DOTD FORM: 24-102

(Revised December 12, 2024)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1. Contract Name as shown in the advertisement	BRIAN RD OVER DRAINAGE BAYOU
2. Contract Number(s) as shown in the advertisement	4400030643
3. State Project Number(s), if shown in the advertisement	H.015976.5
4. Prime consultant name **(name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)**	MCA Engineering, LLC
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF. 0006655
6. Prime consultant mailing address	8966 Interline Avenue, Suite D, Baton Rouge, LA 70809
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	8966 Interline Avenue, Suite D, Baton Rouge, LA 70809
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Marcio Araujo, Ph.D., P.E. – President & CEO Phone No.: (225)803-3744 Email: Marcio.Araujo@mcaengrbr.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Marcio Araujo, Ph.D., P.E. - President & CEO Phone No.: (225)803-3744 Email: Marcio.Araujo@mcaengrbr.com

Prime consultant should enter the firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response. **Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.**	Signature above shall be the same person listed in Section 9:  Date: 04/01/2025	
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s):	Firm(s)' %:

12. <u>Discipline Table:</u>
As indicated in the advertisement, insert a completed table here. The percentages for the prime and sub-consultants must total 100% for each discipline, as well as the overall total percent of the contract.

The **only** disciplines to be used are listed in the drop down in each row (Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic). **Remove rows as needed.**

Discipline(s)	% of Overall Contract	MCA Engineering, LLC	SJB Group, L.L.C.	Thompson Engineering, INC., of Louisiana	Firm D	Firm E	Each Discipline must total to 100%
Bridge	54%	100%					**100%**
Other (Hydraulic Study)	12%	100%					**100%**
Survey	17%		100%				**100%**
Right-of-Way	10%		100%				**100%**
Environmental	7%			100%			**100%**
Identify the percentage of work for the **<u>overall contract</u>** to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	**100%**	66%	27%	7%			

13. Firm Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (must specify)" and include the classification title inside the parentheses.

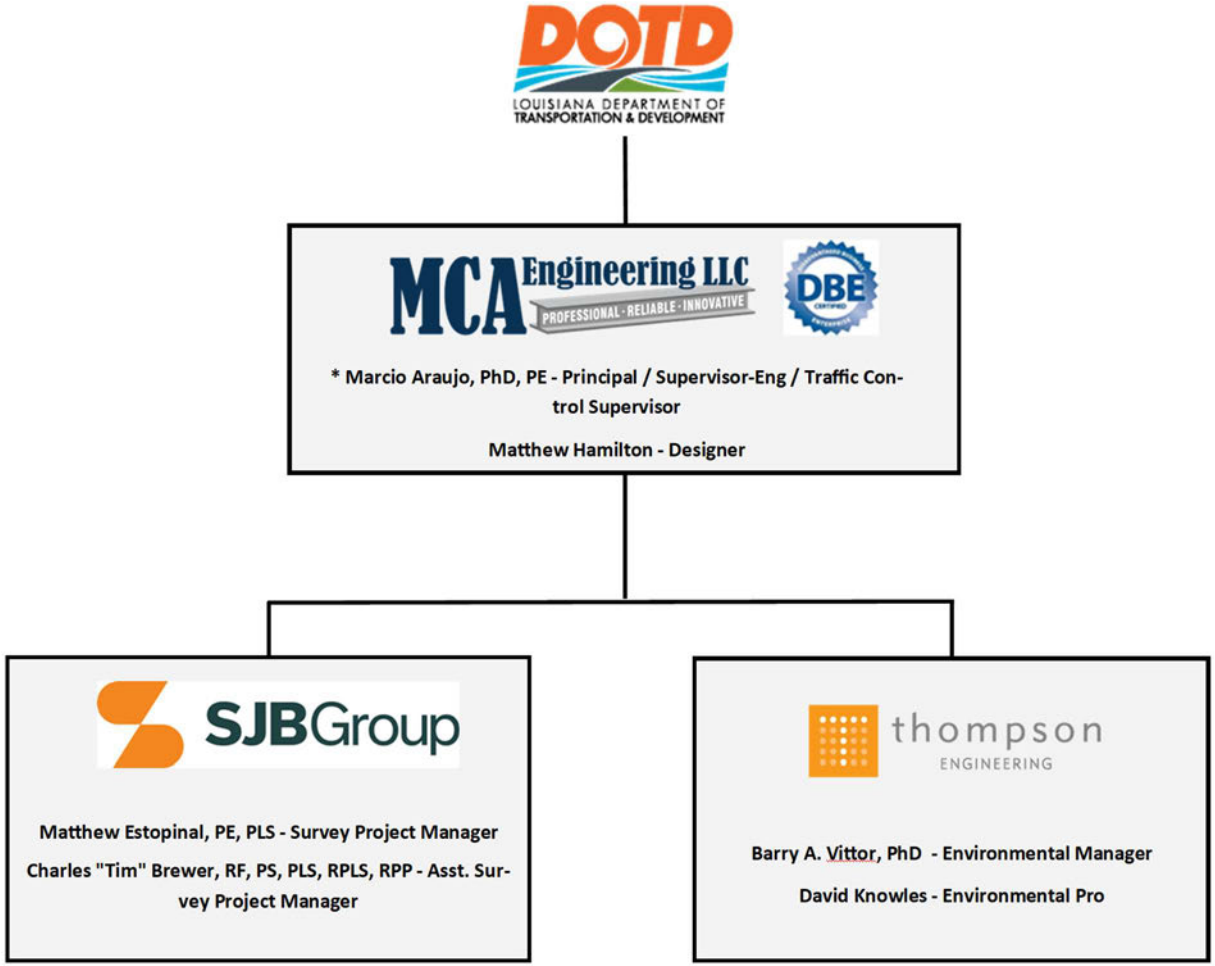
The DOTD Job Classification(s) to be used can be found at the following link:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

Firm name	DOTD Job Classification	**Number of personnel committed to this contract**	Total number of personnel available in this DOTD Job Classification (if needed)
MCA Engineering, LLC	Principal	1	2
MCA Engineering, LLC	Supervisor - Eng	1	1
MCA Engineering, LLC	Designer	1	2
MCA Engineering, LLC	Traffic Control Supervisor	1	1
SJB Group, L.L.C.	Surveyor	2	4
SJB Group, L.L.C.	Engineer	0	4
SJB Group, L.L.C.	Party Chief	3	6
SJB Group, L.L.C.	CADD Technician	1	1
SJB Group, L.L.C.	Engineer Intern	0	1
SJB Group, L.L.C.	Landscape Architect	0	1
SJB Group, L.L.C.	Technician	0	1
SJB Group, L.L.C.	Rodman	0	1
SJB Group, L.L.C.	Principal	1	1
SJB Group, L.L.C.	Instrument Man	0	2
SJB Group, L.L.C.	Administrative	0	4
SJB Group, L.L.C.	Supervisor - Eng	0	2

SJB Group, L.L.C.	CADD Drafter	0	1
SJB Group, L.L.C.	CADD Operator	2	3
SJB Group, L.L.C.	Senior Technician	2	4
Thompson Engineering, Inc., of Louisiana	Environmental Manager	1	1
Thompson Engineering, Inc., of Louisiana	Environmental Pro	1	23

14. <u>Organizational Chart:</u>

Provide an organizational chart showing ALL **relevant** prime consultant and sub-consultant (if applicable) personnel assigned to the contract, area of project responsibility for each, and reporting lines for the purposes of this contract. An individual's role does not necessarily have to match their DOTD job classification identified in Section 13. **If applicable, identify all personnel performing traffic engineering analysis and/or QC of traffic engineering analysis by placing an asterisk next to their name. Include the certificates required by the Traffic Engineering Process and Report Training Requirements article of the Advertisement in Section 20.** It is acceptable to use an 11x17 format for Section 14.



Prime consultant: MCA Engineering, LLC

15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR. Make sure the P.E. discipline is also listed (highlighted in table) that is meeting the MPR; e.g. professional civil engineer should show the discipline of the license as civil if meeting that MPR.

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Marcio Araujo	MCA Engineering, LLC	PE.0035506 - Civil	LA	09/30/2026
2	Marcio Araujo	MCA Engineering, LLC	PE.0035506 - Civil	LA	09/30/2026
3	Marcio Araujo	MCA Engineering, LLC	PE.0035506 - Civil	LA	09/30/2026
4	Matthew Estopinal, PE, PLS	SJB Group, L.L.C.	PLS.0004955	LA	03/31/2027
5	Dr. Barry A. Vittor, PhD	Thompson Engineering, Inc., of Louisiana	Environmental – more than 5 years of experience in wetland delineation	N/A	N/A
5	David Knowles	Thompson Engineering, Inc., of Louisiana	Environmental – more than 5 years of experience in wetland delineation	N/A	N/A

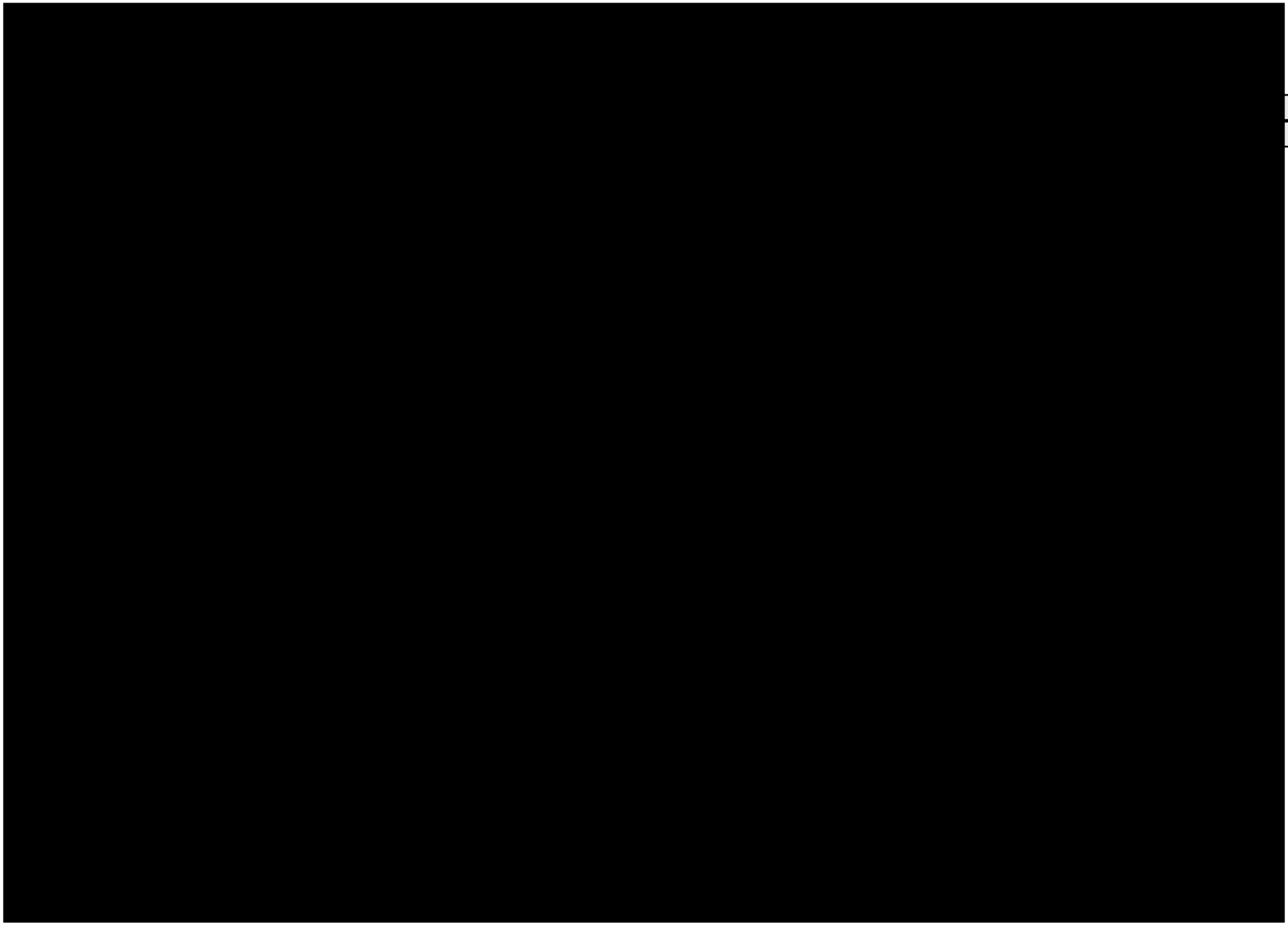
16. Staff Experience:

Résumés shall be provided for all prime and sub-consultant personnel listed in Sections 14 and/or 15 of the proposal. Résumés of personnel not identified in Section 14 or Section 15 of the proposal should not be included and will not be evaluated. Résumés are **limited to 2 pages per person**. Any certificates required by the advertisement are to be placed in Section 20.

