-5041
Email: Dianne.Triplett@duke-energy.com

MATTHEW R. BERNIER
Associate General Counsel
106 East College Avenue, Suite 800
Tallahassee, Florida 32301
T: 850-521-1428
F: 727-820-5519
Email: Matthew.Bernier@duke-energy.com

Attorneys for Duke Energy Florida, LLC

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via email this 4th day of October, 2019, to all parties of record as indicated below.

s/Matthew R. Bernier
Attorney

Suzanne Brownless Office of General Counsel FL Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 sbrownle@psc.state fl.us J. Beasley / J. Wahlen / M. Means Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com mmeans@ausley.com Steven Griffin Beggs & Lane P.O. Box 12950 Pensacola, FL 32591 srg@beggslane.com Russell A. Badders Gulf Power Company One Energy Place Pensacola, FL 32520 russell.badders@nexteraenergy.com Holly Henderson Gulf Power Company 215 S. Monroe St., Ste. 618 Tallahassee, FL 32301 holly henderson@nexteraenergy.com Kenneth A. Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken hoffman@fpl.com Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com	J.R. Kelly / P. Christensen / T. David / S. Morse Office of Public Counsel 111 W. Madison St., Room 812 Tallahassee, FL 32399-1400 kelly.jr@leg.state fl.us christensen.patty@leg.state.fl.us david.tad@leg.state.fl.us morse.stephanie@leg.state fl.us Ms. Paula K. Brown Regulatory Affairs Tampa Electric Company P.O. Box 111 Tampa, FL 33601-0111 regdept@tecoenergy.com Maria Moncada / Joel Baker Florida Power & Light Company 700 Universe Blvd. (LAW/JB) Juno Beach, FL 33408-0420 maria moncada@fpl.com joel.baker@fpl.com James Brew / Laura Wynn Stone Law Firm 1025 Thomas Jefferson St., N.W. Suite 800 West Washington, DC 20007 jbrew@smxblaw.com law@smxblaw.com Mike Cassel Florida Public Utilities Company 1750 S. 14th Street, Suite 200 Fernandina Beach, FL 32034 mcassel@fpuc.com Beth Keating Gunster, Yoakley & Stewart, P.A. 215 South Monroe Street, Suite 601 Tallahassee, FL 32301 bkeating@gunster.com

Exhibit A

“CONFIDENTIAL”

(filed under separate cover)

Exhibit B

REDACTED

(two copies)

EXHIBITS

2. Exhibit No. ___(RAP-2) Richard Polich Regulatory Testimony List
3. Exhibit No. ___(RAP-3) Bartow Combined Cycle Thermal Cycle
4. Exhibit No. ___(RAP-4) Turbine Generator Output Curve
5. Exhibit No. ___(RAP-5) BCC ST Operation Greater than 420 MW
6. Exhibit No. ___(RAP-6) [redacted] dated September 18, 2013
7. Exhibit No. ___(RAP-7) Bartow RCA Review, dated March 15, 2017
8. Exhibit No. ___(RAP-8) Update on 40" Last Stage Blade, dated 2015
9. Exhibit No. ___(RAP-9) Bartow Combined Cycle Replacement Power Costs

II. TESTIMONY SUMMARY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My review of various documents provided by DEF regarding the BCC low pressure turbine L0 blade failures reveals that the cause of the blade failures initially experienced in 2012 was DEF's operation of the BCC ST beyond the ST's 420 MW design. [redacted]

DEF operated the ST at BCC in excess of 420 MW from June 2009 until the February 2012 outage for a combined 2,973 hours. As of the time of filing this testimony, DEF has failed to provide any documentation that demonstrates they communicated with

MHPS about operation of the ST in excess of 420 MW, until after the failure of the L0 blades was discovered.

DEF operated the BCC ST with the original design L0 blades for 63 months after the plant entered initial operation—a period of only slightly over five years. After the February 2012 outage, DEF operated BCC in a manner that generated an ST output at or below the design of 420 MW with the [redacted] L0 blades, for an additional 28 months (within that first 63 months of operation). [redacted] If DEF had operated the ST at BCC in accordance with design output of 420 MW or less, I believe there is no engineering basis to conclude that the original L0 blades would not still be in operation today. Likewise, DEF would not have needed to undertake any of the subsequent outages to repair L0 blades, including the outage in February 2017 to replace the L0 blades with the pressure plate. Consequently, the BCC ST would currently be capable of producing its full output of 420 MW instead of being derated to 380 MW and operating with a less-than-optimal pressure plate.

As a result of the 2017 outage and the 40 MW reduction in BCC ST output (derate) due to installation of the pressure plate, DEF incurred power costs for the replacement MWh. DEF has failed to demonstrate that ratepayers should be responsible for these costs since the 2017 outage and subsequent derate were the result of DEF imprudently operating the BCC ST in excess of the manufacturer's 420 MW design

Q. HOW WAS THE BCC ST OPERATED IN 2012 UP THROUGH THE FEBRUARY 2012 OUTAGE?

A. The ST was operated close to 450 MW in both January and February 2012, accumulating 77.9 hours of operation over 420 MW. Total operation in excess of ST design conditions since plant commercial operation in 2009 through February 2012, was almost 2,973 hours out of 21,734 hours of operation (from DEF Exhibit No. ___JS-1 (Docket No. 20180001-EI)). Over 13% of the operating hours in that initial period of operating the newly completed BCC plant were in excess of design conditions.

Q. DID DEF INFORM MHPS IT INTENDED TO OPERATE THE BCC ST ON A REGULAR BASIS IN EXCESS OF 420 MW?

A. In response to OPC Fourth Set of Interrogatories, Interrogatory 21, DEF states; "DEF did not correspond or discuss operating the steam turbine at 450 MW." As of the filing of this testimony, DEF has not produced any documentation from MHPS that shows MHPS acknowledging or agreeing that the BCC ST could be operated in excess of 420 MW. In his 2018 testimony, DEF witness Jeffery Swartz includes Exhibit No. ___(JS-1) (Docket No. 20180001-E1) which contains a Table A, titled "Bartow L-0 Events Summary" which breaks down the history of the BCC ST operation into five (5) periods. In the first column, labeled "Period 1" under the row titled [redacted] he following note is provided:

[redacted]

This is further indication that MHPS was unaware of DEF's intent to operate—or DEF's operation of—the BCC ST in excess of 420 MW. DEF has failed to provide documentation as of the time of my testimony that MHPS provided DEF documentation indicating that the ST could operate in excess of 420 MW.

Q. WHY DID DEF STATE IT FELT THERE WERE NO ISSUES WITH OPERATION OF THE BCC ST IN EXCESS OF 420 MW?

A. MHPS provided DEF with operating conditions that specified operating parameters for the ST. These operating parameters included a variety of conditions, including HP and IP ST section inlet pressure and temperature conditions and condenser design conditions. After DEF performed a review in 2017-2018 of its initial operation of the BCC ST, DEF was of the opinion that, if steam conditions to the ST were within the HP, IP, condenser pressure, and temperature operating parameters, output of the BCC ST could be increased until these parameters were reached. DEF has provided no contemporaneous documentation from the period prior to the February 2012 outage of DEF's operating the newly installed BCC that MHPS concurred in DEF's retrospective claim. The result of DEF's decision was that it raised the horsepower output of the ST such that it was producing over 450 MW, which is 9% higher than MHPS design conditions.

Q. WHAT HAPPENED IN FEBRUARY 2012 AT BCC?

A. DEF scheduled a planned outage for valve work and inspection of the LP ST blades. During the inspection of the L0 blades, [redacted]

[redacted] The L0 blades are the last row of blades the steam passes through prior to entering the condenser and are the longest blades in the ST at 40".

Q. WERE THERE SUBSEQUENT BLADE FAILURES AFTER FEBRUARY 2012?

A. Yes, as shown in DEF's 2018 Exhibit No. ___(JS-1), there were subsequent blade failures, [redacted] In February 2017, BCC experienced an outage due to L0 blade failures, and DEF decided to install a "pressure plate" to replace the L0 blades until a solution was found to the blade failures. A pressure plate is a disk with engineered holes to reduce the steam energy, allowing it to decrease in pressure to condenser pressure. The pressure plate does not convert any of the steam force into turbine horsepower and results in a loss of turbine horsepower. This resulted in the BCC ST maximum output being limited to only 380 MW. This, in turn, is what caused a derate of the ST from 420MW to 380MW. This derate was a natural consequence of the cascading series of blade failures precipitated by DEF's operation of the ST in Period 1.

VI. EVALUATION OF BCC STEAM TURBINE BLADE FAILURES

Q. HOW MANY TIMES DID DEF DISCOVER PROBLEMS WITH THE BCC ST?

A. DEF found damage to L0 blades on three other occasions after the initial blade damage was discovered in February 2012. As alluded to above, DEF separated the ST operating history into 6 periods. Period 1 starts with commercial operation and extends

until the problems were found during the February 2012 outage. Period 2 began after the February 2012 outage and extends until November 2014 when new L0 blades [redacted] were installed. Period 3 begins at the end of the 2014 outage and lasts until April 2016 when problems were found with the [redacted] Period 4 begins with the installation of the [redacted] in June 2016 and ends when blade failures were found in October 2016. Period 5 starts when DEF decided to [redacted] in December 2016 and ends in January 2017 when the component called the burst diaphragm was damaged by parts from these L0 blades. Period 6 began in April 2017 after the L0 blades were replaced by a pressure plate and is expected to continue until the end of September of this year.

Q. WHAT ACTION DID DEF TAKE AFTER THE BLADE DAMAGE WAS DISCOVERED IN FEBRUARY 2012?

A. Upon finding the 2012 blade failures, DEF engaged MHPS and several other entities to determine the cause of the blade failures. MHPS conducted a Root Cause Analysis ("RCA") of the failures. MHPS first stated in a report dated September 18, 2013, tha [redacted] In this report, [redacted] over 15% of the operating hours. This is consistent with, but still understates, the 2,973 operating hours derived by totaling the hours in column 420 for Period 1 in Exhibit No. ___(RAP – 5).

Since all the damaged blades in Period 1 were on the [redacted] the L0 blades were replaced only on that end of the ST with [redacted] MHPS informed DEF not to operate the ST above 420 MW and [redacted] During Period 2, DEF only exceeded the 420 MW limit for 1.7 hours. Average maximum monthly load was only 396 MW during Period 2. The ST was removed from service in September 2014 to install the [redacted]

Q. WHAT WAS THE CONDITION OF THE L0 40" BLADES AT THE END OF PERIOD 2?

A. The [redacted] L0 40" blades used during Period 2 did not experience [redacted] According to DEF documents, no significant damage was found.

Q. BASED UPON THE VARIOUS DOCUMENTS PROVIDED BY DEF, WHAT WAS THE CAUSE OF THE L0 40" BLADE FAILURES UP UNTIL THE END OF PERIOD 2 (NOVEMBER 2014)?

A. The cause of the 40" L0 blade failures in the BCC LP ST during period 1 was the result of DEF operating the unit in excess of the 420 MW design output. MHPS has stated in multiple documents that [redacted] After over 2,600 (or up to 2,973) hours of operation in excess of 420 MW over a 63-month period, the only type of failure that had manifested itself up to that point was the [redacted] (See Exhibit No. ___(JS-1). [redacted]

(Exhibit No. ___(RAP-6), at 7, 19, and 20). Notably, the Period 1 [redacted] See statements by MHPS in Exhibit No. ___(RAP-7), at 7 and Exhibit No. ___(RAP-8), at 8). [redacted] Operation of the BCC ST to produce an output appreciably in excess of 420 MW resulted in forces on the L0 blades that were 13% to 25% higher than the other MHPS units of similar design. Thus, it is obvious that DEF's operation of the BCC ST above the 420 MW design was a material cause of the failure of the L0 blades.

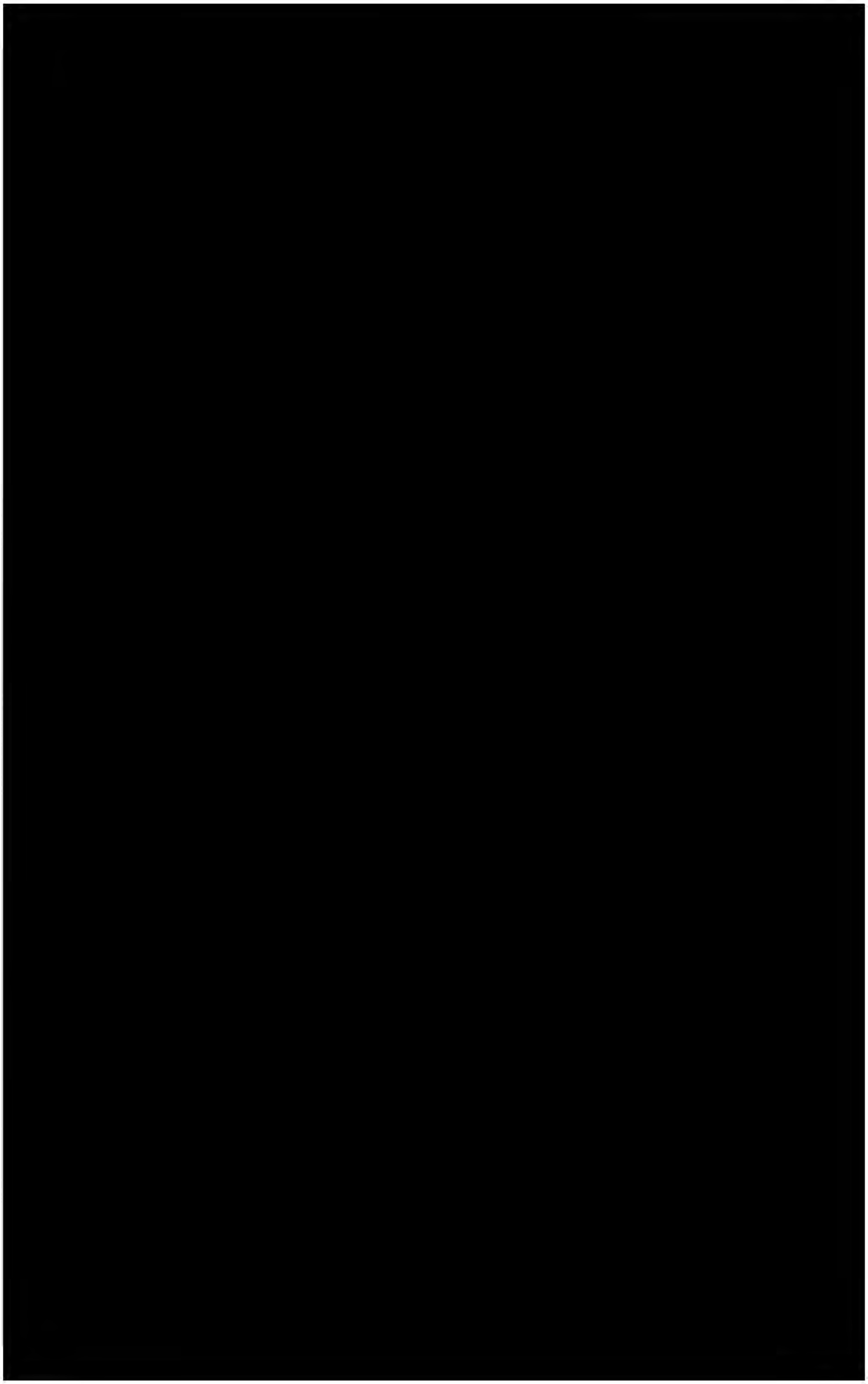
Q. WHAT WOULD ST OPERATIONAL OUTCOME HAVE BEEN IF DEF OPERATED THE BCC ST AT OR BELOW THE ORIGINAL DESIGN CONDITIONS DURING PERIODS 1 & 2?

A. Based upon the information provided in various documents and the RCA conducted by MHPS, DEF has not demonstrated that the original L0 blades would have experienced even minimal degradation over the design life of these blades if it had operated the BCC ST at or below the original design output of 420 MW. The [redacted] blades lasted for a period of only about five years after being subjected to stresses significantly beyond original design. The impact of stress on steam turbine blades is a cumulative effect and when a blade as long as the L0 blades is subjected to much higher than design forces, the impact is not linear.

VII. EVALUATION OF REPLACEMENT POWER COSTS ASSOCIATED WITH BCC GENERATION LOSSES

Q. HAS DEF DEMONSTRATED THAT ITS RATEPAYERS SHOULD BE RESPONSIBLE FOR THE REPLACEMENT POWER COSTS ASSOCIATED WITH OUTAGES AND REDUCED PRODUCTION FROM THE BCC PLANT AS A RESULT OF THE LP ST L0 BLADE FAILURES?

A. No, DEF has failed to demonstrate that it should not be responsible for the costs resulting from its operation of the ST. As presented earlier in my testimony, the failures of the original L0 blades are the result of DEF operating the ST above the 420 MW design condition. All subsequent outages and derates since 2012 have their origin in the operation of the ST in excess of 420 MW. DEF has failed to demonstrate that had it operated the ST within original design conditions the original blades would not still be in operation. If the original L0 blades had not failed due to DEF's operation of the BCC ST beyond the 420 MW design, DEF would not have installed the [redacted] and [redacted] blades, nor experienced the associated outages. In addition, if the original L0 blades had not failed due to DEF's operation during Period 1, the pressure plate would not be currently installed, and the ST would be capable of producing its designed output of 420 MW. DEF knew or should have known the designed generation capability of the ST was only 420 MW from the thermal analysis performed prior to operation and from the contract documents for the MHPS ST. These documents show the unit was designed for output of 420 MW. If DEF had discussed operation of the ST above 420 MW with MHPS prior to the initial operation at higher load,



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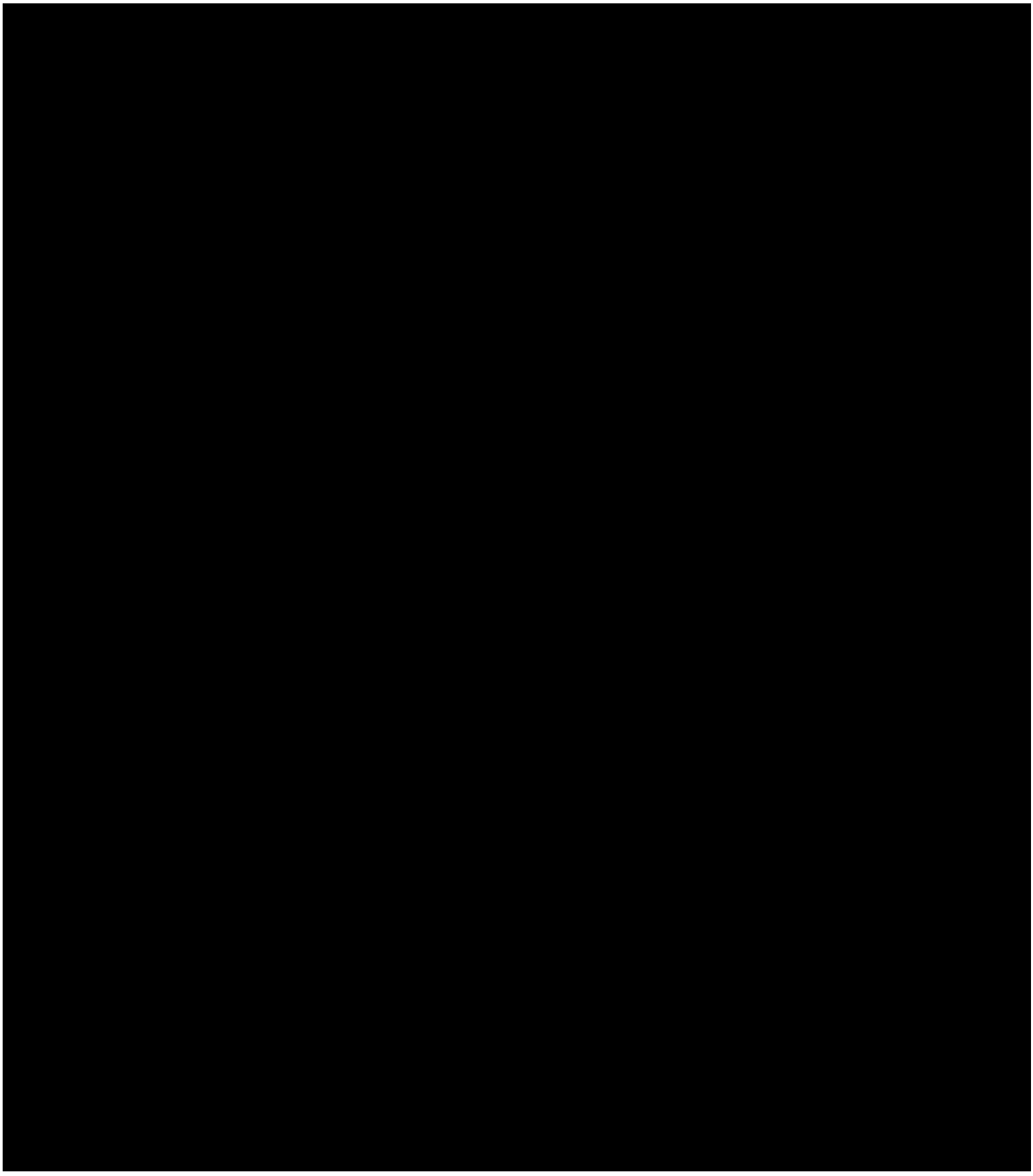

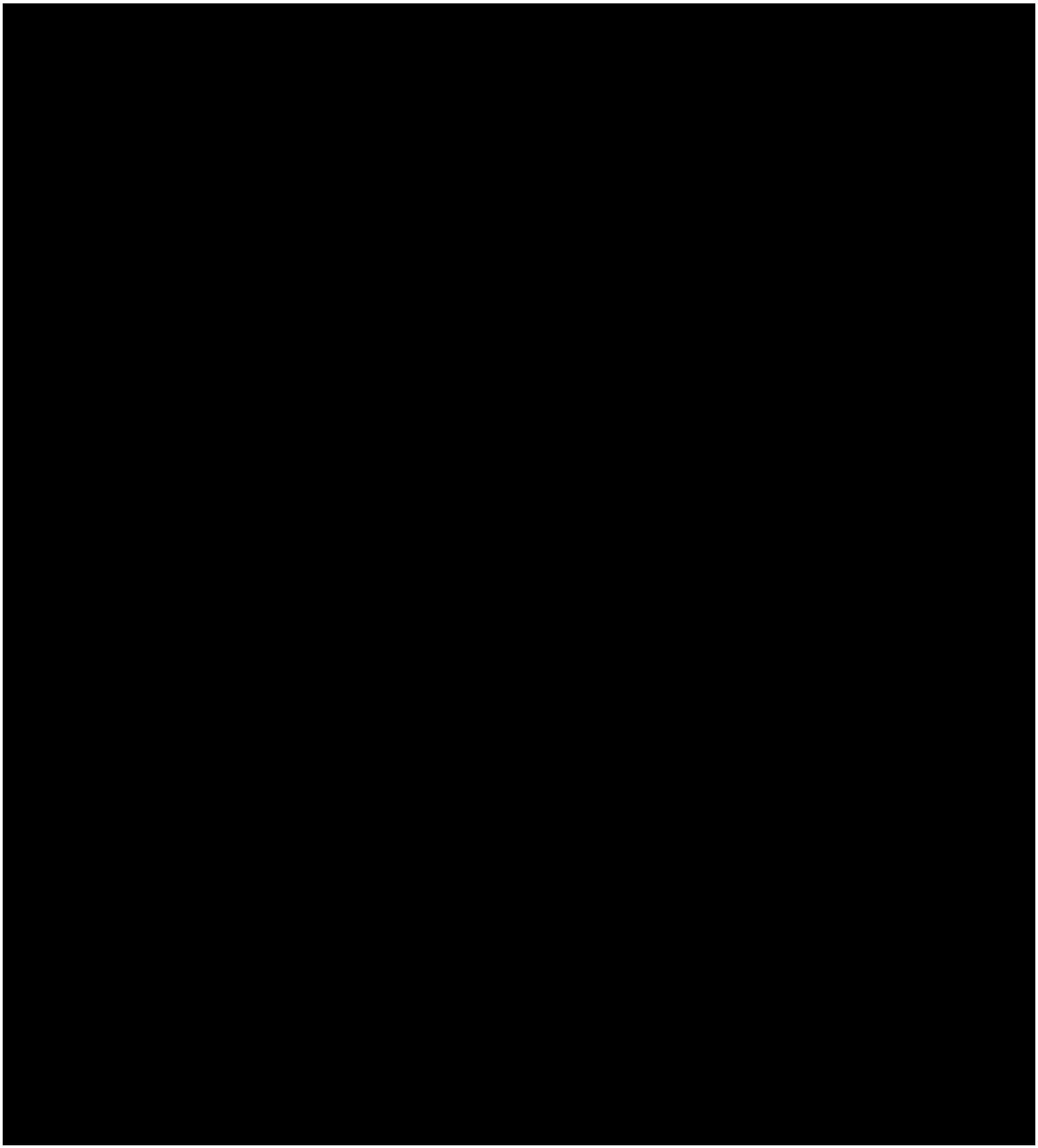

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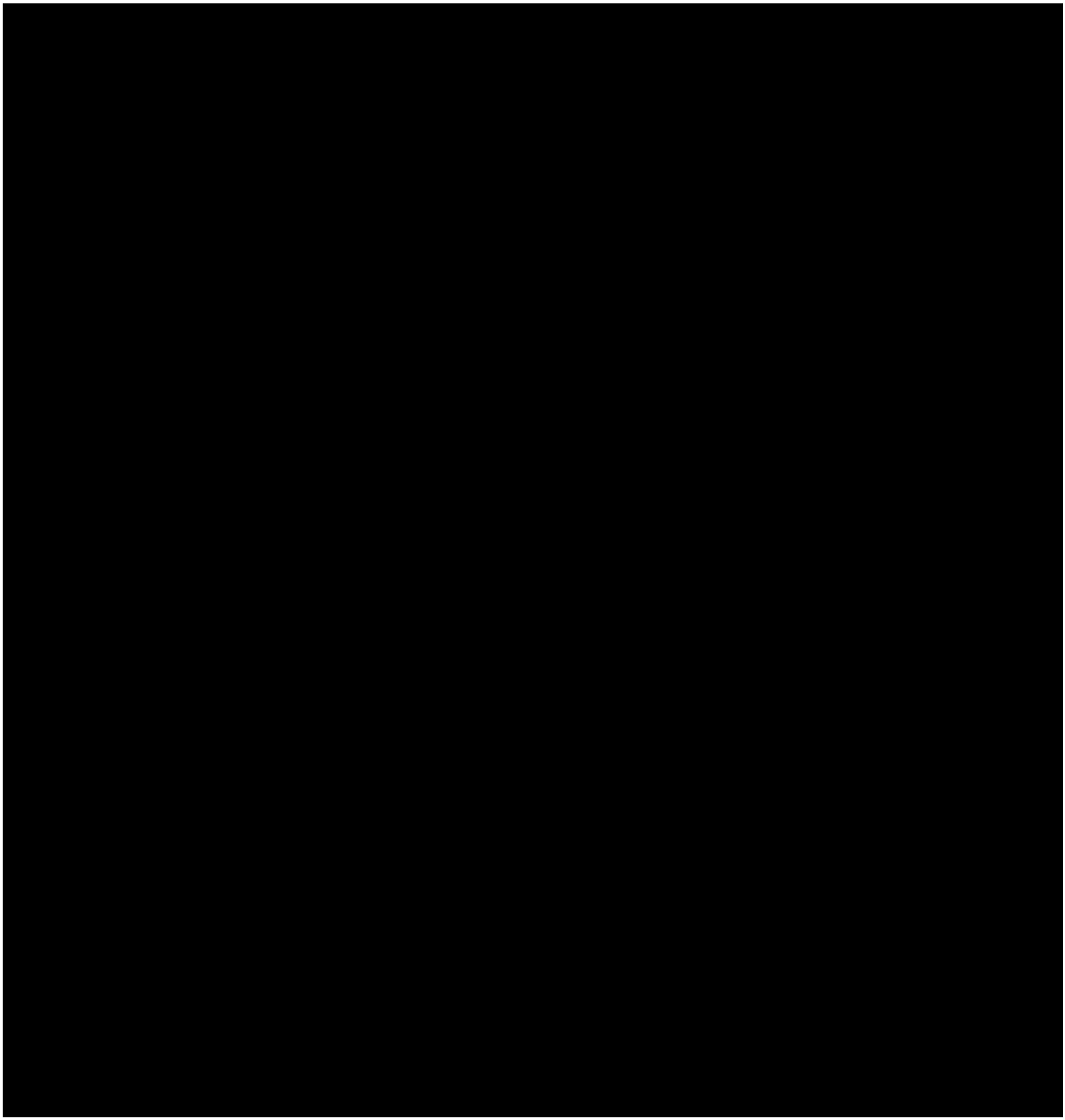

