CITY OF Grand Junction COLORADO
PURCHASING DIVISION

CONTRACT RENEWAL

#5361-24-DH

Date: January 3, 2024

Firm: Power Solutions Group LLC (Formally Magna IV Engineering, Inc.)

Description: 3rd and FINAL Year Contract Renewal for Professional Electrical Engineering Services

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Congratulations, Power Solutions Group, LLC has been awarded the third (3rd) and final year renewal option for contract #5361-24-DH, **Professional Electrical Engineering Services**.

Power Solutions Group, LLC shall provide to the City of Grand Junction (City) the services outlined in the Contract Documents dated September 3, 2020, for Solicitation RFP-4809-20-DH, Contract for Professional Electrical Engineering Services as the **Primary** awarded firm, as per the original contract documents. This renewal shall cover services from September 1, 2023, through August 31, 2024.

Please send the current ACORD Insurance Certificate to the Purchasing Division.

CITY OF GRAND JUNCTION, COLORADO

DocuSigned by:
Duane Hoff Jr.
9F789E7D50F14BC...

Duane Hoff, Jr., Contract Administrator

ACKNOWLEDGEMENT

Receipt of this Contract Renewal is hereby acknowledged:

Firm: Power Solutions Group LLC.

By: DocuSigned by: Tony Nuzzo 10D019D76AF6466... Tony Nuzzo

Title: Regional Operations Manager West

Email: tnuzzo@powersolutionsgroup.com

Date: 1/4/2024

CITY OF Grand Junction COLORADO

CONTRACT RENEWAL

#5200-23-DH

Date: February 16, 2023

Supplier: Power Solutions Group LLC (Formally Magna IV Engineering, Inc.)

Project: 2nd Year Contract Renewal for Professional Electrical Engineering Services

Congratulations, you have been awarded the 2nd year renewal option for contract #5200-23-DH Professional Electrical Engineering Services, dated February 16, 2023.

The Contractor shall provide to City of Grand Junction the products and services set forth in the Contract Documents dated September 3, 2020 for Solicitation No. RFP-4809-20-DH for Contract for Professional Electrical Engineering Services as the **Primary awarded firm.** This renewal shall cover from September 1, 2022 through August 31, 2023.

Please notify Kenneth Haley, City of Grand Junction Public Works Engineering Manager at (970)-244-1543, or via E-mail kennethh@gjcity.org for scheduling and **return to the Purchasing Division an acknowledged copy of this Contract Renewal and current Proof of Insurance Certificate.**

CITY OF GRAND JUNCTION, COLORADO

DocuSigned by:
Duane Hoff Jr.
Duane Hoff Jr., Senior Buyer

SUPPLIER ACKNOWLEDGEMENT

Receipt of this Contract Renewal is hereby acknowledged:

Contractor: Power Solutions Group LLC

By: DocuSigned by: Donald Orbin - Vice President Operations, Power Solutions Group LLC Donald Orbin - Vice President Operations, Power

Title: Vice President

Date: 3/5/2023

CITY OF Grand Junction COLORADO

CONTRACT RENEWAL

#4960-21-DH

Date: November 1, 2021

Supplier: Magna IV Engineering, Inc.

Project: 1st Year Contract Renewal for Professional Electrical Engineering Services

Congratulations, you have been awarded the 1st year renewal option for contract #4960-21-DH Professional Electrical Engineering Services, dated November 1, 2021.

The Contractor shall provide to City of Grand Junction the products and services set forth in the Contract Documents dated September 3, 2020 for Solicitation No. RFP-4809-20-DH for Contract for Professional Electrical Engineering Services as the **Primary awarded firm.** This renewal shall cover from September 1, 2021 through August 31, 2022.

Please notify Kenneth Haley, City of Grand Junction Public Works Engineering Manager at (970)-244-1543, or via E-mail kennethh@gjcity.org for scheduling and **return to the Purchasing Division an acknowledged copy of this Contract Renewal and current Proof of Insurance Certificate.**

CITY OF GRAND JUNCTION, COLORADO

DocuSigned by:
Duane Hoff Jr., Senior Buyer- City of Grand Junction
Duane Hoff Jr., Senior Buyer

SUPPLIER ACKNOWLEDGEMENT

Receipt of this Contract Renewal is hereby acknowledged:

Contractor: Magna IV USA, Inc

By: DocuSigned by: Donald Orbin - Magna IV USA, Inc.

Title: National Vice President, USA

Date: 11/1/2021

CERTIFICATE OF LIABILITY INSURANCE

7/1/2022

DATE (MM/DD/YYYY) 6/25/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	CONTACT NAME:	
		PHONE (A/C, No, Ext):	FAX (A/C, No):
		E-MAIL ADDRESS:	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : Transportation Insurance Company	20494
INSURED 1489583	MAGNA IV USA INC 96 INVERNESS DR E, STE R ENGLEWOOD CO 80112-5311	INSURER B : Valley Forge Insurance Company	20508
		INSURER C : American Casualty Company of Reading, PA	20427
		INSURER D : The Continental Insurance Company	35289
		INSURER E :	
		INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** 17408990 **REVISION NUMBER:** XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC OTHER:	Y	Y	6049820437	7/1/2021	7/1/2022	EACH OCCURRENCE	$ 2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 2,000,000
							MED EXP (Any one person)	$ 2,000,000
							PERSONAL & ADV INJURY	$ 2,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 15,000
								$
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY SCHEDULED AUTOS HIRED AUTOS ONLY NON-OWNED AUTOS ONLY	Y	Y	BUA6049820440	7/1/2021	7/1/2022	COMBINED SINGLE LIMIT (Ea accident)	$ 2,000,000
							BODILY INJURY (Per person)	$ XXXXXXX
							BODILY INJURY (Per accident)	$ XXXXXXX
							PROPERTY DAMAGE (Per accident)	$ XXXXXXX
								$ XXXXXXX
D	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $	N	N	7014819284	7/1/2021	7/1/2022	EACH OCCURRENCE	$ 7,000,000
							AGGREGATE	$ 7,000,000
								$ XXXXXXX
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH) N / A If yes, describe under DESCRIPTION OF OPERATIONS below		N	6049820454	7/1/2021	7/1/2022	X PER STATUTE OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CITY OF GRAND JUNCTION AND THEIR OFFICERSAND EMPLOYEES ARE ADDITIONAL INSURED AS RESPECTS GENERAL LIABILITY AND AUTO LIABILITY, AS REQUIRED BY WRITTEN CONTRACT. WAIVER OF SUBROGATION IN FAVOR OF THE ADDITIONAL INSURED APPLIES TO GENERAL LIABILITY AND AUTO LIABILITY WHERE ALLOWED BY STATE LAW AND AS REQUIRED BY WRITTEN CONTRACT.

CERTIFICATE HOLDER

17408990

CITY OF GRAND JUNCTION

250 N. 5TH STREET

GRAND JUNCTION CO 81501

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

CITY OF GRAND JUNCTION, COLORADO

****

CONTRACT

This CONTRACT made and entered into this 3rd day of September, 2020 by and between the **City of Grand Junction, Colorado,** a government entity in the County of Mesa, State of Colorado, hereinafter in the Contract Documents referred to as the "Owner" and **Magna IV Engineering, Inc.** hereinafter in the Contract Documents referred to as the "Firm."

WITNESSETH:

WHEREAS, the Owner advertised that sealed Responses would be received for furnishing all labor, tools, supplies, equipment, materials, and everything necessary and required for the Project described by the Contract Documents and known as **Contract for Professional Electrical Engineering Services RFP-4809-20-DH**.

WHEREAS, the Contract has been awarded to the above named Firm by the Owner, and said Firm is now ready, willing and able to perform the Services specified in the Notice of Award, in accordance with the Contract Documents;

The Owner reserves the right to make multiple awards to firms that are responsive and responsible to this solicitation process. The Owner shall utilize the **Primary** awarded Firm **(Magna IV Engineering, Inc.)** whenever possible. However, through this method, should the Primary awarded Firm be unable to fulfill their contract at any given time, it shall allow the Owner to utilize the **Secondary** awarded Firm **(Carollo Engineers, Inc.)** to fulfill the Owner's needs. All Firms understand and agree that they shall hold their pricing for the entire contract period. It is further understood that awarded Firms shall, and are obligated to, inform the Owner if they cannot fulfill any given request received in accordance with the Contract Documents.;

NOW, THEREFORE, in consideration of the compensation to be paid the Firm, the mutual covenants hereinafter set forth and subject to the terms hereinafter stated, it is mutually covenanted and agreed as follows:

ARTICLE 1

Contract Documents: It is agreed by the parties hereto that the following list of instruments and documents which are attached hereto, bound herewith, or incorporated herein by reference constitute and shall be referred to either as the "Contract Documents" or the "Contract", and all of said instruments and documents taken together as a whole constitute

the Contract between the parties hereto, and they are fully a part of this agreement as if they were set out verbatim and in full herein:

The order of contract document governance shall be as follows:

a. The body of this contract agreement;
b. Solicitation Documents for the Project; **Contract for Professional Electrical Engineering Services;**
c. Firms Response to the Solicitation;
d. Services Change Requests (directing that changed Services be performed);
e. Amendments.

ARTICLE 2

Definitions: The clauses provided in the Solicitation apply to the terms used in the Contract and all the Contract Documents.

ARTICLE 3

Contract Services: The Firm agrees to furnish all labor, tools, supplies, equipment, materials, and all that is necessary and required to complete the tasks associated with the Services described, set forth, shown, and included in the Contract Documents as indicated in the Solicitation Document.

ARTICLE 4

Contract Price and Payment Procedures: The Firm shall accept as full and complete compensation for the performance and completion of all of the Services specified in the Contract Documents, the rate amounts as stated in the Firm's submitted proposal response. If this Contract contains unit price pay items, the Contract Price shall be adjusted in accordance with the actual quantities of items completed and accepted by the Owner at the unit prices quoted in the Solicitation Response. The amount of the Contract Price is and has heretofore been appropriated by the Grand Junction City Council for the use and benefit of this Project. The Contract Price shall not be modified except by Amendment or other written directive of the Owner. The Owner shall not issue a Amendment or other written directive which requires additional Services to be performed, which Services causes the aggregate amount payable under this Contract to exceed the amount appropriated for this Project, unless and until the Owner provides Firm written assurance that lawful appropriations to cover the costs of the additional Services have been made.

Unless otherwise provided in the Solicitation, monthly partial payments shall be made as the Services progresses. Applications for partial and Final Payment shall be prepared by the Firm and approved by the Owner in accordance with the Solicitation.

ARTICLE 5

Contract Binding: The Owner and the Firm each binds itself, its partners, successors, assigns and legal representatives to the other party hereto in respect to all covenants,

agreements and obligations contained in the Contract Documents. The Contract Documents constitute the entire agreement between the Owner and Firm and may only be altered, amended or repealed by a duly executed written instrument. Neither the Owner nor the Firm shall, without the prior written consent of the other, assign or sublet in whole or in part its interest under any of the Contract Documents and specifically, the Firm shall not assign any moneys due or to become due without the prior written consent of the Owner.

ARTICLE 6

Severability: If any part, portion or provision of the Contract shall be found or declared null, void or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having the authority thereover, only such part, portion or provision shall be effected thereby and all other parts, portions and provisions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, City of Grand Junction, Colorado, has caused this Contract to be subscribed and sealed and attested in its behalf; and the Firm has signed this Contract the day and the year first mentioned herein.

The Contract is executed in two counterparts.

CITY OF GRAND JUNCTION, COLORADO

DocuSigned by:
By: Duane Hoff Jr., Senior Buyer – City of Grand Junction 9/14/2020 | 11:38 MDT
9E789E7D50F14BC...
Duane Hoff Jr., Senior Buyer Date

Magna IV Engineering, Inc.

DocuSigned by:
By: Donald Orbin – Magna IV Engineering, Inc. 9/14/2020 | 11:32 MDT
8490F644921D47D...
Donald Orbin – Magna IV Engineering, Inc. Director - Operations Date

Request for Proposal
RFP-4809-20-DH

Contract for Professional Electrical Engineering Services

RESPONSES DUE:
July 27, 2020 prior to 3:30 PM MDT
Accepting Electronic Responses Only
Responses Only Submitted Through the Rocky Mountain E-Purchasing System (RMEPS)
https://www.rockymountainbidsystem.com/default.asp
(Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor MUST contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

PURCHASING REPRESENTATIVE:
Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org
(970) 244-1545

This solicitation has been developed specifically for a Request for Proposal intended to solicit competitive responses for this solicitation, and may not be the same as previous City of Grand Junction solicitations. All offerors are urged to thoroughly review this solicitation prior to submitting. Submittal by **FAX, EMAIL or HARD COPY IS NOT ACCEPTABLE** for this solicitation.

REQUEST FOR PROPOSAL

TABLE OF CONTENTS

Section

REQUEST FOR PROPOSAL

SECTION 1.0: ADMINISTRATIVE INFORMATION & CONDITIONS FOR SUBMITTAL

1.1 Issuing Office: This Request for Proposal (RFP) is issued by the City of Grand Junction. All contact regarding this RFP is directed to:

RFP QUESTIONS:
Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org

1.2 Purpose: The purpose of this RFP is to obtain proposals from qualified professional firms to provide electrical engineering and design services to the City of Grand Junction on an "as needed" basis.

1.3 The Owner: The Owner is the City of Grand Junction, Colorado and is referred to throughout this Solicitation. The term Owner means the Owner or his authorized representative.

1.4 Compliance: All participating Offerors, by their signature hereunder, shall agree to comply with all conditions, requirements, and instructions of this RFP as stated or implied herein. Should the Owner omit anything from this packet which is necessary to the clear understanding of the requirements, or should it appear that various instructions are in conflict, the Offeror(s) shall secure instructions from the Purchasing Division prior to the date and time of the submittal deadline shown in this RFP.

1.5 Procurement Process: Procurement processes shall be governed by the most current version of the City of Grand Junction Purchasing Policy and Procedure Manual.

1.6 Submission: Please refer to section 5.0 for what is to be included. ***Each proposal shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (https://www.rockymountainbidsystem.com/default.asp).*** *This site offers both "free" and "paying" registration options that allow for full access of the Owner's documents and for electronic submission of proposals. (Note: "free" registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our "**Electronic Vendor Registration Guide"** at http://www.gjcity.org/business-and-economic-development/bids/ for details. For proper comparison and evaluation, the City requests that proposals be formatted as directed in Section 5.0 "Preparation and Submittal of Proposals." Submittals received that fail to follow this format may be ruled non-responsive. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **800-835-4603**).

1.7 Altering Proposals: Any alterations made prior to opening date and time must be initialed by the signer of the proposal, guaranteeing authenticity. Proposals cannot be altered or amended after submission deadline.

1.8 Withdrawal of Proposal: A proposal must be firm and valid for award and may not be withdrawn or canceled by the Offeror for sixty (60) days following the submittal deadline

date, and only prior to award. The Offeror so agrees upon submittal of their proposal. After award this statement is not applicable.

1.9 Acceptance of Proposal Content: The contents of the proposal of the successful Offeror shall become contractual obligations if acquisition action ensues. Failure of the successful Offeror to accept these obligations in a contract shall result in cancellation of the award and such vendor shall be removed from future solicitations.

1.10 Addenda: All questions shall be submitted in writing to the appropriate person as shown in Section 1.1. Any interpretations, corrections and changes to this RFP or extensions to the opening/receipt date shall be made by a written Addendum to the RFP by the City Purchasing Division. Sole authority to authorize addenda shall be vested in the City of Grand Junction Purchasing Representative. Addenda will be issued electronically through the Rocky Mountain E-Purchasing website at www.rockymountainbidsystem.com. Offerors shall acknowledge receipt of all addenda in their proposal.

1.11 Exceptions and Substitutions: All proposals meeting the intent of this RFP shall be considered for award. Offerors taking exception to the specifications shall do so at their own risk. The Owner reserves the right to accept or reject any or all substitutions or alternatives. When offering substitutions and/or alternatives, Offeror must state these exceptions in the section pertaining to that area. Exception/substitution, if accepted, must meet or exceed the stated intent and/or specifications. The absence of such a list shall indicate that the Offeror has not taken exceptions, and if awarded a contract, shall hold the Offeror responsible to perform in strict accordance with the specifications or scope of Services contained herein.