Firm employed by: **MCA Engineering, LLC**			
Name	**Marcio C. Araujo, Ph.D., P.E.**	Years of relevant experience with this employer	5
Title	**President & CEO**	Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specializ		Ph.D. / 2009 / Civil Engineering / Louisiana State University	
	Lou	M.S. / 2002 / Civil Engineering / Louisiana State University	
		B.S. / 1998 / Civil Engineering / Universidade Federal do Piaui, Teresina, Brazil	
Active registration number /		Professional Engineering – Louisiana #35506 / September 2026	
		Professional Engineering – Mississippi #30841 / December 2026	
		Professional Engineering – Arkansas #20112 / December 2026	
		Professional Engineering – Texas #141933 / June 2025	
		Professional Engineering – Alabama #51221 / December 2025	
Year registered	2010	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Lead Design Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/19 – 01/25	**Engineering Lead & Co-Founder / MCA Engineering LLC –** Co-founder, majority owner, and technical lead. The company provides civil/structural analysis, design, and support to various industrial, commercial, retail, and governmental entities. Activities support organizations such as VA Hospitals, US Coast Guard, industrial plants, office buildings, US Navy, US Air Force, medical facilities, retail shops, and various government buildings.
2018 – 5/20	**Lead Civil / Structural Engineer / BRIS/Wink Engineering –** Led teams assigned to provide engineering analysis and design efforts needed to support major capital projects at various industrial sites across the Greater Baton Rouge region. These projects included pipe racks, major equipment foundations, blast analysis and design, platforms, pile design, and various structural assessments. Customers served during this time included organizations such as Exxon, Rubicon, Shintech, and Westlake.
2015 – 2018	**Civil/Structural Manager / Hargrove & Associates –** Responsible for all aspects of leading the Civil/Structural department activities and managing staff performance as well as actively worked as the discipline lead for multiple clients.
2008 – 2015	**Civil/Structural Engineer & Project Manager / CDI Engineering –** Leadership positions as the Civil/Structural Engineer of Record and Project Manager for multiple Shell/Motiva projects in Convent, Geismar and Norco, LA. Lead Engineer for Project Amite, the largest project awarded to the Baton Rouge office at the time. Performed structural analysis on vessel foundations, pipe racks, pipe supports and access platforms. Involved in all phases of design, including field work, topographic surveys, production of drawings (2D and 3D), checking, and production of construction documents.
2006 – 2008	**Operations Manager / Fenner Consulting –** Led engineers in two offices to successfully complete multiple projects, including residential, commercial and industrial work. Coordinated with geotechnical engineers, architects, and clients. Work

	involved shallow and deep foundations, post-tensioned slabs, timber, and steel structures. Responsible for all facets of the business, including but not limited to marketing, human resources, negotiating fees and invoicing.
2019 – 2009	**Teaching & Researching Assistant / LSU Dept of Civil Engineering –** Researched non-linear kinematic hardening for multi-axial cyclic plasticity. Developed 3-D full finite element models of prestressed concrete bridges for both linear and nonlinear analysis using ANSYS. Inspected nearly 90 highway bridges for truck impact damage in the state of Louisiana.
01/98 – 11/98	**Construction Supervisor / Construtora Rego Monteiro –** Supervised the construction of reinforced concrete highway bridges, commercial buildings, and structural restoration of concrete structures. Work involved using independent judgement and initiative, scheduling and assigning work, requisitioning materials and supplies, estimating man hours and materials, and making payments.



Prime consultant: MCA Engineering, LLC

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Firm employed by: **MCA Engineering, LLC**			
Name	**Matthew Hamilton**	Years of relevant experience with this employer	0.75
Title	**Project Engineer**	Years of relevant experience with other employer(s)	19.66

Degree(s) / Years / Specializ		B.S. / 2004 / Civil Engineering	
Active registration number /			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		**Lead Designer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/24 – 12/24	Designed wastewater treatment plant site drainage, access roads, concrete structures, PEMB concrete foundations, miscellaneous access platforms; and a conveyor truss bridge.
06/16 – 04/24	Designed structural steel, miscellaneous steel pipe supports, concrete foundations, underground drainage piping, developed design drawings and checked construction packages for various industrial projects.
01/13 – 06/16	Designed industrial steel structures & civil concrete foundations, analyzed industrial piping & vessel supports, and coordinated work with project managers, mechanical leads, piping leads, and department manager.
04/09 – 01/13	Designed metal building concrete foundation, residential house concrete foundation, equipment access steel platforms, steel structure, and concrete foundation for high school baseball field, RFP roof of access catwalks.
12/04 – 04/09	Designed process & industrial foundations, structures, skids, substations, miscellaneous pipe supports, cable tray supports, and drainage.

Firm employed by: **SJB Group, L.L.C.**			
Name	**Matthew Estopinal, PE, PLS**	Years of relevant experience with this employer	3
Title	**Principal / CEO**	Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization		B.S. in Civil Engineering | 2009 | LSU B.S. in Microbiology | 1996 | LSU	
Active registration number / state / expiration date		PE #0039151 | Louisiana | 3/31/2025 | Year Registered: 2014 | Professional Engineer PLS #0004955 | Louisiana | 3/31/2025 | Year Registered: 2006 | Professional Land Surveyor PE #122184 | Tennessee | 1/31/2025 | Year Registered: 2019| Professional Engineer PE #32982 | Mississippi | 12/31/2024 | Year Registered: 2022 | Professional Engineer	
Year registered	Discipline		
Contract role(s) / brief description of responsibilities		**Project Manager – Surveying** | Mr. Estopinal has 17 years of experience as a PLS in Louisiana managing transportation and community development related projects for private clients, MoveBR, and LA DOTD. His survey experience includes Boundary, Topographic, As-Built and ALTA Surveys, Right-of-Way Mapping, Construction Layout, and control for aerial survey and mapping.	

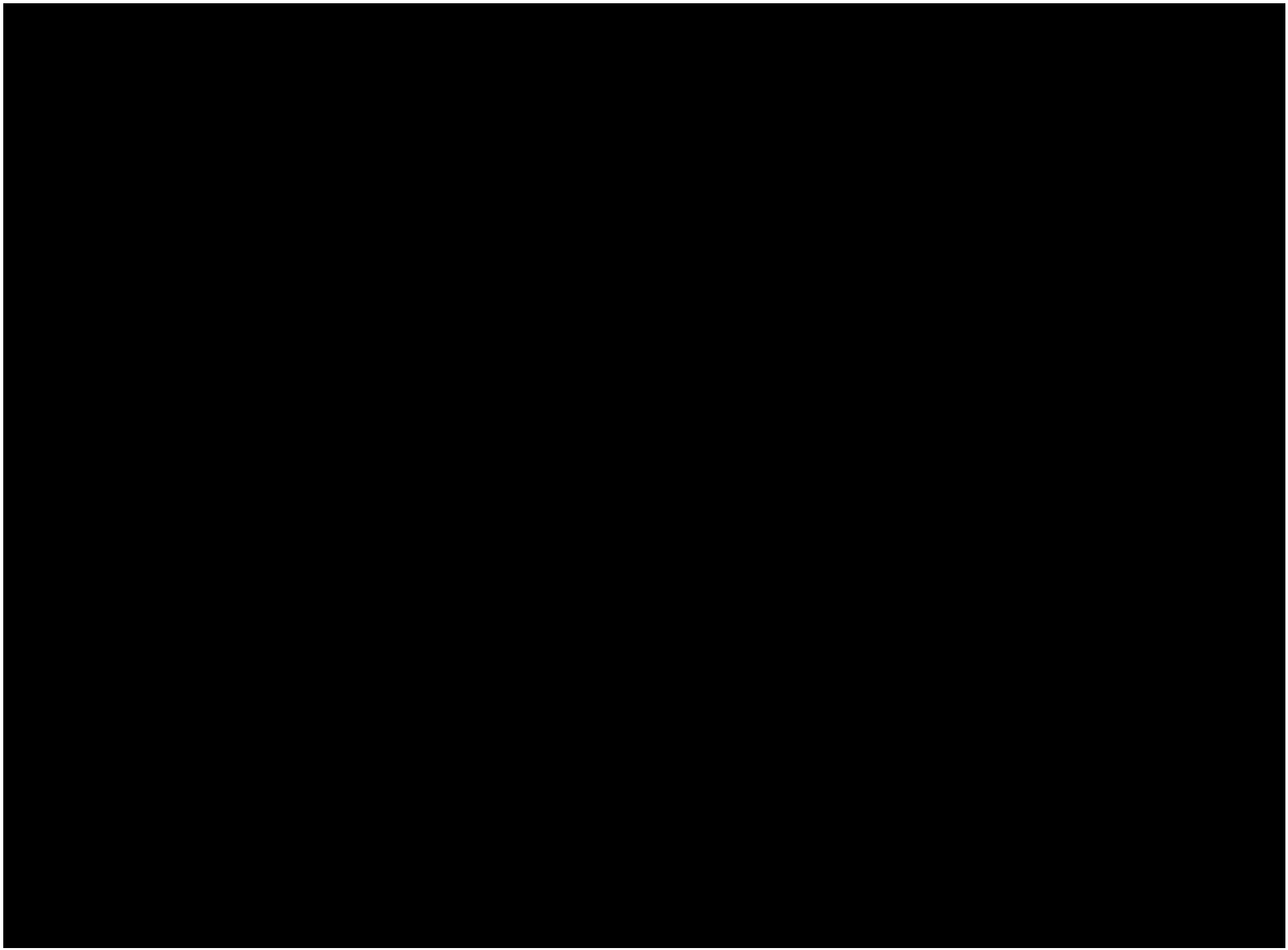
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/21 –10/23	**LA DOTD Project No. H.004100.5 – I-10: LA 415 to Essen on I-10 and I-12** *QA/QC.* SJB Group provided a Property Survey and extensive Right-of-Way Mapping for approximately 4 miles of I-10 as well as multiple intersecting streets, for which a property map was created that encompassed the parcels affected by acquisition and accessibility. The project also included the creation of Base Right-of-Way Maps; Final Right-of-Way Map set of original matte films; drawing files; along with a pdf copy of the Full Title Research Reports with affected parcel number and an ASCII parcel input file descriptions for approximately 125 parcels.
08/20– 04/24	**LA DOTD 44-17597 - Rural Bridge Replacement Initiative, Districts 03, 07, 61, 62** *QA/QC.* SJB Group performed topographic surveying, property surveying, right-of-way mapping, and roadway design of 33 bridge replacements in Districts 03, 07, 61, and 62 as a sub-consultant to Burk-Kleinpeter within their contract with the LA Department of Transportation. The Surveys were provided in accordance with the current Locations and Survey Manual and Addendum A.
04/23 – 09/23	**LA DOTD Project No. H.017322.5 – Morgan City Sidewalks & Shared Use Path, St. Mary Parish** *QA/QC.* Sub to Digital Engineering. This project included Right-of-Way Mapping, Topographic Surveying, and Subsurface Utility Engineering to assist in the installation of sidewalks, handicapped ramps, drainage structures, and other related work in Morgan City. All surveying was performed to LADOTD Location & Survey Section requirements and delivered in Autodesk format.
03/22 – 08/23	**LA DOTD Project No. H.012685.5 – LA 385: Ryan Street Intersection Improvements** *QA/QC.* This project included a Topographic Survey in Calcasieu Parish near the intersection of I-210 and LA 385 (Ryan Street) near the campus of McNeese State University. The survey included all utilities, drainage, and finish floor elevations of

	buildings that fell within the survey limits. The total linear distance was approximately 2.67 miles. LiDAR Data was gathered using a Velodyne Mobile Scanner and Ladybug. Terrestrial Surveying was performed using a Leica TS16 Robotic Total Station and a Leica GS18 T GNSS RTK Rover. Data was processed using OpenRoads Designer TopoDOT and InSuite MicroStation. All surveying was performed to LADOTD Location & Survey Section requirements.
07/21 - 02/22	**LA DOTD Project No. H.013715.5 – LA 77 Union Pacific Railroad Crossing (Iberville)** *QA/QC.* This project consisted of Property Surveying, Right-of-Way Mapping and Topographic Surveying for a project that included the depiction of a railroad right-of-way, state-maintained highway, and city streets. The deliverables included preparation of a Property Map, Base Right-of-Way Maps, Final Right-of-Way Maps and the creation of a parcel input file for acquisition descriptions of the subject area. All surveying was performed to LADOTD Location & Survey Section Addendum A requirements.
10/20 – 08/22	**LA DOTD Project No. H.002176.50 – LA 10 Bridges** QA/QC. The LA 10 Bridges project in St. Landry Parish included Property Surveying and Right-of-Way Mapping for three sites. The property survey depicted the affected properties, the existing Right-of-Way for LA Hwy 10, and multiple state-claimed water bodies. The Property Survey was utilized for creating Base Right-of-Way maps, Final Right-of-Way Maps and ASCII parcel input files for acquisition parcels. All surveying was performed to LADOTD Location & Survey Section Addendum A requirements.
06/21 – 10/21	**LA DOTD Project No. H.007963 – Blackwater Bayou Bridge** *Project Manager/QA/QC.* This project required replacement of the Bayou River Bridge and a diversion road during construction along LA Hwy 410 in East Baton Rouge Parish near the City/Town of Central. This project involved Property Surveys, Right-of-Way maps, and title take-offs. This project went through design changes which halted project progress temporarily and significantly changed the required right-of-way taking. All surveying was performed to LADOTD Location & Survey Section Addendum A requirements.