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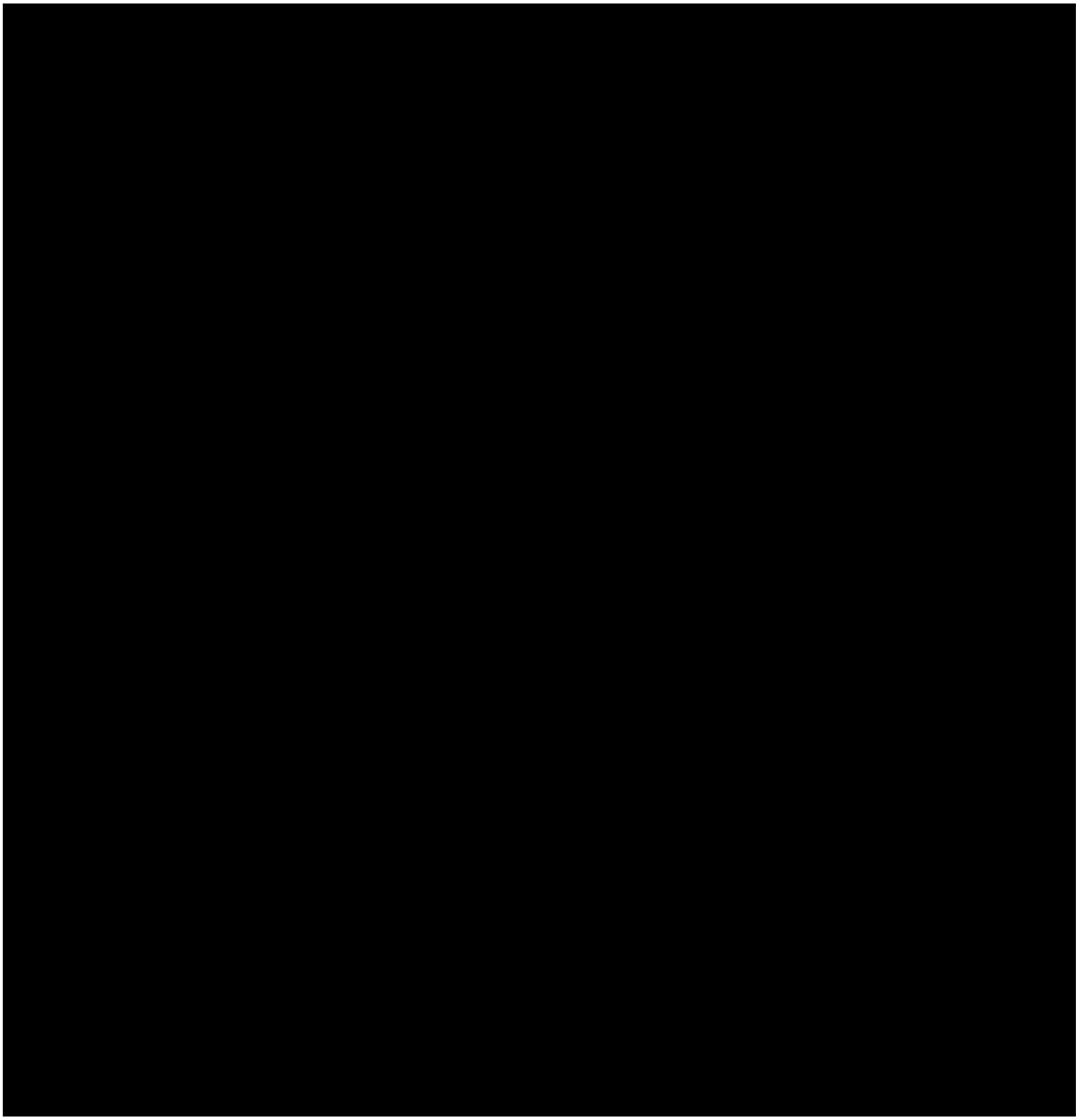

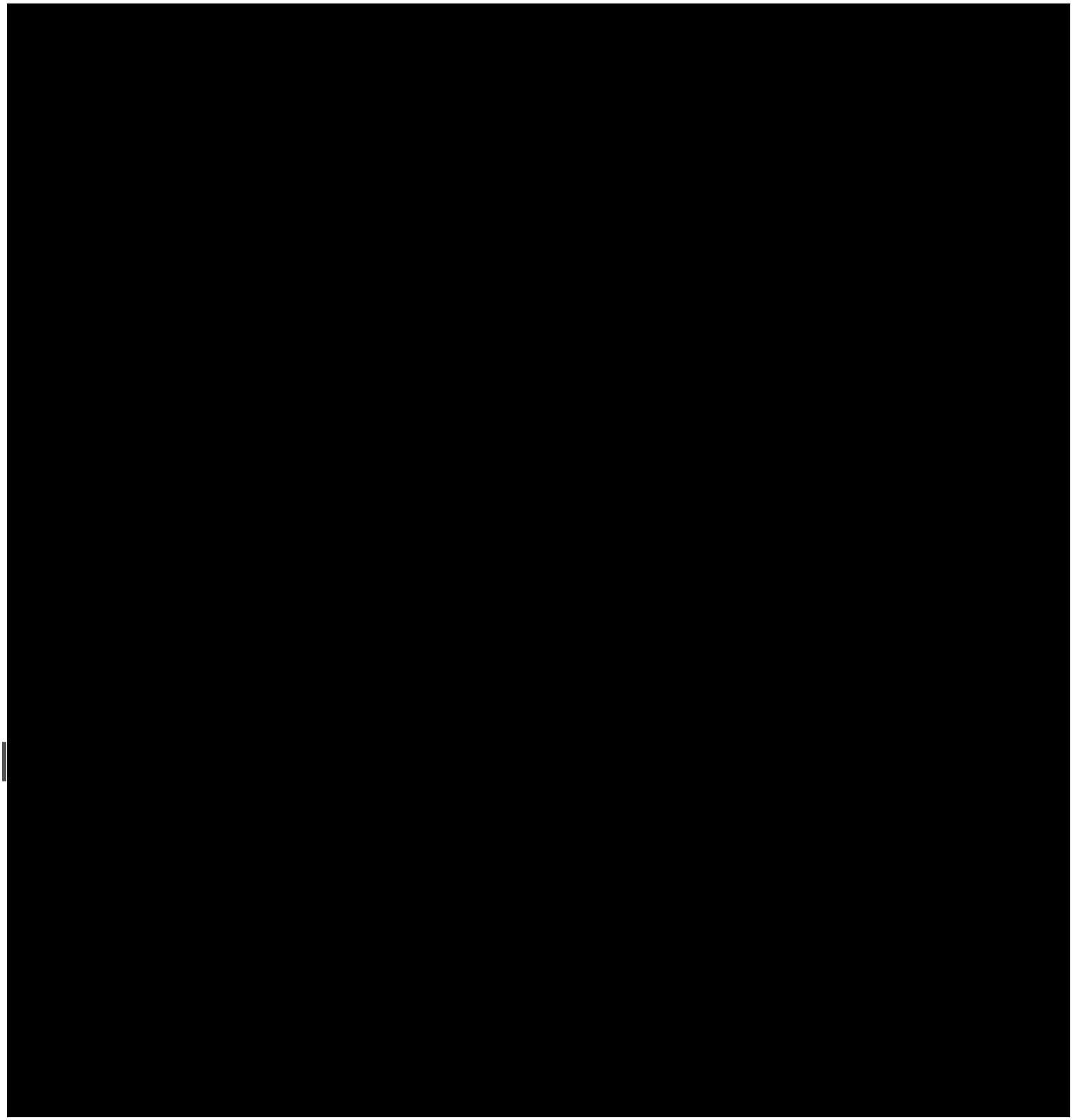

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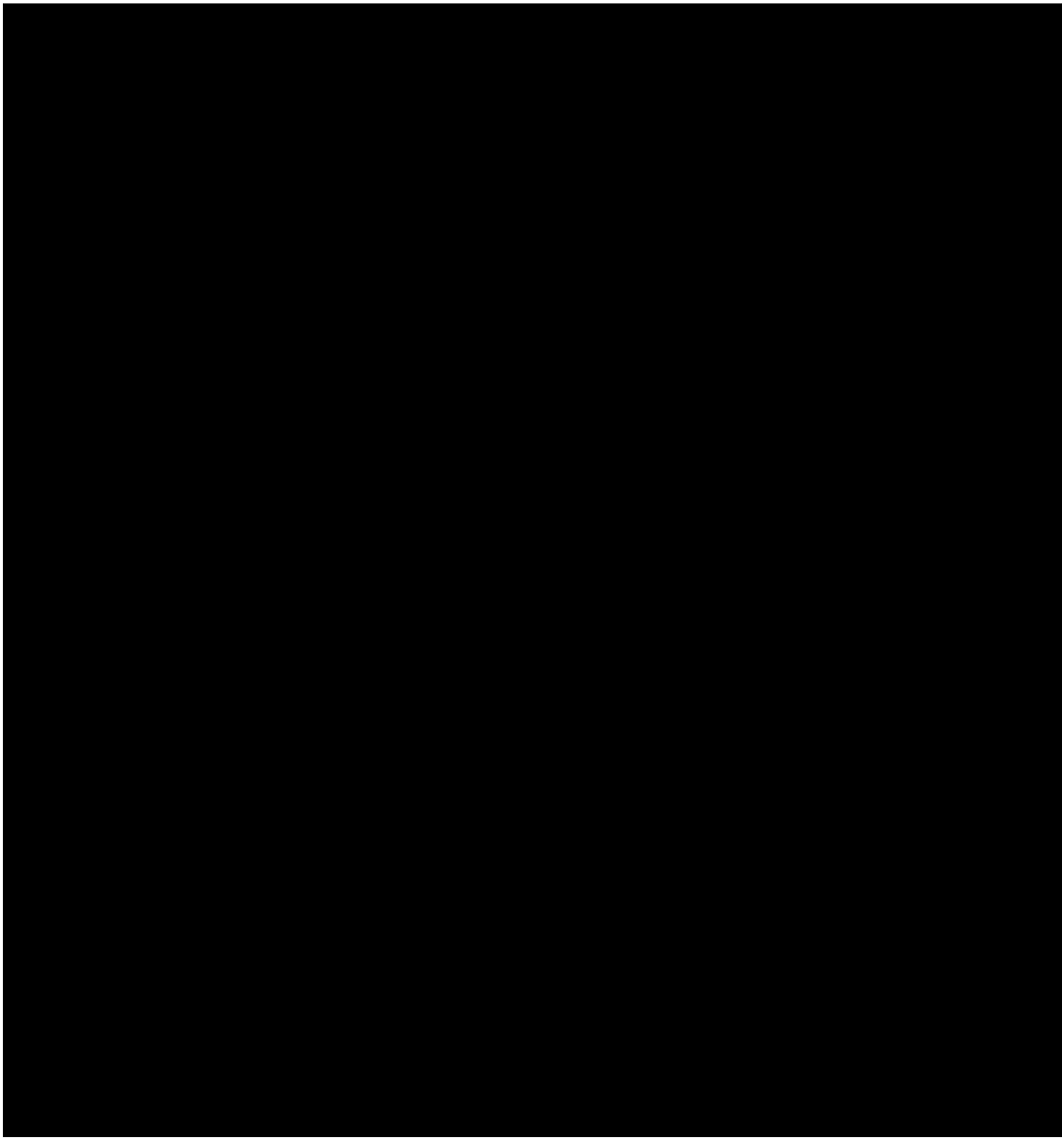