1.12 Confidential Material: All materials submitted in response to this RFP shall ultimately become public record and shall be subject to inspection after contract award. **"Proprietary or Confidential Information"** is defined as any information that is not generally known to competitors and which provides a competitive advantage. Unrestricted disclosure of proprietary information places it in the public domain. Only submittal information clearly identified with the words "***Confidential Disclosure***" and uploaded as a separate document shall establish a confidential, proprietary relationship. Any material to be treated as confidential or proprietary in nature must include a justification for the request. The request shall be reviewed and either approved or denied by the Owner. If denied, the proposer shall have the opportunity to withdraw its entire proposal, or to remove the confidential or proprietary restrictions. Neither cost nor pricing information nor the total proposal shall be considered confidential or proprietary.

1.13 Response Material Ownership: All proposals become the property of the Owner upon receipt and shall only be returned to the proposer at the Owner's option. Selection or rejection of the proposal shall not affect this right. The Owner shall have the right to use all ideas or adaptations of the ideas contained in any proposal received in response to this RFP, subject to limitations outlined in the entitled "Confidential Material". Disqualification of a proposal does not eliminate this right.

1.14 Minimal Standards for Responsible Prospective Offerors: A prospective Offeror must affirmably demonstrate their responsibility. A prospective Offeror must meet the following requirements.

- Have adequate financial resources, or the ability to obtain such resources as required.
- Be able to comply with the required or proposed completion schedule.
- Have a satisfactory record of performance.
- Have a satisfactory record of integrity and ethics.
- Be otherwise qualified and eligible to receive an award and enter into a contract with the Owner.

1.15 Open Records: Proposals shall be received and publicly acknowledged at the location, date, and time stated herein. Offerors, their representatives and interested persons may be present. Proposals shall be received and acknowledged only so as to avoid disclosure of process. However, all proposals shall be open for public inspection after the contract is awarded. Trade secrets and confidential information contained in the proposal so identified by offer as such shall be treated as confidential by the Owner to the extent allowable in the Open Records Act.

1.16 Sales Tax: The Owner is, by statute, exempt from the State Sales Tax and Federal Excise Tax; therefore, all fees shall not include taxes.

1.17 Public Opening: Proposals shall be opened in the City Hall Auditorium, 250 North 5th Street, Grand Junction, CO, 81501, immediately following the proposal deadline. Offerors, their representatives and interested persons may be present. Only the names and locations on the proposing firms will be disclosed.

SECTION 2.0: GENERAL CONTRACT TERMS AND CONDITIONS

2.1. Acceptance of RFP Terms: A proposal submitted in response to this RFP shall constitute a binding offer. Acknowledgment of this condition shall be indicated on the Letter of Interest or Cover Letter by the autographic signature of the Offeror or an officer of the Offeror legally authorized to execute contractual obligations. A submission in response to the RFP acknowledges acceptance by the Offeror of all terms and conditions including compensation, as set forth herein. An Offeror shall identify clearly and thoroughly any variations between its proposal and the Owner's RFP requirements. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance, except as outlined or specified in the RFP.

2.2. Execution, Correlation, Intent, and Interpretations: The Contract Documents shall be signed by the Owner and Firm. By executing the contract, the Firm represents that they have familiarized themselves with the local conditions under which the Services are to be performed, and correlated their observations with the requirements of the Contract Documents. The Contract Documents are complementary, and what is required by any one, shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment, services and other items necessary for the proper execution and completion of the scope of Services as defined in the technical specifications and drawings contained herein. All drawings, specifications and copies furnished by the Owner are, and shall remain, Owner property. They are not to be used on any other project.

2.3. Permits, Fees, & Notices: The Firm shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the Services. The

Firm shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the Services. If the Firm observes that any of the Contract Documents are at variance in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by approximate modification. If the Firm performs any Services knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he shall assume full responsibility and shall bear all costs attributable.

2.4. Responsibility for those Performing the Services: The Firm shall be responsible to the Owner for the acts and omissions of all his employees and all other persons performing any of the Services under a contract with the Firm.

2.5. Changes in the Services: The Owner, without invalidating the contract, may order changes in the Services within the general scope of the contract consisting of additions, deletions or other revisions. All such changes in the Services shall be authorized by Change Order/Amendment and shall be executed under the applicable conditions of the contract documents. A Change Order/Amendment is a written order to the Firm signed by the Owner issued after the execution of the contract, authorizing a change in the Services or an adjustment in the contract sum or the contract time.

2.6. Minor Changes in the Services: The Owner shall have authority to order minor changes in the Services not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents.

2.7. Uncovering & Correction of Services: The Firm shall promptly correct all Services found by the Owner as defective or as failing to conform to the contract documents. The Firm shall bear all costs of correcting such rejected Services, including the cost of the Owner's additional services thereby made necessary. The Owner shall give such notice promptly after discover of condition. All such defective or non-conforming Services under the above paragraphs shall be removed from the site where necessary and the Services shall be corrected to comply with the contract documents without cost to the Owner.

2.8. Acceptance Not Waiver: The Owner's acceptance or approval of any Services furnished hereunder shall not in any way relieve the proposer of their present responsibility to maintain the high quality, integrity and timeliness of his Services. The Owner's approval or acceptance of, or payment for, any services shall not be construed as a future waiver of any rights under this Contract, or of any cause of action arising out of performance under this Contract.

2.9. Change Order/Amendment: No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All amendments to the contract shall be made in writing by the Owner.

2.10. Assignment: The Offeror shall not sell, assign, transfer or convey any contract resulting from this RFP, in whole or in part, without the prior written approval from the Owner.

2.11. Compliance with Laws: Proposals must comply with all Federal, State, County and local laws governing or covering this type of service and the fulfillment of all ADA (Americans with Disabilities Act) requirements. Firm hereby warrants that it is qualified to assume the

responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.

2.12. Debarment/Suspension: The Firm herby certifies that the Firm is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Governmental department or agency.

2.13. Confidentiality: All information disclosed by the Owner to the Offeror for the purpose of the Services to be done or information that comes to the attention of the Offeror during the course of performing such Services is to be kept strictly confidential.

2.14. Conflict of Interest: No public official and/or Owner employee shall have interest in any contract resulting from this RFP.

2.15. Contract: This Request for Proposal, submitted documents, and any negotiations, when properly accepted by the Owner, shall constitute a contract equally binding between the Owner and Offeror. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral, including the Proposal documents. The contract may be amended or modified with Change Orders, Field Orders, or Amendment.

2.16. Contract Termination: This contract shall remain in effect until any of the following occurs: (1) contract expires; (2) completion of services; (3) acceptance of services or, (4) for convenience terminated by either party with a written *Notice of Cancellation* stating therein the reasons for such cancellation and the effective date of cancellation at least thirty days past notification.

2.17. Employment Discrimination: During the performance of any services per agreement with the Owner, the Offeror, by submitting a Proposal, agrees to the following conditions:

2.17.1. The Offeror shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, citizenship status, marital status, veteran status, sexual orientation, national origin, or any legally protected status except when such condition is a legitimate occupational qualification reasonably necessary for the normal operations of the Offeror. The Offeror agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

2.17.2. The Offeror, in all solicitations or advertisements for employees placed by or on behalf of the Offeror, shall state that such Offeror is an Equal Opportunity Employer.

2.17.3. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

2.18. Immigration Reform and Control Act of 1986 and Immigration Compliance: The Offeror certifies that it does not and will not during the performance of the contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 and/or the immigration compliance requirements of State of Colorado C.R.S. § 8-17.5-101, *et.seq.* (House Bill 06-1343).

2.19. Ethics: The Offeror shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official, or agent of the Owner.

2.20. Failure to Deliver: In the event of failure of the Offeror to deliver services in accordance with the contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Offeror responsible for any costs resulting in additional purchase and administrative services. This remedy shall be in addition to any other remedies that the Owner may have.

2.21. Failure to Enforce: Failure by the Owner at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the Owner to enforce any provision at any time in accordance with its terms.

2.22. Force Majeure: The Offeror shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the Offeror, unless otherwise specified in the contract.

2.23. Indemnification: Offeror shall defend, indemnify and save harmless the Owner and all its officers, employees, insurers, and self-insurance pool, from and against all liability, suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the Offeror, or of any Offeror's agent, employee, subFirm or supplier in the execution of, or performance under, any contract which may result from proposal award. Offeror shall pay any judgment with cost which may be obtained against the Owner growing out of such injury or damages.

2.24. Independent Firm: The Offeror shall be legally considered an Independent Firm and neither the Firm nor its employees shall, under any circumstances, be considered servants or agents of the Owner. The Owner shall be at no time legally responsible for any negligence or other wrongdoing by the Firm, its servants, or agents. The Owner shall not withhold from the contract payments to the Firm any federal or state unemployment taxes, federal or state income taxes, Social Security Tax or any other amounts for benefits to the Firm. Further, the Owner shall not provide to the Firm any insurance coverage or other benefits, including Servicesers' Compensation, normally provided by the Owner for its employees.

2.25. Nonconforming Terms and Conditions: A proposal that includes terms and conditions that do not conform to the terms and conditions of this Request for Proposal is subject to rejection as non-responsive. The Owner reserves the right to permit the Offeror to withdraw nonconforming terms and conditions from its proposal prior to a determination by the Owner of non-responsiveness based on the submission of nonconforming terms and conditions.

2.26. Ownership: All plans, prints, designs, concepts, etc., shall become the property of the Owner.

2.27. Oral Statements: No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this document and/or resulting agreement. All modifications to this request and any agreement must be made in writing by the Owner.

2.28. Patents/Copyrights: The Offeror agrees to protect the Owner from any claims involving infringements of patents and/or copyrights. In no event shall the Owner be liable to the Offeror for any/all suits arising on the grounds of patent(s)/copyright(s) infringement. Patent/copyright infringement shall null and void any agreement resulting from response to this RFP.

2.29. Venue: Any agreement as a result of responding to this RFP shall be deemed to have been made in, and shall be construed and interpreted in accordance with, the laws of the City of Grand Junction, Mesa County, Colorado.

2.30. Expenses: Expenses incurred in preparation, submission and presentation of this RFP are the responsibility of the company and cannot be charged to the Owner.

2.31. Sovereign Immunity: The Owner specifically reserves its right to sovereign immunity pursuant to Colorado State Law as a defense to any action arising in conjunction to this agreement.

2.32. Public Funds/Non-Appropriation of Funds: Funds for payment have been provided through the Owner's budget approved by the City Council/Board of County Commissioners for the stated fiscal year only. State of Colorado statutes prohibit the obligation and expenditure of public funds beyond the fiscal year for which a budget has been approved. Therefore, anticipated orders or other obligations that may arise past the end of the stated Owner's fiscal year shall be subject to budget approval. Any contract will be subject to and must contain a governmental non-appropriation of funds clause.

2.33. Collusion Clause: Each Offeror by submitting a proposal certifies that it is not party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any and all proposals shall be rejected if there is evidence or reason for believing that collusion exists among the proposers. The Owner may or may not, at the discretion of the Owner Purchasing Representative, accept future proposals for the same service or commodities for participants in such collusion.

2.34. Gratuities: The Firm certifies and agrees that no gratuities or kickbacks were paid in connection with this contract, nor were any fees, commissions, gifts or other considerations made contingent upon the award of this contract. If the Firm breaches or violates this warranty, the Owner may, at their discretion, terminate this contract without liability to the Owner.

2.35. Performance of the Contract: The Owner reserves the right to enforce the performance of the contract in any manner prescribed by law or deemed to be in the best interest of the Owner in the event of breach or default of resulting contract award.

2.36. Benefit Claims: The Owner shall not provide to the Offeror any insurance coverage or other benefits, including Worker's Compensation, normally provided by the Owner for its employees.

2.37. Default: The Owner reserves the right to terminate the contract in the event the Firm fails to meet delivery or completion schedules, or otherwise perform in accordance with the accepted proposal. Breach of contract or default authorizes the Owner to purchase like services elsewhere and charge the full increase in cost to the defaulting Offeror.

2.38. Multiple Offers: If said proposer chooses to submit more than one offer, THE ALTERNATE OFFER must be clearly marked "Alternate Proposal". The Owner reserves the right to make award in the best interest of the Owner.

2.39. Cooperative Purchasing: Purchases as a result of this solicitation are primarily for the Owner. Other governmental entities may be extended the opportunity to utilize the resultant contract award with the agreement of the successful provider and the participating agencies. All participating entities will be required to abide by the specifications, terms, conditions and pricings established in this Proposal. The quantities furnished in this proposal document are for only the Owner. It does not include quantities for any other jurisdiction. The Owner will be responsible only for the award for our jurisdiction. Other participating entities will place their own awards on their respective Purchase Orders through their purchasing office or use their purchasing card for purchase/payment as authorized or agreed upon between the provider and the individual entity. The Owner accepts no liability for payment of orders placed by other participating jurisdictions that choose to piggy-back on our solicitation. Orders placed by participating jurisdictions under the terms of this solicitation will indicate their specific delivery and invoicing instructions.

2.40. Definitions:

2.40.1. "Offeror" and/or "Proposer" refers to the person or persons legally authorized by the Consultant to make an offer and/or submit a response (fee) proposal in response to the Owner's RFP.

2.40.2. The term "Services" includes all labor, materials, equipment, and/or services necessary to produce the requirements of the Contract Documents.

2.40.3. "Firm" is the person, organization, firm or consultant identified as such in the Agreement and is referred to throughout the Contract Documents. The term Firm means the Firm or his authorized representative. The Firm shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Services, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Firm shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Firm shall not commence Services without clarifying Drawings, Specifications, or Interpretations.

2.40.4. "Sub-Contractor is a person or organization who has a direct contract with the Firm to perform any of the Services at the site. The term sub-contractor is referred to throughout the contract documents and means a sub-contractor or his authorized representative.

2.41. Public Disclosure Record: If the Proposer has knowledge of their employee(s) or sub-proposers having an immediate family relationship with an Owner employee or elected official, the proposer must provide the Purchasing Representative with the name(s) of these individuals. These individuals are required to file an acceptable "Public Disclosure Record", a statement of financial interest, before conducting business with the Owner.

SECTION 3.0: INSURANCE REQUIREMENTS

3.1 Insurance Requirements: The selected Firm agrees to procure and maintain, at its own cost, policy(s) of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by the Firm pursuant to this Section. Such insurance shall be in addition to any other insurance requirements imposed by this Contract or by law. The Firm

shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to this Section by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.
Firm shall procure and maintain and, if applicable, shall cause any Sub-Contractor of the Firm to procure and maintain insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to The Owner. All coverage shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by the Firm pursuant to this Section. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Minimum coverage limits shall be as indicated below unless specified otherwise in the Special Conditions:

(a) Worker Compensation: Contractor shall comply with all State of Colorado Regulations concerning Workers' Compensation insurance coverage.

(b) General Liability insurance with minimum combined single limits of:

ONE MILLION DOLLARS ($1,000,000) each occurrence and
ONE MILLION DOLLARS ($1,000,000) per job aggregate.

The policy shall be applicable to all premises, products and completed operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall include coverage for explosion, collapse, and underground (XCU) hazards. The policy shall contain a severability of interests provision.

(c) Comprehensive Automobile Liability insurance with minimum combined single limits for bodily injury and property damage of not less than:

ONE MILLION DOLLARS ($1,000,000) each occurrence and
ONE MILLION DOLLARS ($1,000,000) aggregate

d) Professional Liability & Errors and Omissions Insurance policy with a minimum of:

ONE MILLION DOLLARS ($1,000,000) per claim

This policy shall provide coverage to protect the Firm against liability incurred as a result of the professional services performed as a result of responding to this Solicitation.

With respect to each of Consultant's owned, hired, or non-owned vehicles assigned to be used in performance of the Services. The policy shall contain a severability of interests provision.

3.2 Additional Insured Endorsement: The policies required by paragraph (b) above shall be endorsed to include the Owner and the Owner's officers and employees as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the Owner, its officers, or its employees, or carried by or provided through any insurance pool of the Owner, shall be excess and not contributory insurance to that provided by Firm. The Firm shall be solely responsible for any deductible losses under any policy required above.

SECTION 4.0: SPECIFICATIONS/SCOPE OF SERVICES

4.1. General: The City of Grand Junction desires to enter into an annual contract with a professional electrical engineering firm to provide all related services as required, on an "as needed" basis.

4.2. Special Conditions/Provisions:

4.2.1 Price/Fees: Services pricing shall be all inclusive, to include, but not be limited to: labor, materials, equipment, travel, drawings, engineering work, shipping/freight, licenses, permits, fees, etc.

Provide a complete list of all potential costs with associated services, as may be related to electrical engineering and design services. The list should be broken down into both hourly rates, and flat rate fees, as may apply. All fees will be considered by the Owner to be negotiable.

4.3. Specifications/Scope of Services: Firm shall provide all services related to electrical engineering, on an "as needed" basis, to include, but not be limited to: project coordination and status reports, initial design, final design, construction documents, phasing of projects, construction observation, etc.