Firm employed by: **SJB Group, LLC**				
Name	**Charles "Tim" Brewer**		Years of relevant experience with this employer	3
Title	**Vice President of Surveying**		Years of relevant experience with other employer(s)	28
Degree(s) / Years / Specialization			Bachelor of Science in Forestry Management / 1988 / Mississippi State University	
Active registration number / state / expiration date			PLS.0005009 | Louisiana | 9/30/2025 | Registered 2009 | Professional Land Surveyor PLS.35341-S | Alabama | 12/31/2025 | Registered 2015 | Professional Land Surveyor RPLS.6142 | Texas | 12/31/2025 | Registered 2010 | Reg. Professional Land Surveyor PS.1683 | Arkansas | 6/30/2025 | Registered 2009 | Professional Surveyor LS.2726 | Tennessee | 12/31/2025 | Registered 2008 | Land Surveyor 80756RPP | Oregon | 12/31/2025 | Registered 2008 | Reg. Professional Photogrammetrist PS.2766 | Mississippi | 12/31/2025 | Registered 1999 | Professional Land Surveyor RF.1286 | Mississippi | 12/31/2025 | Registered 1988 | Registered Forrester	
Year registered		Discipline		
Contract role(s) / brief description of responsibilities			**Asst. Project Manager** | Mr. Brewer, has over 30 years of survey experience and over 15 years of experience managing a wide variety of surveying projects for USACE, MDOT, LADOTD, MovEBR, MoveAscension, and private clients. His survey experience includes Boundary, Topographic, As-Built and ALTA Surveys, Right-of-Way Mapping, Construction Layout, and control for aerial survey and mapping.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/23 – 12/24	**LA DOTD Project No. H005121.5 LA 1 – LA 415 Connector** *Project Manager.* The project provides field data for the design of a roadway to connect LA 415 to LA 1. The project is a supplement to previously performed surveying for the realignment of the due to recent development and construction. The project limits include a 2.9-mile corridor beginning approximately 0.2 miles north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction along the extension of LA 415 across the intercoastal canal, industrial areas, and agriculture field to the intersection of LA 1. The project limits also include an approximate 1.8-mile corridor along LA 1 that extends from the roadway into residential, commercial, and retail areas. The project includes the collection of current conditions of the areas included in the project limits and merging the current data with the previous survey and updating any observed condition changes. The project includes the recovery and supplement of the existing control network. The collection of field data is completed through the utilization of conventional survey methods with survey total stations and global positioning systems (GPS). Mobile LiDaR methods are utilized for the collection of data along the high traffic segments of LA 1 and processed through Trimble Business Center, with data extraction performed through TopoDot. The survey is being conducted according to the Louisiana Department of Transportation and Development Location and Survey Manual. The deliverables will be provided in accordance with the LADOTD guidelines for electronic deliverables.
04/23 – 09/23	**LA DOTD Project No. H.017322.5 – Morgan City Sidewalks & Shared Use Path, St. Mary Parish** *Surveyor of Record/Project Manager.* Sub to Digital Engineering. This project included Right-of-Way Mapping, Topographic Survey, and Subsurface Utility Engineering to assist in the installation of sidewalks, handicapped ramps, drainage structures, and other related work in Morgan City. The project limits included Everett Street from Front Street to 4th Street, 4th Street

	from Everett Street to Barrow Street, and Myrtle Street from Youngs Road to Auditorium Drive. In the performance of this contract the existing right-of-way of twenty streets, one state highway right-of-way, and an irregular railroad right-of-way was determined at two crossing locations. All surveying was performed to LADOTD Location & Survey Section requirements. The deliverables were provided in Autodesk format.
08/20 – 09/23	**LA DOTD 44-17597 - Rural Bridge Replacement Initiative, Districts 03, 07, 61, 62** *Project Manager.* Sub to Burk-Kleinpeter. This project included a Topographic Survey, Right-of-Way Mapping, and roadway design performed for the proposed bridge replacements for LA DOTD Districts 03, 07, 61, and 62. Each site required a complete property map and the preparation of Right-of-Way Maps with supporting data for right-of-way acquisition. The Topographic Survey of the project limits of each bridge included a complete inventory for each drainage structure (type, size, length, and invert) and cross sections of all drainage ways. A Leica TS16 Robotic Total Station and a Leica GS18 T GNSS RTK Rover were used. All surveying was performed to LADOTD Location & Survey Section requirements.
03/22 – 8/22	**LA DOTD Project No. H.012685.5 – LA 385: Ryan Street Intersection Improvements** *Project Manager.* This project included a Topographic Survey in Calcasieu Parish near the intersection of I-210 and LA 385 (Ryan Street) near the campus of McNeese State University. The survey included all utilities, drainage, and finish floor elevations of buildings that fell within the survey limits. The total linear distance was approximately 2.67 miles. LiDAR Data was gathered using a Velodyne Mobile Scanner and Ladybug. Terrestrial Surveying was performed using a Leica TS16 Robotic Total Station and a Leica GS18 T GNSS RTK Rover. Data was processed using OpenRoads Designer TopoDOT and InSuite MicroStation. All surveying was performed to LADOTD Location & Survey Section requirements.
6/21 - Ongoing	**LA DOTD Project No. H.004100.5 – I-10: LA 415 to Essen on I-10 and I-12** *Project Manager.* SJB Group performed the property surveying along a 4.4-mile stretch of Interstate 10 from St. Joseph St. to College Dr. in East Baton Rouge Parish, Louisiana for the Louisiana Department of Transportation and Development's widening project. This project required extensive title research to acquire the necessary existing surveys and deeds. It also required field surveying and mapping of more than one hundred twenty-five parcels along the project corridor, which range in size from small urban residential lots to large commercial tracts. This project corridor also encompasses existing drainage servitudes, a railroad right-of-way, and numerous side streets in the heart of Baton Rouge.



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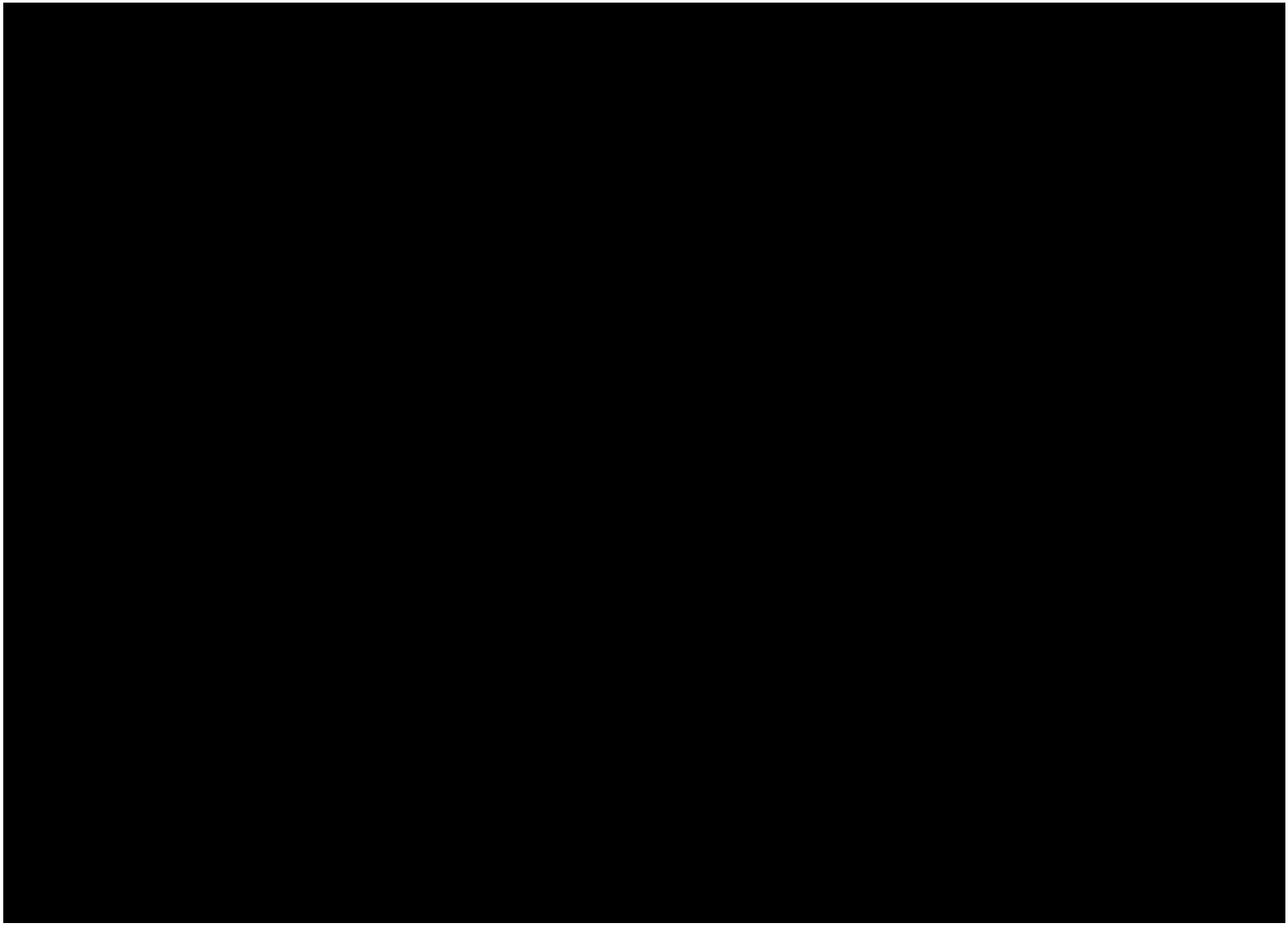

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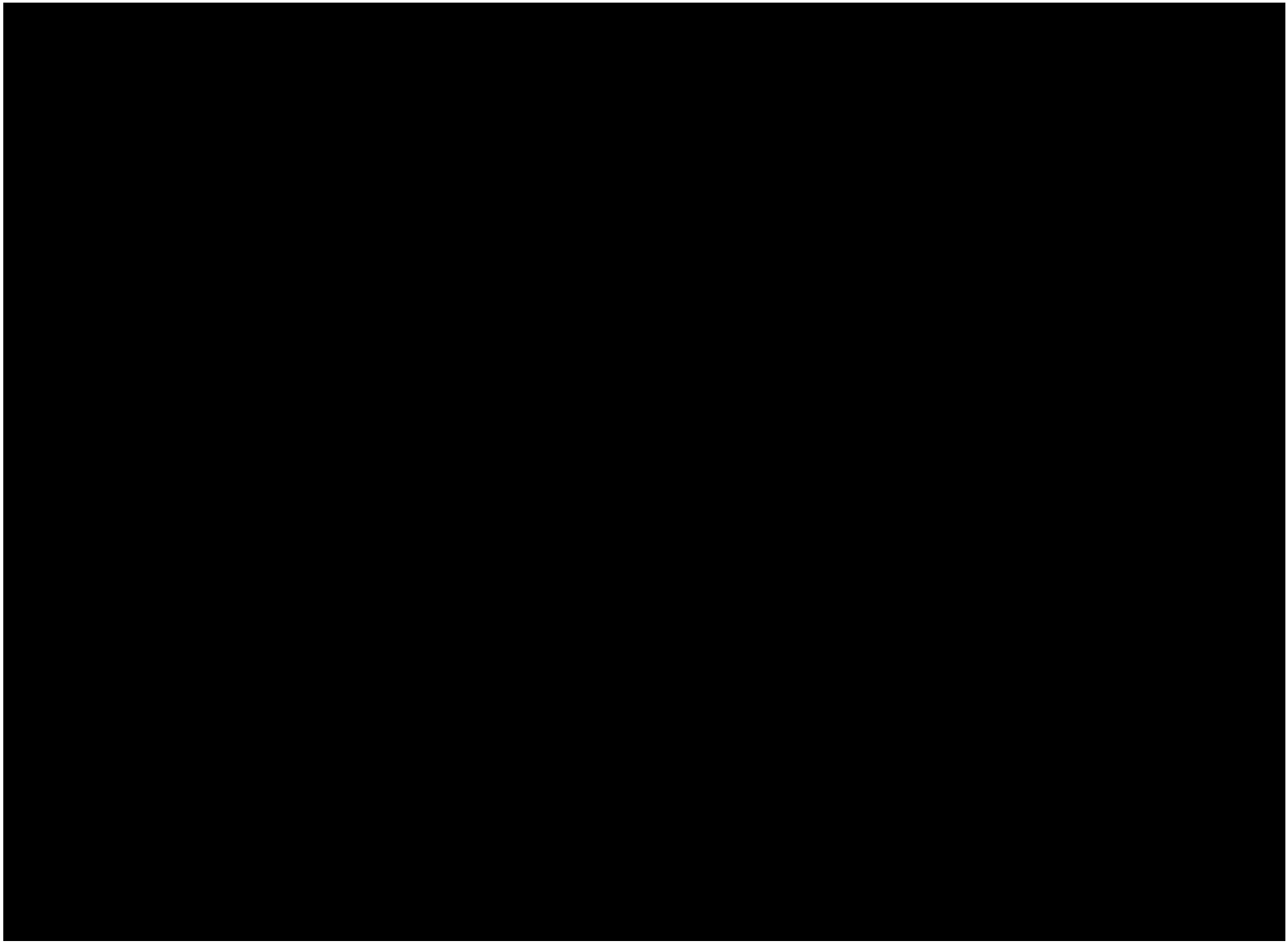

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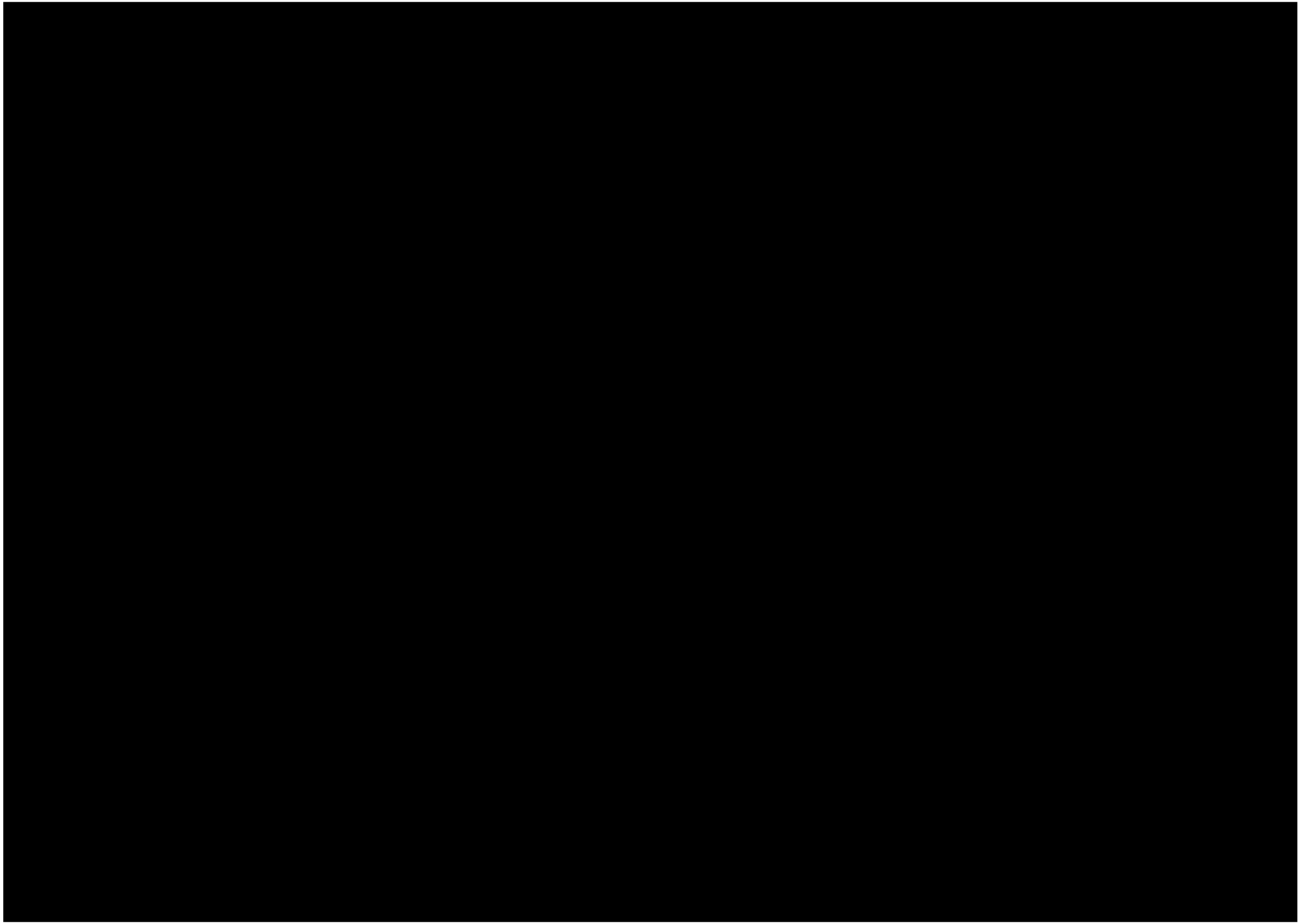