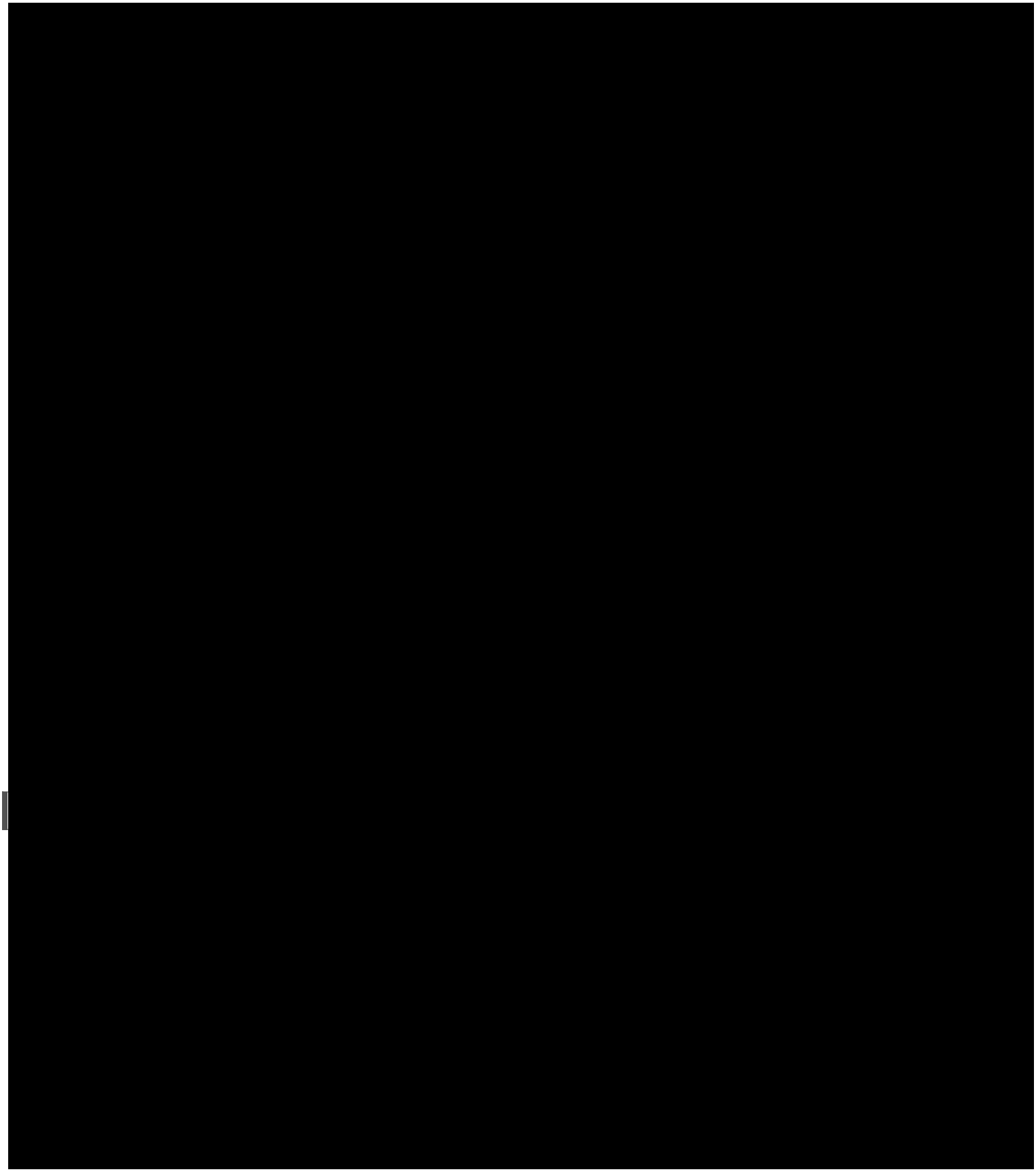

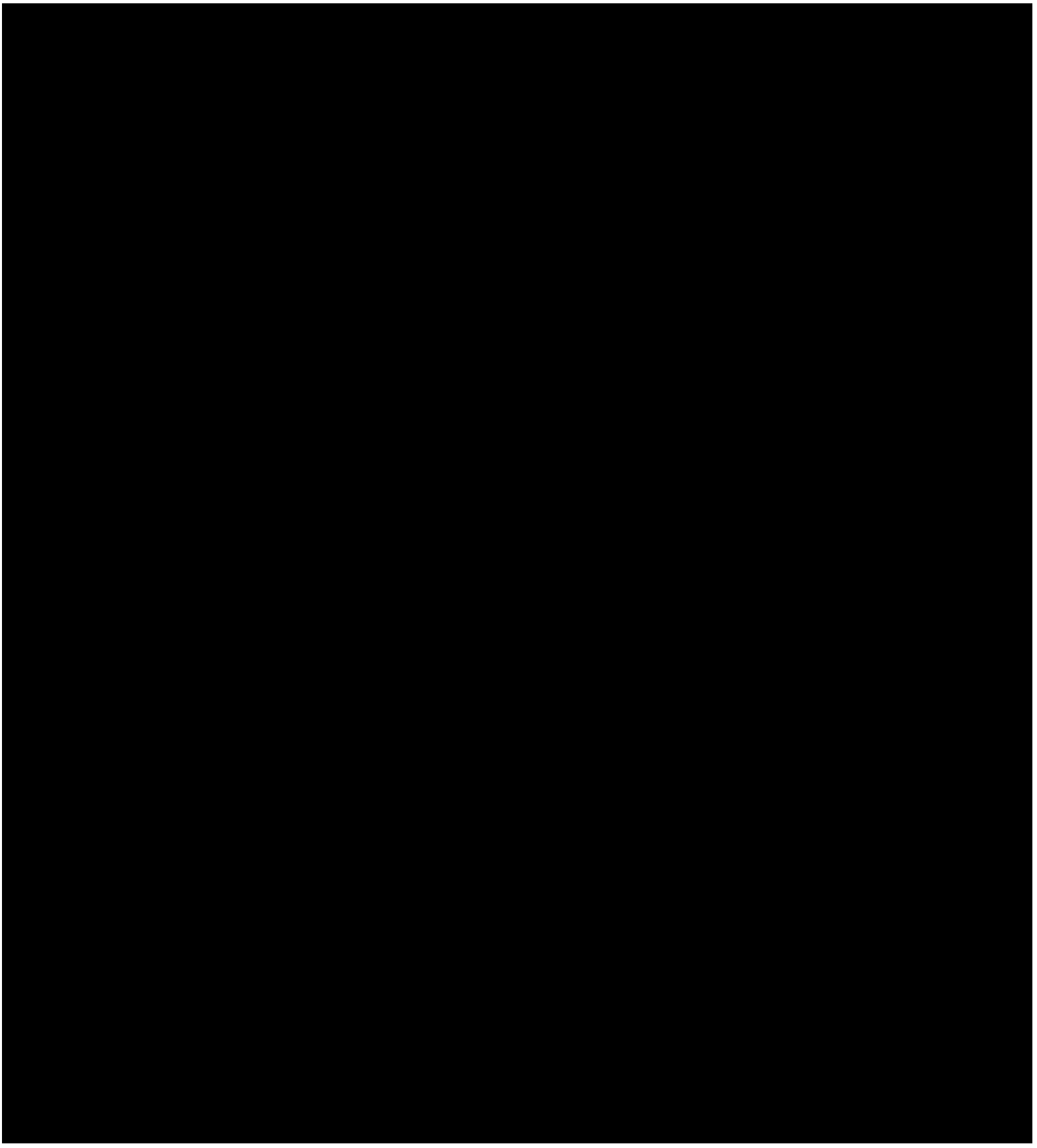

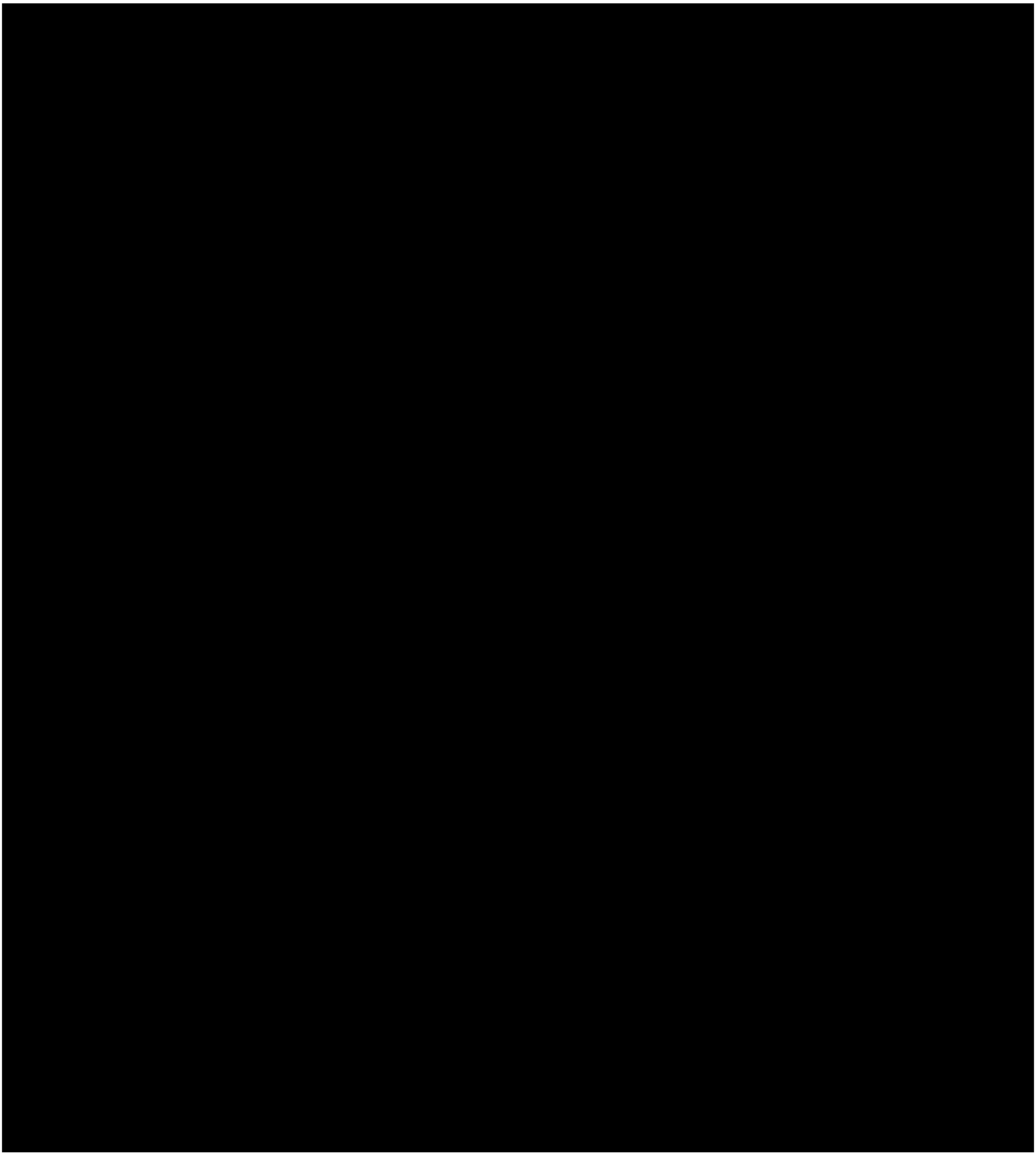

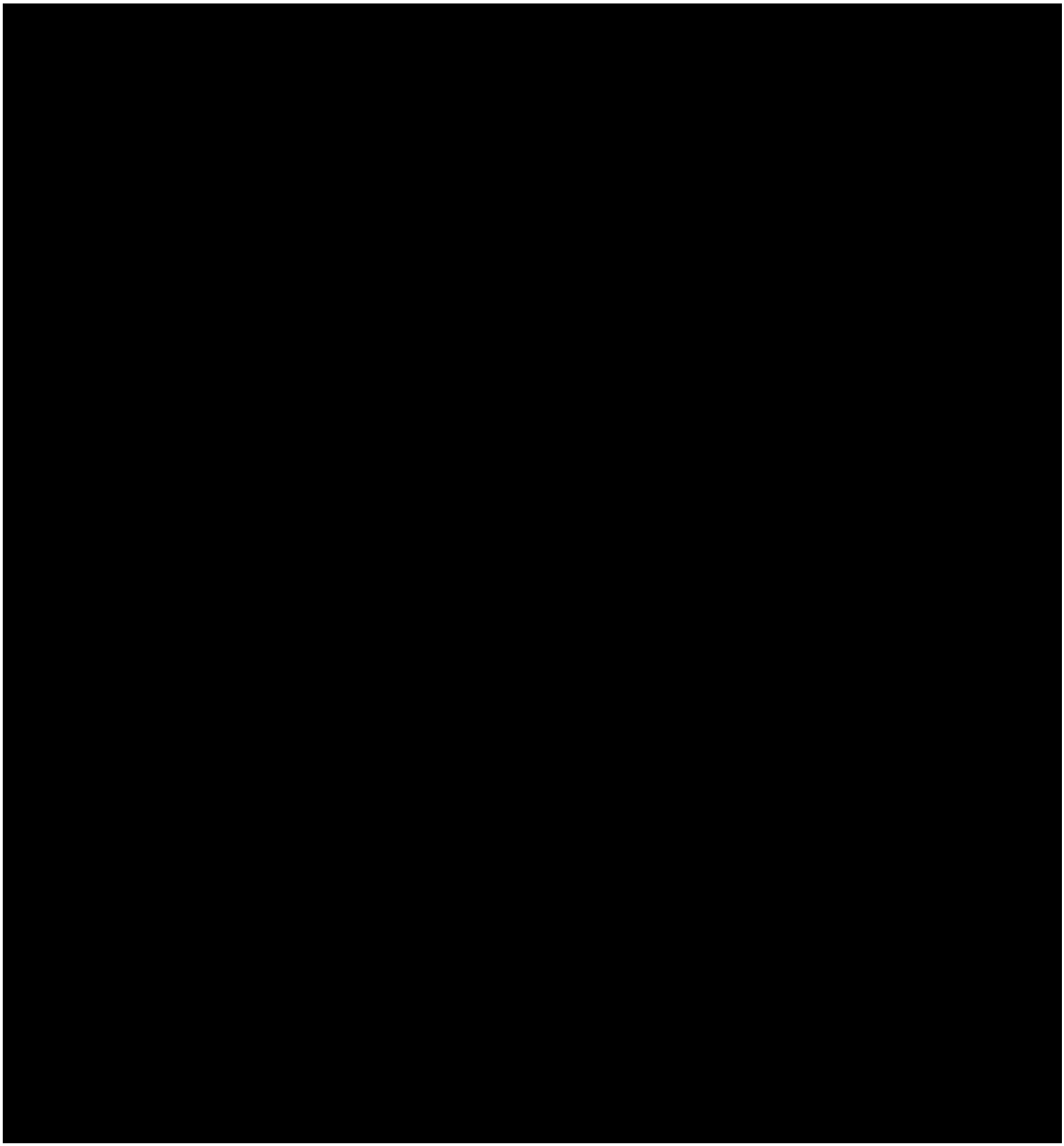

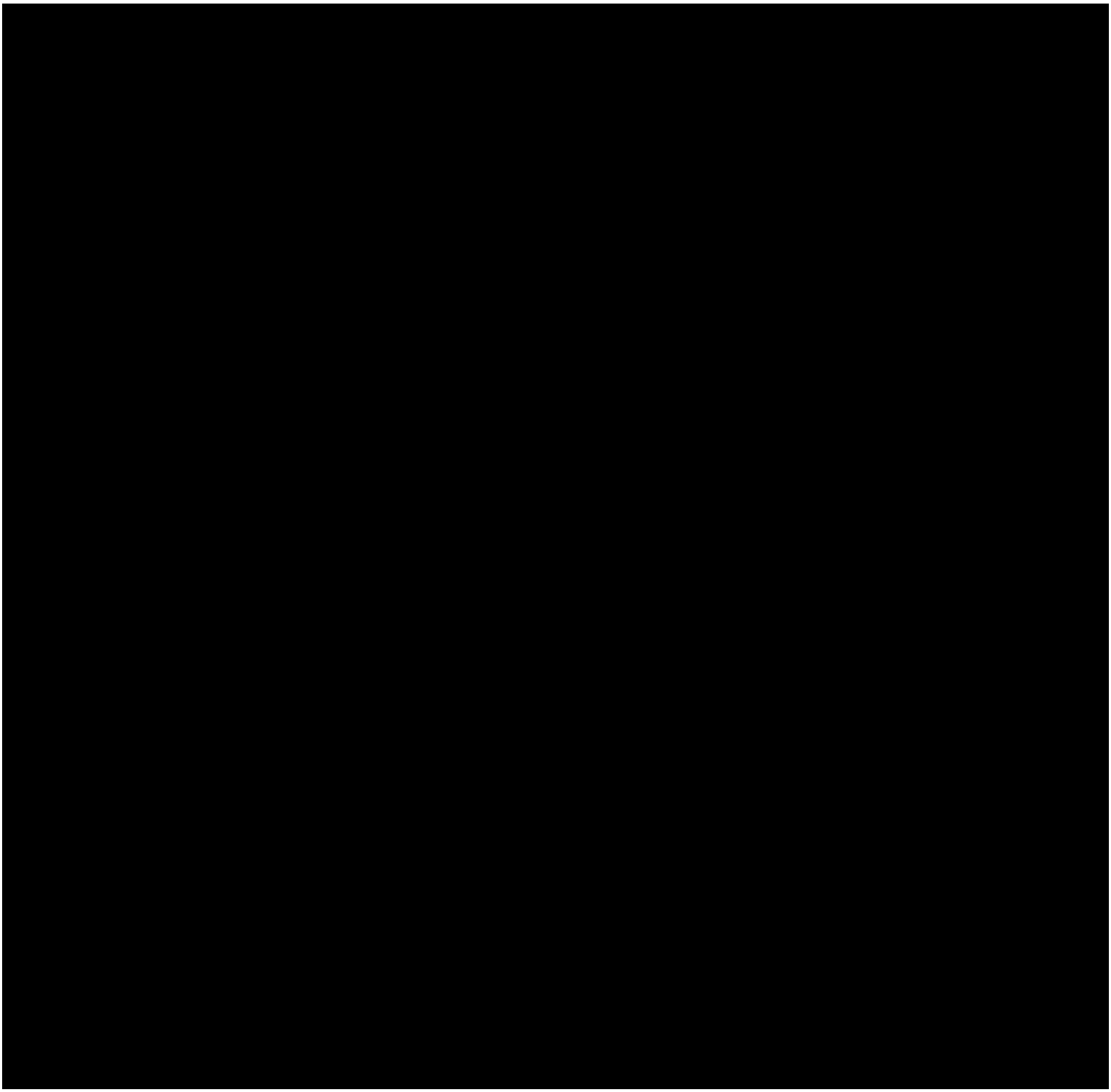

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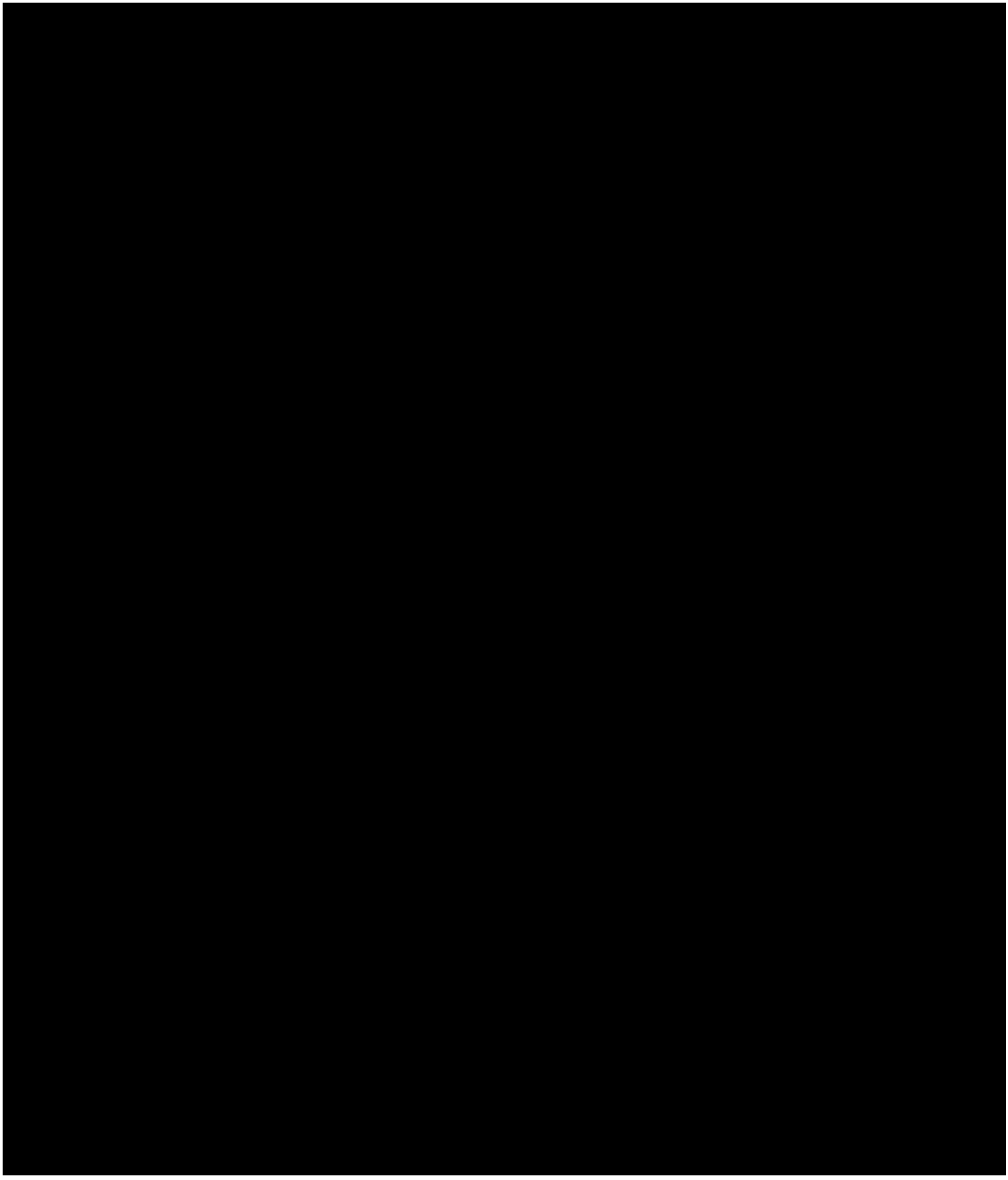
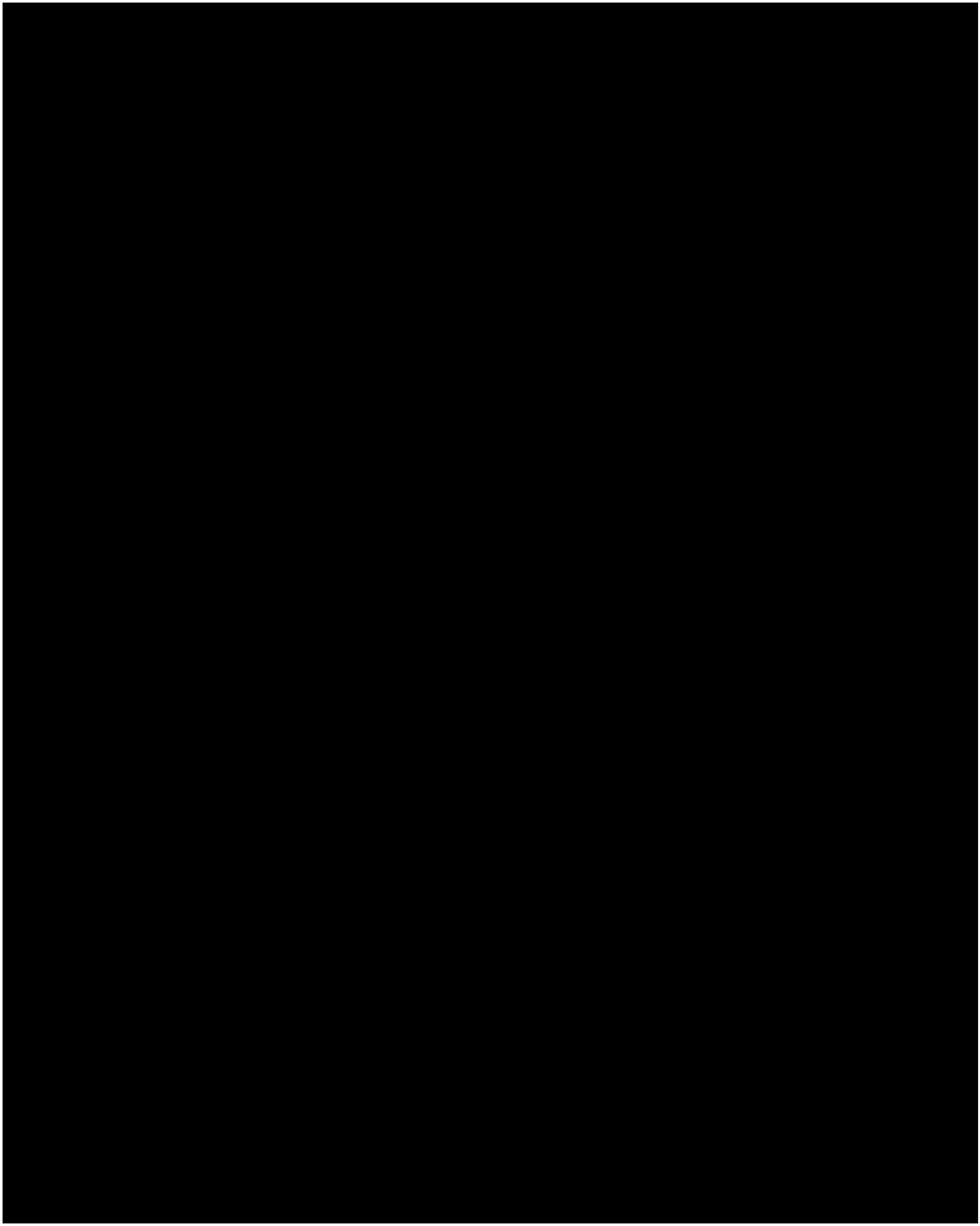
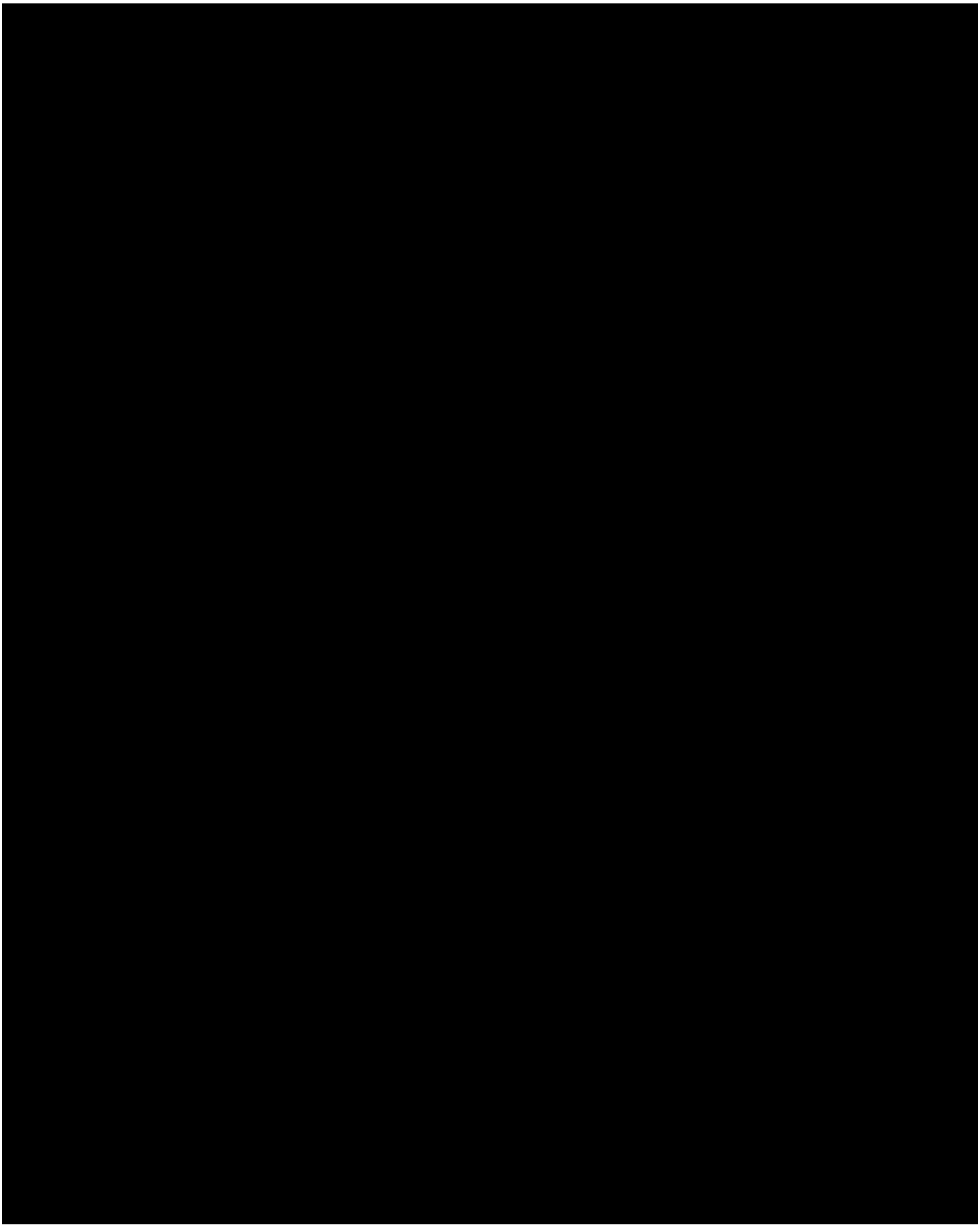
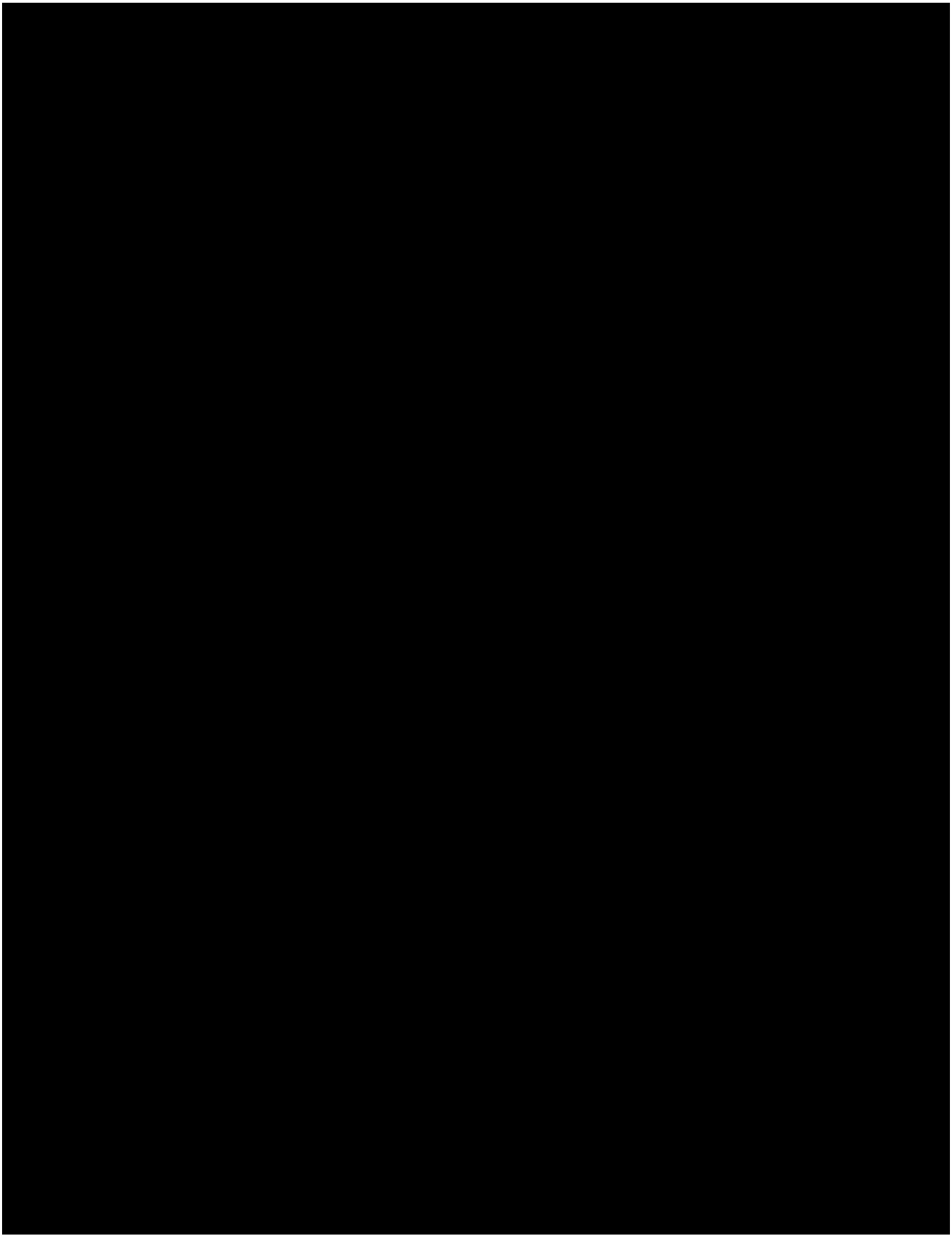
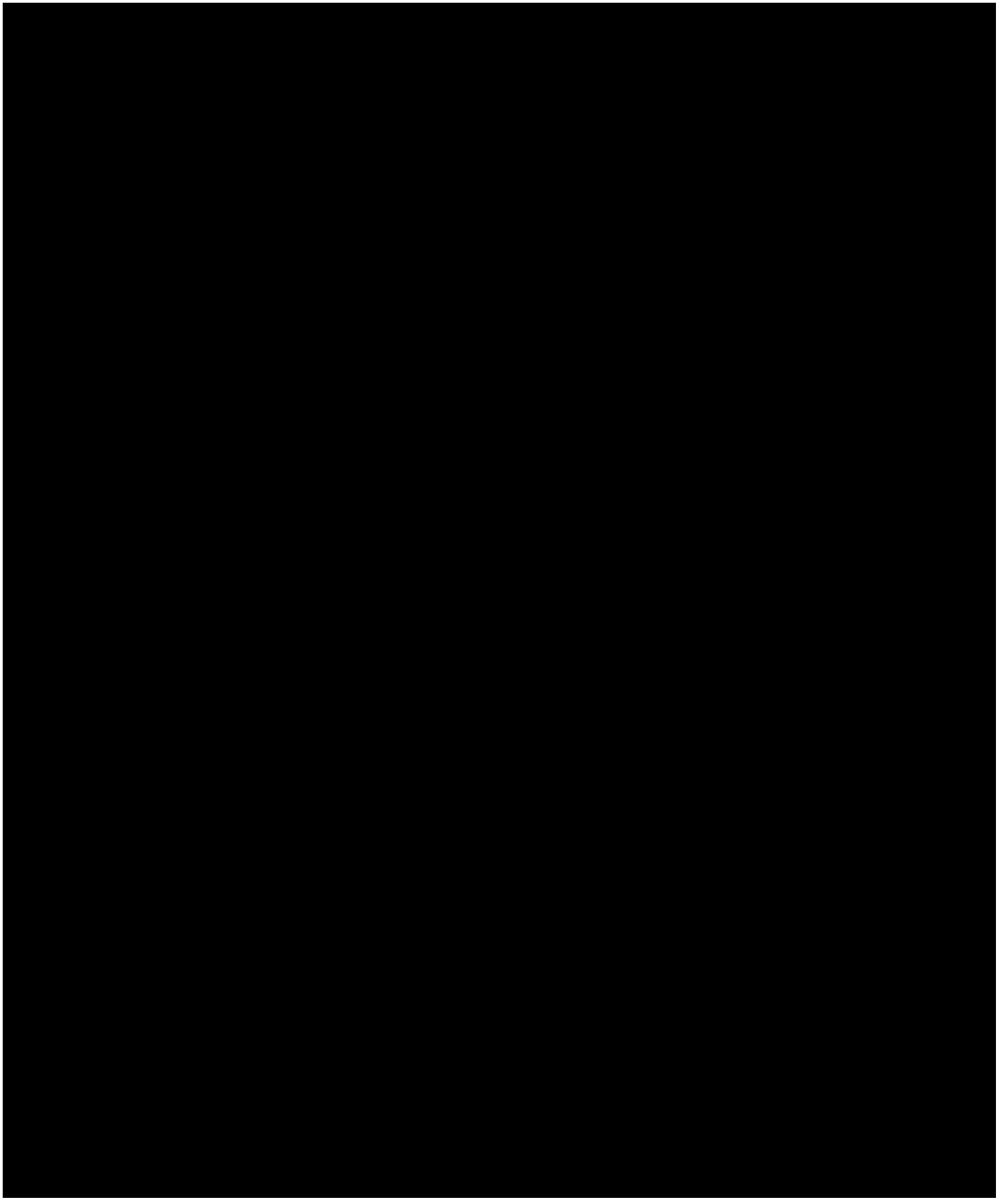
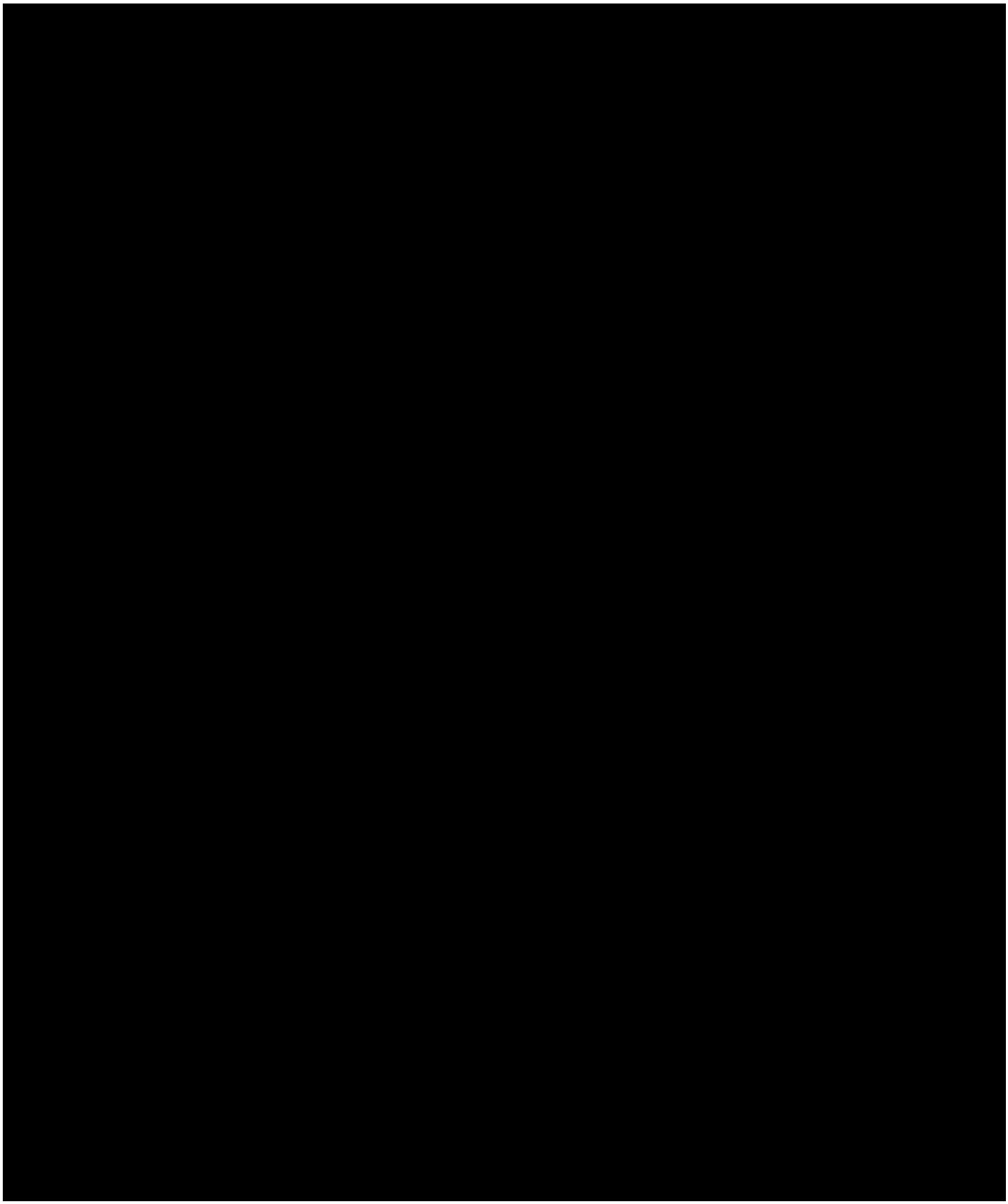