Organization, familiarity with individual projects, preparedness, communication, report timeliness, design submittal timeliness, invoicing accuracy (both in description and fee rates) are all critical traits that are desired under this contract. The Firm shall have on-staff an Electrical Engineer with a professional engineering license in the State of Colorado. The City would prefer that the licensed Electrical Engineer be the Lead Engineer.

The City may, at its discretion, make a single award, or make awards for a primary and secondary service provider.

The Firm will be experienced in providing a full range of services from the evaluation of existing electrical systems through the design phase for electrical replacements of existing equipment. The Firm will have expertise in the following areas:

- Motor Control Center (MCC) design, siting, and work sequencing
- Electrical load analysis (low voltage distribution)
- Emergency Generator design to support MCC capacity

The consultant may provide engineering design assistance for the following:

- Review of electrical loading and revised electrical & construction drawings.
- Evaluation of existing electrical systems, including studies to develop repair priorities.
- Equipment specifications and design plans.
- Review equipment changes with appropriate State Authorities. Any process system changes or upgrade needs to be submitted to CDPHE for approval and documentation. The responsible engineer shall confirm permitting requirements.
- Proposed construction schedule to minimize equipment downtime during installation and replacement.
- Assemble a construction bid package.

- Assist the city in the electrical review, qualifications and recommendation for the installation contractor after construction bid submittals are received. Advice may be requested on bidder's understanding of project, qualification for work elements, project expertise, resources and work experience.
  - *During the contractor solicitation phase the consultant will review proposals, participate in a pre-bid meeting, respond to solicitation technical inquiries and provide written responses as addendum to the City Project Manager. Construction cost analysis is not to be included in the consultant's responsibilities.*
- The City Project Manager oversees construction administration and project management. As Engineer of Record and SME, the electrical consultant shall be available on a request basis from the City Project Manager to assist as needed in electrical inspections and clarifications. Possible items the consultant may be requested to assist include review of project progress, respond to requests for information, inspect quality of workmanship, use of correct materials as per the design requirements. Participate in final inspection after completion of work.

The City of Grand Junction Utilities Division has several upcoming electrical upgrades planned for their existing equipment. The City may utilize the Firm for the following potential capital projects (Note: Project specific information, documents, specifications, etc. will be provided to the awarded Firm, as projects are developed):

- Grand Junction Water Treatment Plant equipment upgrades
- Ridges Irrigation System repairs
- Persigo Wastewater Treatment Plant equipment upgrades
- Replacement Motor Control Centers and new Backup Generator
- Lift Station upgrades

4.4. RFP Tentative Time Schedule:

• Request for Proposal available	July 9, 2020
• Inquiry deadline, no questions after this date	July 21, 2020
• Addendum Posted	July 22, 2020
• Submittal deadline for proposals	July 27, 2020
• Owner evaluation of proposals	July 28 – August 4, 2020
• Interviews (if required)	August 11, 2020
• Final Selection	August 12, 2020
• Contract execution	August 19, 2020

4.5. Questions Regarding Scope of Services:
Duane Hoff Jr., Senior Buyer
duaneh@gjcity.org

4.6. Contract: Contract shall commence upon award and will run through August 31, 2021. The awarded Firm and the Owner agree that this Proposal or subsequent contract may, upon mutual agreement of the Firm and the Owner, be extended under the terms and conditions of the contract for three (3) additional one (1) year contract periods, contingent upon the applicable fiscal year funding.

SECTION 5.0: PREPARATION AND SUBMITTAL OF PROPOSALS

Submission: ***Each proposal shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (https://www.rockymountainbidsystem.com/default.asp).*** *This site offers both "free" and "paying" registration options that allow for full access of the Owner's documents and for electronic submission of proposals. (Note: "free" registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our "**Electronic Vendor Registration Guide"** at http://www.gjcity.org/BidOpenings.aspx for details. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline **800-835-4603**). For proper comparison and evaluation, the City requests that proposals be formatted as directed in Section 5.0 "Preparation and Submittal of Proposals." Offerors are required to indicate their interest in this Project, show their specific experience and address their capability to perform the Scope of Services in the Time Schedule as set forth herein. For proper comparison and evaluation, the Owner requires that proposals be formatted **A** to **G**:

A. **Cover Letter:** Cover letter shall be provided which explains the Firm's interest in the project. The letter shall contain the name/address/phone number/email of the person who will serve as the firm's principal contact person with Owner's Contract Administrator and shall identify individual(s) who will be authorized to make presentations on behalf of the firm. The statement shall bear the signature of the person having proper authority to make formal commitments on behalf of the firm. By submitting a response to this solicitation the Firm agrees to all requirements herein.

B. **Qualifications/Experience/Credentials:** Proposers shall provide their qualifications for consideration as a contract provider to the City of Grand Junction/Mesa County and include prior experience in similar projects.

C. **Strategy and Implementation Plan:** Describe your (the firm's) interpretation of the Owner's objectives with regard to this RFP. Describe the proposed strategy and/or plan for achieving the objectives of this RFP. The Firm may utilize a written narrative or any other printed technique to demonstrate their ability to satisfy the Scope of Services. The narrative should describe a logical progression of tasks and efforts starting with the initial steps or tasks to be accomplished and continuing until all proposed tasks are fully described and the RFP objectives are accomplished, including typical delivery time for day-to-day testing results.

D. **References:** A minimum of three (3) **references** with name, address, telephone number, and email address that can attest to your experience in projects of similar scope and size.

E. **Fee Proposal:** Provide a complete list of all potential costs with associated services, as may be related to geotechnical engineering, and materials testing services. The list should be broken down into both hourly rates, and flat rate fees, as may apply.

F. **Legal Proceedings/Lawsuits:** State any and all legal proceedings, and or lawsuits you firm has been involved with in the last 3 years, is currently involved with, and/or has pending. Describe the reason for each instance, and the outcome.

G. **Additional Data (optional):** Provide any additional information that will aid in evaluation of your qualifications with respect to this project.

SECTION 6.0: EVALUATION CRITERIA AND FACTORS

6.1 Evaluation: An evaluation team shall review all responses and select the proposal or proposals that best demonstrate the capability in all aspects to perform the scope of services and possess the integrity and reliability that will ensure good faith performance.

6.2 Intent: Only respondents who meet the qualification criteria will be considered. Therefore, it is imperative that the submitted proposal clearly indicate the firm's ability to provide the services described herein.

Submittal evaluations will be done in accordance with the criteria and procedure defined herein. The Owner reserves the right to reject any and all portions of proposals and take into consideration past performance. The following parameters will be used to evaluate the submittals (in no particular order of priority):

- Responsiveness of Submittal to the RFP
  (Firm has submitted a proposal that is fully comprehensive, inclusive, and conforms in all respects to the Request for Proposals (RFP) and all of its requirements, including all forms and substance.)
- Understanding of the Project and Objectives
  (Firm's ability to demonstrate a thorough understanding of the City's goals pertaining to this specific project.)
- Experience
  (Firm's proven proficiency in the successful completion of similar projects.)
- Necessary Resources/Capability
  (Firm has provided sufficient information proving their available means to perform the required scope of work/service; to include appropriate bonding, insurance an all other requirements necessary to complete the project.)
- Strategy & Implementation Plan
  (Firm has provided a clear interpretation of the City's objectives in regard to the project, and a fully comprehensive plan to achieve successful completion. See Section 5.0 Item C. – Strategy and Implementation Plan for details.)
- Fees
  (All fees associated with the project are provided complete, comprehensive and within industry standards.)

Owner also reserves the right to take into consideration past performance of previous awards/contracts with the Owner of any vendor, Firm, supplier, or service provider in determining final award(s).

The Owner will undertake negotiations with the top rated firm and will not negotiate with lower rated firms unless negotiations with higher rated firms have been unsuccessful and terminated.

6.3 Oral Interviews: The Owner may invite the most qualified rated proposers to participate in oral interviews.

6.4 Award: Firms shall be ranked or disqualified based on the criteria listed in Section 6.2. The Owner reserves the right to consider all of the information submitted and/or oral presentations, if required, in selecting the project Firm.

SECTION 7.0: SOLICITATION RESPONSE FORM

RFP-4809-20-DH Contract for Professional Electrical Engineering Services

Offeror must submit entire Form completed, dated and signed.

The Owner reserves the right to accept any portion of the services to be performed at its discretion

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The undersigned has thoroughly examined the entire Request for Proposals and therefore submits the proposal and schedule of fees and services attached hereto.

This offer is firm and irrevocable for sixty (60) days after the time and date set for receipt of proposals.

The undersigned Offeror agrees to provide services and products in accordance with the terms and conditions contained in this Request for Proposal and as described in the Offeror's proposal attached hereto; as accepted by the Owner.

Prices in the proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- The individual signing this proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-903544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of _____ percent of the net dollar will be offered to the Owner if the invoice is paid within _____ days after the receipt of the invoice.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents. State number of Addenda received: _____

It is the responsibility of the Proposer to ensure all Addenda have been received and acknowledged.

_____	_____
Company Name – (Typed or Printed)	Authorized Agent – (Typed or Printed)
_____	_____
Authorized Agent Signature	Phone Number
_____	_____
Address of Offeror	E-mail Address of Agent
_____	_____
City, State, and Zip Code	Date

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 1

DATE: **July 23, 2020**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Contract for Professional Electrical Engineering Services RFP-4809-20-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Electrical Engineering vs Other disciplines:
This is described as a request for an electrical engineering firm. Some tasks in section 4.3 have the potential for needing multiple engineering discipline capabilities. Please explain the extent to which the selected firm will be assisting in, or performing full design in regards to other disciplines outside of Electrical Engineering.

A. The City of Grand Junction has a staff of multi-disciple engineers and project managers. We do not have electrical engineering and electrical design assistance on staff for the City or the Utilities department. The City desires to gain the assistance of a professional Electrical Engineer and associated firm with electrical design and drawing support to assist the city engineers, managers and maintenance electrical technicians fill the gap in our expertise and resource load. Requirements for other engineering disciples will be addressed by management on an as needed basis during each project. Those resources could be internal or awarded to additional external sources.

2. Q. Owners Engineer and small project engineer, vs full project design firm:
The scope appears mainly aimed at assistance on projects, or performing as the design firm on smaller tasks, implying a smaller electrical engineering design firm can bid. However, there are elements in section 4.3 that lead to needing the assistance of a larger multidisciplinary engineering team. Please describe the depth of resources that will be needed to be a successful bidder.

A. See Above. The awarded contract does not require a full design firm although that may be an advantage.

3. Q. Interpretation of 5.C, Strategy and Implementation Plan:
Section 5.C, at the end of the section, says, "… , including typical delivery time for day-to-day testing results." The words "testing results" does not seem to not apply to the specifications listed in section 4.3. Is that an accurate interpretation? Could "testing results" be replaced with "assigned tasks" in this section?

A. Yes, We are looking for your input or interpretation of how you understand the project goals and would be able to assist the City of Grand Junction, the Utilities Department and the engineering staff fulfill the need of "Electrical" project elements associated to items listed in Section 4.3.

4. Q. Can a timeline be provide for on-call services requests? In other words, how much advanced notice will be given by the Client for a specific engineering and design task? This will be needed for staffing plans and forecasts.

A. There is no specific schedule. The City Managers and Project engineers will review and discuss projects and develop a project schedule based on the availability of resources including that of the "Electrical" firm selected. Most of these projects are small capital projects and it would desired that the firm selected would have the bandwidth to fit the projects into their schedule. However, larger projects would need additional lead time to develop scope, time line, resource and budget.

5. Q. Is there an anticipated schedule for the upcoming projects mentioned in Section 4.3 of the RFP?

A. No, there is no timeline or prioritization for projects at this time. A project scope and prioritization would need to be developed between the City Project team and with the assistance of the "Electrical" firm selected. However, there is concern regarding the state of several of our MCCs. We have funds budgeted for upgrades and replacements. It would be hoped some of the simpler, easy & least time consuming projects could be completed in short order. There are several projects that need engineering design and technical assistance that only can be completed in the winter months (low water flow and irrigation related).

6. Q. Are there any specific software requirements (e.g. ETAP)?

A. The only software requirement we have internally is AutoCAD and Civil3D for drafting.

7. Q. Do you anticipate execution of the planned upgrades to occur simultaneously within the initial contract year (e.g. a desire for multiple engineer and/or project teams)?

A. Not necessarily, one team/engineer may be able to handle the workload. This needs to be determined by the selected firm. This contract may be multiyear extending into 2021.

8. Q. Will you desire electrical system studies (coordination, arc flash, etc.) be done for the new equipment?

A. Potentially yes, depending on the project.

Q. Do you have a preference for modeling software if so (SKM, ETAP)?

A. No, we do not have a preference for modeling software.

Q. Do you have an existing facility electrical safe work program we would be working within, or would you be interested in the development of a standard and employee training?

A. We do have an electrical safety program however, we would be interested in a review of our existing electrical safety program and if needed, development of a standard and employee training.

9. Q. Are there generally accurate and updated electrical drawings for the project locations, or do you anticipate the need for site research to confirm existing loads?

A. Generally, the existing electrical drawings should not be considered complete and up to date. Site visits and research may be needed. The drawings will need to be reviewed, updated and put into a digital format. All drawings are original and on paper. Most facilities are 40-50 years old.

10. Q. Are you interested in having the bidding contractor also provide instrumentation and control system engineering/design services, or onsite control system commissioning/start-up support?

A. Potentially yes but this would be a secondary goal. Present control system modifications are handled by present city technical staff and contractor.

11. Q. Will the City of GJ provide all engineered equipment procurement services, or are you interested in support from the engineering contractor (e.g. quote, bid tab, and PO/invoice support, expediting, field material coordination, etc.)?

A. Generally yes, the City provides all bid process services, however depending on City resources and project size it is possible the electrical contractor will be asked for support.

12. Q. Does the City of GJ have electrical design and/or construction standards (e.g. grounding, raceway design, lighting, area classification, etc.), or will the engineering contractor be permitted to propose use of their own existing standards?

A. Many facilities were built ~50 years ago. The electrical system has been maintained routinely by on-site staff with replacements mostly like and kind. Any City or Utility standards if they exist should be reviewed and updated to the latest requirements. We do have preferences for suppliers and manufacturers.

13. Q. Do you anticipate wanting periodic onsite field engineering support during construction?

A. Yes.

Q. Would you be interested in full-time onsite electrical construction management and/or inspection resources to assist with project execution?

A. Our staff should be able to handle most of the day to day management of projects. Periodic and final construction reviews will be required to ensure design & quality standards are met.

14. Q. Is it safe to assume the electrical engineering work will NOT need submitted to CDPHE for approval as it will not be changing/upgrading the process systems?

A. Projects are on diverse systems including raw water, finished water distribution, irrigation water and wastewater. So CDPHE requirements will differ. If there are CDPHE requirements, that will normally be part of the Electrical Engineering SME/firms responsibility.

15. Q. Do you have a specific drawing file type requirement for project documentation (e.g. AutoCAD DWG format)?

A. We would prefer AutoCAD DWG file format.

16. Q. Can we get a 3 week extension on bid due date for RFP-4809-20-DH.

    A. No. There will be no extension to the bid due date.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

CITY OF Grand Junction COLORADO

Purchasing Division

ADDENDUM NO. 2

DATE: **July 23, 2020**
FROM: **City of Grand Junction Purchasing Division**
TO: **All Offerors**
RE: **Contract for Professional Electrical Engineering Services RFP-4809-20-DH**

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. Does City of Grand Junction plan on selecting multiple organizations to provide professional electrical engineering services?

A. As stated in Section 4.3 Specifications/Scope of Services, Paragraph 3: The City may, at its discretion, make a single award, or make awards for a primary and secondary service provider.

2. Q. Will the award of professional services guarantee certain number of project awards per year?

A. No.

3. Q. Within the RFP Section 5 Item E Under Fee proposal, rates related to geotechnical engineering and materials testing are requested. Are these services required as part of the electrical engineering services?

A. No. This is an error. Section 5, Item E Fee Proposal shall read as follows: Provide a complete list of all potential costs with associated services, as may be related to electrical engineering and design services. The list should be broken down into both hourly rates, and flat rate fees, as may apply.

4. Q. Is the City responsible for all permitting? If not, what is the support that will be provided by the City?

A. Reference Section 2.3 Permits, Fees, & Notices, and Section 4.3 Specifications/Scope of Services, Paragraph 5, Item 4.