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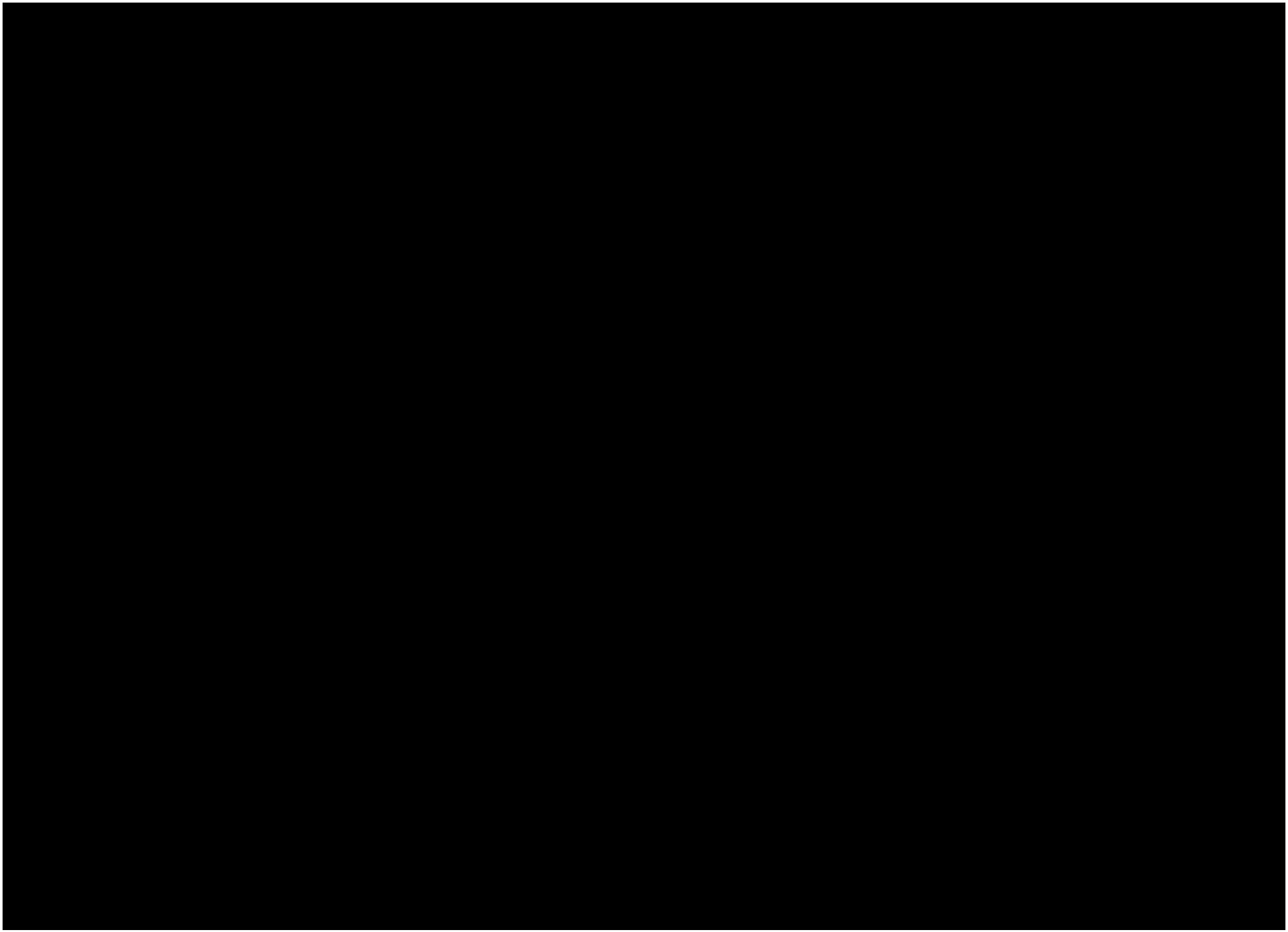

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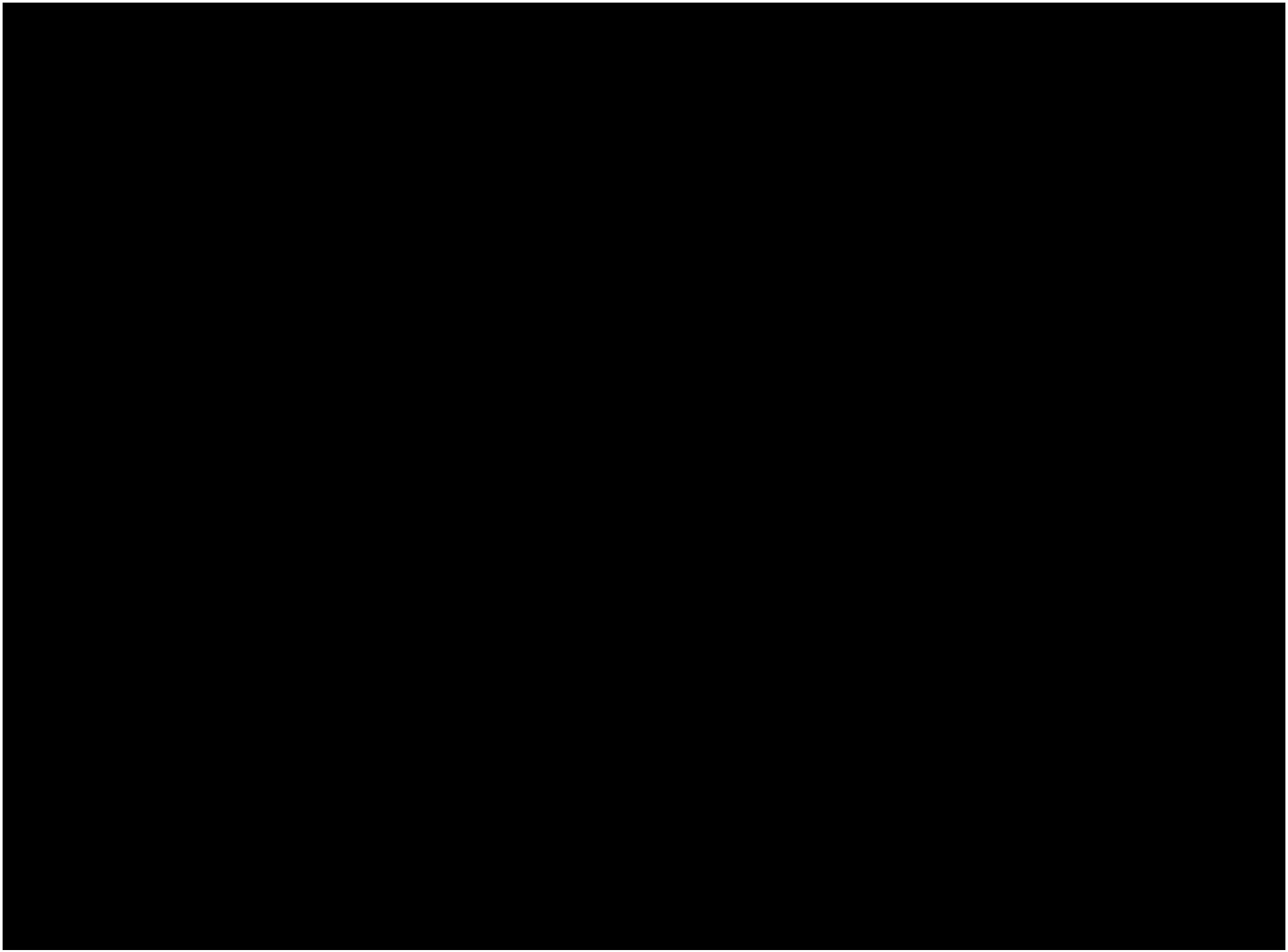

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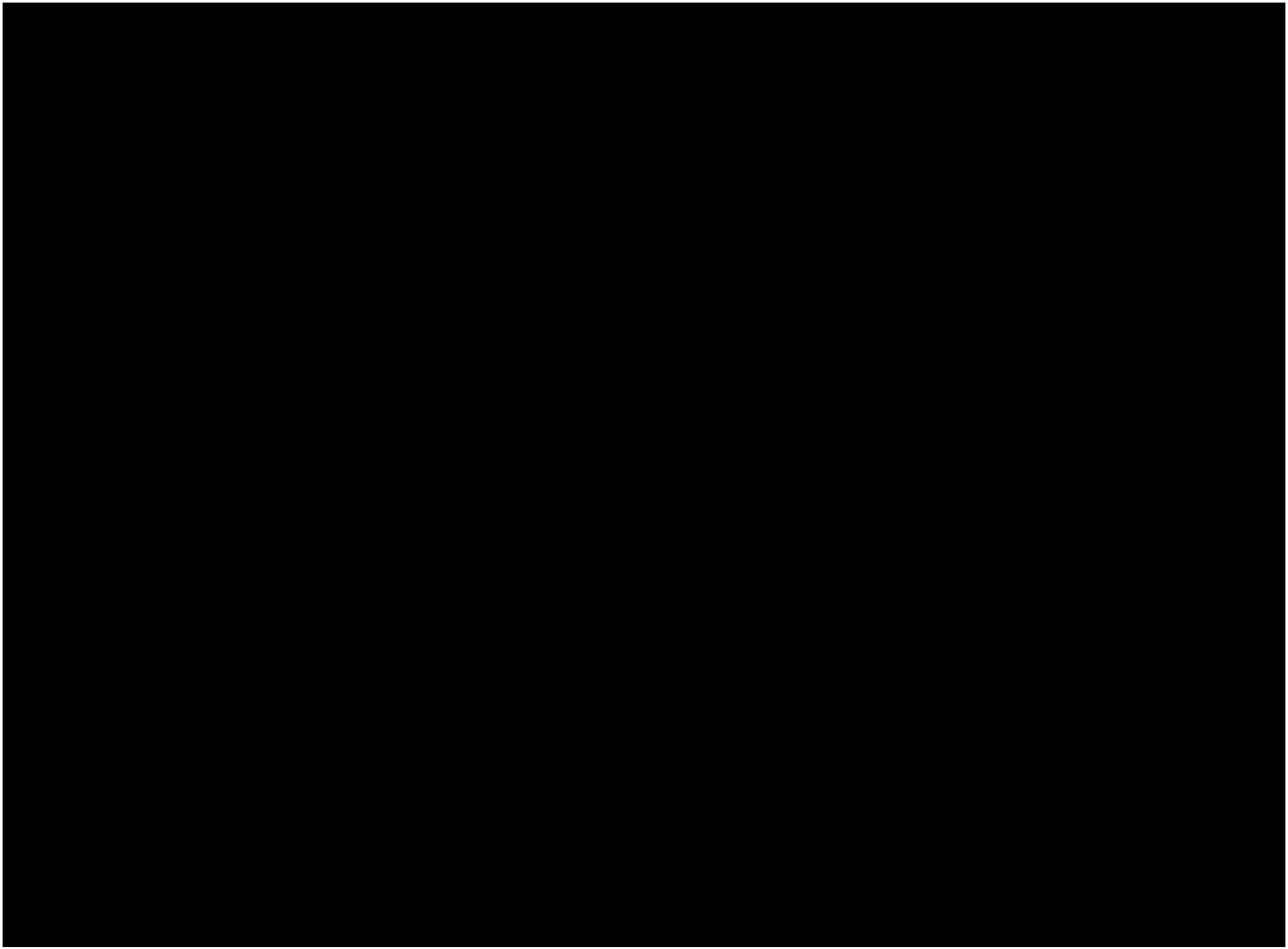
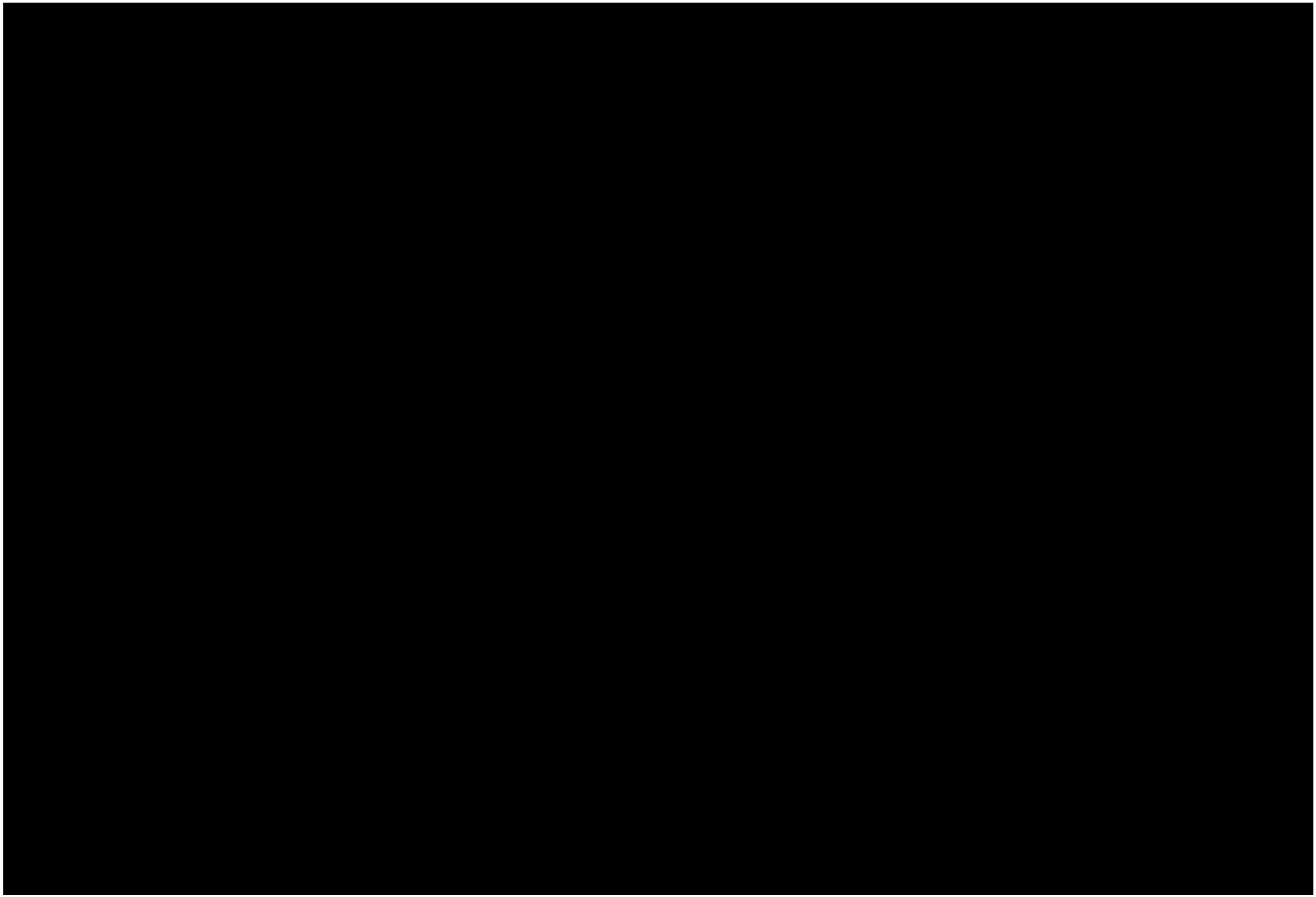
Prime consultant: MCA Engineering, LLC