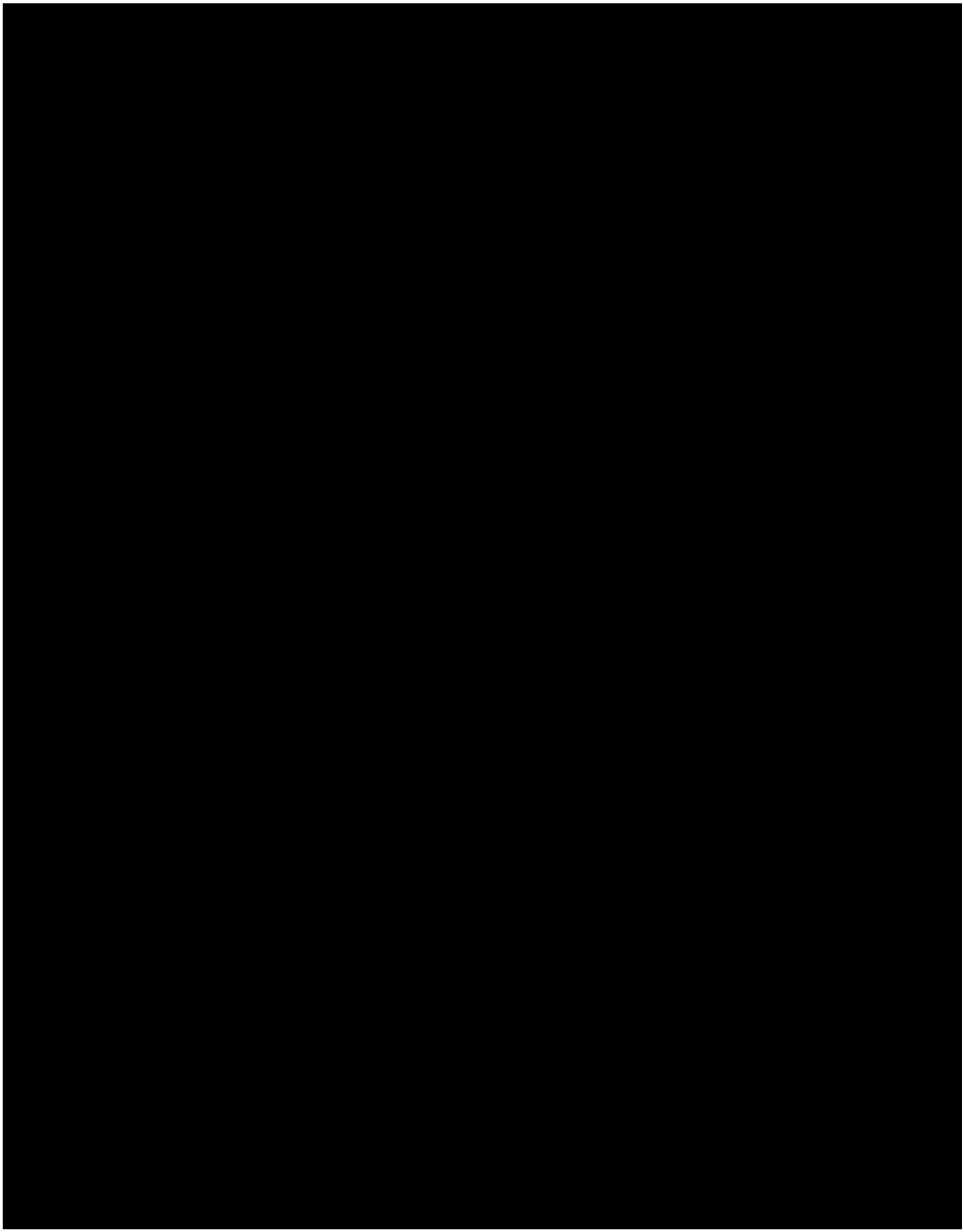


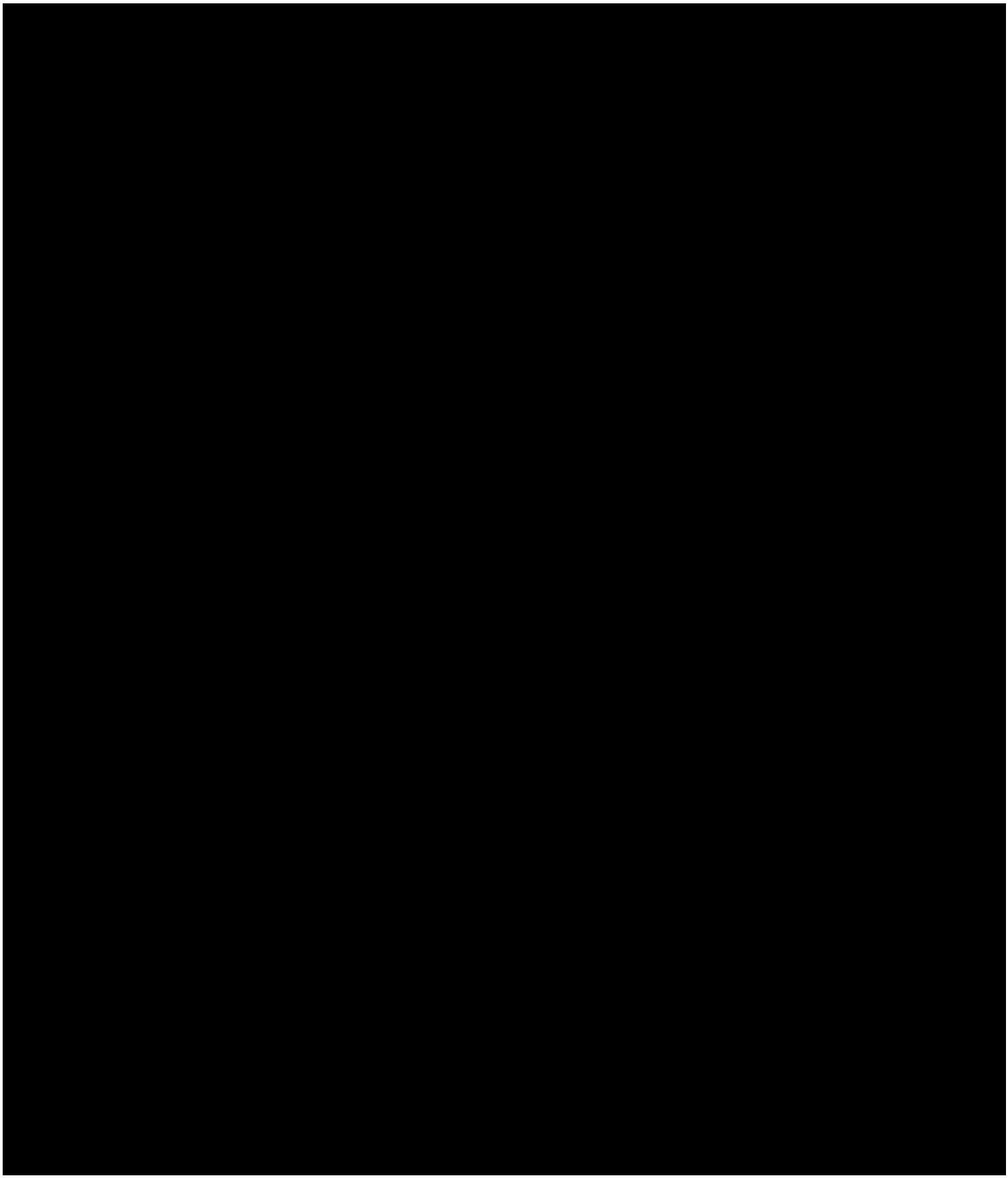


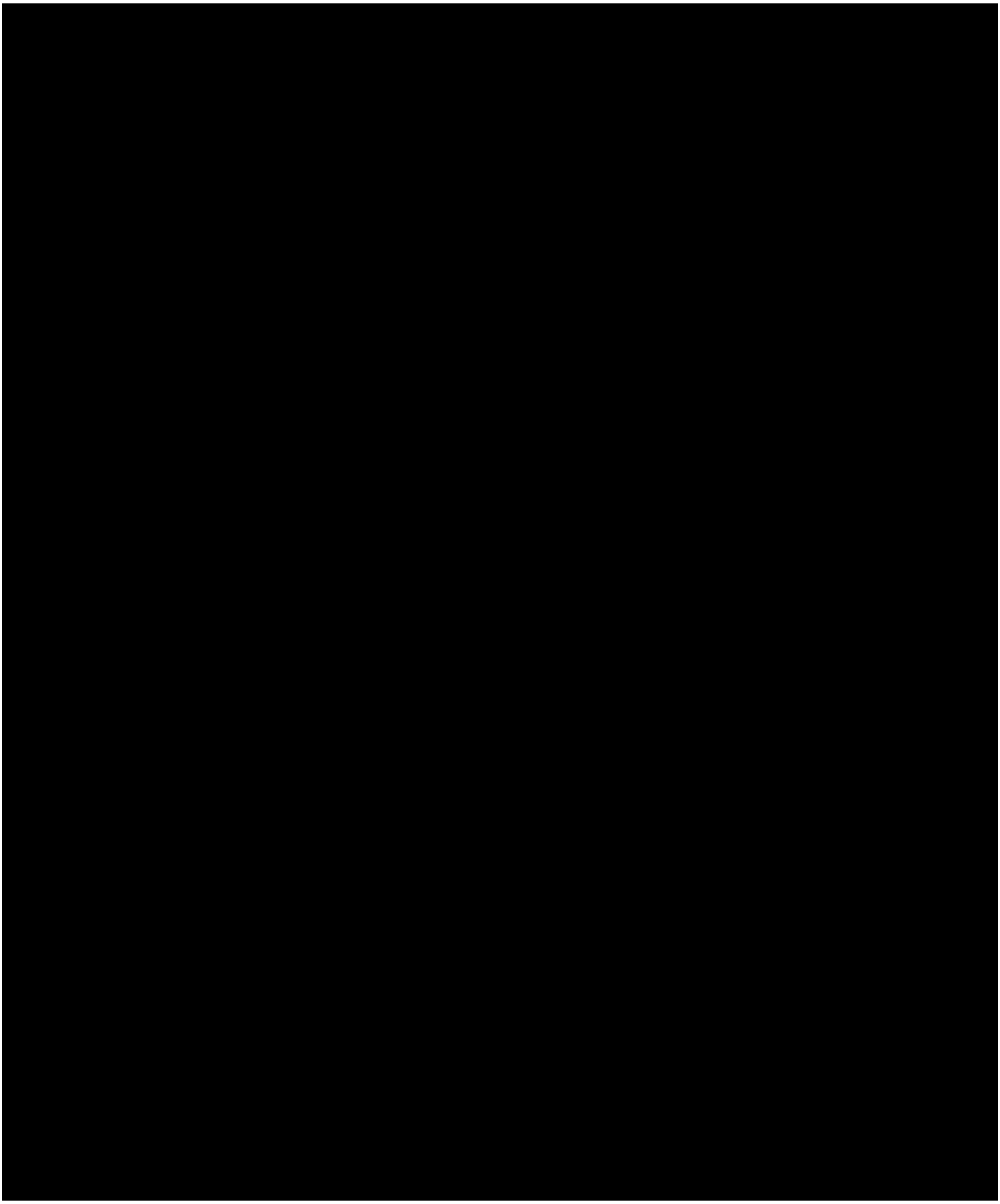


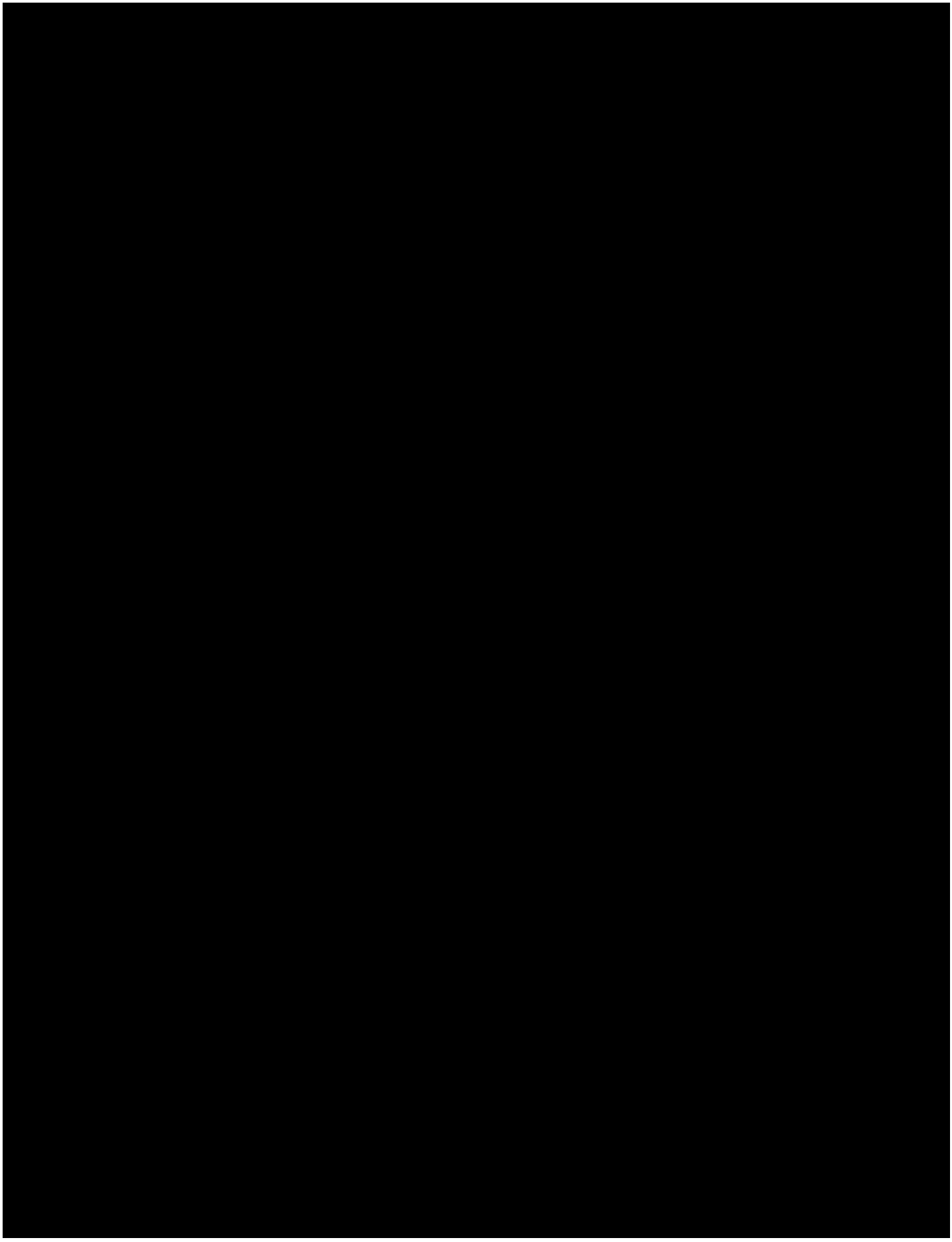


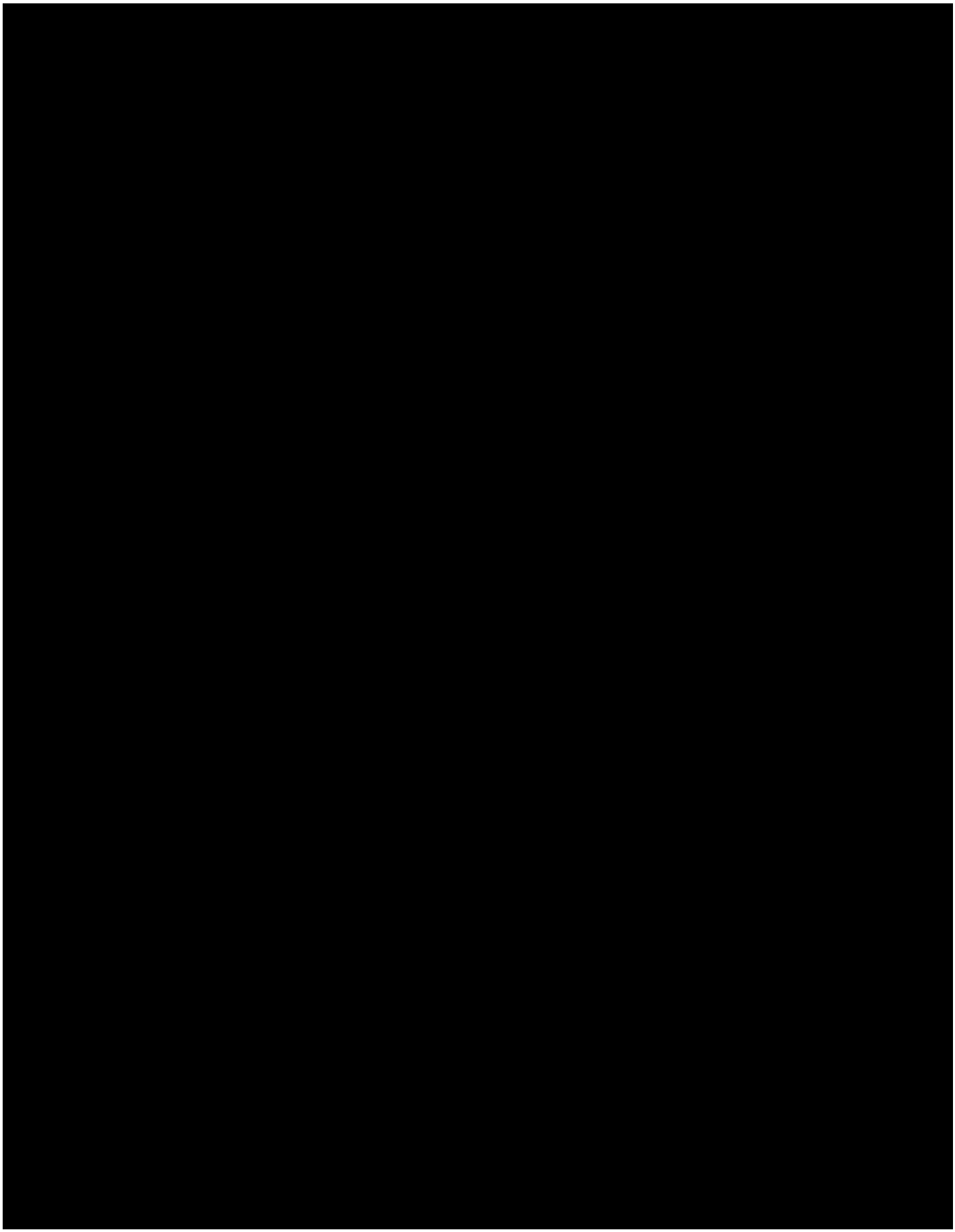












EXHIBITS

2. Exhibit No. ___(RAP-2) Richard Polich Regulatory Testimony List
3. Exhibit No. ___(RAP-3) Bartow Combined Cycle Thermal Cycle
4. Exhibit No. ___(RAP-4) Turbine Generator Output Curve
5. Exhibit No. ___(RAP-5) BCC ST Operation Greater than 420 MW
6. Exhibit No. ___(RAP-6) [redacted] dated September 18, 2013
7. Exhibit No. ___(RAP-7) Bartow RCA Review, dated March 15, 2017
8. Exhibit No. ___(RAP-8) Update on 40" Last Stage Blade, dated 2015
9. Exhibit No. ___(RAP-9) Bartow Combined Cycle Replacement Power Costs

II. TESTIMONY SUMMARY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My review of various documents provided by DEF regarding the BCC low pressure turbine L0 blade failures reveals that the cause of the blade failures initially experienced in 2012 was DEF's operation of the BCC ST beyond the ST's 420 MW design. [redacted]

DEF operated the ST at BCC in excess of 420 MW from June 2009 until the February 2012 outage for a combined 2,973 hours. As of the time of filing this testimony, DEF has failed to provide any documentation that demonstrates they communicated with

MHPS about operation of the ST in excess of 420 MW, until after the failure of the L0 blades was discovered.

DEF operated the BCC ST with the original design L0 blades for 63 months after the plant entered initial operation—a period of only slightly over five years. After the February 2012 outage, DEF operated BCC in a manner that generated an ST output at or below the design of 420 MW with the [redacted] L0 blades, for an additional 28 months (within that first 63 months of operation). [redacted] If DEF had operated the ST at BCC in accordance with design output of 420 MW or less, I believe there is no engineering basis to conclude that the original L0 blades would not still be in operation today. Likewise, DEF would not have needed to undertake any of the subsequent outages to repair L0 blades, including the outage in February 2017 to replace the L0 blades with the pressure plate. Consequently, the BCC ST would currently be capable of producing its full output of 420 MW instead of being derated to 380 MW and operating with a less-than-optimal pressure plate.

As a result of the 2017 outage and the 40 MW reduction in BCC ST output (derate) due to installation of the pressure plate, DEF incurred power costs for the replacement MWh. DEF has failed to demonstrate that ratepayers should be responsible for these costs since the 2017 outage and subsequent derate were the result of DEF imprudently operating the BCC ST in excess of the manufacturer's 420 MW design

Q. HOW WAS THE BCC ST OPERATED IN 2012 UP THROUGH THE FEBRUARY 2012 OUTAGE?

A. The ST was operated close to 450 MW in both January and February 2012, accumulating 77.9 hours of operation over 420 MW. Total operation in excess of ST design conditions since plant commercial operation in 2009 through February 2012, was almost 2,973 hours out of 21,734 hours of operation (from DEF Exhibit No. ___JS-1 (Docket No. 20180001-EI)). Over 13% of the operating hours in that initial period of operating the newly completed BCC plant were in excess of design conditions.