5. Q. What documentation is the City able to provide? Load list, etc.

A. Existing drawings (old), Load list from MCC and motor data, Access to inspect MCC, Access to Electrical tech and Maintenance Supervisor for questions, past MCC upgrade documents.

6. Q. How accurate are the existing design drawings? Are we expected to do "As Builts" as part of the Scope?

A. See previous answers (they are 40-50 years old). Yes, "as-builts" are required to upgrade documents from paper to CAD.

7. Q. What is the City's' preferred electronic and document control/management platform?

A. Previously answered; No electrical software. The only software requirement we have internally is AutoCAD and Civil3D for drafting.

8. Q. Is AUTOCAD acceptable?

A. See answer #7.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

RFP-4809-20-DH
CITY OF GRAND JUNCTION PROFESSIONAL ELECTRICAL ENGINEERING SERVICES

MAGNA IV ENGINEERING
PROPOSAL #: E20-19576

CITY OF Grand Junction COLORADO

Prepared by: Ryan Lorenz, PE
Electrical Engineer
rlorenz@magnaiv.com

MAGNA IV ENGINEERING
TRUSTED SOLUTIONS. SUPERIOR CLIENT EXPERIENCES.

96 Inverness Drive East, Suite R
Englewood, CO 80112
p 303.799.1273 f 303.790.4816 tf 800.462.3157

File: *E20-19576*

July 27, 2020

Via: Electronic submittial
RMEPS

CITY OF GRAND JUNCTION
BY EMAIL : duaneh@gjcity.org

Attention: **Duane Hoff Jr.**
Senior Buyer

Dear Mr Hoff,

Re: 2020-012 As-Needed Electrical Engineering Services

Magna IV Engineering thank you for the opportunity to provide this qualification package to provide engineering services to the City of Grand Junction.

As a specialist Electrical Engineering and Technical Field Services firm, Magna IV Engineering is highly focused on providing power, electrical, instrumentation, controls, and lighting solutions to a wide range of industry sectors. Our focus on providing Trusted Solutions and Superior Client Experiences has helped us foster long-term relationships with our clients.

In his capacity as Project Manager and Lead Electrical Engineer, Mr. Ryan Lorenz has extensive experience working in water, wastewater, and industrial environments. As a registered Professional Engineer and certified NETA Technician the City of Grand Junction can expect a high level of understanding of both the design and real world execution. Mr Lorenz will be supported by a team of Engineerig specialists and NETA Accredited Field Service Technicians.

The scope requested by the City of Grand Junction in this RFP is work that Magna IV Engineering has been practicing for over 35 years. This length of time is a significant indicator that Magna IV Engineering takes our customers interests and needs very seriously.

Magna IV has received and reviewed all addendums for this qualification and are confident we can provide services that meet and exceed the City of Grand Junction's expectations. We confirm that each section of RFP-4809-20-DH Contract for Professional Electrical Engineerg Servies, has been read, understood, and accepted.

Magna IV has no concerns with maintaining objectivity in recommending the best solution for the City of Grand Junction and attest there are no conflicts of interest.

We trust this proposal meets with your approval. Magna IV Engineering prides itself on high safety standards, environmental awareness, and quality workmanship, These factors will be of of great benefit to the City for the duration of the contract. We thank you for the opportunity to be of service and should you require further information please contact the undersigned.

We look forward to working with The City of Grand Junction.

Yours Truly,

Magna IV Engineering

Ryan Lorenz, PE
Electrical Engineer

Donald Orbin
Director, Operations

TABLE OF CONTENTS

1. ATTACHMENT A: SOLICITATION RESPONSE FORM

SECTION 7.0: SOLICITATION RESPONSE FORM

RFP-4809-20-DH Contract for Professional Electrical Engineering Services

Offeror must submit entire Form completed, dated and signed.

The Owner reserves the right to accept any portion of the services to be performed at its discretion

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The undersigned has thoroughly examined the entire Request for Proposals and therefore submits the proposal and schedule of fees and services attached hereto.

This offer is firm and irrevocable for sixty (60) days after the time and date set for receipt of proposals.

The undersigned Offeror agrees to provide services and products in accordance with the terms and conditions contained in this Request for Proposal and as described in the Offeror's proposal attached hereto; as accepted by the Owner.

Prices in the proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- The individual signing this proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-903544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of 0 percent of the net dollar will be offered to the Owner if the invoice is paid within 0 days after the receipt of the invoice.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents. State number of Addenda received: 2

It is the responsibility of the Proposer to ensure all Addenda have been received and acknowledged.

Magna IV Engineering Inc	Donald Orbin
Company Name – (Typed or Printed)	Authorized Agent – (Typed or Printed)
	303-799-1273
Authorized Agent Signature	Phone Number
97 Inverness Drive East, Unit R	dorbin@magnaiv.com
Address of Offeror	E-mail Address of Agent
Englewood, CO 80112	07/27/2020
City, State, and Zip Code	Date

2. GENERAL INFORMATION

2.1 COMPANY INFORMATION

2.1.1 **Firm Name:**

Magna IV Engineering, Inc.

2.1.2 **Business Address:**

- 96 Inverness Drive East, Unit R, Englewood, CO 80112

2.1.3 **Primary Contact Name, Telephone Number and Email Address:**

- Ryan Lorenz
  303.799.1273
  rlorenz@magnaiv.com

2.1.4 **Year Established:**

- 1986

2.1.5 **Type of Ownership:**

- C Corporation

2.1.6 **Location of office(s) providing services, if more than one location will provide services, Respondent shall list which services are performed out of each location:**

- Magna IV Engineering has offices in the United States, across Western Canada, and Chile. All project services would be performed out of our Denver, Colorado office with supplemental staffing used, as necessary, out of our Edmonton, Alberta office for peak resourcing.

Denver	Edmonton
96 Inverness Drive East, Unit R	1103 Parsons Road SW
Englewood, CO 80112	Edmonton, AB T6X 0X2

2.1.7 **Numver of Employees:**

- 250

2.1.8 **Indication of whether firm is or will be (and when) licensed to do business in the state of Colorado:**

- Magna IV Engineering, Inc. is a Colorado corporation and licensed to do business in the State of Colorado.

2.1.9 **Total volume of Consulting Contract's for each of the following years:**

2015: $24.43MM
2016: $23.14MM
2017: $22.76MM

3. EXPERIENCE

3.1 STAFF BREAKDOWN

Number of Staff in Each Discipline				
Years of Experience	Electrical Engineers	NETA Electrical Testing/Commissioning	Process Mechanical Engineers	Civil Engineers
0-5	6	19		
6-10	12	19		
11-15	10	22	1	
16-20	15	37		
21+	7	4		1

3.2 COMPANY AND PERSONNEL EXPERIENCE

Magna IV Engineering is a power & automation solutions provider, founded in 1982. We are specialists in Electrical Engineering, Automation Solutions, and Technical Field Services.

Our focus and robust team composition enables us to deliver superior client experiences across a host of industry segments. Some of our clients have been seeking our expertise since 1986.

Providing electrical expertise with exceptional service is something that we take pride in everywhere we do business. This has allowed us to expand from our original office in Edmonton, Alberta, into numerous markets across North and South America, with a diverse portfolio of projects. We anticipate continued growth throughout the United States, Canda and Chile, as we continue to create superior client experiences. We are here to add value to your power and automation systems.

Magna IV Engineering has a team of over 50 engineering personnel and more than 120 field service technologists and technicians available for project execution. The table below illustrates our technical and operations personnel (not including support or administrative staff).

TECHNICAL RESOURCE CATEGORY	PERSONNEL
NETA Level 2	32
NETA Level 3	18
NETA Level 4	25
Specialist Field Service Tech / Project Manager	50
Senior Engineer / Project Manager	21
Professional Engineer	21
Engineer in Training / Designer / Drafter	21
Automation Specialist	7

Magna IV engineering specializes in Water/Wastewater, Oil & Gas, Substation, Transmission, Distribution, and Generation facility projects. Since 1986 we have been completing everything from 20-year planning studies, to green field and brown field designs from concept to construction completion.

It is our experience on previous design assignments that when system integration is left up to the contractor on lowest bid projects, that do not require pre-qualification (and even some that do), that the final product can leave the owner with a lot to be desired at the final turnover stage. As a consulting engineering firm, we have seen this occur repeatedly, and as such offer the services of our in-house automation team to provide the system integration directly from the designers of the project as an option to avoid the shortcomings that we have witnessed on other similar projects. Coupling the system integration together with the design process allows us to have an early insight into the owner's requirements and to design our systems with the programming of the control system in mind to better suit the operators' needs. This also helps to ensure the system operates exactly as it was intended from the design.

4. TYPICAL PROJECT SCOPE OF WORK FOR A FACILITY DESIGN

4.1 PRELIMINARY DESIGN

4.1.1 Gather all relevant documentation
4.1.2 Calculate preliminary loads to create preliminary load list and equipment sizing
4.1.3 Coordinate preliminary loading with mechanical process and electrical capabilities of associated equipment
4.1.4 Coordinate with Owner & other Engineering disciplines to meet and exceed the expectations.
4.1.5 Review Preliminary P&IDs for instrumentation requirements
4.1.6 Attend–Preliminary Design Meetings
4.1.7 Review of the control philosophy
4.1.8 Review of preliminary P&IDs
4.1.9 Review the existing electrical service
4.1.10 Review the existing SCADA and proposed updates
4.1.11 Preliminary Cost Estimate
4.1.12 Preliminary Design Report Update Covering:

- Major Equipment

4.1.13 Station Control Narrative
4.1.14 Future Considerations for Ultimate Design
4.1.15 Utility Connection Requirements
4.1.16 SCADA System Requirements
4.1.17 Project Plan

4.2 DETAILED DESIGN

4.2.1 Attend - Design Meetings
4.2.2 Power Distribution Design Including:

.1 Load calculations
.2 Sizing of equipment
.3 Electrical equipment layout
.4 Develop protection scheme
.5 Protective device coordination
.6 Develop relay protection database files
.7 Cable tray and/or Conduit layouts
.8 Wiring diagrams
.9 Miscellaneous junction box details

4.2.3 Miscellaneous Low Voltage Equipment Design including:

.1 Low voltage panels
.2 Convenience receptacles
.3 Emergency exit lighting for egress guidance
.4 GFCI exterior receptacles
.5 Heat traced process piping and downspouts, where applicable

4.2.4 Coordination with Utility for power connection (as applicable)

.1 Includes contacting the Utility for a quote
.2 Delivering all information required to the Utility to support the quote
.3 Reviewing the quote for the Owner with a recommendation to proceed
.4 Upon Construction Award, connecting the electrical sub-contractor and Utility contact for coordination of the installation.
.5 Coordination with the Owners' Energy Retailer or Retailer Manger to get service enrolled and energized.

4.2.5 Instrumentation and Controls Design

.1 PLC Cabinet layout & BOM
.2 Equipment layout
.3 Equipment specifications
.4 Connections to Vendor packages
.5 IO drawings
.6 Loop drawings
.7 Interconnection diagrams
.8 Cable tray and/or Conduit layouts
.9 Miscellaneous junction box details
.10 SCADA system

4.2.6 Control System Programing Pre-Construction Planning

.1 PLC programing
.2 SCADA system design setup
.3 Operations interface dedicated computer setup (LOI)

4.2.7 Backup Generator Design

.1 Natural gas or diesel generator design
.2 Pad mounted
.3 Residential grade muffler

4.2.8 Lighting Design to IESNA standards

.1 Light design using AGI32 computer aided modeling
.2 Using the latest LED technology for energy consumption efficiency
.3 Designed to incorporate ideas for ease of maintenance

4.2.9 Site Plan showing

.1 Electrical equipment locations and minimum clearances
.2 Ductbank routing
.3 Truckfill connections
.4 Site lighting

4.2.10 Book Specifications
4.2.11 Issued for 50% Review Drawings and Specifications
4.2.12 Issued for 75% Review Drawings and Specifications
4.2.13 Issued for 95% Review Drawings and Specifications
4.2.14 Issued for Tender Drawings and Specifications
4.2.15 Pre-Tender Cost Estimate of the work

4.3 TENDERING SERVICES

4.3.1 Answering Contractors questions and requests for clarifications during tender period
4.3.2 Review of Contractor's electrical bids with a recommendation
4.3.3 Issued for Construction Drawings and Specifications
4.3.4 General Engineering Services During Construction:
4.3.5 Shop Drawing Reviews
4.3.6 Answering RFI's
4.3.7 Interim Inspection to review progress c/w inspection report
4.3.8 Review Contractor prepared commissioning plan and provide comments

4.4 ARC FLASH AND COORDINATION STUDY

4.4.1 Travel to site and collect pertinent electrical data for analysis (with the assistance of a site electrician)
4.4.2 Prepare a complete software model of the entire electrical distribution system required for arc flash analysis using ETAP, SKM, or EasyPower software
4.4.3 Contact utility for up-to-date fault contributions
4.4.4 Perform short circuit and coordination study
4.4.5 Based on above, perform arc flash study as per IEEE 1584 and IEEE 70E
4.4.6 Deliver final report complete with analysis and recommendations with the goal of arc flash reduction and improved coordination
4.4.7 Provide self-adhesive labels detailing calculated arc flash energy information for use on utility and standby power

4.5 POST CONSTRUCTION ENGINEERING SERVICES

4.5.1 Start-up Witnessing and Commissioning Witnessing
4.5.2 Review Contractor Prepared O&M manuals and provide comments
4.5.3 Prepare As-Built Record Drawings based on contractor provided redlines
4.5.4 Final Inspection c/w inspection report
4.5.5 System Integration
4.5.6 Off Site Programming (Prior to installation of PLC and SCADA Computer)

.1 PLC Programming
.2 SCADA Computer Programming
.3 Coordination with the owner's system operators to ensure system is familiar to the operators and functions the same as the existing facilities in the jurisdiction.

4.5.7 Remote Communications Programming
4.5.8 Site programming and start-up with the electrical contractor
4.5.9 Instrumentation and Controls Setup

.1 Coordination with process design and electrical contractor during the construction to ensure all instruments are setup for the proper inputs and outputs for the PLC.

5. STRATEGY AND IMPLEMNTATION PLAN

5.1 MAGNA IV STRATEGY

Magna IV Engineering has an excellent understanding of the types of projects indicated as a service offering in RFP-4809-20-DH and is fully capable of providing sound and practical solutions to the City of Grand Junction. Our proven collaborative project execution process will result in the final product fulfilling all the project requirements and thus adding value to the City of Grand Junction operation.

Magna IV Engineering has been providing engineering services since 1986 diligently. We have a tradition of building consensus with all the project stakeholders. There is reason why our motto is "Trusted Solutions. Superior Client Experiences". The key requirement is defining client requirements and building a project management plan around it. Our project managers understand the importance of safety, scope, schedule and budget. We believe the key to success is having clear, concise, and forthright communication with all stakeholders. This has proven to be the case throughout Magna IV Engineering's history and will continue to be our commitment moving into the future.

Magna IV designs, tests and maintains power, control, and lighting systems. We work tirelessly to provide technically sound, practical solutions to satisfy your electrical needs, ensuring that systems perform as designed, and operate safely and reliably. However, that feeling our clients experience knowing they are being taken care of by Electrical Experts is what we are truly after. This is electrical confidence.

We gather and develop talented people and are committed to becoming better every day at what we do. We work together to build and deliver electrical confidence through superior client service, and by following through on what we say.

Magna IV Engineering adds value wherever power, control, and lighting systems are found.

Our engineering teams are well-equipped and well-trained with all the latest, industry-standard software packages for designing and modeling power, control, and lighting systems.

Our Technical Field Services teams work with our Electrical Engineers to shorten the time required to solve complicated problems for our clients. Conversely, our Engineers have access to Technicians and Technologists with hands-on experience, which reinforces our capability to provide practical solutions.

Magna IV is accredited by NETA and our NETA certified commissioning personnel undergo regular training and testing.

5.2 APPROACH TO A TASK ORDER

5.2.1 ESTABLISHED PROJECT MANAGEMENT METHODOLOGY

At Magna IV Engineering we have proven Project Management systems and methodologies in place for a diverse range of project types and clients. We have Project Management Systems in place for a range of "Small" projects <$100,000 in fees to large projects >$500,000. Following award of a Task Order our initial charge will be to work collaboratively with the City of Grand Junction team to identify and document all stakeholders and formalize project management processes and deliverables. These deliverables can include bi-weekly progress reports, face-to-face update meetings, action logs, requests for information logs, and process documentation. This process has been outlined in greater detail in Section 3.3.