Prime consultant: MCA Engineering, LLC

Firm employed by: **Thompson Engineering, Inc.**					
Name	**Dr. Barry A. Vittor, PhD**			Years of relevant experience with this employer	1 year (Thompson)
Title	**Principal Scientist**			Years of relevant experience with other employer(s)	52 years
Degree(s) / Years / Specialization			PhD/ Ecology, University of Oregon, 1971 MS/ Marine Biology, California State University, San Diego, 1968 BA/Zoology, University of California, Riverside, 1966		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Environmental - NEPA		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
(01/21 – ongoing)	Tensaw-Spanish River Bridge Replacement, Baldwin County, AL – Principal Scientist for environmental assessment and permitting of the proposed U.S. Hwy 98 bridge replacement project at the Tensaw-Spanish River crossing in Baldwin County, Alabama. This project involved mapping of wetlands and SAV in the construction area and required development of a mitigation plan for SAV impacts. Several locations in the vicinity of the bridge were surveyed for presence/absence of SAV and for water depth, to identify a suitable site for restoration of SAV through transplanting of donor site plants to into the mitigation site. Development of the mitigation plan was coordinated with ALDOT, USACE, NOAA, and ADEM.
(01/08 – 12/22)	Environmental Studies, Kemper County Coal Mine, Kemper County, MS – Principal Scientist responsible for Sec. 404 permitting, wetland delineation, stream assessment, threatened/endangered species survey, and vegetation/wildlife study for a proposed lignite coal surface mine facility in portions of Kemper County, Mississippi. Dr. Vittor and his team developed a comprehensive wetland and stream mitigation plan that would be implemented during the 40-year life of mine period, prepared the 404 permit application for the mine, and coordinated the permit review and approval process with the USACE, USEPA, USFWS, MDEQ, and other agencies. They also conducted annual monitoring of the wetland and stream mitigation sites through 2021.
(01/19 – 12/21)	Mississippi Power Company, Fiber Optic Line Environmental Resources, Counties in AL/MS – Principal Scientist for the placement of a new fiber optic line. This project involved surveys of wetlands, streams, and endangered species in a proposed fiber optic line corridor adjacent to an existing transmission line corridor that extended 114 miles from west Mobile County, Alabama to the Mississippi-Louisiana state line. Wetlands were delineated and mapped in accordance with Corp of Engineers guidelines. Surveys for Threatened and Endangered species focused primarily on Gopher Tortoise, which is listed by the UFWs as Threatened in southern Mississippi. Three navigable waters (Pascagoula River, Biloxi River, Jourdan River) were crossed by the fiber optic line installation. Dr. Vittor and his team obtained Sec. 10 permits for each crossing.
(11/21 – Ongoing)	Mobile County Commission, Environmental Services MSA, Mobile County, AL – Principal Scientist for environmental services for Mobile County's Environmental Services Department, through a Master Service Agreement (MSA). Tasks that are on-going include the Dauphin Island Causeway and Salt Aire shoreline protection and restoration projects and Muddy Creek Mitigation Area implementation monitoring. The Dauphin Island Causeway project was designed to provide enhanced protection for the State highway, by reestablishing historic shoreline marsh and installing breakwater structures in Mobile Bay. The Muddy Creek Mitigation Area was established for the County by Dr. Vittor and his team to provide opportunities for stream and wetland mitigation for several public road projects as well as for projects such as the County Sports Complex.

	Habitat restoration and monitoring of these mitigation projects is on-going. The MSA has also been used for natural resource surveys of conservation acquisition properties and public parks.
(01/99 – 12/99)	Duke Energy, Wetland Delineation and Threatened & Endangered Species Survey, Rapides Parish, LA – Principal Scientist for a wetland delineation and threatened & endangered species survey of a proposed 2-mile long natural gas pipeline corridor in Kisatchie National Forest (Louisiana) for Duke Energy. Wetlands were delineated and mapped in accordance with Corp of Engineers guidelines.
(01/15 – 12/15)	Anchor Engineering, Wetland Delineation, Lafayette, LA – Principal Scientist for wetland delineation and permitting for a commercial development associated with a FedEx facility in Lafayette, LA for Anchor Engineering, and coordinated the permit review and approval process with the USACE for impacts associated with the development.

Firm employed by: **Thompson Engineering, Inc.**			
Name	**David Knowles**	Years of relevant experience with this employer	1 year (Thompson)
Title	**Senior Wetlands Biologist**	Years of relevant experience with other employer(s)	20 years

Degree(s) / Years / Specialization	B.S./Wildlife Science, Auburn University, 2004
Active registration number / state / expiration date	N/A
Year registered: N/A — Discipline	N/A
Contract role(s) / brief description of responsibilities	Environmental – Wetland Delineation

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
(01/21 – ongoing)	Tensaw-Spanish River Bridge Replacement, Baldwin County, AL – Senior Biologist for environmental assessment and permitting of the proposed U.S. Hwy 98 bridge replacement project at the Tensaw-Spanish River crossing in Baldwin County, Alabama. This project involved mapping of wetlands and SAV in the construction area and required development of a mitigation plan for SAV impacts. Several locations in the vicinity of the bridge were surveyed for presence/absence of SAV and for water depth, to identify a suitable site for restoration of SAV through transplanting of donor site plants to into the mitigation site. The mitigation was coordinated with ALDOT, USACE, NOAA, and ADEM.
(01/08 – 12/22)	Environmental Studies, Kemper County Coal Mine, Kemper County, MS – Senior Biologist wetland delineation, stream assessment, threatened/endangered species survey, and vegetation/wildlife study for a proposed lignite coal surface mine facility in portions of Kemper County, Mississippi. Dr. Vittor and his team developed a comprehensive wetland and stream mitigation plan that would be implemented during the 40-year life of mine period, prepared the Section 404 permit application for the mine, and coordinated the permit review and approval process with the USACE, USEPA, USFWS, MDEQ, and other agencies. They also conducted annual monitoring of the wetland and stream mitigation sites through 2021.
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(11/21 – Ongoing)	Mobile County Commission, Environmental Services MSA, Mobile County, AL – Senior Biologist for environmental services for Mobile County's Environmental Services Department, through a Master Service Agreement (MSA). Tasks that are on-going include the Dauphin Island Causeway and Salt Aire shoreline protection and restoration projects and Muddy Creek Mitigation Area implementation monitoring. The Dauphin Island Causeway project was designed to provide enhanced protection for the State highway, by reestablishing historic shoreline marsh and installing breakwater structures in Mobile Bay. The Muddy Creek Mitigation Area was established for the County by Dr. Vittor and his team to provide opportunities for stream and wetland mitigation for several public road projects as well as for projects such as the County Sports Complex. Habitat restoration and monitoring of these mitigation projects is on-going. The MSA has also been used for natural resource surveys of conservation acquisition properties and public parks.

(01/99 – 12/99)	Duke Energy, Wetland Delineation and Threatened & Endangered Species Survey, Rapides Parish, LA – Senior Biologist for a wetland delineation and threatened & endangered species survey of a proposed 2-mile long natural gas pipeline corridor in Kisatchie National Forest (Louisiana) for Duke Energy. Wetlands were delineated and mapped in accordance with Corp of Engineers guidelines.
(01/15 – 12/15)	Anchor Engineering, Wetland Delineation, Lafayette, LA – Senior Biologist for wetland delineation and permitting for a commercial development associated with a FedEx facility in Lafayette, LA for Anchor Engineering, and coordinated the permit review and approval process with the USACE for impacts associated with the development.

17. <u>Firm Experience:</u>

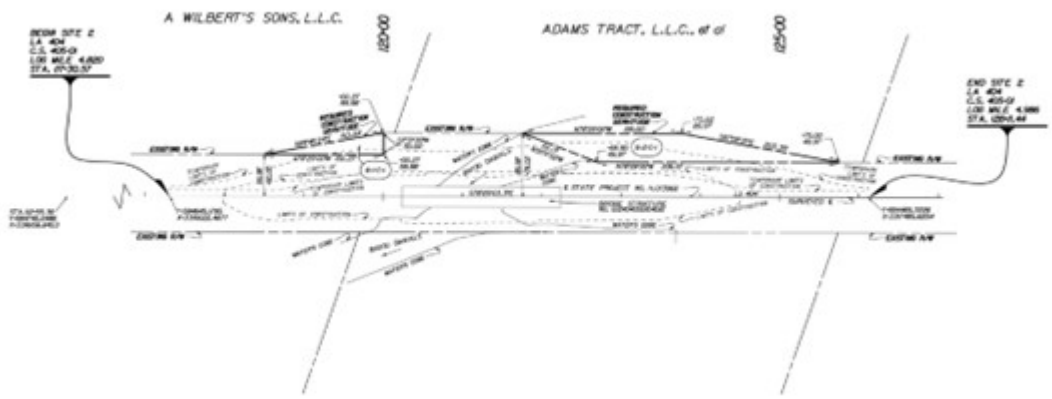
Identify the team's project experience **<u>most relevant</u>** to the scope in the advertisement. **The projects*** should be limited to a total of 20, with no more than 5 projects being represented by the prime consultant and with no more than 3 projects represented by each sub-consultant on the team. If more than 5 projects are identified for the prime consultant, all projects identified after the first 5 will not be evaluated. If more than 3 projects are identified for a single sub-consultant, all projects identified after the first 3 from that sub-consultant will not be evaluated.** Include no more than one page per project. Projects identified shall only include work performed by firms on the team. The projects identified do not necessarily need to have been DOTD projects.

Firm name	**SJB Group, LLC**		Discipline(s)*	**Survey, Right-of-Way**	
Project name	**Rural Bridge Replacement Initiative**			Firm responsibility (prime or sub?)	**Sub**
Project number	**21-DR-US-0038**	Owner's name	**Louisiana Department of Transportation and Development**		
Project location	Multiple Locations in Louisiana (Districts 03,07,61,62)		Owner's Project Manager	**Mark Hughes, PLS**	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1105, mark.hughes@la.gov				
Services commenced by this firm (mm/yy)	**8/20**		Total consultant contract cost ($1,000's)		**$1,254**
Services completed by this firm (mm/yy)	**4/24**		Cost of consultant services provided by this firm ($1,000's)		**$1,254**

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Key Personnel: Tim Brewer, PLS, Matt Estopinal, PLS, Elvis Nguyen, Phillip Dowden, John Burleigh, Duke Koontz, C. Paul Young, Tyler Foster

SJB Group performed **topographic surveying, property surveying, right-of-way mapping,** and roadway design of 33 bridge replacements for Districts 03, 07, 61, and 62 as a sub-consultant to Burk-Kleinpeter within their contract with the LA Department of Transportation (LA DOTD). The topographic survey was completed in accordance with all principles and objectives set forth in the latest version of the LA DOTD Location and Survey Manual. A complete topographic survey of the project corridor for each site included a complete inventory for each drainage structure (type, size, length, and invert), and includes cross sections of all drainage ways.