Q. DID DEF INFORM MHPS IT INTENDED TO OPERATE THE BCC ST ON A REGULAR BASIS IN EXCESS OF 420 MW?

A. In response to OPC Fourth Set of Interrogatories, Interrogatory 21, DEF states; "DEF did not correspond or discuss operating the steam turbine at 450 MW." As of the filing of this testimony, DEF has not produced any documentation from MHPS that shows MHPS acknowledging or agreeing that the BCC ST could be operated in excess of 420 MW. In his 2018 testimony, DEF witness Jeffery Swartz includes Exhibit No. ___(JS-1) (Docket No. 20180001-E1) which contains a Table A, titled "Bartow L-0 Events Summary" which breaks down the history of the BCC ST operation into five (5) periods. In the first column, labeled "Period 1" under the row titled [redacted] he following note is provided:

[redacted]

This is further indication that MHPS was unaware of DEF's intent to operate—or DEF's operation of—the BCC ST in excess of 420 MW. DEF has failed to provide documentation as of the time of my testimony that MHPS provided DEF documentation indicating that the ST could operate in excess of 420 MW.

Q. WHY DID DEF STATE IT FELT THERE WERE NO ISSUES WITH OPERATION OF THE BCC ST IN EXCESS OF 420 MW?

A. MHPS provided DEF with operating conditions that specified operating parameters for the ST. These operating parameters included a variety of conditions, including HP and IP ST section inlet pressure and temperature conditions and condenser design conditions. After DEF performed a review in 2017-2018 of its initial operation of the BCC ST, DEF was of the opinion that, if steam conditions to the ST were within the HP, IP, condenser pressure, and temperature operating parameters, output of the BCC ST could be increased until these parameters were reached. DEF has provided no contemporaneous documentation from the period prior to the February 2012 outage of DEF's operating the newly installed BCC that MHPS concurred in DEF's retrospective claim. The result of DEF's decision was that it raised the horsepower output of the ST such that it was producing over 450 MW, which is 9% higher than MHPS design conditions.

Q. WHAT HAPPENED IN FEBRUARY 2012 AT BCC?

A. DEF scheduled a planned outage for valve work and inspection of the LP ST blades. During the inspection of the L0 blades, [redacted]

[redacted] The L0 blades are the last row of blades the steam passes through prior to entering the condenser and are the longest blades in the ST at 40".

Q. WERE THERE SUBSEQUENT BLADE FAILURES AFTER FEBRUARY 2012?

A. Yes, as shown in DEF's 2018 Exhibit No. ___(JS-1), there were subsequent blade failures, [redacted] In February 2017, BCC experienced an outage due to L0 blade failures, and DEF decided to install a "pressure plate" to replace the L0 blades until a solution was found to the blade failures. A pressure plate is a disk with engineered holes to reduce the steam energy, allowing it to decrease in pressure to condenser pressure. The pressure plate does not convert any of the steam force into turbine horsepower and results in a loss of turbine horsepower. This resulted in the BCC ST maximum output being limited to only 380 MW. This, in turn, is what caused a derate of the ST from 420MW to 380MW. This derate was a natural consequence of the cascading series of blade failures precipitated by DEF's operation of the ST in Period 1.

VI. EVALUATION OF BCC STEAM TURBINE BLADE FAILURES

Q. HOW MANY TIMES DID DEF DISCOVER PROBLEMS WITH THE BCC ST?

A. DEF found damage to L0 blades on three other occasions after the initial blade damage was discovered in February 2012. As alluded to above, DEF separated the ST operating history into 6 periods. Period 1 starts with commercial operation and extends

until the problems were found during the February 2012 outage. Period 2 began after the February 2012 outage and extends until November 2014 when new L0 blades [redacted] were installed. Period 3 begins at the end of the 2014 outage and lasts until April 2016 when problems were found with the [redacted] Period 4 begins with the installation of the [redacted] in June 2016 and ends when blade failures were found in October 2016. Period 5 starts when DEF decided to [redacted] in December 2016 and ends in January 2017 when the component called the burst diaphragm was damaged by parts from these L0 blades. Period 6 began in April 2017 after the L0 blades were replaced by a pressure plate and is expected to continue until the end of September of this year.

Q. WHAT ACTION DID DEF TAKE AFTER THE BLADE DAMAGE WAS DISCOVERED IN FEBRUARY 2012?

A. Upon finding the 2012 blade failures, DEF engaged MHPS and several other entities to determine the cause of the blade failures. MHPS conducted a Root Cause Analysis ("RCA") of the failures. MHPS first stated in a report dated September 18, 2013, tha [redacted] In this report, [redacted] over 15% of the operating hours. This is consistent with, but still understates, the 2,973 operating hours derived by totaling the hours in column 420 for Period 1 in Exhibit No. ___(RAP – 5).

Since all the damaged blades in Period 1 were on the [redacted] the L0 blades were replaced only on that end of the ST with [redacted] MHPS informed DEF not to operate the ST above 420 MW and [redacted] During Period 2, DEF only exceeded the 420 MW limit for 1.7 hours. Average maximum monthly load was only 396 MW during Period 2. The ST was removed from service in September 2014 to install the [redacted]

Q. WHAT WAS THE CONDITION OF THE L0 40" BLADES AT THE END OF PERIOD 2?

A. The [redacted] L0 40" blades used during Period 2 did not experience [redacted] According to DEF documents, no significant damage was found.

Q. BASED UPON THE VARIOUS DOCUMENTS PROVIDED BY DEF, WHAT WAS THE CAUSE OF THE L0 40" BLADE FAILURES UP UNTIL THE END OF PERIOD 2 (NOVEMBER 2014)?

A. The cause of the 40" L0 blade failures in the BCC LP ST during period 1 was the result of DEF operating the unit in excess of the 420 MW design output. MHPS has stated in multiple documents that [redacted] After over 2,600 (or up to 2,973) hours of operation in excess of 420 MW over a 63-month period, the only type of failure that had manifested itself up to that point was the [redacted] (See Exhibit No. ___(JS-1). [redacted]

(Exhibit No. ___(RAP-6), at 7, 19, and 20). Notably, the Period 1 [redacted] See statements by MHPS in Exhibit No. ___(RAP-7), at 7 and Exhibit No. ___(RAP-8), at 8). [redacted] Operation of the BCC ST to produce an output appreciably in excess of 420 MW resulted in forces on the L0 blades that were 13% to 25% higher than the other MHPS units of similar design. Thus, it is obvious that DEF's operation of the BCC ST above the 420 MW design was a material cause of the failure of the L0 blades.

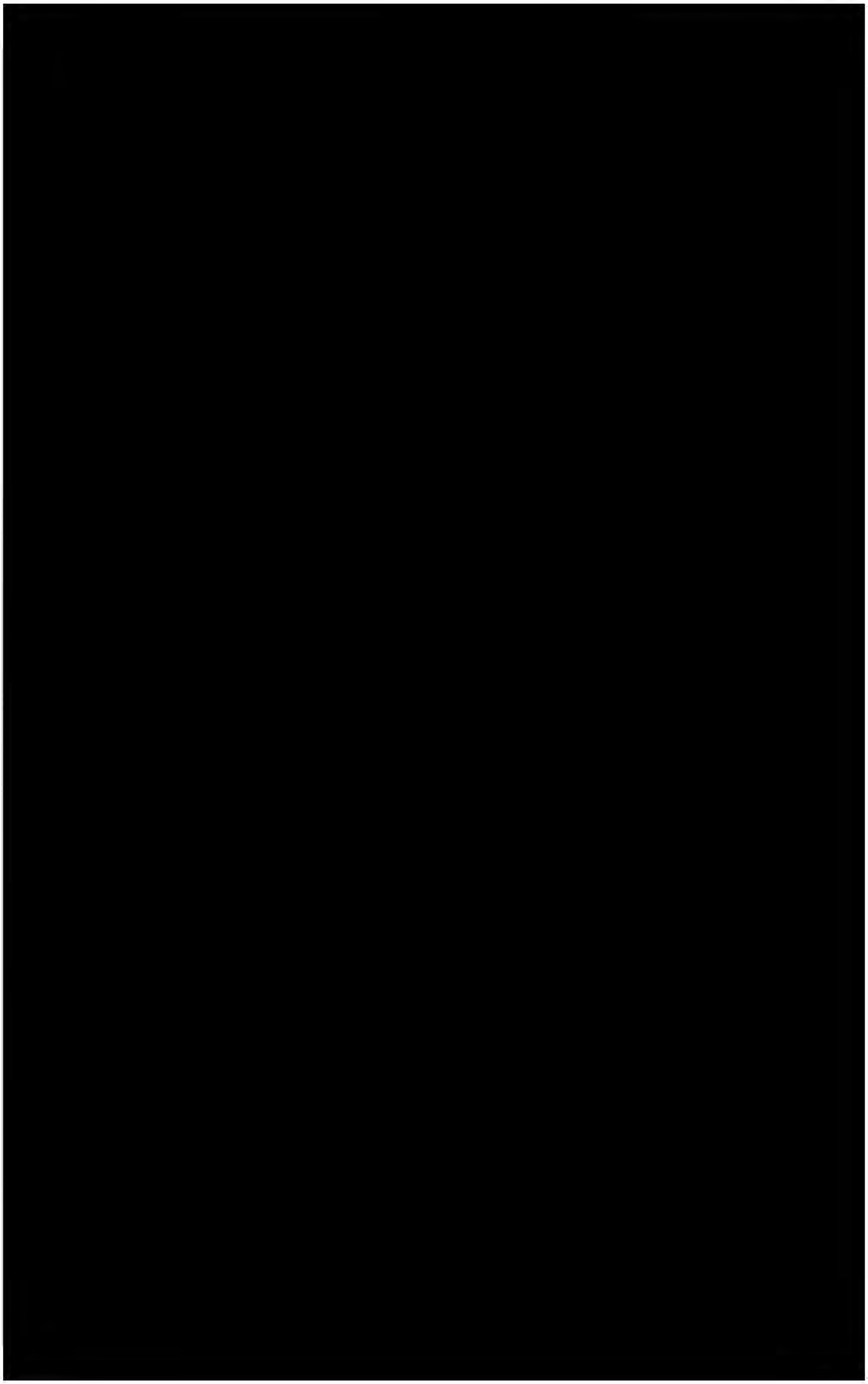
Q. WHAT WOULD ST OPERATIONAL OUTCOME HAVE BEEN IF DEF OPERATED THE BCC ST AT OR BELOW THE ORIGINAL DESIGN CONDITIONS DURING PERIODS 1 & 2?

A. Based upon the information provided in various documents and the RCA conducted by MHPS, DEF has not demonstrated that the original L0 blades would have experienced even minimal degradation over the design life of these blades if it had operated the BCC ST at or below the original design output of 420 MW. The [redacted] blades lasted for a period of only about five years after being subjected to stresses significantly beyond original design. The impact of stress on steam turbine blades is a cumulative effect and when a blade as long as the L0 blades is subjected to much higher than design forces, the impact is not linear.

VII. EVALUATION OF REPLACEMENT POWER COSTS ASSOCIATED WITH BCC GENERATION LOSSES

Q. HAS DEF DEMONSTRATED THAT ITS RATEPAYERS SHOULD BE RESPONSIBLE FOR THE REPLACEMENT POWER COSTS ASSOCIATED WITH OUTAGES AND REDUCED PRODUCTION FROM THE BCC PLANT AS A RESULT OF THE LP ST L0 BLADE FAILURES?

A. No, DEF has failed to demonstrate that it should not be responsible for the costs resulting from its operation of the ST. As presented earlier in my testimony, the failures of the original L0 blades are the result of DEF operating the ST above the 420 MW design condition. All subsequent outages and derates since 2012 have their origin in the operation of the ST in excess of 420 MW. DEF has failed to demonstrate that had it operated the ST within original design conditions the original blades would not still be in operation. If the original L0 blades had not failed due to DEF's operation of the BCC ST beyond the 420 MW design, DEF would not have installed the [redacted] and [redacted] blades, nor experienced the associated outages. In addition, if the original L0 blades had not failed due to DEF's operation during Period 1, the pressure plate would not be currently installed, and the ST would be capable of producing its designed output of 420 MW. DEF knew or should have known the designed generation capability of the ST was only 420 MW from the thermal analysis performed prior to operation and from the contract documents for the MHPS ST. These documents show the unit was designed for output of 420 MW. If DEF had discussed operation of the ST above 420 MW with MHPS prior to the initial operation at higher load,



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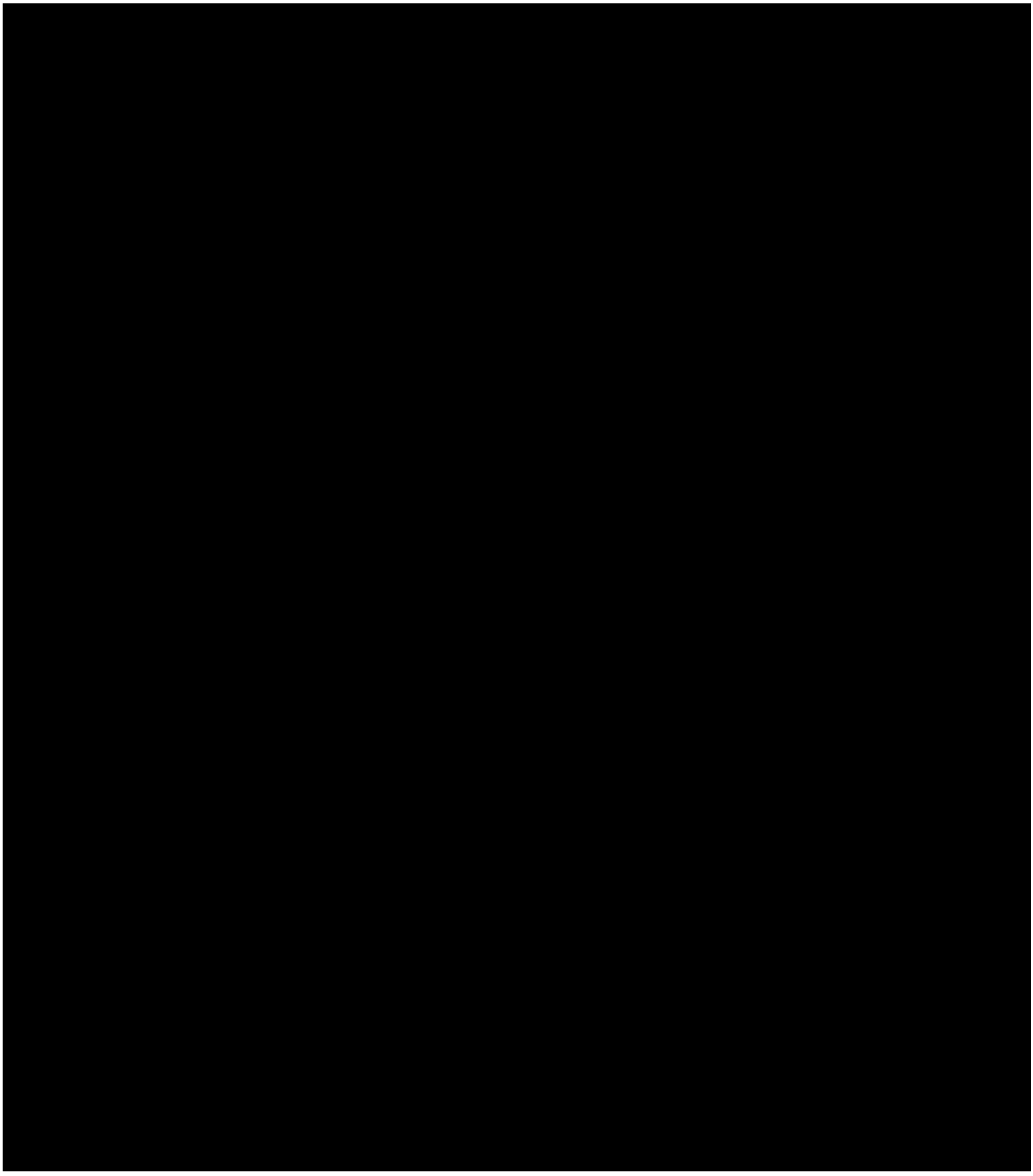

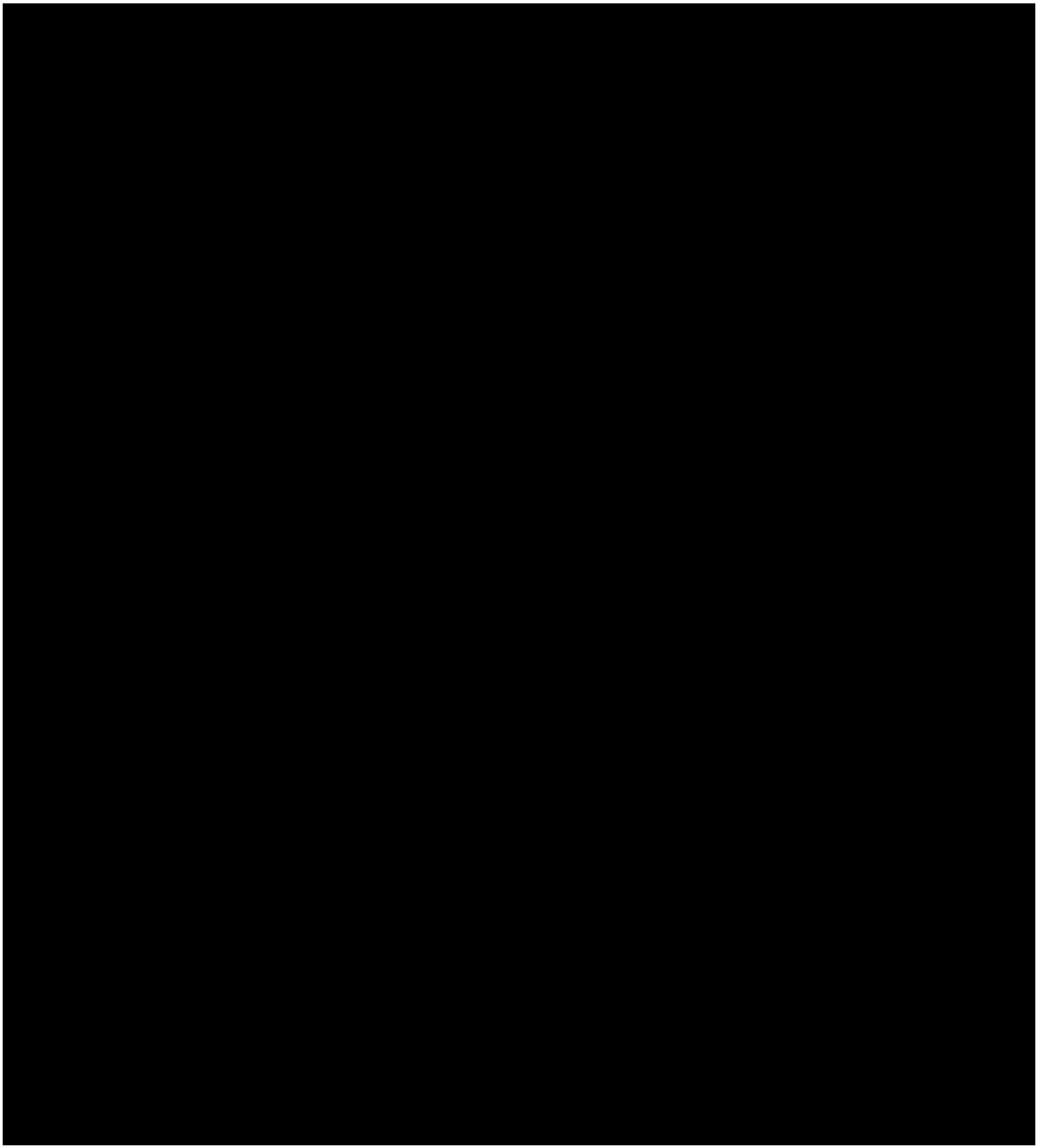

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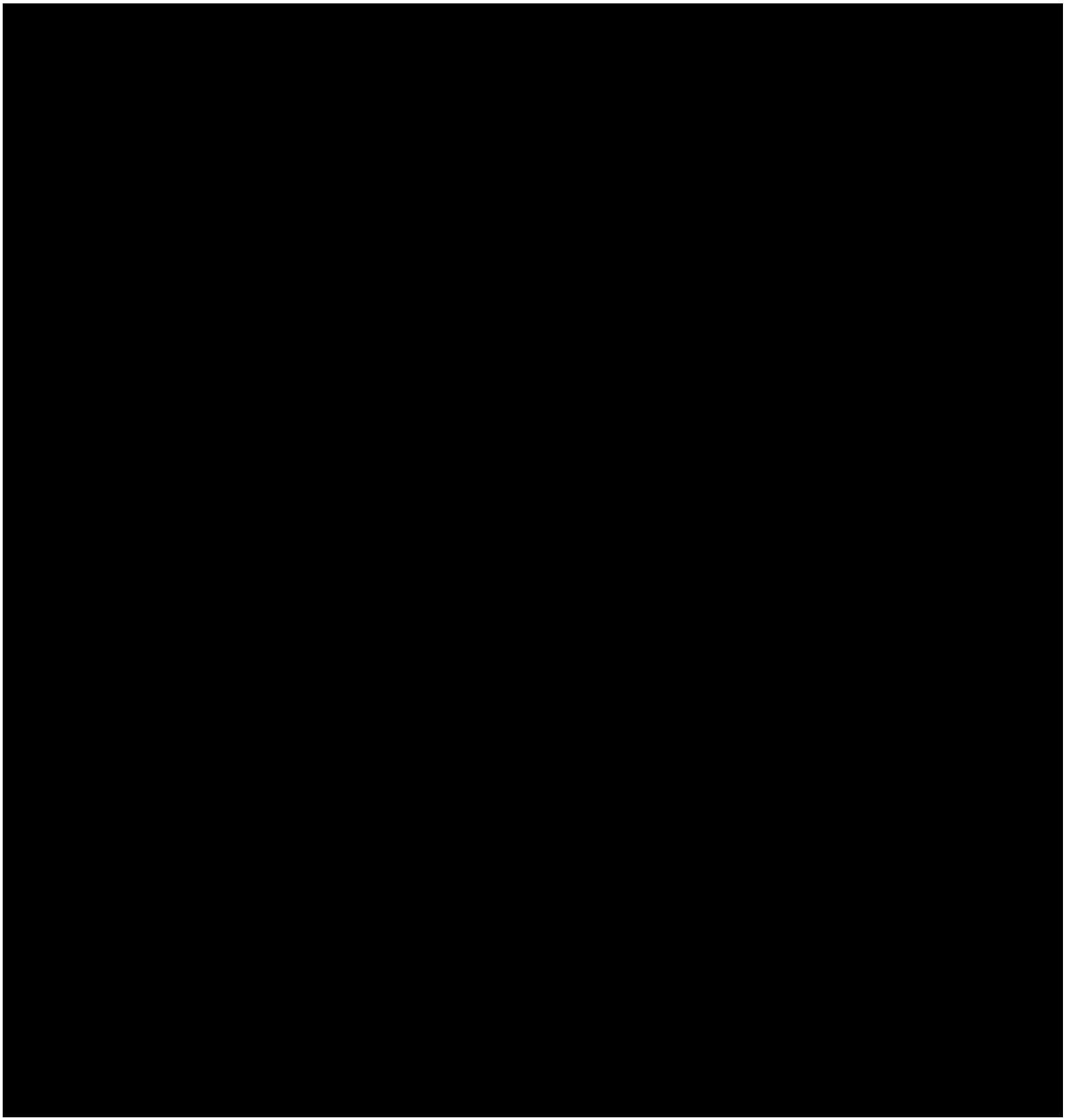

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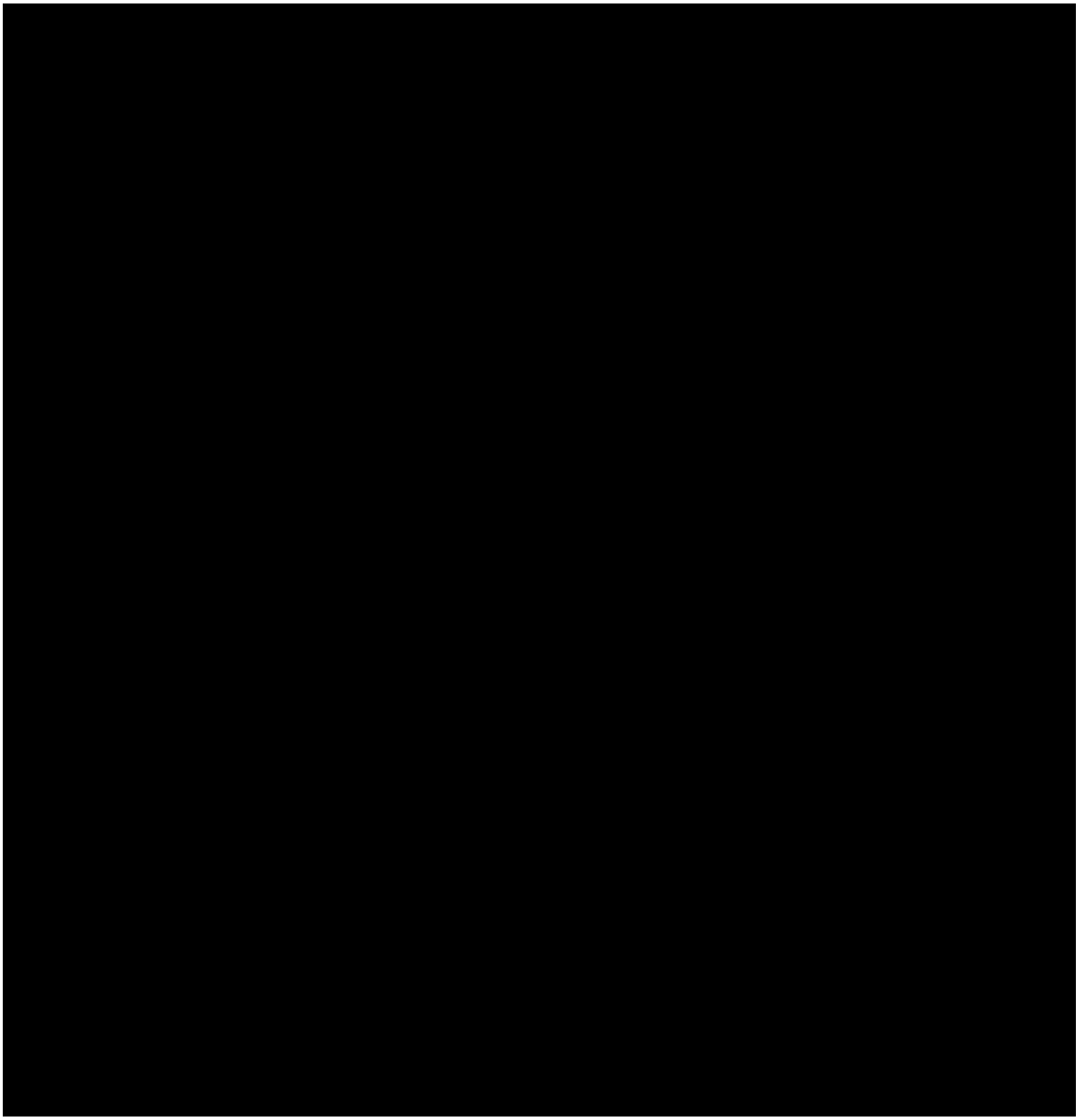