Our project team uses the following resources in order to manage our high volume of projects:

- Utility and Client specific MS Access Database.
- Sharepoint-based (Microsoft Cloud) OneNote to capture project meetings, notes, reviews, and comments.
- Client and project-type specific process checklists.
- MS Excel project tracking sheets connected to our Deltek Accounting System for immediate data retrieval.

5.2.2 VARYING PROJECT WORKLOAD

Magna IV Engineering performs scheduling activities for Engineering services on a Bi-Weekly basis, and for Technical Field Services on a weekly basis. Each Client Manager is responsible for maintaining the acceptable workload for his client's work. When workload varies, Client Managers will shift resources to work for their other clients first, and then to other Client Managers second.

Generally, design work is scheduled approximately 2 weeks in advance, with work assignments lasting between 4 and 26 weeks. Should the City of Grand Junction require emergency response, we would be able to provide that within 2 weeks by adjusting our priorities on our current workload. Any requests to start outside of 2 weeks can be accommodated as part of our regular scheduling process.

Commercial matters, Magna IV project management, and some technical issues will be addressed by Ryan Lorenz, the Lead Electrical Engineer for the Denver office.

5.2.3 PROACTIVE APPROACH

Magna IV Engineering believes firmly in the need to have project kick-off meetings to establish the detailed project deliverables and success criterion. Additionally, we would like to establish relationships with the City of Grand Junction personnel at similar levels in our organizations, such that our engineering managers, project managers, and technical leads in charge of a particular Task Order can develop a trusting relationship with the City of Grand Junction personnel.

5.2.4 QA/QC PROGRAM

Magna IV Engineering has a Quality Management Program which consists of 4 Levels of documents.

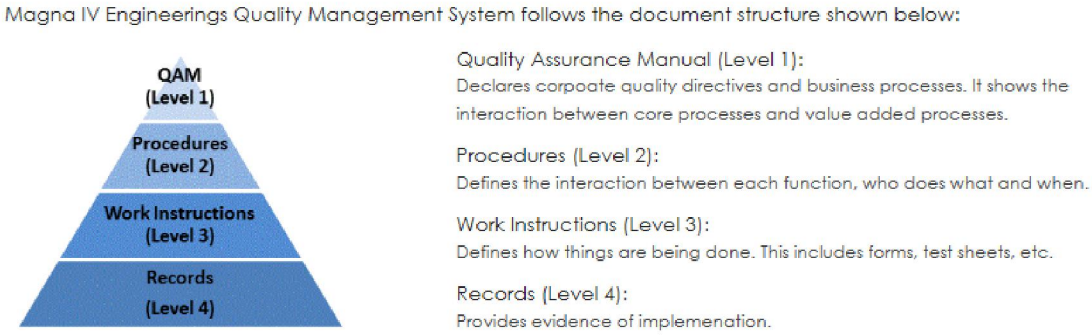


Figure 1-Magna IV QMS

The Quality Assurance Manual is the top-level document which describes the overall quality system. Procedures (Level 2) and Work Instructions (Level 3) are defined for specific tasks within the organization, as required to meet quality standards. It is common for Magna IV Engineering to develop quality control Work Instructions which are specific to a particular client's or project's needs. The output of these documented tasks are the Records (Level 4), which demonstrate compliance to these Work Instructions.

Example Record documents which may be applicable to the City of Grand Junction work include:

- Design Checklist
- Drawing Review Signoff Sheet
- Document Control Request Form
- Document Transmittal Form

Should the City of Grand Junction wish to review the Magna IV Quality Assurance Manual, we would be happy to supply this information.

5.2.5 COMMUNICATION PLAN

A communication plan will detail the key personnel on site, and any escalation steps as required. This will ensure that there is adequate communication at all levels in both organizations.

As a minimum, the following overall communication plan will be followed:

- Communication among team members throughout entire design process
- Progress meetings with the entire team
- In-person project review meetings with the City of Grand Junction

5.2.6 DOCUMENT CONTROL

All universal project documents will be electronically stored in a high level directory. Root folders in this directory will be used for all project specific folders.

Each document received will be electronically stored in directories sorted by project. Inter-mixing of project documents will not be allowed.

Design documents will be clearly labelled throughout the project as "for design", "for approval", "issued for construction", and "As-builts".

For the purposes of a particular Task Order, Magna IV is suggesting the use of OneDrive for project collaboration. All pertienent parties will receive access to the project folders throughout the project execution phase. This will ensure a high level of project collaboration as well as a higher level of project oversight as work will be made completely transparent to the City of Grand Junction.

5.2.7 NON-CONFORMING ITEMS

Any and all non-conforming items noted during project execution at any stage of the project will be documented on a controlled NCR (Non-Conforming Report) document. Each NCR item will be evaluated for overall impact to the project - budget, schedule, and reliability. All NCR's will be promptly reported to the City of Grand Junction. In the event of NCR's requiring re-work, alternate solutions and options will be prepared by Magna IV and presented to the City of Grand Junction for further review prior to implementation.

Project phases will not be considered completed until all NCR's are either closed or rectified and the City of Grand Junction has given final approval.

5.2.8 SUCCESS CRITERIA

Every project must be defined by a unique set of Success Criteria. These will be agreed upon by the City of Grand Junction and by the Magna IV Engineering project manager. Success criterion will be monitored according to the scale of the project; in this case, typically upon completion of each Task Order.

Typical success criteria will include:

- Safety statistics such as Near Miss or Behaviour Card reporting
- Project progress against schedule
- Earned Value analysis of tasks completed versus planned tasks
- Positive feedback from the City of Grand Junction and any other site contractors/subcontractors

Internally, Magna IV Engineering will also monitor items such as project profitability, employee turnover, and efficiency of our personnel.

5.2.9 CONSTRUCTABILITY

Through collaboration with the the City of Grand Junction team and construction crews during the initial design phase, issues with constructability of the project can be identified and addressed. In addition, Magna IV Engineering's years of expertise in design and construction management on similar projects will lend valuable insight into the constructability of a project.

Two other key components to the constructability of a project are safety and site inspections. Magna IV Engineering is dedicated to safety both of our employees and those who we work with. The constructability of a project will never compromise the safety of those installing it. Site visits are always essential to determine the constructability of a project. The actual site conditions, placement of existing facilities, and unexpected obstacles can be readily identified and integrated into the design therefore aiding in avoiding issues in the field.

5.2.10 END-TO-END DESIGN WORKFLOW

At Magna IV Engineering we develop our project processes in conjunction with our clients in order to provide the most efficient and effective deliverables and processes tailored to our clients' needs. Below is an example of a Project Flow Chart developed for a client in a similar industry. Magna IV Engineering will work collaboratively with the the City of Grand Junction team to provide a similar process.

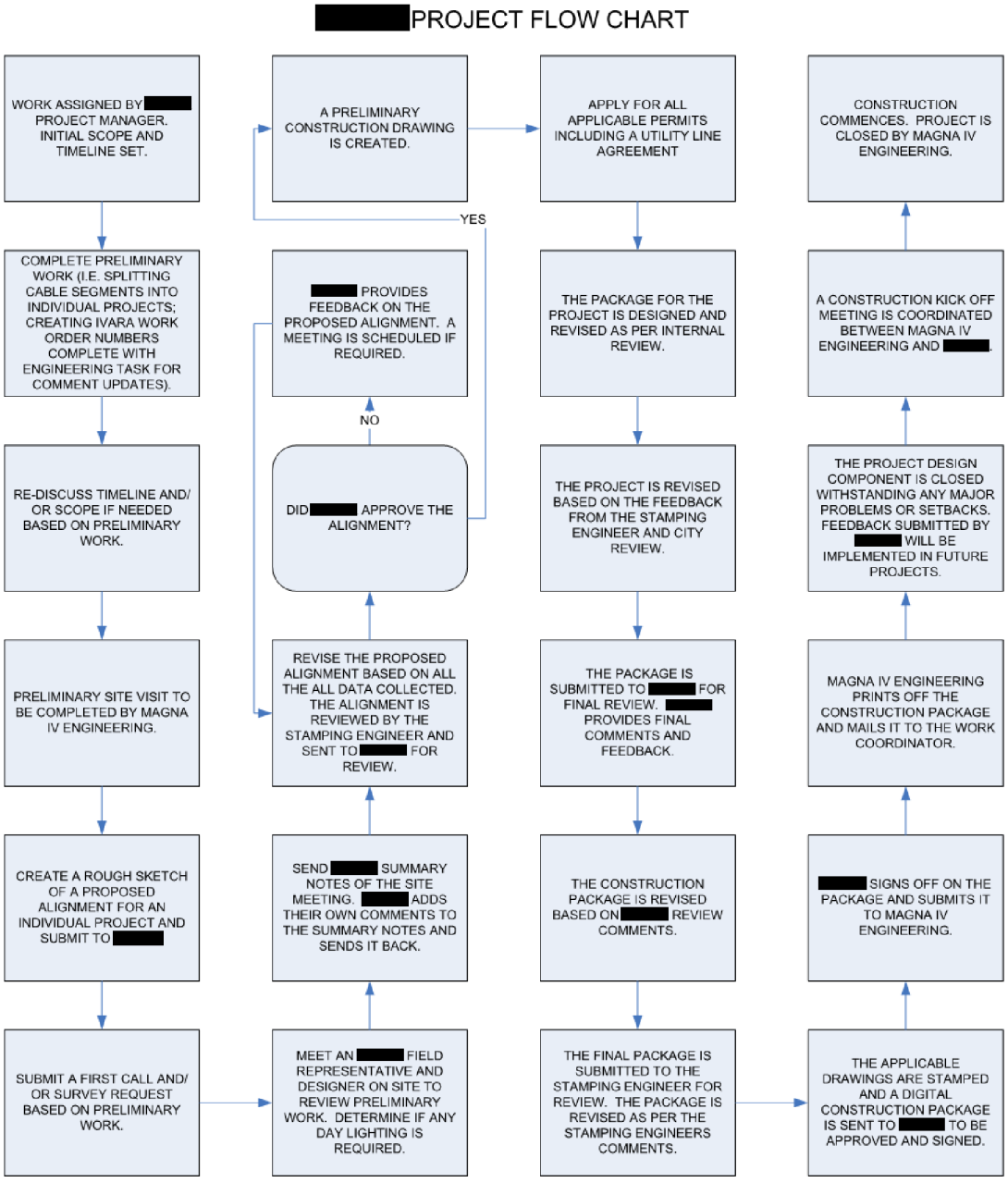


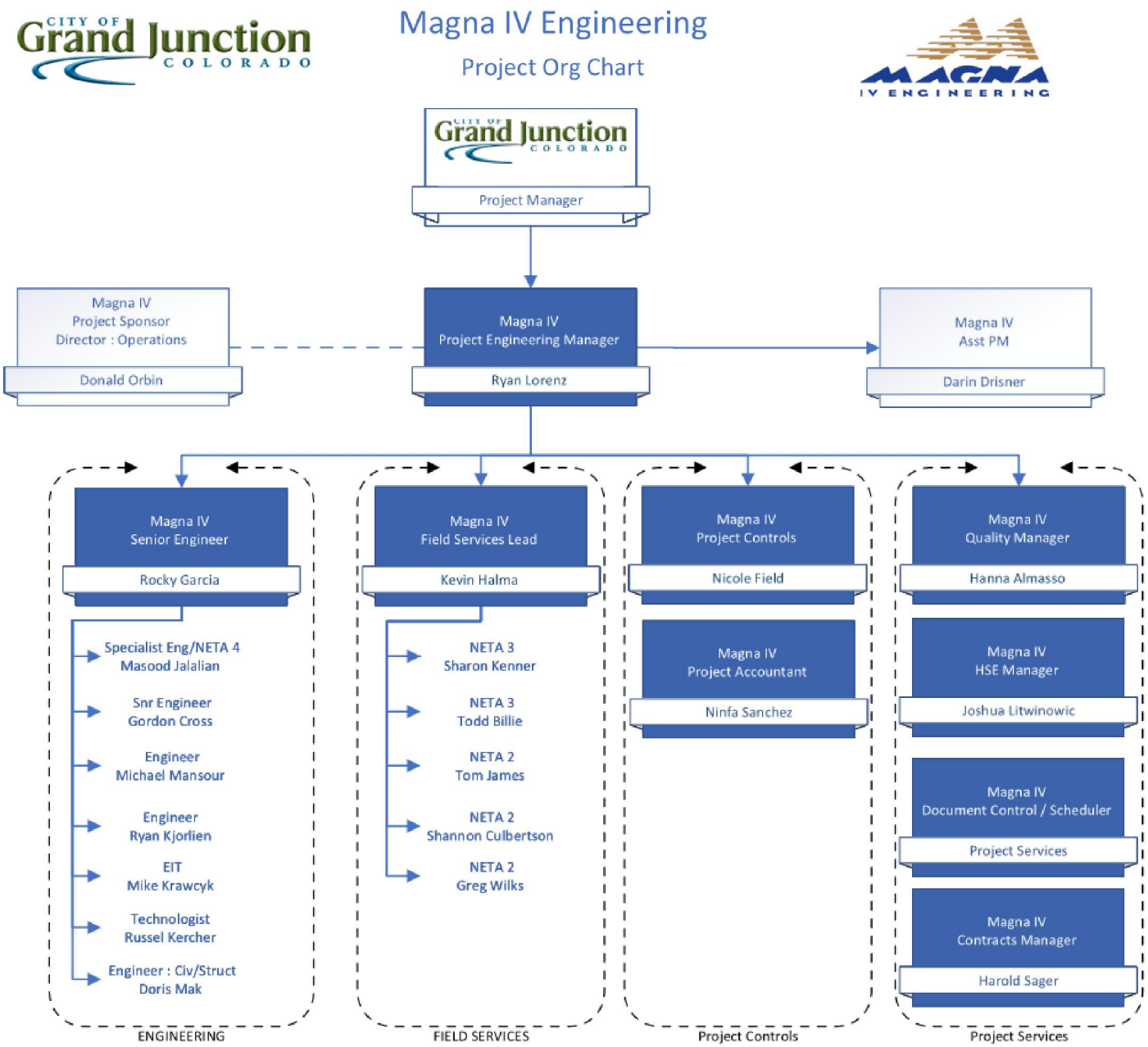
Figure 2-Project Flow Chart

5.2.11 SCHEDULING METHODOLOGY

A detailed schedule will be provided for each new Task Order. Of critical importance for scheduling is to identify the predecessors for any activity, and especially any "outside" efforts which could impact our team's delivery to the schedule. This may include construction activities, document turnover, or other deliverables which are provided by others.

Once a schedule is prepared, a manpower loading chart is developed to identify the peak resourcing periods. A base load of experienced and consistent personnel will be assigned to this project, and they could be further supplemented during the peak resourcing periods as required by other Magna IV Engineering employees and/or employees from our project partners.

5.2.12 ORG CHART



6. RELEVANT PROJECT REFERENCES

ROXBOROUGH WATER TREATMENT PLANT

Roxborough, Colorado

ROXBOROUGH WTP

Contract Data

Start Date	**04/30/2014**
End Date	**02/05/2018**
MIV Original Contract Amount	**$550,535.00**
MIV Ending Contract Amount	**$550,535.00**

Reference

Client TST Infrastructure

Contact Michael Gerstner

Address 61 Inverness Dr E, Englewood, CO 80112

Phone 303.799.5197

Email mgerstner@tstinfrastructure.com

Services Provided

- Project management;
- Electrical engineering design;
- Instrumentation & controls design;
- FA, CCTV, and access control design;
- Construction Phase Services;
- Testing and commissioning.

Description of Work

Magna IV Engineering was engaged as a sub-consultant to provide electrical, controls, instrumentation, and SCADA design services, and construction phase services for the new Roxborough Water Treatment Plant. The plant contains 8 filter sections and 2 clear wells along with chemical skids, 3 clarifiers, and UV disinfection process within the three-building campus. The system is controlled by an Allen-Bradley ControlLogix PLC from a manned control room. The plant has a 2500A 480V 3-phase electrical service with 100% emergency backup power. There are 5 125HP distribution pumps along with multiple motor loads in the 3-100HP range.

PINE VALLEY PUMP STATION REFURBISHMENT

Colorado Springs, Colorado

Colorado Springs Utilities - Medium Voltage Motor Control Center

Contract Data

Start Date	**07/31/2016**
End Date	**12/31/2016**
MIV Original Contract Amount	**$52,710.00**
MIV Ending Contract Amount	**$52,710.00**

Reference

Client Dewberry

Contact Chad Weaver

Address 990 S Broadway #400, Denver, CO 80209

Phone 303.951.0643

Email cweaver@dewberry.com

Services Provided

- Electrical engineering;
- Updated motor control philosophy;
- Temporary starter & panel design;
- Construction sequencing plan;
- Construction Phase Services (under separate contract);
- Testing and commissioning.