Property surveys were carried out for all potentially affected properties within the project corridor. Right-of-way mapping was also performed for each roadway along the project corridor. Roadway design included vertical and horizontal alignment of the bridge transitions, guard rails, and embankment design, typical roadway sections, and roadside drainage. The deliverables included preparation of property maps, base right-of-way maps, final right-of-way maps, Bently design files, drawing files, right-of-way map sets, and the preparation of a parcel input file of the acquisition parcels. The survey was conducted according to the LA DOTD location and survey manual "Addendum A" requirements.

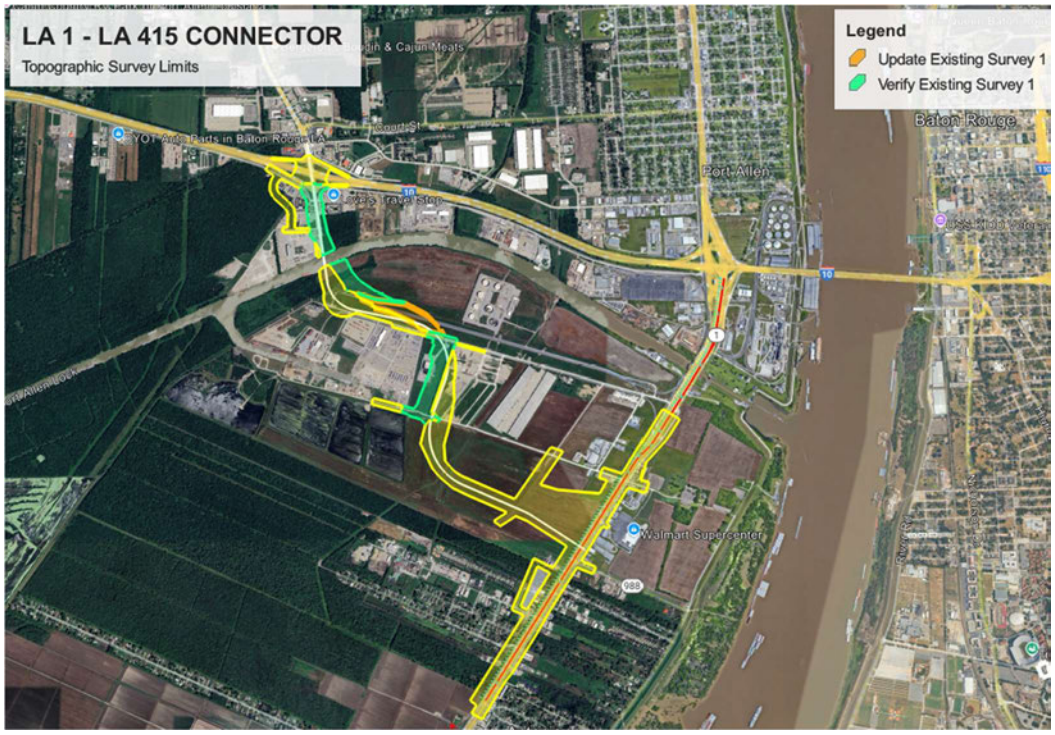
The deliverables were provided in accordance with the LA DOTD guidelines for electronic deliverables. SJB Group performed 100% of the project 480530

Firm name	**SJB Group, LLC**		Discipline(s)*	**Survey**	
Project name	**LA 1 to LA 415 Connector to Interstate 10**		Firm responsibility (prime or sub?)	**Prime**	
Project number	**H.005121**	Owner's name	LA Department of Transportation and Development		
Project location	**Port Allen, West Baton Rouge Parish, Louisiana**		Owner's Project Manager	**Jonathan Herrod**	
Owner's address, phone, email	1202 Capital Access Road, Baton Rouge, LA | 225-379-1105 | Jonathan.Herrod@la.gov				
Services commenced by this firm (mm/yy)	**10/23**	Total consultant contract cost ($1,000's)		**$247**	
Services completed by this firm (mm/yy)	**12/24**	Cost of consultant services provided by this firm ($1,000's)		**$242.9**	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Firm's Role and Responsibilities: Topographic Survey, Subsurface Utility Engineering (SUE)

Highlighted Team Members: C. Tim Brewer, RF, PS, PLS, RPLS, RPP | Colby Mire, PLS | Tyler Foster | Elvis Nguyen | Phillip Dowden | Erick Kidder



The project provides field data for the final design of a roadway to connect LA 1 to LA 415. The project is a supplement to previously performed surveying for the realignment of the due to recent development and construction. The project limits included a 2.9-mile corridor beginning approximately 0.2 miles north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction along the extension of LA 415 across the intercoastal canal, industrial areas, and agriculture field to the intersection of LA. The project limits also include an approximate 1.8-mile corridor along LA 1 that extends from the roadway into residential, commercial, and retail areas. The project includes the collection of current conditions of the areas included in the project limits and merging the current data with the previous survey and updating any observed condition changes. The project includes the recovery and supplement of the existing control network. The collection of field data is completed through the utilization of conventional survey methods with survey total stations and global positioning systems (GPS). **Mobile LiDaR survey** methods utilized for the collection of data along the high traffic segments of LA 1, Interstate 10 ramps, and LA 415. The data was processed through Trimble Business Center, with data extraction performed through TopoDot. The survey is being conducted according to the Louisiana Department of Transportation and Development Location and Survey Manual. The deliverables will be provided in accordance with the LADOTD guidelines for electronic deliverables.

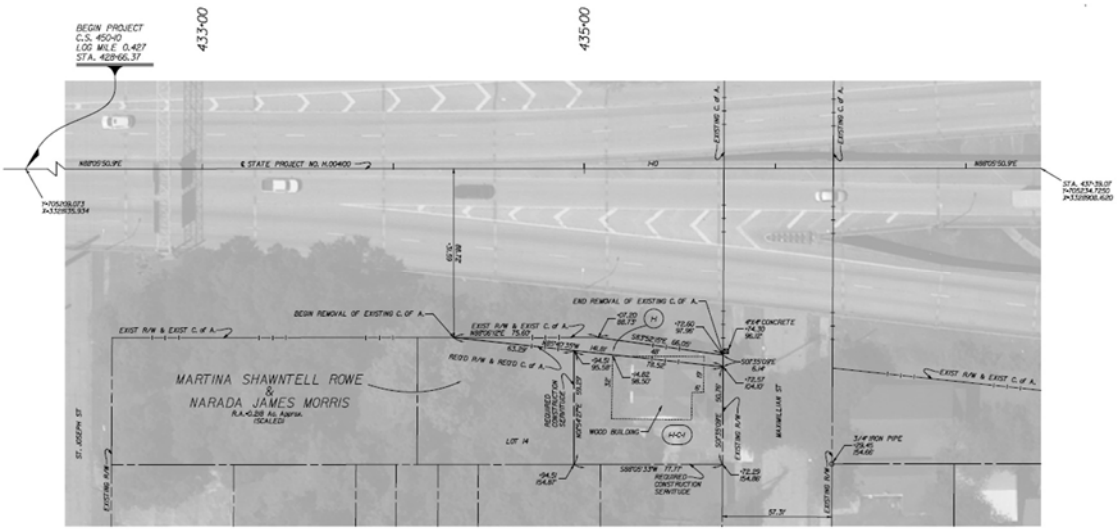
Firm name	**SJB Group, LLC**		Discipline(s)*	**Survey, Right-of-Way**	
Project name	**I-10 Widening from LA 415 to Essen**			Firm responsibility (prime or sub?)	**Prime**
Project number	**H.0016118**	Owner's name	**LA Department of Transportation and Development**		
Project location	**East Baton Rouge Parish, Louisiana**		Owner's Project Manager	**Mark Hughes**	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 | 225-379-1206 | Mark.Hughes@la.gov				
Services commenced by this firm (mm/yy)	**7/21**	Total consultant contract cost ($1,000's)		**$148,326**	
Services completed by this firm (mm/yy)	**Ongoing**	Cost of consultant services provided by this firm ($1,000's)		**$148,326**	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Firm's Role and Responsibilities: Property Survey, Topographic Survey, Right-of-Way Mapping, Subsurface Utility Engineering (SUE)

Highlighted Team Members: Tim Brewer, PLS, Matt Estopinal, PLS, Phillip Dowden, Tyler Foster, Duke Koontz, C. Paul Young, Colby Mire, PLS, John Burleigh

SJB Group performed **property surveying, partial topographic surveying, and right-of-way mapping** along a 4.4-mile stretch of Interstate 10 extending from LA 415 to Essen Lane in East Baton Rouge Parish for the LA Department of Transportation and Development's widening project. This project included a limited topographic survey to supplement and verify previous topographic surveys of the I-10 and I-12 corridor. Under the current IDIQ contract and task orders, SJB Group performed additional **property surveys** of specific areas designated by the project design team. This project required extensive title research to acquire the necessary existing surveys and deeds for initiation of the property survey portion in addition to the substantial amount of review of the title research reports supplied to SJB by LADOTD. It also required field surveying and mapping of an excess of one hundred parcels along the project corridor, which range in size from small urban residential lots to large commercial tracts. This project corridor also encompasses existing drainage and access servitudes, railroad rights-of-way, and numerous side streets in the heart of Baton Rouge, all of which SJB Group surveyed and mapped. The deliverables included preparation of property map, base right-of-way maps, final right-of-way maps, MicroStation drawing files in Bentley Design Files, right of way map sets, and the preparation of a parcel input file of the acquisition parcels.



The survey was conducted according to the LA Department of Transportation and Development Location and Survey Manual, Addendum "A" requirements. The deliverables were provided in accordance with the LADOTD guidelines for electronic deliverables.

Firm name	**Thompson Engineering, Inc.**		Discipline(s)*	**Environmental**	
Project name	**Tensaw-Spanish River Bridge Replacement**			Firm responsibility (prime or sub?)	**Prime**
Project number		Owner's name	Alabama Department of Transportation		
Project location	**Mobile Bay, AL**		Owner's Project Manager	**Adam Anderson**	
Owner's address, phone, email	1409 Coliseum Blvd, Montgomery, AL 36110, 334-242-6833, andersonad@dot.state.al.us				
Services commenced by this firm (mm/yy)	**01/2021**	Total consultant contract cost ($1,000's)		**$742,000**	
Services completed by this firm (mm/yy)	**Ongoing**	Cost of consultant services provided by this firm ($1,000's)		**$488,000**	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Thompson Engineering was Prime Contractor for environmental assessment and permitting of the proposed U.S. Hwy 98 bridge replacement project at the Tensaw-Spanish River crossing in Baldwin County, Alabama. This project involved mapping of wetlands and SAV in the construction area and required development of a mitigation plan for SAV impacts. Several locations in the vicinity of the bridge were surveyed for presence/absence of SAV and for water depth, to identify a suitable site for restoration of SAV through transplanting of impact site and donor site plants into the mitigation site. Approval of the mitigation plan was coordinated with ALDOT, USACE, NOAA, and ADEM.

This project also involved an assessment of protected species that are associated with habitats that will be impacted by the bridge replacement project. Monitoring of work areas during construction will be required, to minimize potential impacts to such species. Thompson Engineering is managing implementation of the SAV mitigation effort and will conduct long-term monitoring after transplanting has been completed.

18. <u>Approach and Methodology:</u>

Provide a description of how the work will be performed and **provide the proposed project schedule**. Include any additional information or description of unique resources that are planned to be used to produce the deliverables. Include any proprietary technologies, methods or approaches that will be used on this project to improve quality or efficiency. If the proposal is for an IDIQ contract, the consultant should review the scope of services in Attachment A to the advertisement to obtain a general understanding of what a typical task order would entail. Based upon that understanding, the consultant should provide a sample schedule that identifies the major milestones, deliverables, tasks, etc., to demonstrate sufficient understanding of a typical task order. The duration of the task order is not required. This section shall be limited to four pages. **If more than four pages are included, all pages after the fourth page will not be evaluated**.

If the consultant has information it believes is proprietary, label it accordingly.

- BRIDGE DESIGN

The design team will perform the superstructure design, including barriers and sidewalk, using AASHTO LRFD Bridge Design Specification, 10th Edition, 2024.

MCA Engineering will gather all relevant information about this bridge prior to starting the design process. To validate dimensional information, MCA Engineering intends to perform a 3d laser scan of this structure at the same timeframe when the topographic survey is scheduled to take place at no additional cost to the project.

The calculations package will include hand calculations in addition to a structural Finite Element Analysis (FEA) model of the bridge.

The following loads will be considered in accordance to AASHTO LRFD Chapter 3:

Permanent Loads

DC = dead load of structural components and non-structural attachments
DW = dead load of wearing surfaces and utilities
SH = force effects due to shrinkage
CR = force effects due to creep

Transient Loads:

LL = vehicular live load
IM = vehicular dynamic load allowance (impact load)
BR = vehicular breaking force
CT = vehicular collision force
LS = live load surcharge
PL = pedestrian live load
TU = force effect due to uniform temperature

Load Combinations and Load factors will be applied according to section 3.5 to determine the load effects on the bridge elements.

The vehicular live load will be determined based on the calculated live load design lane based on the bridge width. The maximum live load effect will consider all possible load combinations of number of lanes loaded multiplied by the corresponding multiple presence factor (MPF). This will be used mainly for verification of the intermediate substructure because we assume a slab bridge will be designed for this project.

The design vehicular live load considered will be HL-93 (truck, tandem and lane loads).