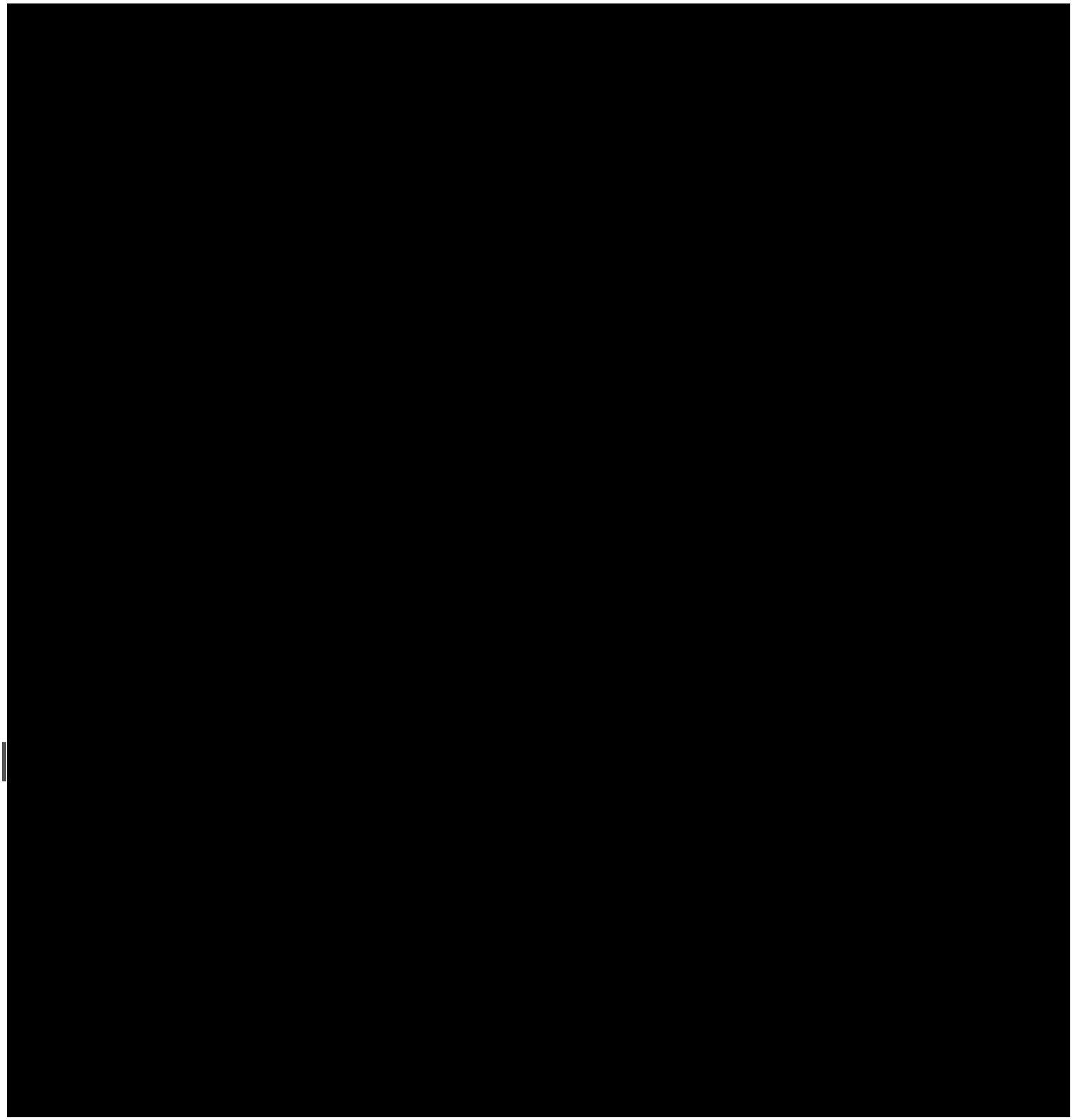

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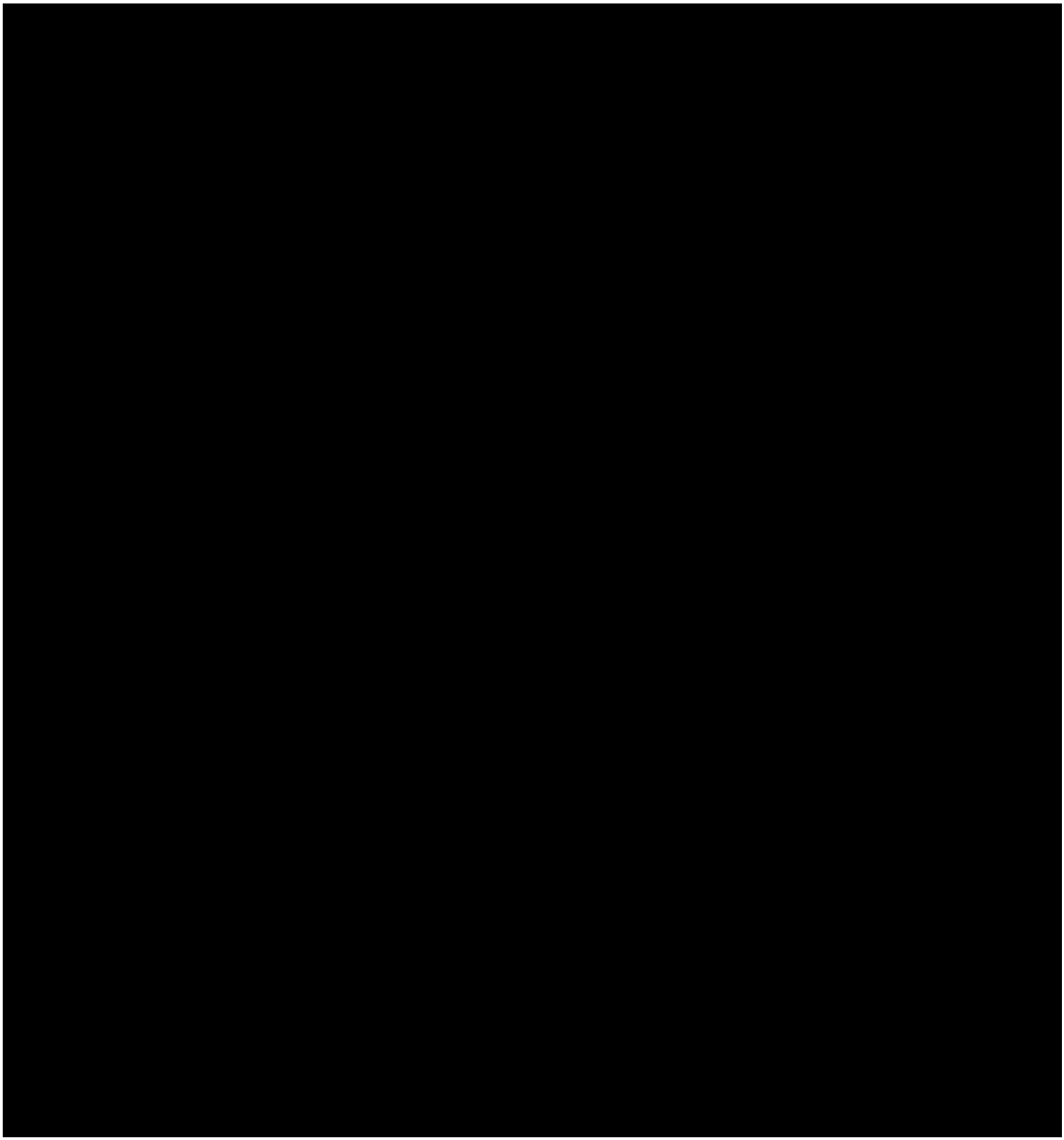