Description of Work

Scope included an alternatives analysis for maintaining service to the AFA and Northfield zones during replacement of the medium voltage motor control center (MCLU). As well, the design for the replacement of the existing medium voltage motor control center. Design included modernizing the starter controls, construction sequencing, and temporary starter configuration to keep the pump station on-line during construction.

LIFT STATION ASSESSMENT AND OWNER'S ENGINEERING

South Adams County Water & Sanitation, Muller Engineering, Commerce City, CO

Interior of Lift Station #3

Project Overview

- Site Investigation
- Electrical & Control Assessment for 11 Wastewater Lift Station Sites
- PLC Program Review
- Assessment Report
- Scope of Work Document
- Bidding Services
- Construction Phase Services

Scope of Work

A detailed site investigation for each of the 11 lift stations for overall condition, PLC equipment, critical equipment redundancy, alarm notification efficacy, code compliance, equipment constancy, and compatibility with future SCADA integration.

An assessment report detailing the findings and recommendations for improvements, based on criteria and level of criticality. Critical items and recommendations for each of the sites outlined in a scope of work document to be issued for contractor bid.

Owner's engineering services (for SACWSD) during the bidding and construction phases to ensure the critical and recommended upgrades were installed.

Systems

- Electrical Power
- Automation & Control

Start Date	01/02/19
End Date	04/30/20
Project Value (USD)	
Magna Portion (USD)	$50k

PUMP STATION IMPROVEMENTS, POWER & AUTOMATION

Providence Infrastructure, North Weld County, CO

Pump Station #4 Interior

Project Overview

- Site Investigation
- Electrical & Control Design
- Specification Development
- Construction Phase Services

Scope of Work

Detailed electrical, instrumentation, and controls engineering design for the NWC Water District.

Pump Station 4 Capacity Upgrade:

- Qty-2 60HP across the line pumps replaced with two 100HP pumps with Variable Frequency Drives

Pump Station 6 Capacity Upgrade:

- Qty-2 30HP pumps with two 100HP with VFDs

Assessment of the electrical service, distribution equipment, and emergency generators. Redesign to accommodate the larger pumps.

Systems

- Power distribution
- Variable Frequency Drives
- Emergency Generators

Start Date	11/10/2018
End Date	04/08/2020
Project Value (USD)	$28k
Magna Portion (USD)	$28k

WWTP POWER & AUTOMATION UPGRADES

Stonegate Headworks Wastewater Treatment Plant, Parker, Colorado

Stonegate Headworks WWTP

Project Overview

- Site Investigation
- Electrical, Instrumentation & Control Design
- Specification Development
- Construction Phase Services

Scope of Work

Detailed electrical, instrumentation and controls engineering design for upgrades at the Wastewater Treatment Plant.

- Relocating an existing Bar Screen & Conveyor to a spare intake channel
- New Bar Screen, Conveyor, and High-Pressure Washer to the main channel
- New feeder to the Headworks building, added for accommodating increased loads
- New control panel to control the relocated and additional equipment

Systems

- Electrical Power
- Automation & Control

Start Date	06/06/2018
End Date	09/02/2019
Project Value (USD)	$8k
Magna Portion (USD)	$8k

WATER TREATMENT PLANT POWER & CONTROLS IMPROVEMENTS

Sage Port Water Treatment Plant, Perry Park, Colorado

Sage Port Water Treatment Plant

Project Overview

- Site Investigation
- Electrical, Instrumentation & Control Design
- Specification Development
- Construction Phase Services

Scope of Work

- Engineering Evaluation of the power distribution system, PLC, and the available expansion capacity of each
- Replacement of two 40HP pumps with two 50HP pumps
- Replacement of two electric actuated valves, and one flow meter
- Addition of a new filter unit, including the associated electrical equipment and instruments, including a backup generator, lightning protection; and new PLC panel for new filters based on PLC assessment

Systems

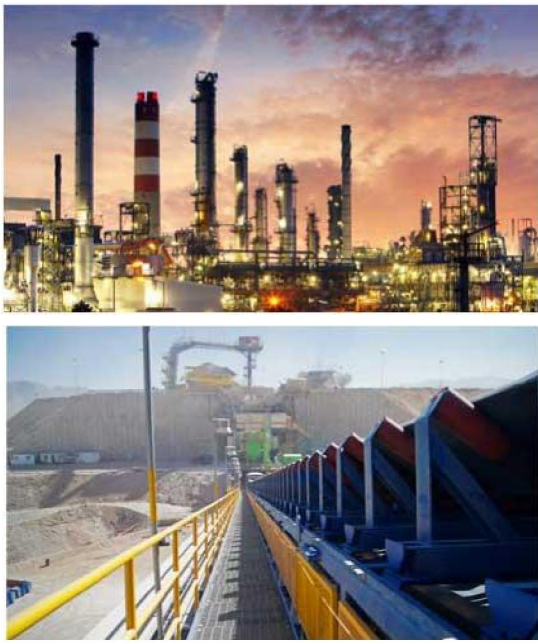
- Electrical Power
- Automation & Controls

Start Date	10/20/2019
End Date	06/18/2020
Project Value (USD)	$35k
Magna Portion (USD)	$35k

7. MAGNA IV RATE SHEET

2020 **RATES**




2020 **RATES**

Effective January 2020

Hourly Labour
- » Engineering
- » Technical Field Services

Definitions & Details
Equipment

ELECTRICAL **ENGINEERING**

Studies, Design, Replacement & Retrofit, Project Management, Planning, Construction Support

AUTOMATION **SOLUTIONS**

System Design, Startup, Verification, DCS, PLC & Control Panel Upgrades, Simulation, Network Infrastructure and Information Systems Development

TECHNICAL FIELD **SERVICES**

Testing, Commissioning, Startup Services, Maintenance, Refurbishment, Troubleshooting, Root Cause Analysis, 24-hour Emergency Service

NETA

we do the right thing | we do what we say

ELECTRICAL ENGINEERING | AUTOMATION SOLUTIONS | TECHNICAL FIELD SERVICES (NETA)

1.800.462.3157 | info@magnaiv.com | magnaiv.com

MAGNA IV ENGINEERING

HOURLY **RATES**

Rates

Effective January 2020

ENGINEERING **SERVICES**	**(USD)**
Engineering, Senior Project Manager	$190
Engineering, Project Manager	$160
Specialist/Forensic Engineer	$200
Senior Engineer	$165
Engineer	$148
Assistant Engineer	$130
Engineer-in-Training	$115
Senior Engineering Technologist	$136
Engineering Technologist	$121
Senior Programmer	$150
Programmer	$120
Drafter	$80
TECHNICAL FIELD **SERVICES**	
Field Services, Senior Project Manager	$180
Field Services, Project Manager	$170
Field Specialist	$210
Field Services Senior Tech	$173
Field Services Tech IV	$147
Field Services Tech III	$131
Field Services Tech II	$115
Field Services Tech I	$99
Field Administrator	$89
SUPPORT **SERVICES**	
Procurement	$135
Quality Controller	$135
Safety Officer	$131
Logistics	$79
Clerical	$60

HOURLY **RATES**

Rates

Effective January 2020

Definitions and Details

Standard Hours
Standard hours of operation are from 8am - 5pm, Monday – Friday (includes one hour for standard breaks). Work outside of the standard hours of operation will be billed as per the overtime policies detailed below.

Overtime
Overtime will be applied (factor of 1.5 base rate) to labor outside standard hours of operation, after 8 hours worked per day and to all work on weekends or Statutory Holidays including travel.

Overtime will be applied (factor of 2.0 base rate) after 12 hours worked per day, or for unscheduled / emergency work outside standard hours of work, minimum 4 hours including travel will apply.

Non-site labor
Project requirements may necessitate non-site labor for completion of such tasks as: Design, study, detailed technical support or research, test equipment logistics, project management, procurement, administration, safety and project support. This work will be billed at the applicable rates by category.

Transformer Oil & Gas Analysis (DGA)
Transformer Oil & Gas Analysis will be charged $280.00 per sample, report included. Rush Transformer Oil & Gas Analysis (results in 24 hours) will be charged $330.00 per sample, report included.

Test Equipment
Billed at daily rates (see attached equipment listing for further details).

Accommodation and Daily Meal Allowance
Meal allowance is applicable to out of town work, accommodation charges will be incurred when overnight stay is required.

Miscellaneous charges and disbursements (USD)

ITEM	CHARGE
Mileage	$0.75/mi
Service Vehicle	$110/day
Accommodation	Cost plus 15% or Quoted Daily Rate
Daily Meal Allowance	$75/day
LOA (Accommodation & Meals)	Rate available upon request
Third Party Costs	Cost plus 15%

EQUIPMENT **RATES**

Rates

Effective January 2020

EQ CODE	DESCRIPTION	DAILY RATE (USD)
DUCTORS		
101	DUCTOR	$65
RELAY TEST SETS / RELAYS		
201	THREE PHASE RELAY TEST SET	$525
202	SINGLE PHASE RELAY TEST SET	150
203	STATIC TRIP UNIT	150
210	MULTILIN 169/269	55
211	MULTILIN 469/750	80
HIPOTS		
301	< 50kV HIPOT	$90
302	≥ 50kV HIPOT	120
303	120kV HIPOT	240
310	28kV VLF / TAN DELTA	240
312	60kV VLF	320
313	TAN DELTA 60	250
314	PARTIAL DISCHARGE PD60-2/TD	550
331	PFISTERER TEST/BLIND CAPS	20
TRANSFORMER TEST EQUIPMENT		
401	DRY WELL CALIBRATOR	$65
402	RATIO METER	145
403	C-BRIDGE	75
404	CURRENT TRANSFORMER TEST SET	155
405	WINDING RESISTANCE	90
406	PRESSURE CALIBRATOR (BUCHOLZ)	30
407	MULTIPURPOSE TEST SET (CPC-100)	500
408	SWEEP FREQUENCY RESPONSE ANALYZER (SFRA)	500
417	ELBOW KIT	110
420	OIL FILTER PRESS	230
INSULATION TEST EQUIPMENT		
501	5KV MEGGER	$50
503	DOBLE INSULATION ANALYZER	600
504	10KV PI MEGGER	75
PHASING EQUIPMENT		
601	PHASE ANGLE METER	$35
602	PHASE ROTATION INDICATOR	20
FAULT LOCATION EQUIPMENT		
702	CABLE FAULT LOCATION KIT	$50
703	THUMPER	165
706	CABLE LOCATOR	40
707	TIME DOMAIN REFLECTOMETER	135

EQUIPMENT **RATES**

Rates

Effective January 2020

EQ CODE	DESCRIPTION	DAILY RATE (USD)
710	HIGH CURRENT POWER SUPPLY	125
RECORDING & ANALYZING EQUIPMENT		
802	INFRA-RED CAMERA	$450
804	3-PHASE METERING POTENTIAL TRANSFORMERS	30
805	AC CLAMPS CTS / CURRENT PROBES / FLEXIBLE CTS	10
812	FLUKE 1750 POWER RECORDER	185
813	CIRCUIT BREAKER TIMER	220
815	SCOPEMETER	30
820	THREE-PHASE POWERMETER	35
821	PARTIAL DISCHARGE SURVEYOR	125
POWER SUPPLIES & BATTERY TEST EQUIPMENT		
902	POWER CONDITIONER	$80
904	AC/DC POWER SUPPLY	45
905	PRIMARY INJECTION UNIT	420
908	BATTERY LOAD TESTER W/ TEST KIT	185
HOSPITAL TEST EQUIPMENT		
1201	Z32-99 HOSPITAL TEST SYSTEM	$50
SAFETY EQUIPMENT		
1701	CONFINED SPACE TRIPOD	$60
1702	4-GAS MONITOR	40
1703	GROUND CLUSTER	25
1704	HOTSTICKS	10
1705	FLASH SUIT	50
GENERATORS		
2501	PORTABLE GENERATOR (2000W)	$40
SF6 EQUIPMENT		
2601	SF6 MULTI-ANALYZER TEST SYSTEM	$270
CABLE TERMINATION/SPLICING EQUIPMENT		
2701	BATTERY OPERATED CRIMPER	$85
2702	BATTERY OPERATED CABLE CUTTER	40
2703	HIGH VOLTAGE CABLE TERMINATION KIT	50
2704	HYDRAULIC CABLE BENDER	40
2705	PFISTERER TERMINATION KIT (SIZE 2 & 3)	30
2706	CABLE SPIKING TOOL	50
GROUND TEST EQUIPMENT		
4101	EARTH RESISTANCE TESTER	$100
4102	GROUND ROD TESTER	40
4110	GPS / I.S. WALKIE TALKIE	25

8. LEGAL PROCEEDINGS

8.1 Has Magna IV been involved with any legal proceedings, and or lawsuits in the last 3 years?

- No.

9. STATEMENT OF QUALIFICAIONS

STATEMENT OF **QUALIFICATIONS**

MAGNA IV ENGINEERING

Kelly Butz, P.Eng., B.Mgmt.
Chief Executive Officer
kbutz@magnaiv.com

Donald Orbin
Director of Operations
dorbin@magnaiv.com

Nam Le
Senior Proposal Manager
nle@magnaiv.com

PREPARED FOR:

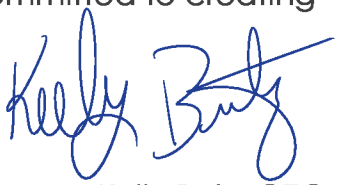
CITY OF Grand Junction COLORADO

01-2019

It goes far beyond testing a breaker, repairing a bushing, creating an engineering design, or configuring an automation system.

It's not just about the end result, but every step along the way.

That's why from our front lines back to our offices and at all connecting points in between, we are committed to creating superior client experiences.



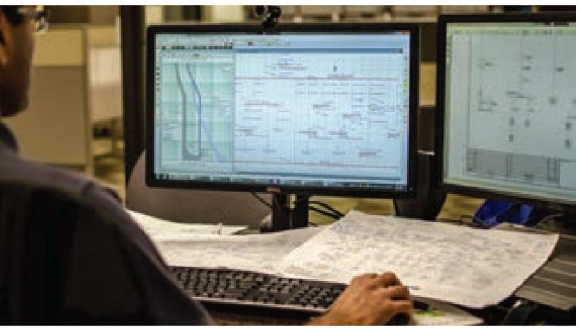
- Kelly Butz, CEO

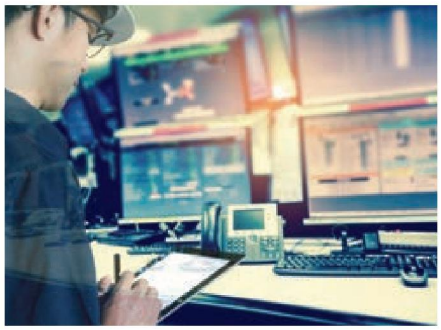
TABLE OF **CONTENTS**

EXECUTIVE **SUMMARY**

Magna IV Engineering is a power & automation solutions provider, founded in 1982. We are specialists in Electrical Engineering, Automation Solutions, and Technical Field Services.

Our focus and robust team composition enables us to deliver superior client experiences across a host of industry segments. Some of our clients have been seeking our expertise for more than 35 years.





☑ **Power Generation** ☑ **Utilities** ☑ **Renewables** ☑ **Oil & Gas** ☑ **Refineries**
☑ **Pipelines** ☑ **Mining** ☑ **Manufacturing** ☑ **Commercial** ☑ **Forestry** ☑ **Water / Waste**

Providing electrical expertise with exceptional service is something that we take pride in everywhere we do business. This has allowed us to expand from our head office in Edmonton, Alberta, into numerous markets across North and South America, with a diverse portfolio of projects. We anticipate continued growth throughout Canada, the United States and Chile, as we continue to create superior client experiences. We are here to add value to your power and automation systems.

OUR POWER & AUTOMATION SOLUTIONS

- FEASIBILITY STUDIES AND PRELIMINARY ENGINEERING
- DETAILED DESIGN FOR POWER AND AUTOMATION SYSTEMS
- OWNER'S ENGINEER AND PROJECT MANAGEMENT
- POWER SYSTEMS STUDIES, ARC FLASH ANALYSIS AND INCIDENT INVESTIGATION
- HIGH VOLTAGE SUBSTATION DESIGN, PROCUREMENT, AND CONSTRUCTION MANAGEMENT
- ACCEPTANCE TESTING AND COMMISSIONING FOR POWER AND AUTOMATION SYSTEMS
- MAINTENANCE OF ELECTRICAL POWER EQUIPMENT TO NETA® STANDARDS
- PROTECTION RELAY UPGRADES, PROGRAMMING, TESTING AND TROUBLESHOOTING
- SWITCHGEAR MODERNIZATION AND SWITCHING DEVICE REMANUFACTURING
- SWITCHING OPERATIONS OF SUBSTATIONS AND GENERATORS
- OPERATOR AND PERSONNEL SAFETY TRAINING

OUR **VISION**

To be the world's **most trusted** power and automation solutions provider.