- HYDRAULIC STUDY

MCA Engineering, LLC will prepare the Hydraulic Report for this project. The U.S. Army Corps of Engineers Hydrologic Engineering Centers River Analysis System (HEC-RAS) Computer Program will be used to determine water surface elevations for the 2-, 5-, 10-, 25-, 50-, and 100-year discharge events. This initial modeling system task is designed to calculate water surface profiles for steady, gradually varied flow. Watershed Boundary Dataset (WBD) will be obtained from the USGS National Map website to be overlaid on the USGS QUAD maps to delineate the watershed area for this bridge. The Drainage Map required will then be created. Design flows will be based on the calculated drainage area. A threshold of 2,000 acres will be used to determine if the USGS Method with an isohyetal line map for mean annual rainfall data is applicable. If this threshold is not exceeded, the Natural Resources Conservation Service (NRCS) Method, utilizing Soil Groups and the Hydrologic Classification of Soil to calculate the appropriate Runoff Curve Number (CN), will be used in conjunction with the LADOTD 24-Hour Rainfall Frequency Maps and I-D-F Curves to determine design flows. Geometric cross-sectional data will be obtained from the topographic survey as well as applicable computer programs and used in HEC-RAS. Using the flows derived from the current LADOTD Hydraulics Manual, the HEC-RAS program will be used to calculate the backwater of the existing bridge and to recommend the most efficient replacement structure. Scour calculations will be based on the latest FHWA methods hydraulic engineering applications to calculate contraction and local scour at piers and abutments. Our design team will be released to develop the Preliminary Plans for the proposed bridge once the Hydraulic Report is approved by the DOTD Hydraulics Section.

- SURVEYING

Topographic Survey – Any topographic and bathymetric surveys will be in accordance with all principles and objectives set forth in the latest version of the DOTD Location and Survey Manual. All deliverables will be developed in accordance with the current Location and Survey Section's list of topographic survey submittal requirements.

Drainage Map – When required by a task order, an existing drainage map will be prepared. The existing drainage map will be in accordance with Section 2.6.1 of the DOTD Hydraulics Manual and will include existing drainage structure locations (size & type & inverts/tops), break lines for drainage boundaries,
and a determination of existing drainage patterns within the project limits. The existing drainage survey will include any highwater marks and the nearest outfall locations for the project area.

Title Take-Offs & Boundary Survey – SJB will begin any property boundary tasks by acquiring title reports or title takeoffs. The property records data will be used to proceed with field investigation to recover property boundary monumentation and observe the monumentation recovery to

determine the property boundaries and existing right of way. SJB will process and analyze monumentation and depict the property boundaries and existing right-of-way on the property survey map.

Right-of-way Maps – SJB will incorporate the property survey map, the adopted project centerline, parcel line locations and ownership, required right- of-way, limits of construction, and critical topographic features into the 60% base maps. SJB or CD&C will attend a Joint Plan Review (JPR) meeting hosted by DOTD. The surveyor will then incorporate any JPR comments and provide Final Right-of-way Map deliverables in the standard DOTD format as specified in the Location and Survey Manual Addendum "A".

- WETLANDS SURVEY

Thompson wetland specialists perform wetland delineations according to the criteria set forth in the regionally appropriate supplement to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual; in this case the Atlantic & Gulf Coast Regional Supplement is the reference guidance. Regarding streams, Thompson Engineering utilizes the North Carolina Division of Water Quality – Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11, September 1, 2010 (NC Method) technical guideline to determine if there are any potential jurisdictional streams, and if so, the most appropriate classification (intermittent or perennial). Stream Identification Forms (v. 4.11) are used to classify streams that are not clearly perennial (i.e. well-defined channel that contains water year-round, groundwater is the primary source of water and exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water).

When performing a wetland survey Thompson specialists evaluate a site's hydrology, vegetation, and soils. Wetland hydrology generally is recognized on the basis of depth to saturation and water table, although indicators of hydrology are also relied upon when conditions are relatively dry; such as the presence of crawfish chimneys, water-stained leaves, oxidized rhizospheres and several other indicators. Observations are made of the relative abundance/dominance of the plant species observed, and their wetland indicator status is documented. Thompson has found that the presence/absence of hydric soils is generally the most consistent measure of wetland conditions.

Hydric soil indicators are features in the soil formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds under saturated and anaerobic conditions. Of particular importance is the uppermost 10-16 inches of the soil profile; redoximorphic features (observed as red, orange, yellow mottles) and/or signs of reduced iron within the matrix (splotchy lighter grey areas within a soil profile), mucky soils formed by accumulation of organics under anaerobic conditions, or sulfidic odors caused by sulfate reduction are present, the investigator will conclude that hydric (wetland) soil conditions are present. It is important to note that all three wetland parameters must be present for a site to be classified as a federally jurisdictional wetland.

Thompson biologists utilize the guidance for determining the presence of hydric soils found in the 2024 "Field Indicators of Hydric Soils in the United States, Version 9" developed by the NRCS in cooperation with the U.S. Fish and Wildlife Service (FWS), USACE, and the Environmental Protection Agency (EPA). Thompson's senior wetland delineators (David Knowles and Matthew Stowe) have a certificate of training for a hydric soils training course tailored to wetland scientists and conducted in accordance with the standards of the National Technical Committee for Hydric Soils and Whole Landscape Hydrology; the course was taught at the time (2006) by Mr. G. Wade Hurt. Mr. Hurt worked at the USDA Natural Resources Conservation

Service in Gainesville, FL and was one of the individuals responsible for creating the Atlantic & Gulf Coast Regional Delineation Supplement and the afore-mentioned Field Indicators of Hydric Soils.

PROJECT SCHEDULE																								
DELIVERABLES	MONTHS																							
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
KICK OFF																								
SURVEY																								
HYDRAULICS																								
ENVIRONMENTAL																								
DOTD REVIEW																								
PRELIMINARY PLANS																								
FINAL PLANS																								
CONSTRUCTION SERVICES																								

19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where **a)** the consultant selection was made by DOTD, and **b)** a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

1) one of the team's firms is responsible for the performance of the work;
2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
3) the work has not yet been performed and invoiced; and
4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

Firm(s) **ALL FIRMS** MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
MCA Engineering, LLC	N/A	N/A	N/A	N/A
SJB Group, L.L.C	Survey	Contract No: 44-17597 S.P. No. H.4400017597	IDIQ Surveying Services Rural Bridge Replacement Initiative	$667
SJB Group, L.L.C	Survey	Contract No: 44-16018 S.P. No. H.0120012.5	LA 339 Canal and Creek Bridge	$4,393
SJB Group, L.L.C	Survey	Contract No: N/A S.P. No. H.013716.5	US 167 Johnston St. – Mt. Vernon - Churchill	$39,723
SJB Group, L.L.C	Survey	Contract No: 44-17711 S.P. No. H.005121.5 Task Order 5	LA 1 – LA 415	$55,888
SJB Group, L.L.C	Survey	Contract No: N/A S.P. No. H.003931	I-10 Calcasieu Project P3	$3,500,000
SJB Group, L.L.C	Survey	Contract No: 44-19379 S.P. No. H.013797	LA 30: EBR PL – I-10 – Part 1	$600
SJB Group, L.L.C	Right-of-Way	Contract No: 44-28371 S.P. No. H.004100.5 | Directive 1	I-10 LA 415 Acadian	$10,536
SJB Group, L.L.C	Right-of-Way	Contract No: 44-28371 S.P. No. H.004100.5| Directive 2	I-10 LA 415 Directive 2	$1,536
SJB Group, L.L.C	Right-of-Way	Contract No: 44-28371 S.P. No. H.004100.5| Directive 3	I-10 LA 415 to Essen – Directive 3	$84,651
SJB Group, L.L.C	Other (DBE)	Contract No: 44-26952 S.P. No.	LA DBE Supportive Services	$490,714
Thompson Engineering, Inc.	Geotech	#4400019016 / H.015013.5 Geotech	IDIQ FOR GEOTECHNICAL SERVICES STATEWIDE	$58,020
Thompson Engineering, Inc.	Geotech	#4400019016 / H.014986.5 Geotech	IDIQ FOR GEOTECHNICAL SERVICES STATEWIDE	$37,755

Thompson Engineering, Inc.	Geotech	#4400019016 / H.015014.5 Geotech	IDIQ FOR GEOTECHNICAL SERVICES STATEWIDE	$34,345

*** The only disciplines to be used are: Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic.** If a firm has more than one discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per discipline.

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, place N/A in the Remaining Unpaid Balance column. NOTE: **ALL** FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.

20. <u>Certifications/Licenses:</u>
If the advertisement requires submission of licenses and/or certificates, include them here. **Otherwise, leave this section blank**.

Louisiana Professional Engineering
and
Land Surveying Board

Hereby Certifies that

Dr. Marcio Costa Araujo

having qualified before this Board in accordance with laws is licensed as a

Professional Engineer

and is hereby entitled to practice engineering in the State of Louisiana.

Baton Rouge, Louisiana · 06/22/2010

License Number 35506

Louisiana State University

and

Agricultural and Mechanical College

On the Nomination of the Faculty of the

Graduate School

has conferred upon

Marcio Costa Araujo

the degree of

Doctor of Philosophy

with all the Honors, Rights and Privileges to that degree appertaining.

In testimony Whereof, the seal of the University and the signatures as authorized by the Board of Supervisors are hereunto affixed. Given at Baton Rouge, Louisiana on the fifteenth day of May in the year two thousand and nine.

Chairman of the Board of Supervisors

President

Chancellor

Dean

Prime consultant: MCA Engineering, LLC

Congratulations!

Marcio Araujo

You have completed

Traffic Engineering Analysis Process & Report Class
Modules 1, 2 &3

Date: August 17-18, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 8.50

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Prime consultant: MCA Engineering, LLC

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Charles Timothy Brewer

License/Certificate Type - Number
PLS.0005009

Expiration Date
09/30/2025

Status: Active

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Matthew Samuel Estopinal

License/Certificate Type - Number
PLS.0004955

Status: Active

Exp Date: 03/31/2027

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Matthew Samuel Estopinal

License/Certificate Type - Number
PE.0039151

Status: Active

Exp Date: 03/31/2027

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Colby Robert Mire

License/Certificate Type - Number
PLS.0005308

Expiration Date
09/30/2025

Status: Active

Prime consultant: MCA Engineering, LLC

ATSSA
SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

Charles Brewer

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 11/18/2022

Exp. Date 11/17/2026

State Issued LA

A1000112965

ATSSA
Instructor Name

Instructor Signature

Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Tim Brewer
has attended
Traffic Control Supervisor-LA State Specific
Training Course

11/30/2022 to 11/30/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Tim Brewer
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA
SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

Matthew Estopinal

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 4/25/2022

Exp. Date 4/24/2026

State Issued LA

A1000058046

ATSSA
Instructor Name

Instructor Signature

Verify at Flagger.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Matthew Estopinal
has attended
Traffic Control Supervisor-LA State Specific
Training Course

6/22/2022 to 6/22/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Matthew Estopinal
has attended
Traffic Control Technician-LA State Specific
Training Course

6/21/2022 to 6/21/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Elvis Nguyen
has attended
Traffic Control Supervisor-LA State Specific
Training Course

7/1/2021 to 7/2/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Elvis Nguyen
has attended
Traffic Control Technician-LA State Specific
Training Course

6/29/2021 to 6/29/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

ATSSA
SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

Phillip Dowden

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 11/21/2022

Exp. Date ~~11/20/2026~~

State Issued LA

ATSSA
Instructor Name

Instructor Signature

A1000113019

Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Phillip Dowden
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA
SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

Colby Mire

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 3/23/2022

Exp. Date 3/22/2026

State Issued LA

ATSSA
Instructor Name

Instructor Signature

A1000054474

Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Colby Mire
has attended
Traffic Control Supervisor-LA State Specific
Training Course

5/12/2021 to 5/13/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Colby Mire
has attended
Traffic Control Technician-LA State Specific
Training Course

5/11/2021 to 5/11/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

John Burleigh

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 3/1/2022

Exp. Date 2/28/2026

State Issued LA

ATSSA
Instructor Name

Instructor Signature

A1000053383

Verify at Flagger.com

ATSSA
Safer Roads Save Lives

Temporary Certification

Erick Kidder

for the successful completion of

Flagger

27-OCT-2023
Expiration Date:

26-OCT-2027

ATSSA CERTIFIED

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association
ATSSA.com

ATSSA SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

James Koontz

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 3/17/2022

Exp. Date 3/16/2026

State Issued LA

ATSSA
Instructor Name

Instructor Signature

A1000054194

Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Duke Koontz
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

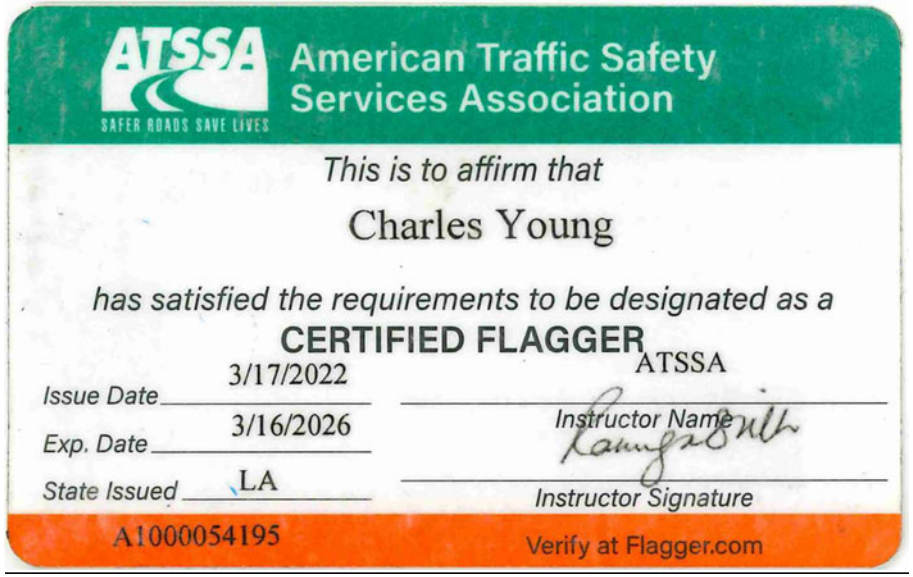
Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com



ATSSA
SAFER ROADS SAVE LIVES

American Traffic Safety Services Association

This is to affirm that

Charles Young

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

ATSSA

Issue Date 3/17/2022

Exp. Date 3/16/2026

State Issued LA

Instructor Name

Instructor Signature

A1000054195

Verify at Flagger.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Charles Young
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

21. <u>QA/QC Plan:</u>

If the advertisement requires submission of a QA/QC plan, include it here. **Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted**.