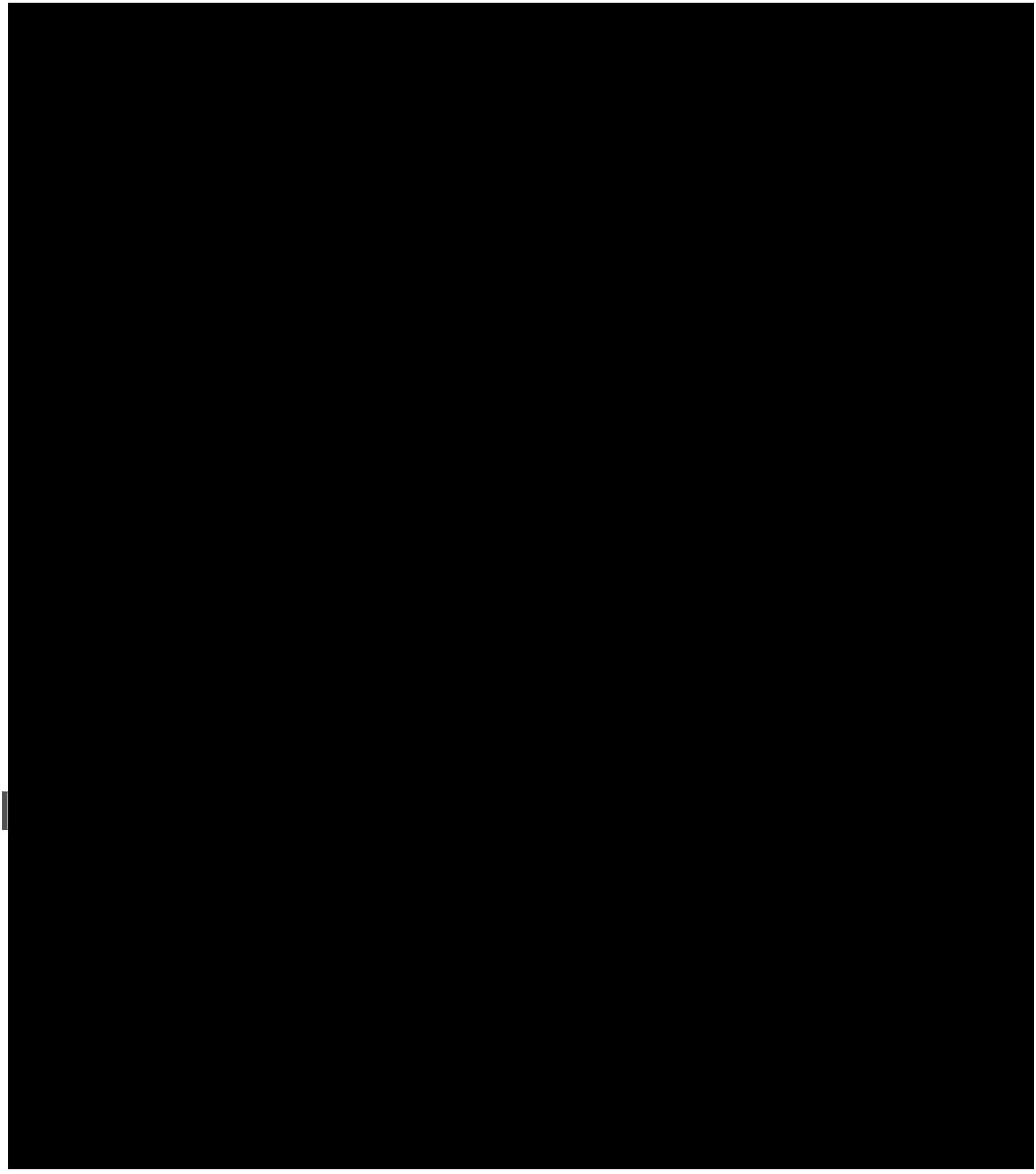

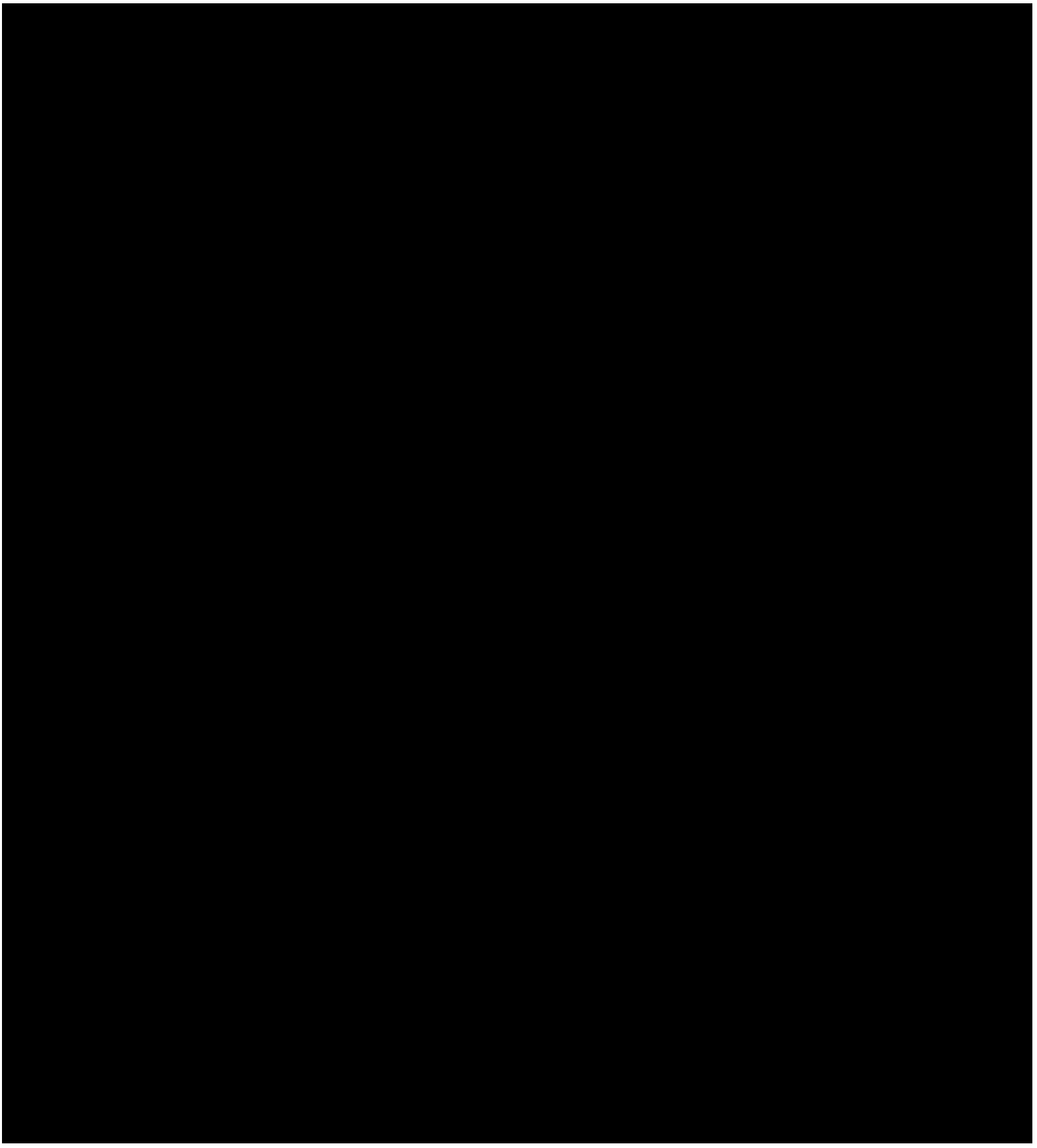

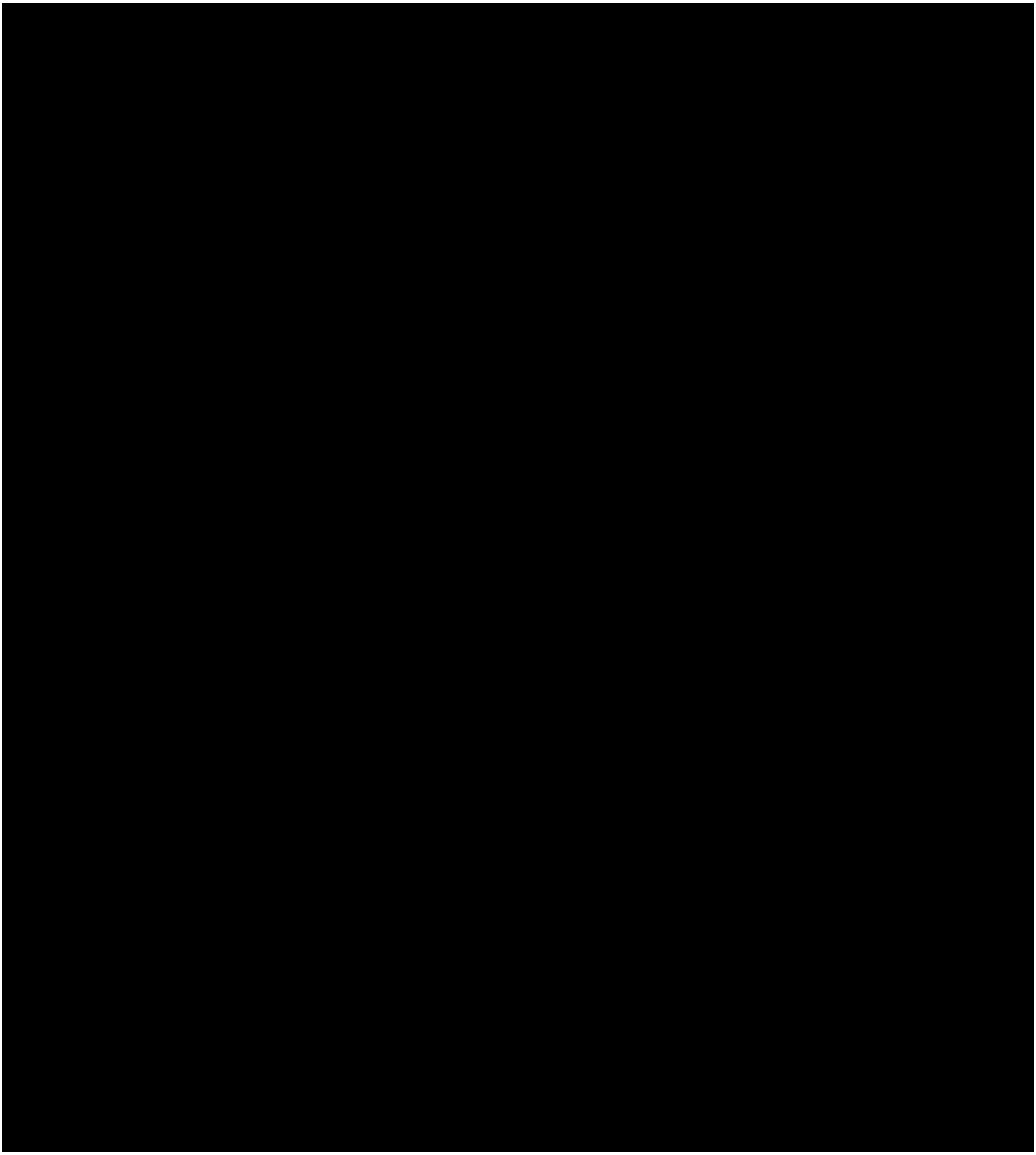

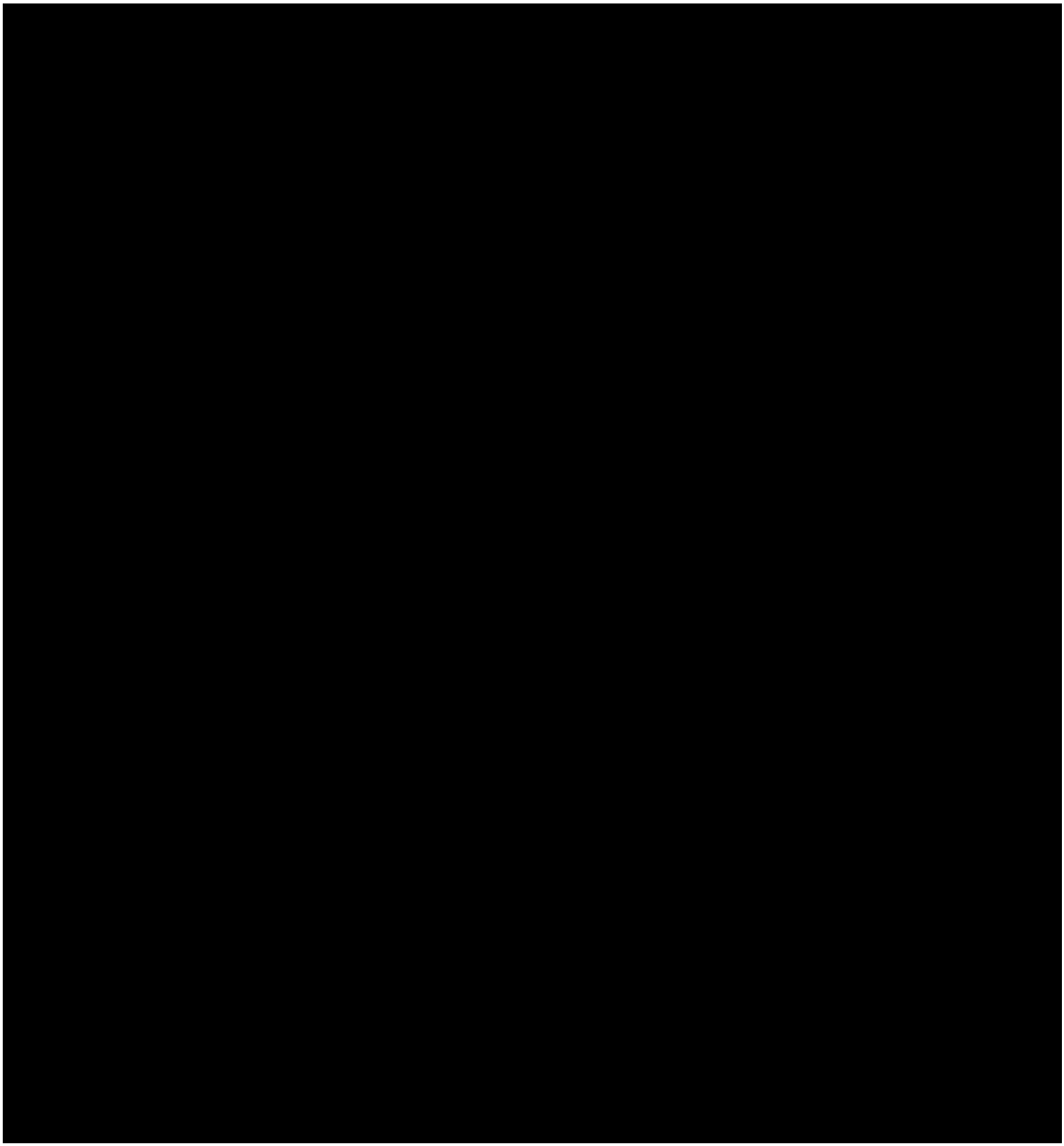

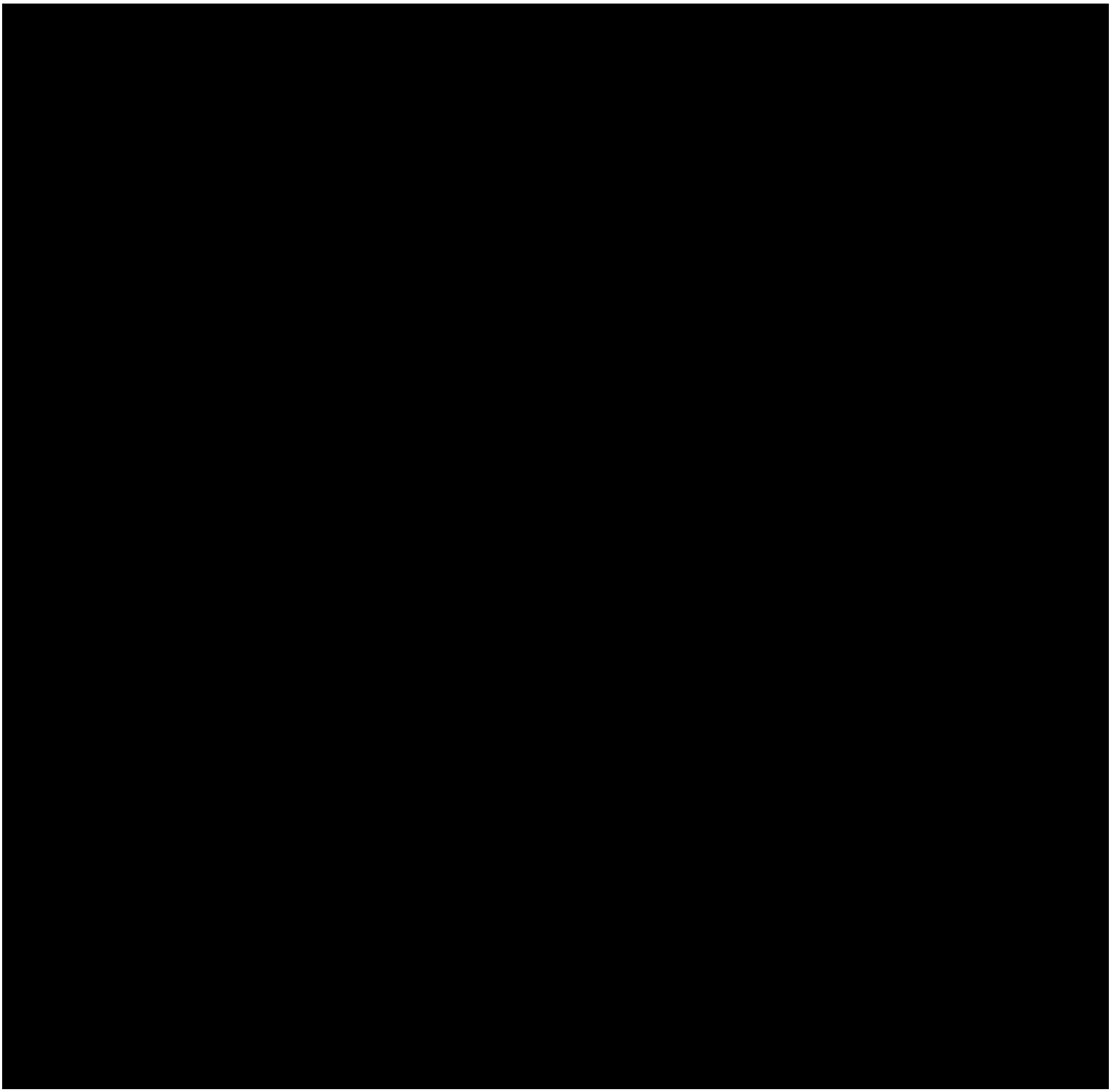

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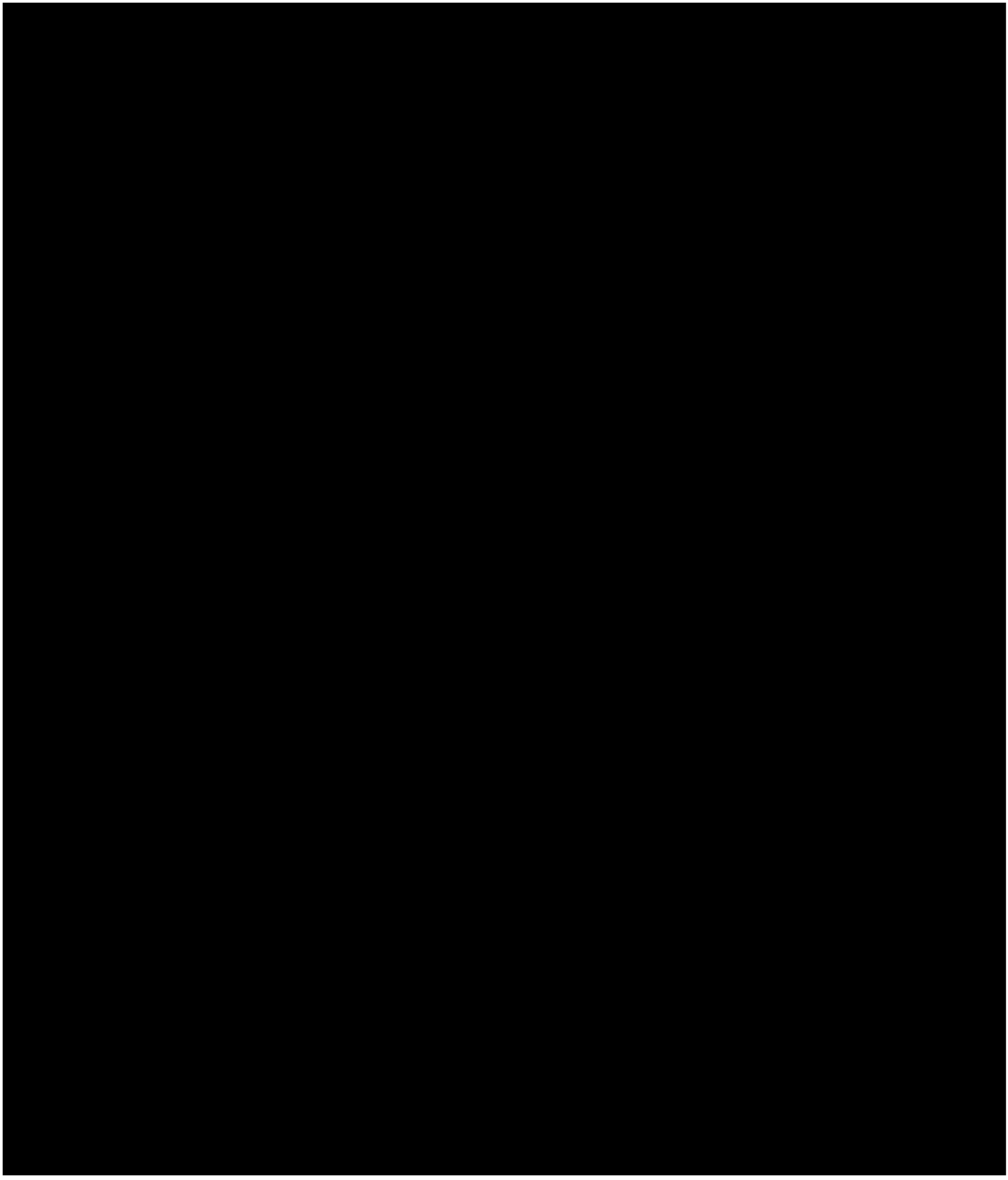