OUR **MISSION**

We create superior **client experiences.**

OUR **VALUES**

Safety Integrity **Collaboration** Accountability Personal Growth **Entrepreneurship**

Safety is ingrained in everything we do. We do the right thing, and we do what we say. We are easy to work with, as a team, and we enjoy what we do. We are all responsible for achieving results. We are a learning organization, rich in talent, knowledge, and expertise. We are proactive, innovative, and change-driven.

MAGNA IV ENGINEERING

TRUSTED SOLUTIONS. **SUPERIOR CLIENT EXPERIENCES.**

AT A **GLANCE**

Over 450,000 effort hours of annual capacity for power and automation solutions. Engineering, Integration, and Technical Field Services.

We complete over 1,000 small, medium, and large projects per year on average, which is ideal for industry cycles.

We are highly trusted by many renowned companies. We have completed between 500 and 1,000 projects for each of these notable companies: Imperial Oil, Suncor Energy, Husky Energy, Pembina Pipeline, TransCanada, NOVA Chemicals.

Project management and efficient execution experience in power and automation projects across North and Latin America.

SINGLE SOURCE SOLUTIONS FOR **POWER & AUTOMATION**

Magna IV Engineering is a single-source provider of power and automation solutions. We manage project scope through the entire life cycle: Pre-FEED, FEED, detailed design, execution, commissioning, maintenance and operational support. We offer our clients lower risk, a clear cost structure, on-time execution and increased project certainty.

Recent significant developments in power and automation technology enable much tighter integration between what were once considered disparate systems. Interconnectivity, remote access, realtime information and reporting provide unprecedented opportunity for improvement to safety, reliability, and return on investment. The experience and expertise we have amassed as the technology has developed uniquely positions us to offer comprehensive services across the complete scope of power and automation.

Our integrated-project-team approach promotes a natural synergy that can reduce the time required in complicated projects involving different technologies; from power and energy management, to SCADA, IT, communications and asset management. Our technologists and technicians in the field work closely with our engineers to shorten the time required to solve complicated problems for our clients. Conversely, our engineers have access to field experts with hands-on experience, which reinforces our capability to provide solutions that are real-world practical.

YOUR TEAM OF **ELECTRICAL EXPERTS**

Magna IV Engineering has a team of over 50 engineering personnel and more than 120 field service technologists and technicians available for project execution. The table below illustrates our technical and operations personnel (not including support or administrative staff).

TECHNICAL RESOURCE CATEGORY	PERSONNEL
NETA Level II	25
NETA Level III	19
NETA Level IV	25
Specialist Field Service Tech / Project Manager	41
Senior Engineer / Project Manager	19
Professional Engineer	20
Engineer in Training / Designer / Drafter	25
Automation Specialist	17

OFFICES SPANNING **NORTH AND SOUTH AMERICA**

OFFICE LOCATIONS	YEAR ESTABLISHED
Edmonton, AB	1982
Fort McMurray, AB | Calgary, AB	2008
Denver, CO, USA | Santiago, Chile	2010
Saskatoon, SK	2012
Vancouver, BC	2013
Houston, TX, USA	2016
Grande Prairie, AB	2017

SAFETY IS **INGRAINED IN EVERYTHING WE DO**

Magna IV Engineering is committed to safety, loss prevention, and environmental programs that protect personnel, property, the environment, and the public from safety and environmental incidents.

Our employees at every level, including management, are responsible and held accountable for the company's overall safety and environmental initiatives. Management actively supports coordination of safety and environmental protection among all our workers on job sites.

All employees are required to participate in our safety program, while proper equipment, training, and procedures are provided for every job task. Employees are responsible for following all procedures for working safely and wherever possible, improving safety and environmental protection measures.

An injury and incident free workplace is our goal. We accomplish this through continuous effort and loss control.

0.0 Average lost time injuries (LTI), 2011-2019.

COMMITTED TO **ENVIRONMENTAL SUSTAINABILITY**

We give preference to products we use or specify that minimally impact the environment; that are made of recycled, renewable material and are energy-efficient.

When our activities may affect the local animal or plant population, or habitat, we implement plans to eliminate or minimize our impact. We use an efficient material management system to limit consumption, material waste, and disposal. We take measures to conserve water and energy whenever possible with our equipment and supplies.

WE ARE NETA **ACCREDITED**

As a long-standing NETA (InterNational Electrical Testing Association) member and accredited company, Magna IV Engineering is committed to advancing industry standards for power system installation and maintenance to ensure the highest level of reliability and safety.

THIRD-PARTY, INDEPENDENT TESTING

As a NETA Accredited company, Magna IV Engineering is an independent electrical power system testing service provider. We are divested of competing service or manufacturing interests. As third-party auditors, we provide unbiased electrical testing results while ensuring accurate testing and reporting; never influenced by conflicting factors involved with budgeting, installation, or product manufacturing.

OUR **AFFILIATES**

All of our work is performed in accordance with these standard setting bodies where applicable.

ENGINEERING **ASSOCIATIONS**

We are proud to participate with these professional engineering associations:

ACEC | Canada

ANNUAL UNITED WAY FUND RAISING CAMPAIGN

Magna has been a proud supporter of the United Way since 1996. In this time we have raised over $350,000 with our employees who support our annual campaigns. The United Way is an organization committed to making a real and lasting difference in our local communities, which aligns with our values and has led to a successful partnership.

ENGINEERING CHALLENGE, DAY OF CARING

We participate in this annual event organized by the United Way, by sponsoring members of our team to participate in a community building project. Over the past few years, our team has helped to with projects at the Operation Friendship Society for Seniors, KARA Foundation for kids, a YWCA camp, Northstar low income housing and Youth Empowerment Support Services.

WILD FIRE RELIEF

We are proud of our team that raised $28,958 in 2016 (including a matching donation from Magna), for the Red Cross relief efforts in Northern Alberta.

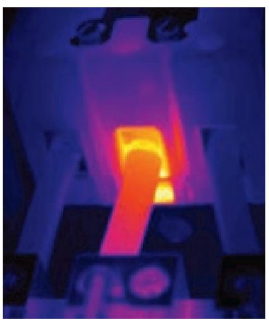
SANTAS ANONYMOUS, COATS FOR KIDS AND FAMILIES, FOOD BANK

Every year, our offices collect items to help those in need in our community.

POWER SOLUTIONS











Power Systems Scope Management

We manage project scope through the entire life cycle: Pre-FEED, FEED, detailed design, execution, commissioning, maintenance, and operational support.

- System analysis, engineering design, upgrades and retrofits
- Testing and commissioning
- Project management
- Vendor and cross functional team management
- Supply chain management
- Construction and third party supervision
- Document control

24hrs Disaster Recovery & 24-hour On Call Support

Single Source Power Systems Solutions

Magna IV Engineering is equipped to design, implement and commission your electrical equipment, plant-wide power distribution, protection and controls, and to act as your Main Electrical Contractor (MEC).

☑ Power Generation ☑ Utilities ☑ Renewables ☑ Oil & Gas ☑ Refineries
☑ Pipelines ☑ Mining ☑ Manufacturing ☑ Forestry ☑ Water/Waste

Electrical Engineering & Technical Field Services

- Design of high, medium and low voltage power distribution systems
- Renewable power systems and utility interconnection consulting
- Power systems studies and analysis
- Substation engineering, automation, Event Historian and reporting
- Protection and controls system design and commissioning
- Electrical Control and Monitoring Systems (ECMS) and SCADA
- Multi-generator control, utility transfer and load shedding schemes
- Control room, e-house and operator console design
- Urban development electrical design and lighting studies
- Testing and commissioning of high, medium and low voltage electrical equipment to NETA® standards
- Reliability assessment through maintenance testing and engineering analysis of electrical apparatus, switchgear and motors
- Switchgear modernization and switching device remanufacturing
- Infrared thermography, insulating fluid analysis and reporting

05-2019

ELECTRICAL ENGINEERING | AUTOMATION SOLUTIONS | TECHNICAL FIELD SERVICES

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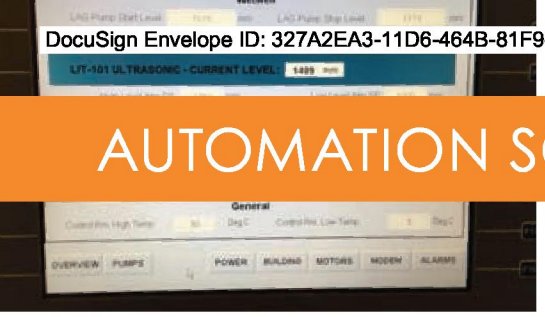
MAGNA IV ENGINEERING

TRUSTED SOLUTIONS. **SUPERIOR CLIENT EXPERIENCES.**

AUTOMATION SOLUTIONS











Automation Scope Management

We manage project scope through the entire life cycle: Pre-FEED, FEED, detailed design, execution, commissioning, maintenance, and operational support.

- » Project management
- » Vendor and cross functional team management
- » Supply chain management
- » Construction and third party supervision
- » System analysis, upgrades, and retrofits
- » Commissioning
- » Document control
- » Vendor neutral systems integration

24hrs **Disaster Recovery & 24-hour On Call Support**

Single Source Automation Solutions

Magna IV Engineering is equipped to design, implement and commission your application from standalone machine controls to plant-wide systems as your Main Automation Contractor (MAC).

☑ Oil & Gas ☑ Refineries ☑ Pipelines ☑ Power Generation ☑ Renewables
☑ Mining ☑ Forestry ☑ Water/Waste ☑ Manufacturing ☑ Utilities

Engineering and Implementation Services

- » Turnkey machine level controls and automation
- » Discrete, continuous and batch process applications
- » DCS, PLC, motor control, process simulation, operator training
- » HMI, SCADA, PI-Historian, Plant Event Historian (PEH), Reporting
- » Industrial Safety & Emergency Shutdown Systems and HAZOP Support
- » Instrumentation, Reliability, Industrial Internet of Things (IIoT)
- » Network Design & Security, DMZ, Virtualization, Enterprise Architecture
- » VLAN, WAN, CCTV, VOIP, Access Control, Fire Detection/Suppression
- » Asset Management including movable equipment and personnel tracking
- » Electrical Control and Monitoring Systems (ECMS)
- » Renewable power and control SCADA systems
- » Substation protection and controls automation
- » Multi-generator and utility transfer schemes control
- » Control room, e-house and operator console design

05-2019

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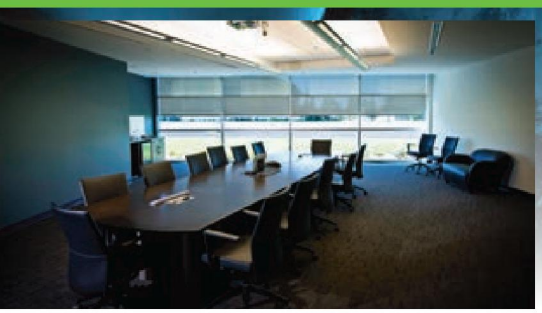
MAGNA IV ENGINEERING

TRUSTED SOLUTIONS. **SUPERIOR CLIENT EXPERIENCES.**

OUR LOCATIONS



Canada

Edmonton (Corporate)

1103 Parsons Rd. SW
Edmonton, AB T6X 0X2

780.462.3111
780.462.9799

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engineering@magnaiv.com
fieldservices@magnaiv.com

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403723.0580

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Burnaby, BC V5A 0C6

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604.421.8019

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info.fmcmurray@magnaiv.com

Grande Prairie

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303.790.4816

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fieldservices.chile@magnaiv.com

Concepción

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Concepción, Región del Bío-Bío

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05-2019

ELECTRICAL
ENGINEERING

AUTOMATION
SOLUTIONS

TECHNICAL FIELD
SERVICES

10. MAGNA IV PERSONNEL RESUMES

DONALD ORBIN

MAGNA IV ENGINEERING

HIGHLIGHTS

- Over 25 years of international experience managing high voltage transmission and distribution projects
- Major player in program management, project management, multi-disciplinary engineering management, construction execution, project engineering
- Experience with HVDC, outdoor substations, GIS substations, overhead transmission lines, and underground cables
- Hands-on roles in regulatory approval, procurement, execution, budgets, and schedules

EDUCATION

University of Natal, (Durban, South Africa)
Bachelor of Science in Electrical Engineering

TOP PROJECTS

PG&E'S MAJOR GREENFIELD PORTFOLIO

- Engineering Manager
  - Managed 8 projects worth $2 billion
  - Conceptual designs, detailed designs, as-built stage
  - Overhead transmission lines, underground cables, telecommunications, AIS substations, GIS substations

WESTERN ALBERTA TRANSMISSION LINE HVDC

- Senior Management
  - Integrated 1,000 MW, 500 kV HVDC monopole link into the network including construction of a new 500 kV HVDC/AC substation and interface with 500 kV HVDC converter station and switchyard
  - Construction of new 500 kV substation
  - Expanded 240 kV substation by 3 x 240 kV diameters
  - Upgraded bus capacity of busbars and northern diameter of 102S to cater for future expansion of diameters
  - Re-termed 240 kV

HEARTLAND TRANSMISSION PROJECT

- Engineering Manager
  - Constructed 1,200 MW (3 x 400 MVA single phase) 500/240 kV autotransformer bank, 4 x 500 kV and 3 x 240 kV circuit breakers
  - Added 2 x 500 kV circuit breakers, protection, SCADA, telecom
  - 500 kV GIL
  - Conditioned for temperature range from -58˚F to 104˚F
  - Integrated 500 kV into substation

- Added two bays for 500 kV AC circuits, SCADA, and telecommunications

POWER NETWORK DEVELOPMENT IN AL MASHTEL PALACE

» Senior Project Engineer
- Loop-in-loop-out of four 132 kV cable works
- Connected 132/22 kV substation to grid station and new airport primary substation
- Designed 11.5 m below ground level

MAHAWI NETWORK

» Senior Project Engineer
- 132 kV cable connections for 400/132 kV single, double, and triple 132 kV cable circuits
- Expanded scope for cables to be laid in underground tunnels each containing up to 8 circuits

WORK HISTORY

2017 – Present
Magna IV Engineering (Calgary, AB, CAN)
Program Manager

2016 – 2017
Burns & McDonnell (CA, USA)
Senior Project Manager

2011 – 2016
SNC Lavalin (Calgary, AB, CAN)
Director of Engineering

2008 – 2016
Lahmeyer International, Gmbh (Abu Dhabi)
Senior Project Engineer

2003 – 2008
Space Age Consultants (Durban, South Africa)
Director

1995 – 2003
Durban Electricity (location)
Principle Planning Project Engineer

MAGNA IV ENGINEERING

TRUSTED SOLUTIONS. **SUPERIOR CLIENT EXPERIENCES.**

RESUME

Ryan Lorenz, PE

HIGHLIGHTS	
▪ More than 8 years of electrical engineering experience for heavy industry ▪ Calculation experience includes load demand, circuit calculations and electrical service sizing ▪ Power studies including short circuit, coordination, load flow, arc flash, & Motor Starting	▪ Experience working with system voltages from 5-10V weight scale systems, 24V 4-20mA transmitters and process control equipment, and 120VAC/480VAC up to 69kV distribution and equipment ▪ Electrical protection setting development

EDUCATION

Metropolitan State College of Denver (Denver, CO)
Bachelor of Science, Electrical Engineering

PROFESSIONAL REGISTRATIONS

- PE – CO, #53413
- PE – TX, # 137903

PROFESSIONAL DEVELOPMENT

- AutoCAD Electrical 2012 training certificate
- UL 508A and SCCR training certification
- RSTeched 2014
- Hazardous Location training
- UL 508A knowledge training course certificate
- NETA Level 2

WORK HISTORY

2014 – Present
Magna IV Engineering (Denver, CO)
Electrical Engineer

- Design and draft electrical wiring diagrams, schematics, one-line diagrams, and size equipment for low and medium voltage industrial systems.
- Perform short circuit calculations, electrical service sizing, load demand calculations, lighting calculations, generator sizing, and voltage drop calculations.
- Study and comply with National Electric code, NFPA standards, IEEE standards, customer specifications, and OSHA regulations.
- Develop project electrical specifications.
- Preform short circuit, coordination, load flow, arc flash, & motor starting studies using computer based software. Assemble report to analyze findings and develop any recommendations for the power system.
- Preform construction site services for industrial clients. Including; submittals reviews, request for information (RFI's), change order requests, and site visits.
- Develop low and medium voltage electrical protection settings for relays and equipment with programmable trip units.
- Provide scope, cost, and man hour feedback for project proposals.
- Assist field service department for onsite electrical service, maintenance, and testing. Including; general switch maintenance/cleaning and contact resistance testing, current

transformer ratio, excitation, and winding resistance, Circuit breaker insulation resistance and vacuum integrity testing.