MCA Engineering, LLC

Quality Assurance/Quality Control (QA/QC) Policy

---

1. Introduction

This **Quality Assurance/Quality Control (QA/QC) Policy** is designed to ensure that all bridge design projects conducted by **MCA Engineering, LLC** meet or exceed the standards, specifications, and expectations set forth by the **Louisiana Department of Transportation and Development (DOTD)**. The goal of this policy is to establish consistent and effective QA/QC processes that ensure the safety, functionality, and durability of bridge structures while maintaining compliance with all DOTD requirements.

MCA Engineering, LLC is committed to providing high-quality bridge designs that are on schedule, within budget, and compliant with applicable safety and regulatory standards. This policy applies to all bridge design projects undertaken by MCA Engineering, LLC, including preliminary design, final design, and any required design revisions during construction.

---

2. Quality Assurance (QA) Philosophy

The **Quality Assurance (QA)** process focuses on ensuring that the systems, procedures, and resources employed in bridge design projects are effective and aligned with DOTD standards. QA is primarily concerned with preventing issues before they arise, and this is achieved through proactive management, oversight, and periodic verification.

Key QA Objectives:

- **Compliance with DOTD Specifications**: All designs, methods, and practices will comply with the **DOTD Bridge Design Manual**, **Standard Specifications for Roads and Bridges**, and relevant sections of the **Louisiana Manual on Uniform Traffic Control Devices (LMUTCD)**.
- **Design Review and Verification**: All design calculations, drawings, and specifications will undergo a structured review process to verify compliance with DOTD's requirements.
- **Risk Identification and Mitigation**: Any risks to quality, such as design conflicts, resource limitations, or schedule pressures, will be identified early, and mitigation strategies will be implemented.
- **Continuous Monitoring**: Throughout the project, quality will be continually monitored through regular project reviews and assessments.

QA Practices Include:

- Regular peer reviews of designs at key milestones (e.g., preliminary design, final design).
- Technical audits to ensure compliance with DOTD requirements.

- Regular communication with DOTD to align design efforts with their needs and regulatory changes.
- Documented corrective actions to address any deviations found during design reviews.

---

3. Quality Control (QC) Philosophy

Quality Control (QC) is the reactive process used to inspect and verify that the final design output meets all required specifications. In the context of bridge design, QC focuses on ensuring that the project's drawings, reports, and specifications meet DOTD's strict requirements before submission or approval.

Key QC Objectives:

- **Design Verification**: Ensuring all design calculations, plans, and reports conform to DOTD standards and best engineering practices.
- **Conflict Resolution**: Identifying and resolving any discrepancies, errors, or conflicts in design before submission to DOTD for approval.
- **Final Design Review**: Ensuring that all elements of the design are accurate, including structural components, materials, and safety features.

QC Practices Include:

- Comprehensive internal reviews of all design packages before submission.
- Detailed checks of all calculations, design assumptions, and modeling outputs to ensure they align with DOTD guidelines.
- Independent checks by senior engineers or third-party specialists for high-risk or complex designs.
- Maintaining clear records of inspections, revisions, and final approvals to ensure traceability and accountability.

---

4. Objectives of QA/QC Policy

The primary objectives are:

- **Ensure Compliance**: Guarantee that all bridge design projects comply with DOTD's **Bridge Design Manual** and related specifications.
- **Maintain High-Quality Standards**: Implement structured processes to ensure the quality of bridge designs, reduce the risk of errors, and enhance the safety, durability, and performance of the designed bridges.
- **Timely Project Delivery**: Avoid delays due to quality issues by catching design flaws early in the process, allowing timely corrections and maintaining project schedules.

- **Enhance Stakeholder Confidence**: Build trust with DOTD, contractors, and the public by consistently delivering high-quality bridge designs.

---

5. QA/QC Roles and Responsibilities

To ensure effective implementation of QA/QC procedures, clear roles and responsibilities are assigned within MCA Engineering, LLC:

Project Manager (PM)

- **Overall Responsibility**: The Project Manager oversees all aspects of the bridge design project, ensuring compliance with project goals, timelines, and quality standards.
- **Key Responsibilities**:
    - Ensure all quality assurance and control activities are carried out according to this policy.
    - Communicate with DOTD to ensure alignment with their standards and expectations.
    - Address any issues that may arise and ensure corrective actions are implemented.

Lead Design Engineer

- **Design Responsibility**: The Lead Design Engineer is responsible for the technical design of the bridge, ensuring all calculations, drawings, and specifications comply with DOTD standards.
- **Key Responsibilities**:
    - Perform and oversee detailed bridge design calculations.
    - Collaborate with other engineers to ensure interdisciplinary coordination.
    - Review design documents for compliance with DOTD standards and the project requirements.

QA/QC Manager

- **Oversight of QA/QC Processes**: The QA/QC Manager ensures that all design and review processes are properly followed, audits the design process, and maintains documentation of quality activities.
- **Key Responsibilities**:
    - Develop and maintain the QA/QC plan.
    - Conduct internal audits of designs, plans, and specifications to verify compliance with DOTD guidelines.
    - Ensure the timely identification and resolution of any design issues.

Design Engineers and Drafters

- **Technical Execution**: Design engineers and drafters work under the direction of the Lead Engineer to carry out calculations, design tasks, and prepare the final bridge design documentation.
- **Key Responsibilities**:
    - Create and update design drawings and reports.
    - Perform calculations and review design documents for quality and accuracy.
    - Coordinate with the Lead Engineer and QA/QC Manager to ensure quality standards are met.

Contractor and Subcontractors (if applicable)

- **Construction Quality Control**: Contractors and subcontractors are responsible for maintaining their own QC processes for materials and construction methods used during implementation of the bridge design.
- **Key Responsibilities**:
    - Ensure all materials and construction methods comply with DOTD specifications.
    - Submit all necessary documentation (e.g., material certifications, test reports) for review and approval.

---

6. QA/QC Procedures and Practices

Design Phase QA/QC Procedures

Pre-Design Phase

- **Review Project Requirements**: Review the project scope, specifications, and site conditions to ensure that the design will meet DOTD's requirements.
- **Identify Risks**: Identify and document any design challenges or potential risks that could affect the quality of the design.

Preliminary Design

- **Initial Design Review**: After completing the preliminary design, the Lead Engineer conducts an internal review to verify compliance with DOTD standards and regulations. The design will be reviewed by senior engineers for critical elements such as load capacity, safety features, and material selection.
- **Stakeholder Review**: A review of the preliminary design will be held with DOTD to ensure alignment with their requirements.

Final Design

- **Detailed Design Review**: The final design package, including calculations, drawings, specifications, and reports, will undergo a comprehensive internal review by the QA/QC Manager, Lead Engineer, and senior engineers.
- **Independent Verification**: Critical design elements such as structural calculations and complex bridge systems will undergo independent verification by senior engineers or third-party specialists, where required by DOTD.
- **Submission to DOTD**: Once verified, the final design will be submitted to DOTD for review and approval. The submission package will include all supporting documents (e.g., calculations, material specifications, and environmental impact assessments).

Construction Phase (If applicable)

- **Material Testing**: Materials will be tested as specified by the DOTD **Standard Specifications** for Roads and Bridges. Test results must meet DOTD's acceptance criteria.
- **Construction Inspections**: Regular inspections will be conducted during construction to verify that the design is being adhered to and that the quality of workmanship complies with DOTD standards.
- **Non-Conformance Reporting (NCR)**: Any deviations from the approved design will be documented in a Non-Conformance Report (NCR). Corrective actions will be taken as necessary, and the NCR will be submitted to DOTD for resolution.

---

7. Documentation and Reporting

MCA Engineering, LLC is committed to maintaining thorough documentation for all QA/QC activities related to the bridge design project. This includes:

- **Design Review Reports**: Detailed reports of all internal and external design reviews, including comments, revisions, and final approvals.
- **Quality Control Checklists**: Checklists for design calculations, drawings, and specifications to ensure compliance with DOTD standards.
- **Non-Conformance Reports (NCRs)**: Documentation of any design or construction issues, along with corrective actions taken.
- **Final QA/QC Report**: At the end of the design phase, a comprehensive QA/QC report will be compiled, summarizing all activities and ensuring compliance with DOTD specifications.

---

8. Training and Competency

To ensure that all personnel involved in bridge design projects are qualified to perform their roles, MCA Engineering, LLC will:

- Provide ongoing training for all engineers and designers on DOTD standards, engineering practices, and QA/QC procedures.
- Ensure that all team members have the necessary certifications and qualifications to perform their duties.
- Offer continuing education opportunities to stay current with changes in DOTD specifications and industry best practices.

---

9. Continuous Improvement

MCA Engineering, LLC is committed to continuous improvement in the execution of QA/QC procedures:

- **Post-Project Review**: After the completion of each project, a post-project review will be conducted to identify areas for improvement in the QA/QC process.
- **Feedback Loop**: Input from DOTD, project stakeholders, and internal team members will be used to improve processes and ensure future projects are delivered with even higher quality standards.
- **Process Updates**: The QA/QC policy will be updated periodically to reflect changes in DOTD requirements and industry standards.

---

10. Conclusion

This **QA/QC Policy** ensures that all bridge design projects undertaken by **MCA Engineering, LLC** meet the highest quality standards in compliance with the **Louisiana Department of Transportation and Development (DOTD)** guidelines and attached **Appendices A through D**. By adhering to these procedures, MCA Engineering guarantees that every bridge design is safe, reliable, and meets the performance expectations of DOTD.

Appendix A
Design Criteria Checklist

Design criteria for each project shall include, but not limited to, the following sections:

__ **Cover sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- Revision date
- The Supervisor or Team Leader's signature and date

__ **Governing Design and Construction Specifications and Other References**

A list of governing design and construction specifications and other references used for the project shall be included in this section. The edition number, interim revisions, and/or publication date must be specified for each reference.

__ **Design Assumptions and Design Exceptions**

All design assumptions and design exceptions received must be included in this section along with supporting documents.

__ **General Information**

The general information as listed below should be included in this section:

- Bridge information (no. of bridges, bridge clear width, length, no. of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Other relevant information

__ **Hydraulic Design Criteria**

All hydraulic design criteria (design year, design water elevations, scour depth and scour elevation, etc.) shall be included in this section and the information shall be provided by the Hydraulic Engineer.

__ **Design Factors**

The ductility factor η_D, redundancy factor η_R, and operational importance factor η_I shall be listed in this section.

__ **Design Loads**
All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.

__ **Limit States**
All applicable limit states for this project shall be listed in this section.

__ **Bridge Barrier**
The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details should be listed if they are utilized.

__ **Guardrail**
The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans and special details should be listed if they are utilized.

__ **Approach Slab**
Design criteria for approach slab shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Deck and Deck Drainage**
All design criteria for deck and deck drainage design shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Bearing**
All bearing types and design criteria for each bearing type shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Joint**
All joint types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Superstructure**
All superstructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Substructure**
All substructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Piles and Drilled Shafts**
All pile types, sizes, and structural design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.

__ **Geotechnical Design**

All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans and special details should be listed if they are utilized.

__ **Mechanical Design**

All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

__ **Electrical/Lighting Design**

All electrical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

__ **As-Designed Bridge Rating Criteria**

All as-designed bridge rating criteria shall be included in this section.

__ **Software**

All software used for design and check shall be included in this section.

Appendix B
Final Calculation Book Checklist

The final calculation book for each project shall include, but not limited to, the following sections:

__ **Cover Sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- The title of "Final Calculation Book"
- The EOR's seal with signature and date

__ **Final Calculation Book Check List**

__ **QC/QA Certifications**

__ **Peer Review Resolution Agreement (if peer review is performed)**

__ **Design Criteria**

__ **Final Hydraulic Analysis Report from Hydraulic Engineer**

__ **Final Geotechnical Analysis Report from Geotechnical Engineer**

__ **Superstructure Design Calculations**

__ **Substructure Design Calculations**

__ **Quantity Calculations**

__ **Special Provisions/NS-Items**

__ **Construction Cost Estimate**

__ **As-Designed Rating Report**

__ **List of All Final Electronic Design Files and File Locations (ProjectWise directory name)**

Consultants shall submit the final calculation book to LADOTD bridge task managers; the submittal shall be on a CD or Flash Drive or placed to a designated ProjectWise folder including the following information:

__ **A PDF File of the Calculation Book**

__ **All Electronic Design Files**

__ **A PDF File of the As-Designed Rating Report Only**

The final calculation book for in-house projects shall include the same files listed above for consultant projects. The final calculation book and other final design documents for all projects including in-house and consultant projects shall be uploaded to the archiving location designated in the record retention policy within 30 calendar days after the stamped final plans are delivered.

Appendix C
QA Information Package Checklist

Project No.:
Project Description:

_____ Calculation Book

_____ Plans

_____ Special Provisions

_____ Cost Estimate

_____ Other Documents _____

Appendix D
QC/QA Certification

Project No.:
Project Name:

We, the undersigned designers, detailers, checkers and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for the project. We certify that the work for which we are responsible has been completed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotechnical Engineer						
Hydraulic Engineer						
EOR						

22. Sub-consultant information:

If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name (Name must match exactly as registered with Louisiana's Secretary of State (SOS): including punctuation, include screenshot(s) from SOS at the end of Section 20)	**Address**	**Point of Contact and email address**	**Phone Number**
SJB Group, L.L.C.	5344 Brittany Drive, Baton Rouge, LA 70808	Charles "Tim" Brewer Tim.Brewer@sjbgroup.com	225-769-3400
Thompson Engineering, Inc., of Louisiana	2970 Cottage Hill Road, Suite 190 Mobile, AL 36606	Kendall Kilpatrick, PE – CEO kkilpatrick@thompsonengineering.com	251-666-2443

23. Location:

If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement**.