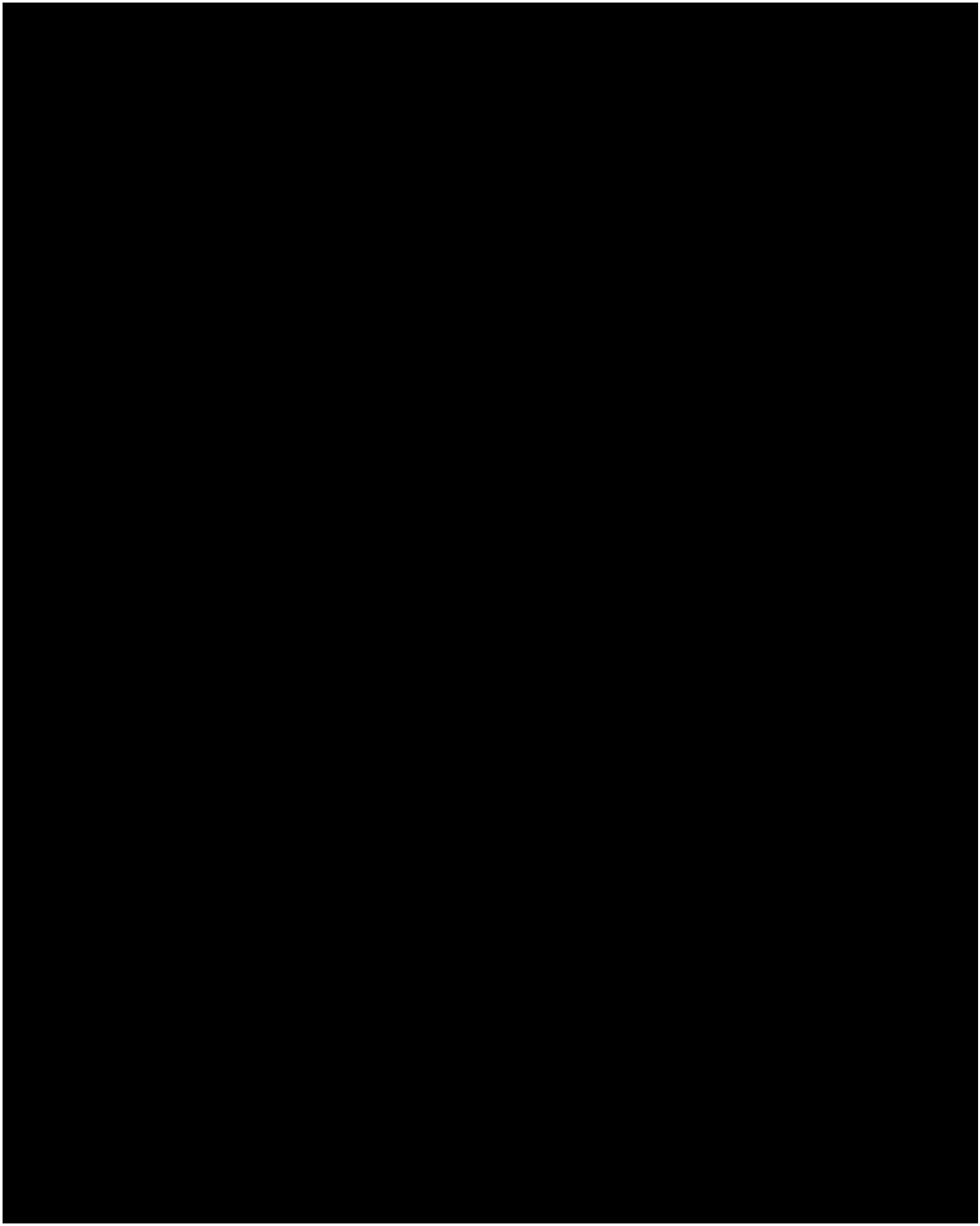

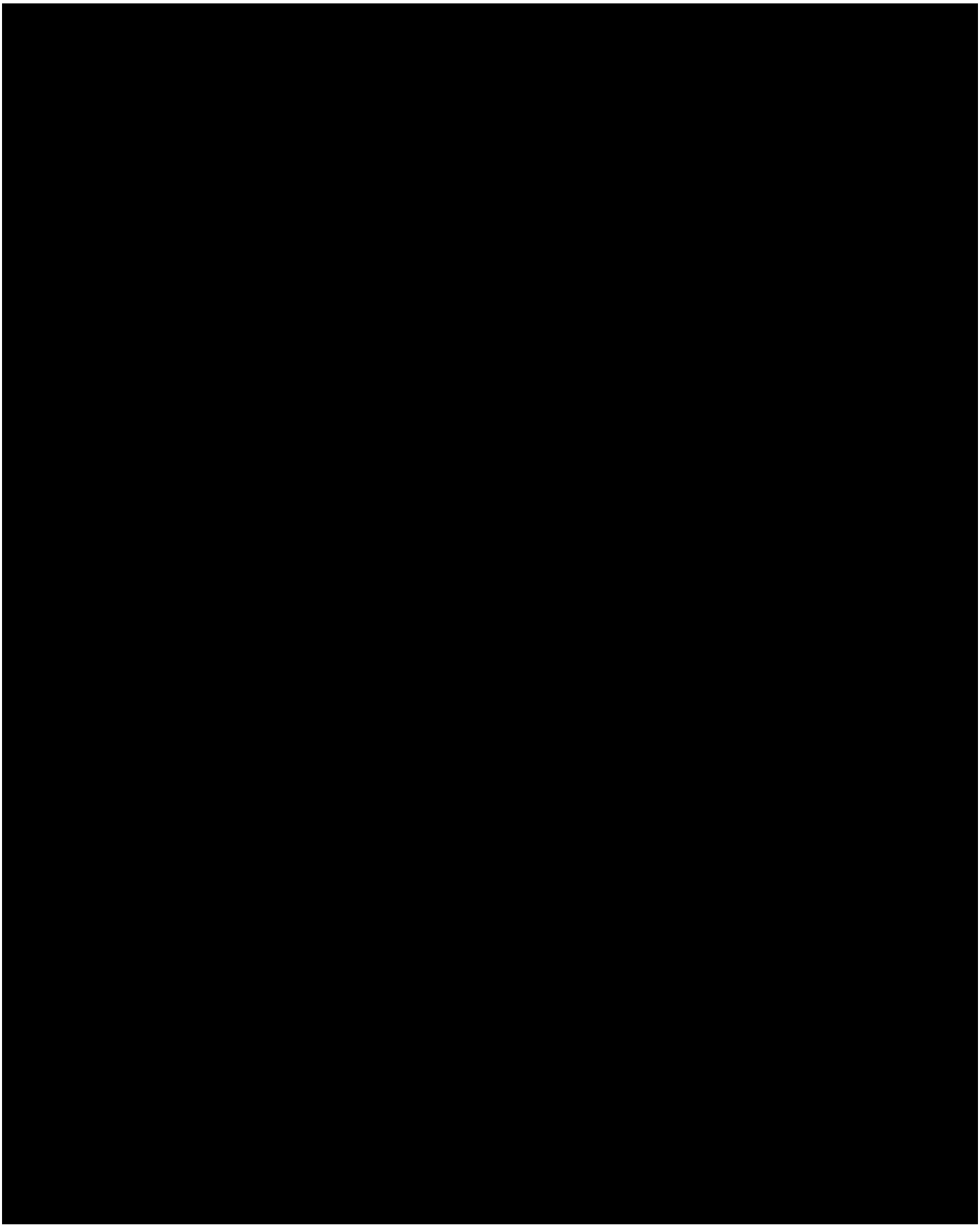

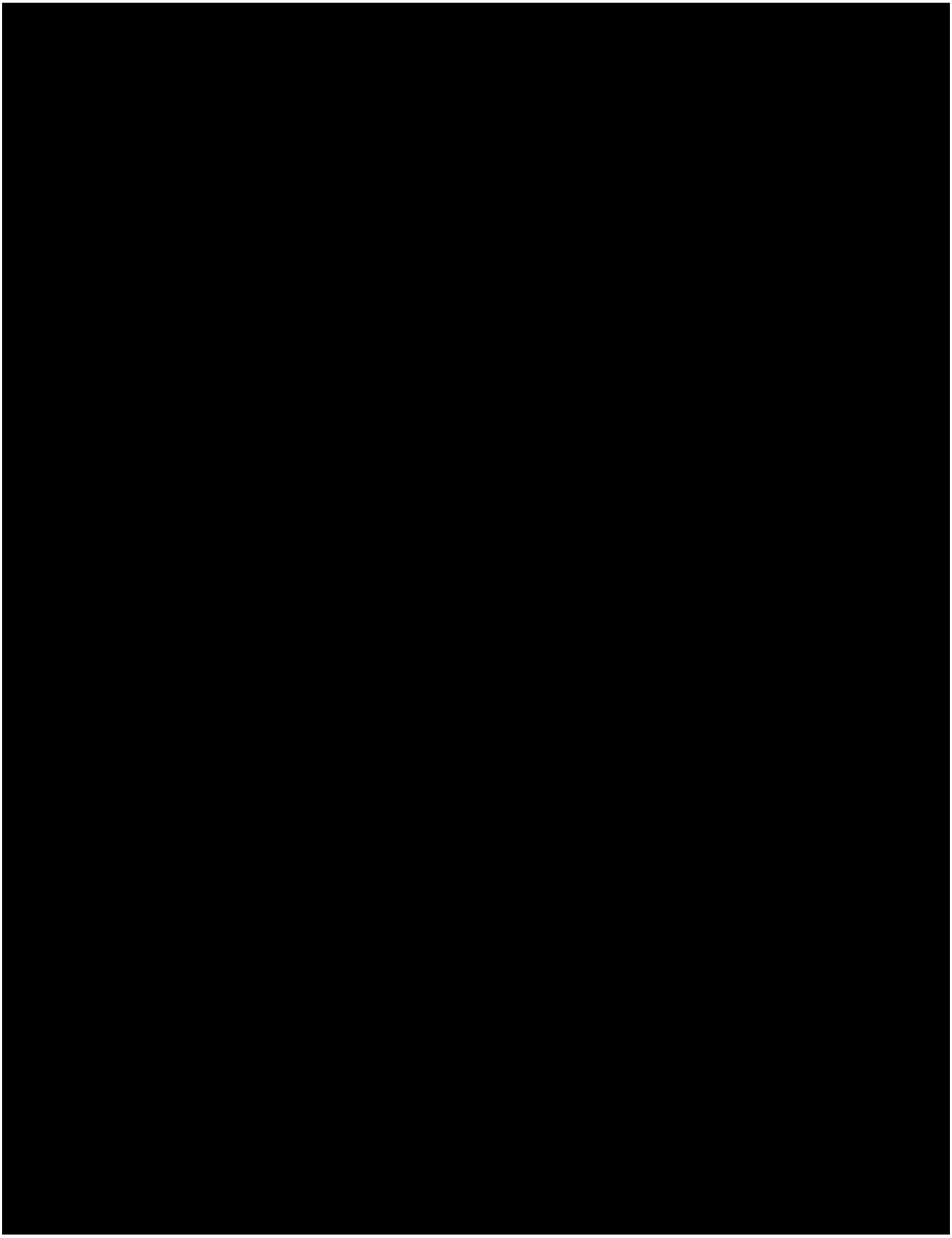

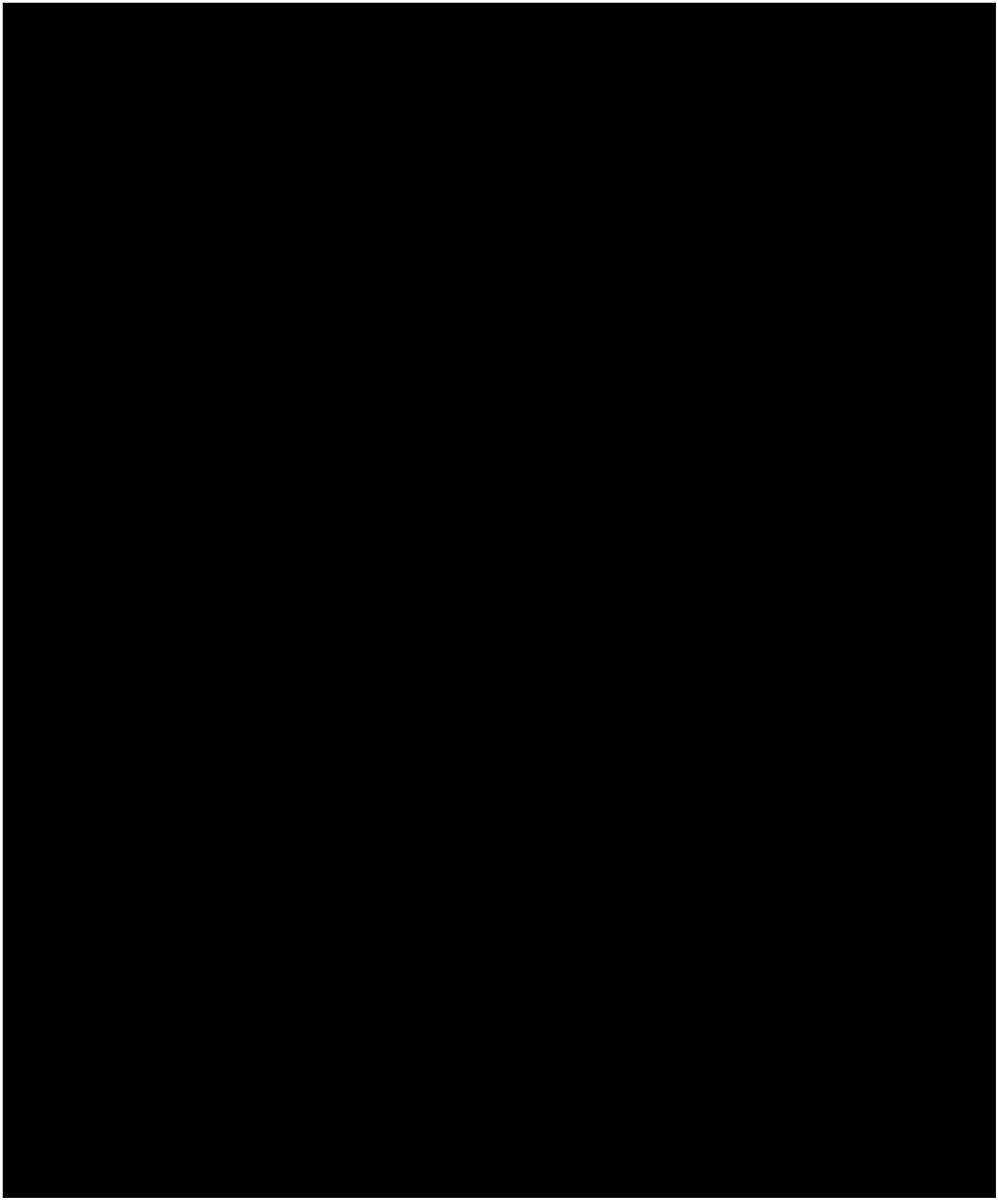

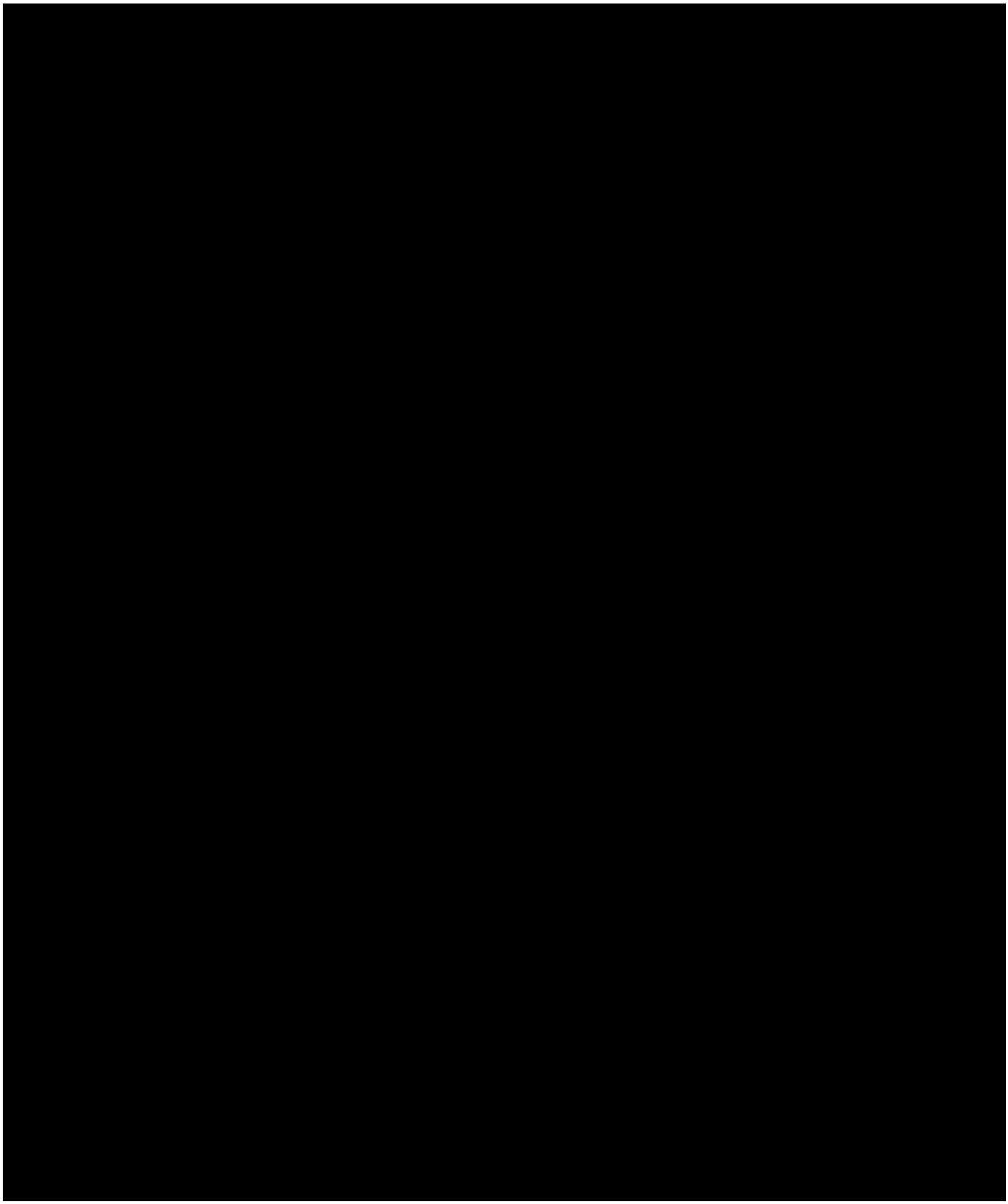

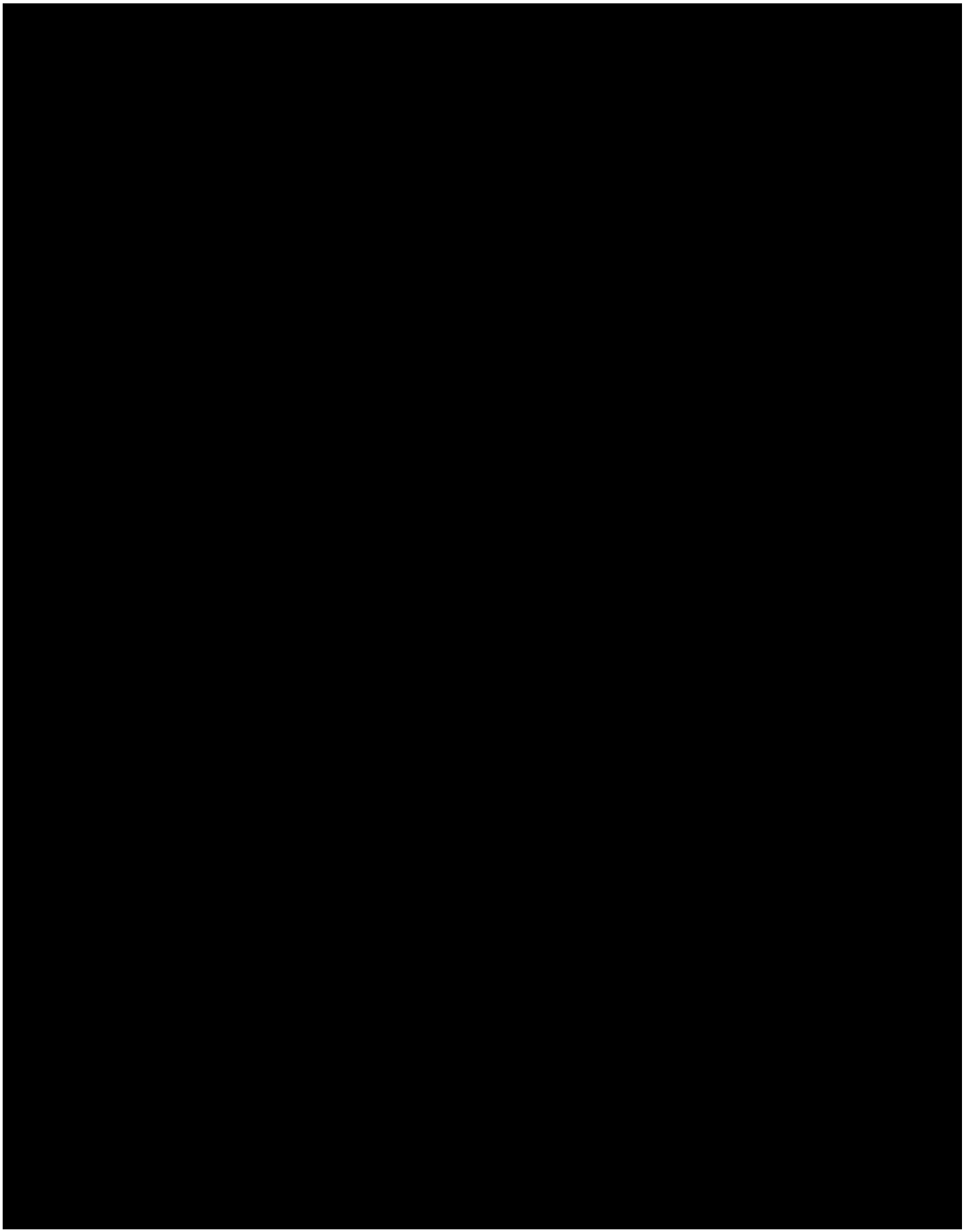

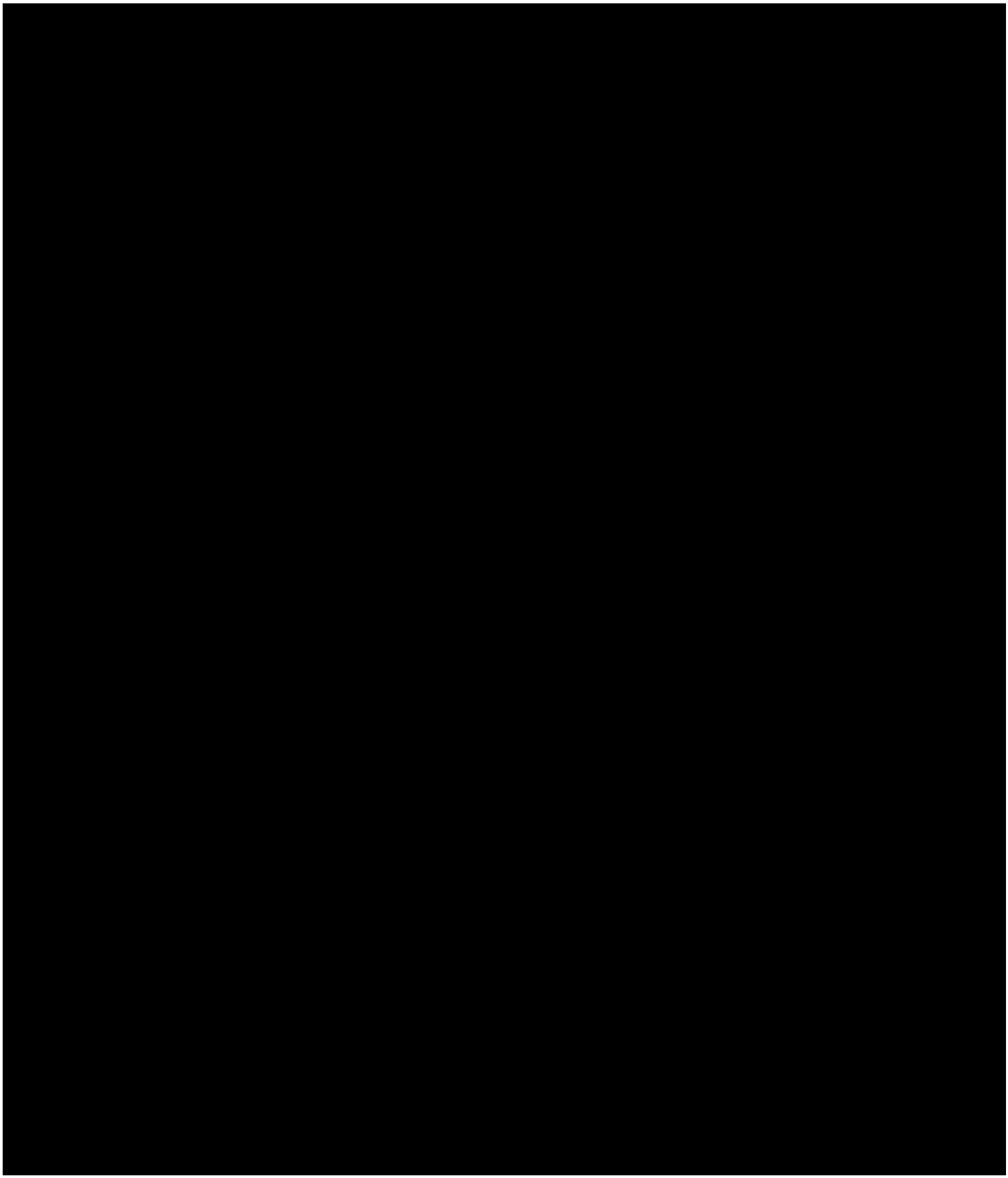

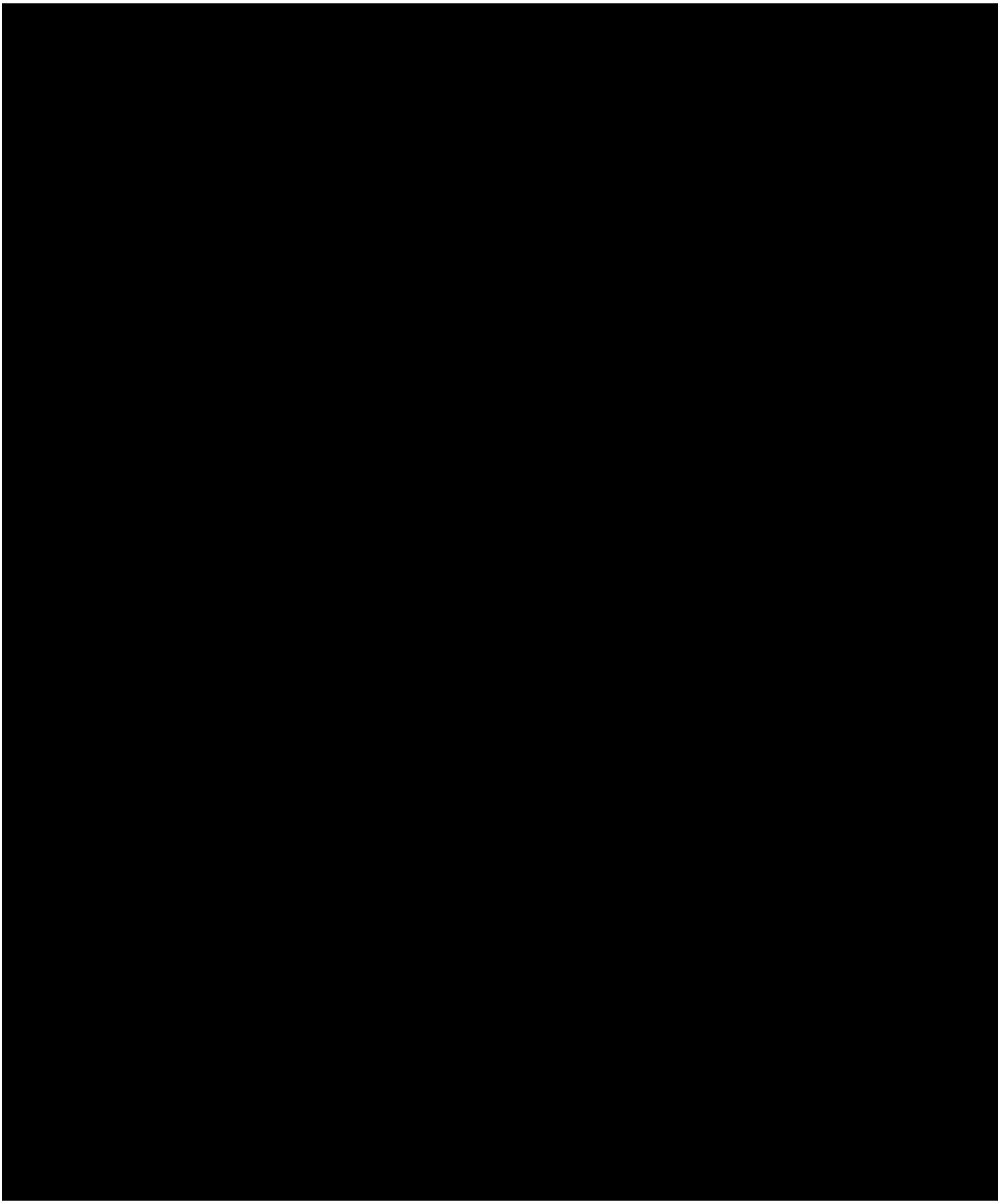

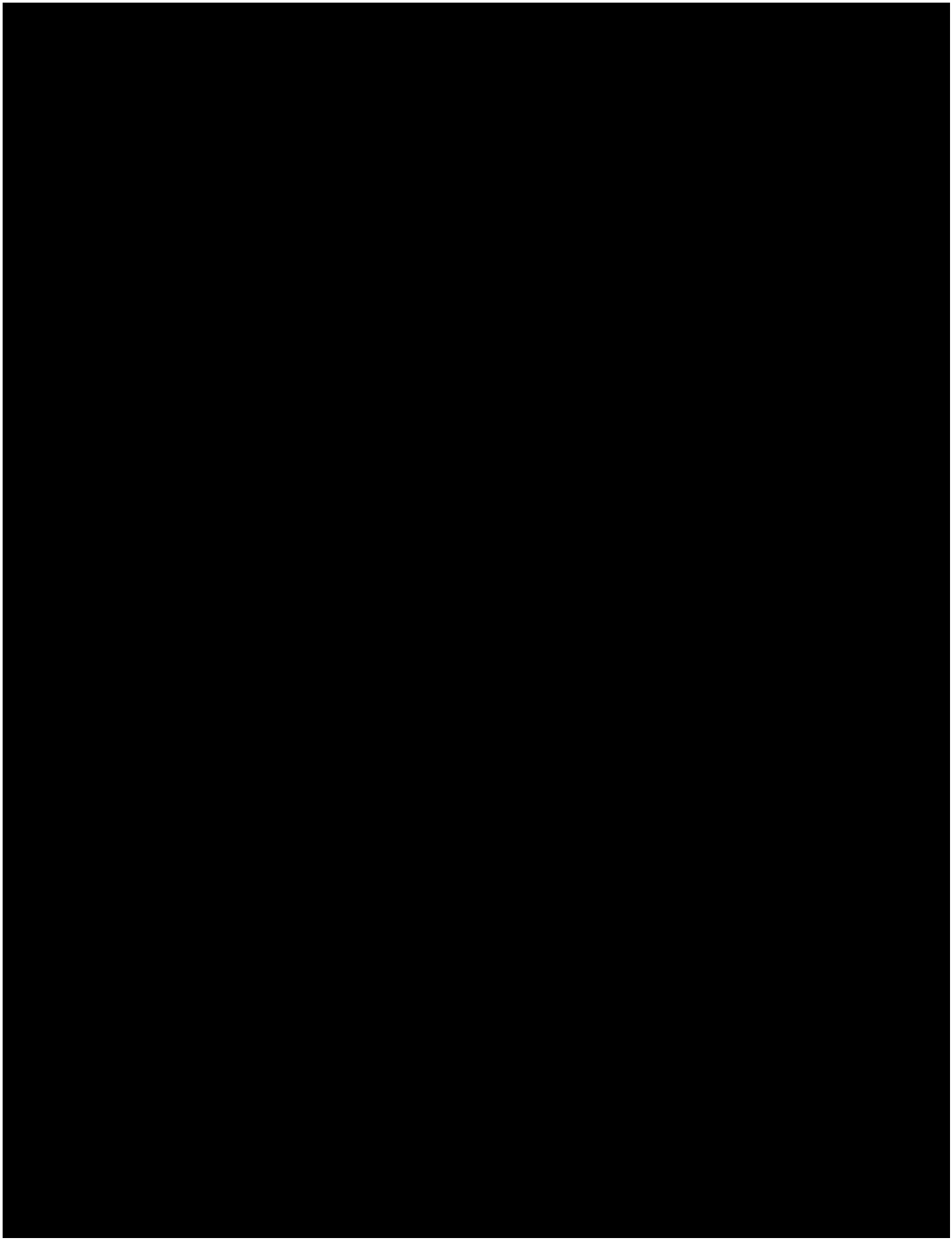

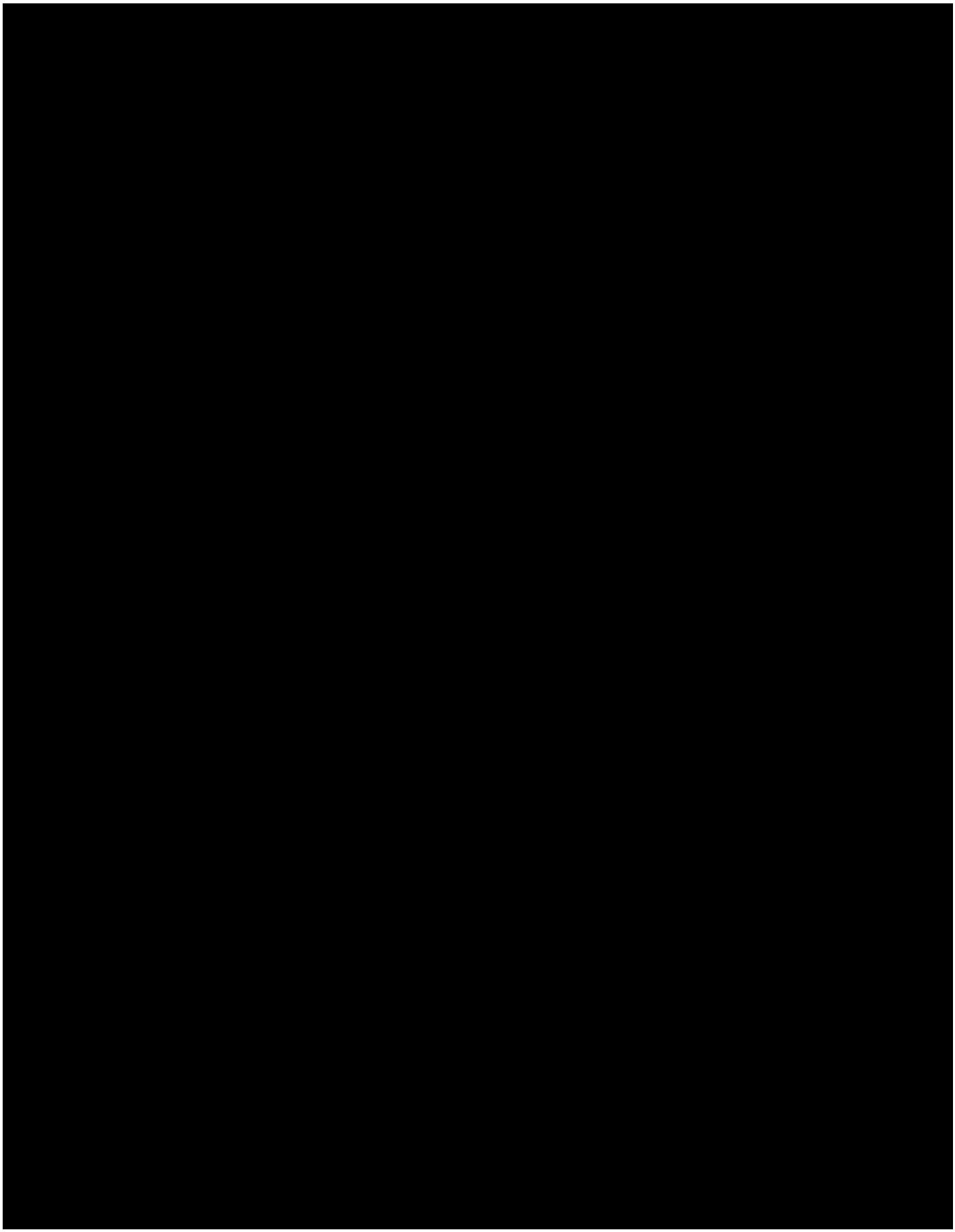

Exhibit C

DUKE ENERGY FLORIDA
Confidentiality Justification Matrix

DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
Direct Testimony of Richard A. Polich; specifically pages ii, 7, 8, and 16 through 22	**Page ii "Exhibits":** the information after "RAP-5" and before "Dated" is confidential. **Page 7: Line 5-**all of the information after "(RAP-6) is confidential. **Page 7: Lines 16 through 19 -**all information after "design" on line 16 and before "DEF" on line 20 is confidential **Page 8: Line 6-** all information after "with the" and before "L0 blades" is confidential. **Page 8: Lines 7 through 11-**all information on line 7 after "operation)" and before "If DEF' on line 11 is confidential. **Page 16: Lines 19 and 20-**all information after "titled" on line 19 and before "the following" on line 20 is confidential. **Page 16: Lines 21 through 23-**all information on each line is confidential. **Page 17: Line 23-** all information after "L0 blades" is confidential.	§366.093(3)(d), F.S. The document in question contains confidential information, the disclosure of which would impair DEF's efforts to contract for goods or services on favorable terms. §366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.

	Page 18: Line 1 -All information before “The L0 blades” is confidential. **Page 18: Line 8-** All information after “blade failures” and before “In February” is confidential. **Page 19**: **Line 2** - All information after “L0 blades” is confidential. **Page 19: Line 3-**all information before “were installed” is confidential. **Page 19: Line 4** -all information before “with the” and before “Period 4” is confidential. **Page 19: Line 5**-all information after “of the” and before “in June” is confidential. **Page 19: Line 7**-all information after “decided to” and “in December” is confidential. **Page 19: Line 17**- all information after “that” is confidential. **Page 19: Line18**- all information before “in this” is confidential. **Page 19**: **Line 19**-all information after “report” is confidential.	

	Page 20: Line 1- all information after "on the" is confidential. **Page 20**: **Lines 2-** all information after "ST with" and before "MHPS" is confidential. **Page 20: Line 3**-all information after "MW and" is confidential. **Page 20: Line 4**: all information before "During Period" is confidential. **Page 20: Line 6**- all information after "install the" is confidential. **Page 20**: **Line 10:** All information after "The" and before "L0 40" and after "experience" is confidential. **Page 20: Line 11**- all information before "According" is confidential. **Page 20**: **Lines 18 and 19** all information after "documents that" on line 18 and before "After over" on line 19 is confidential. **Page 20: Line 21**- all information after "was the" is confidential. **Page 20: Line 22-** all information before and after"(See Exhbiit___JS-1)" is confidential.	

	Page 20: **Line 23**- all information is confidential. **Page 21: Line** 1 **–** all information after "Period 1" is confidential. **Page 21: Line 2**- all information is confidential. **Page 21: Line 3**- all information before "See statement" is confidential. **Page 21: Line 4-** all information after "(RAP-8), at 8" is confidential. **Page 21: Line 5-** all information is confidential. **Page 21: Line 6**: All information before "Operation" is confidential. **Page 21: Line 18**: All information after "The" is confidential. **Page 22: Line 15**-the information after "the" and before "and" and before "blades" is confidential	
DOCUMENT/RESPONSES	**PAGE/LINE**	**JUSTIFICATION**
Exhibit No. __ (RAP-3), to the direct testimony of Richard A. Polich	**Page 1 of 1:** confidential in its entirety.	§366.093(3)(d), F.S. The document in question contains confidential information, the disclosure of which would impair DEF's efforts to contract for goods or services on favorable terms. §366.093(3)(e), F.S.

		The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	**PAGE/LINE**	**JUSTIFICATION**
Exhibit No. __ (RAP-6), to the direct testimony of Richard A. Polich	**Pages 1 through 28**- Bates numbers DEF-19FL-FUEL-006272 through DEF-19FL-FUEL-006299 is confidential in their entirety.	§366.093(3)(d), F.S. The document in question contains confidential information, the disclosure of which would impair DEF's efforts to contract for goods or services on favorable terms. §366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	**PAGE/LINE**	**JUSTIFICATION**
Exhibit No. __ (RAP-7), to the direct testimony of Richard A. Polich	**Pages 1 through 16**- Bates Numbers DEF-19FL-FUEL-006834 through DEF-19FL-FUEL-00006849 are confidential in their entirety.	§366.093(3)(d), F.S. The document in question contains confidential information, the disclosure of which would impair DEF's efforts to contract for goods or services on favorable terms. §366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.

DOCUMENT/RESPONSES	**PAGE/LINE**	**JUSTIFICATION**
Exhibit No. __ (RAP-8), to the direct testimony of Richard A. Polich	**Pages 1 through 12** are confidential in their entirety.	§366.093(3)(d), F.S. The document in question contains confidential information, the disclosure of which would impair DEF's efforts to contract for goods or services on favorable terms. §366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner

Exhibit D

AFFIDAVIT OF JEFFREY SWARTZ

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchased power cost recovery clause with generating performance incentive factor.

Docket No. 20190001-EI

Dated: October 4, 2019

AFFIDAVIT OF JEFFREY SWARTZ IN SUPPORT OF DUKE ENERGY FLORIDA'S REQUEST FOR CONFIDENTIAL CLASSIFICATION

STATE OF FLORIDA

COUNTY OF PINELLAS

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared Jeffrey Swartz, who being first duly sworn, on oath deposes and says that:

1. My name is Jeffrey Swartz. I am over the age of 18 years old and I have been authorized by Duke Energy Florida (hereinafter "DEF" or the "Company") to give this affidavit in the above-styled proceeding on DEF's behalf and in support of DEF's Request for Confidential Classification (the "Request"). The facts attested to in my affidavit are based upon my personal knowledge.

2. I am the Vice President of Florida Generation in the Fossil Hydro Operations Department. This section is responsible for overall leadership and strategic direction of DEF's power generation fleet.

3. As the Vice President of Florida Generation, I am responsible, along with the other members of the section, for strategic and tactical planning to operate and maintain DEF's non-nuclear generation fleet, generation fleet project and additions

recommendations, major maintenance programs, outage and project management, and retirement of generation facilities.

4. DEF is seeking confidential classification for portions of the direct testimony of Richard A. Polich and Exhibit Nos. __ (RAP-3), __ (RAP-6), __ (RAP-7), and __ (RAP-8), , filed on behalf of the Office of the Public Counsel ("OPC") on September 13, 2019 in this docket. The confidential information at issue is contained in confidential Exhibit A to DEF's Request and is outlined in DEF's Justification Matrix that is attached to DEF's Request as Exhibit C. DEF is requesting confidential classification of this information because it contains sensitive business information, the disclosure of which would impair the Company's competitive business interests and ability to contract for goods and services on favorable terms.

5. The confidential information at issue relates to proprietary and confidential third-party owned information, the disclosure of which would impair third-party's competitive business interests, and if disclosed, the Company's competitive business interests and efforts to contact for goods or services on favorable terms. DEF has not publicly disclosed this information.

6. Further, the information contains proprietary third-party drawings, pictures, evaluations and technical information regarding the third-party's proprietary component design and operation parameters. If DEF cannot demonstrate to its third-party OEM, and others that may enter contracts with DEF in the future, that DEF has the ability to protect those third-parties' confidential and proprietary business information, third-parties will be less likely to provide that information to DEF – harming DEF's ability to prudently operate its business. DEF has not publicly disclosed the information.

Without DEF's measures to maintain the confidentiality of this sensitive business information, DEF's ability to contract with third-parties could detrimentally impact DEF's ability to negotiate favorable contracts, as third-parties may begin to demand a "premium" to do business with DEF to account for the risk that its proprietary information will become a matter of public record, thereby harming DEF's competitive interests and ultimately its customers' financial interests.

7. Upon receipt of its own confidential information, strict procedures are established and followed to maintain the confidentiality of the terms of the documents and information provided, including restricting access to those persons who need the information to assist the Company, and restricting the number of, and access to the information and contracts. At no time since receiving the information in question has the Company publicly disclosed that information. The Company has treated and continues to treat the information at issue as confidential.

8. This concludes my affidavit.

Further affiant sayeth not.

Dated the 3rd day of October, 2019.

(Signature)
Jeffrey Swartz
Vice President Florida Generation
Duke Energy Florida, LLC
Florida Regional Headquarters
St. Petersburg, FL

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 3rd day of October, 2019 by Jeffrey Swartz. He is personally known to me or has produced his Valid driver's license, or his _____ as identification.

(Signature)
April Warfel
(Printed Name)
NOTARY PUBLIC, STATE OF FL.
2/4/23
(Commission Expiration Date)

(Serial Number, If Any)

(AFFIX NOTARIAL SEAL)

Notary Public State of Florida
April Warfel
My Commission GG 297996
Expires 02/04/2023