2009 – 2014
ADA Environmental Solutions (Highlands Ranch, CO)
Systems Electrical Engineer II

- Design and draft electrical wiring diagrams, schematics, one-line diagrams, and size equipment for industrial control panels and skid equipment for hazardous and non-hazardous locations
- Work closely with proposal department on customer specification review, preliminary pricing, and coordination in order to competitively bring in work
- Program PLC system ladder logic, HMI controls, and VFD setup
- Study and comply with National Electric code, UL code, CSA code, and customer specifications and requirements
- Coordinate product purchasing in order to receive materials for product completion including creating bill of materials and panel layout design
- Work closely with UL 508A panel shop and field electricians to ensure project components are constructed and installed per electrical drawings and resolve any discrepancies
- Perform system start-ups, calibrations, and factory authorized testing, point-to-point checks on new/retrofit system installations

2007 – 2009
Hajji and Associates (Denver, CO)
Electrical Engineer

- Design and draft low voltage electrical systems for various projects throughout the Denver Metro area
- Perform short circuit calculations, electrical service sizing, and load demand calculations
- Work closely with city building departments, building engineers, architects, and engineers in other disciplines for project coordination
- Study and comply with the National Electric Code, International Energy Conservation Code, city amendments, and utility requirements

2007
The Children's Hospital (Aurora, CO)
Planning Department

- Data mining and acquisition in order to populate a database
- Familiarize myself with electrical schematic drawings, submittals, operation and maintenance manuals, AutoCAD drawings and equipment functionality
- Represent hospital during inspections and start-ups to ensure all requirements are met

ROCKY GARCIA, P.Eng.

MAGNA IV ENGINEERING

EDUCATION

University of Alberta, (Edmonton, AB)
Bachelor of Science in Electrical Engineering

PROFESSIONAL DEVELOPMENT

» APEGA – Association of Professional Engineers and Geoscientists of Alberta

WORK HISTORY

2020 – Present
Magna IV Engineering (Denver, CO)
Senior Engineer

2008 – 2020
Magna IV Engineering (Edmonton, AB)
Project Engineer, Industrial & Materials Handling

PROJECT EXPERIENCE

» **CNRL Horizon** (Wood Buffalo, AB)
  - LV MCC Commissioning
    - Performed testing of LV MCC in modyard and on site.
    - Programmed, addressed and tested E3+ relays, SE-330 on devicenet network
    - Loop check signal back to DCS, function tested control circuits and motors on skid
    - Developed RFIs, verified wiring as per engineered drawings, created punch list for contractor to resolve.

» **Fort Hills Site Wide Switching Orders** (Fort Hills, Wood Buffalo, AB)
  - Reviewed switching orders for field crews prior to energization
  - Reviewed AF Study and incident energy levels and incorporated recommendations in switching orders throughout site

» **Lehigh Cement E&I Commissioning** (Edmonton, AB)
  - Electrical and Controls Commissioning
    - Setup and configured communication networks (fiber optic, profibus-dp)
    - Loop and function checks for motors and instrumentation
    - Configured Hart devices and miscellaneous instrumentation
    - Verified proper installation
    - Produced redlines as required
    - Worked on behalf of client to manage changes and direct construction contractor
    - Supported third party vendors on site
    - Engineering support
    - Site Lead maintained daily LEM and budget.
    - Coordinated manpower requirements on site and attend multidiscipline meetings

    - Reported daily progress on site for I/O and motors checked
    - Issued RFIs to client engineering
    - Developed switching orders for system energization
- **Cullen Diesel Kelowna Hospital Generator Switchgear Upgrade** (Kelowna, BC)
    - Electrical and control design for three parallel generators
    - Panel wiring and control system design for paralleling gensets to common switchgear bus
    - Re-used two existing gensets and design controls with new hardware
- **Bunge Canada Centrifuge and Seeds Bin Sweep Upgrade** (Fort Saskatchewan)
    - Electrical engineering design retrofit new MCC buckets into existing Unitrol MCC, size cables and recommendations to integrate new equipment to existing control system.
    - New VFD package review
    - Control system design, interconnection and loop drawings for PLC and Remote I/O panels
- **Conifex Sawmill Load Flow and Short Circuit Study (Mackenzie, BC)**
    - Developed load flow study in ETAP
    - Recommendations on power system expansion for new gang area
    - Reviewed existing arc flash study and recommendations to decrease existing arc flash levels
    - Developed new single line diagram for new area expansion based on recommendations
- **AT Films Troubleshooting VFD Breakdown** (Edmonton, AB)
    - Site inspection and troubleshooting of damaged VFD
    - Replaced VFD
    - Re-programming of new VFD
    - Performed auto tuning for operation with encoder
- **Agrium Temporary Storage Conveyor Skid** (Potash Mine, Vanscoy, SK)
    - Engineering, supply and commissioning of electrical sled
        - Project Manager
        - Design of electrical sled and PLC Cabinet (loop diagrams, electrical schematic, skid design, installation details, Bill of Materials)
        - Procurement of all electrical, control and instrumentation equipment
        - Control philosophy
        - Programming of Allen Bradley CompactLogix PLC
        - Programming of Allen Bradley Powerflex 700 VFD
        - Start-up and commissioning of conveyor system
- **Radomiro Tomic RMT7** (Copper Mine, Chile)
    - Conveyor Design for CV-206 and CV-207
        - Instrumentation Lead Engineer
        - PLC and communication cabinets design (Schneider Modicon Quantum)
        - Network design (ethernet, modbus, devicenet, fiber optic)
        - Logic diagrams
        - Raceway and instrument placement
        - Schematics and loop diagrams
        - Junction box design
        - Cable schedules
        - Cable block diagrams

  - Procurement of all control equipment and instrumentation
  - Internal factory acceptance testing for PLC Panels
  - Site support in the office for commissioning crew
- **Quebrada Blanca** (Copper Mine, Chile)
  - Pre-feasibility study for conveyor system
  - Preliminary design of electrical equipment and electrical houses
  - E&I cost estimations and material quotations (Multi-Million $USD Project)
- **ATCO Pipelines** (Fort Saskatchewan, AB)
  - Crew Leader
  - Replaced electromechanical relay protection on incoming 4160V section with a new Multilin F650 relay.
  - Responsible for the drawings, installation and programming of the relay
- **Radomiro Tomic Sulfurus RT Phase 1** (Copper Mine, Chile)
  - Ore crushing and conveying system
    - Electrical system design MV Switchgear and LV Smart MCCs
    - Electrical room design
    - PLC panel design (Schneider Modicon Quantum PLC)
    - Electrical schematics and loop diagrams
    - Raceway and grounding design
    - Lighting design

      Document and manuals in English and Spanish

KEVIN HALMA, P.Eng.

MAGNA IV ENGINEERING

EDUCATION

University of Alberta (Edmonton, AB)
BSc. In Electrical Engineering

PROFESSIONAL DEVELOPMENT

- InterNational Electrical Testing Association (NETA), Level III
- APEGA P. Eng

WORK HISTORY

2017 – Present
Magna IV Engineering (Denver, CO)
Field Service Client Manager

2014 – 2017
Magna IV Engineering (Edmonton, AB)
Field Service Engineer II

2010 – 2013
McGregor Construction 2000 Ltd. (Edmonton, AB)
Project Assistant

PROJECT EXPERIENCE

- **Beta Engineering – Cleveland Cliffs Toledo HBI Project** (Toledo, OH)
  - 138kV Substation Commissioning
    - Project managed all testing and commissioning activities for 138kV substation and interface with utility.
- **Metro Waste - Water Reclamation District** (Denver, CO)
  - 13.2kV/480V Maintenance
    - Project managed NETA maintenance testing activities of medium and low voltage electrical distribution equipment including circuit breakers, disconnect switches, transformers, switchgear and bus, and protective relays.
- **Siemens – Minnesota Power North Shore Project** (Silver Bay, MN)
  - 25kV Statcom Equipment Commissioning
    - Project managed acceptance testing for a Siemens statcom installation including outdoor equipment (25kV), Auxiliary systems (120V, 480V) and protection and control.
- **Tri-State Generation Burlington Station** (Burlington, CO)
  - Protective Relay Upgrades and Commissioning
    - Project manager oversaw installation and commissioning of upgraded micro-processor-based protection panels for (2) 50MW utility generator, GSU transformer, and associated equipment
    - Trouble shot issues by integrating new wiring into existing wiring
    - Initial energization / start-up of generating unit involving troubleshooting and generator capability testing

- **Xcel Hayden Generating Station** (Hayden, CO)
  - 22kV/345kV 306MVA GSU Transformer Commissioning
    - NETA Acceptance testing of high (345kV) voltage GSU Transformer including all associated ancillary devices
- **Middle Fork Compressor Station** (Parachute, CO)
  - 230kV / 5kV / 480V Maintenance
    - Project managed NETA maintenance testing activities for high (230KV) voltage electrical apparatus and protective relaying and controls including: oil-filled power transformers, manual disconnect switches, SF6/vacuum circuit breakers, motor starters, motors, and microprocessor-based relaying
    - Coordinated and performed overhaul of On-Load Tap Changers for multiple units
    - Completed post job reports and test documentation
- **Suncor Energy Forthills** (Fort McMurray, AB)
  - 34.5kV / 13.8kV / 4160V / 600V Commissioning
    - Project managed NETA acceptance testing activities for medium (4160V/13.8kV) and low (480V) voltage electrical apparatus and protective relaying and controls including: oil-filled power transformers, vacuum circuit breakers, motor starters, motors, and microprocessor-based relaying
    - Managed team of 25 technicians and test engineers at peak of project
    - Created and discussed RFI's with Client engineering team, suggested and implemented practical solutions
    - Initial energization of plant equipment including switchgears, transformers, VFDs and motors
    - Commissioning of medium voltage (34.5/13.8/4.16kV) electrical apparatus and protective device including: 34.5kV Gas Insulated Switchgear, oil-filled power transformers, vacuum circuit breakers, motor starters, motors, and microprocessor-based relaying
- **ATCO Livock Substation** (Wabasca, AB)
  - 240kV / 144kV / 25kV Construction and QC
    - Assisted with all aspects of substation construction for high (144kV/230kV) and medium (25kV) voltage electrical apparatus including: oil-filled power transformers, SF6 circuit breakers, disconnect switches (MOD, manual), CVTs, and CTs

      Performed construction of QA/QC checks on above mentioned equipment

DARIN DRISNER, P.Eng.

MAGNA IV ENGINEERING

DARIN DRISNER

HIGHLIGHTS

- Integrated Project Delivery (IPD)
- Power Distribution Design
- Industrial Troubleshooting
- Control Systems Design
- Utility Design Coordination
- Roadway, Exterior, Interior Lighting Design
- Specializing in Municipal Projects

EDUCATION

University of Alberta, (Edmonton, AB)
Bachelor of Science, Electrical Engineering, 2011

CEGEP Heritage College, (Gatineau, QC)
Electronics Engineering Technology, 2006

PROFESSIONAL AFFILIATIONS

The Association of Professional Engineers and Geoscientists of Alberta (APEGA)
Member – Professional Engineer

Illuminating Engineering Society (IES)
Member

WORK EXPERIENCE

2017 – Present
Magna IV Engineering (Edmonton, AB)
Infrastructure and Utilities Team Lead

2014 – 2017
Magna IV Engineering (Edmonton, AB)
Infrastructure Team Lead

2011 – 2014
Magna IV Engineering (Edmonton, AB)
Project Engineer

April 2006 – May 2011
Muth Electrical Management (Edmonton, AB)
Electrical Apprentice

May 2003 – Dec 2006
Valley Automation and Control (Renfrew, ON)
Electronics Technologist – Industrial Automation

DarinDrisner

SPECIALIZATION

- Integrated Project Delivery (IPD)
- Project Management
- Electrical Power Distribution and Emergency Power Planning
- Control System Design
- Inspections and Commissioning
- Green Building Design, Solar Power, LED and smart control Lighting Design
- Coordination with Utilities for new and Upgraded Services
- Roadway & Highway Lighting Design
- AutoCAD suite, 3D Drafting
- AGi32 Lighting Design Software

PROJECT EXPERIENCE

- **Water and Wastewater Facilities**
  - EPCOR Water Electrical Asset Reliability Assessment
  - Drayton Valley Raw Water Pump Station (IPD)
  - Hinton Water Treatment Plant
  - Three Hills Water Treatment Plant
  - Drayton Valley Water Treatment Plant
  - St. Albert Jensen Lakes SE Storm Water Lift Station
  - St. Albert Jensen Lakes Temporary Sanitary Lift Station
  - Gold Bar WWTP Secondary 4 Structural Rebab
  - Gold Bar WWTP Digester 3 Upgrades
  - Gold Bar WWTP WWF Diversion Structure Rehab
  - Gold Bar WWTP 1250kW Generator
  - Peace River Lift Stations #1
  - Cold Lake Sanitary Lift Station Refurbishment
  - Janvier Sanitary Level Monitoring
  - Gibbons Sanitary Lift Station
  - Two Hills Reservoir and Pump House
  - Strathcona County Centennial Wetlands Storm Water Management Facility
  - CoE Eastgate Lift Station Upgrades
  - CoE Big Lakes Lift Station
  - CoE SE Sanitary Lift Station (SESS SA10a)
  - CoE Mistatim Lift Station
  - CoE Belgravia Solar Powered Level Monitoring Station
  - CoE Ekota Dry Pond Flood Mitigation LMS
  - CoE Duggan Dry Pond Flood Mitigation LMS
  - CoE Tawa Dry Pond Flood Mitigation LMS
  - CoE Carlton RTC
  - CoE Riverbend Lift Station Upgrades
  - CoE Raylo Beverly Bridge Pump Station Upgrades

DarinDrisner

- RMWB South East Supply Line (40km water transmission line)
- EPCOR Mill Woods Reservoir Electrical Upgrades 2013
- EPCOR Castledowns Reservoir Electrical Upgrades 2014
- EPCOR Terwillegar Booster Station Electrical Upgrades 2015
- EPCOR Rossdale WTP Reservoir Access Pump House Electrical Upgrades 2016
- EPCOR Kaskitayo Reservoir Electrical Upgrades 2017
- EPCOR Burnewood Booster Station Electrical Upgrades 2018
- EPCOR EL Smith MCC 42.1 Electrical Upgrade 2018
- New Norway Reservoir
- Westlock Water Treatment Plant Upgrade
- ACRWC St. Albert Pump Station

» **Lighting and Signals Project**

- NE Anthony Henday Dr P3 Proposal
- Hwy 28 Redwater Project A
- Sylvan Lake Lakeshore Drive Revitalization
- Jct. Hwy 43 and Hwy 2
- Hwy 625 in Nisku, AB
- Jct. Hwy 36 and Hwy 45 near Duvernay
- CoE Illumination Study
- Anthony Henday Drive Connector Program
- Jct. Hwy 63 and Syncrude Heavy Haul Road
- Alstrom 230kV E-House Lighting
- EPCOR Gold Bar Wastewater Treatment Plant North Avenue LED Lighting
- EPCOR Ostara Nutrient Removal Facility LED Lighting

» **Institution Projects**

- EWMC West Ground Water Drainage Restoration
- Edmonton Max Security Prison Upgrades
- Fort McMurray Landfill
- Misericordia Hospital parking lots
- McCauley Canada Post Utility Removal

» **Commercial Building Projects**

- Icon Towers
- Eagle Ridge Condominiums
- SEESA Senior Activity Center Renovation
- Industrial Projects
- Agrium Seepage Pump House #3
- Honeywell Nylon
- Times Fiber Canada Ltd.
- Timminco Metals
- Beaumen Waste Management
- Kember Kreative Floors
- USS Manufacturing

GORDON CROSS, P.Eng., PMP

MAGNA IV ENGINEERING

GORDON CROSS

HIGHLIGHTS

- Project Manager and Design Engineer
- 17 years of electrical experience
- Field experience as engineer and electrical technologist
- Water / Wastewater Design Experience
- Materials handling and mining experience
- Power System design and studies experience
- Transformer Dissolved Gas Analysis experience
- Harmonic Studies

EDUCATION

University of Alberta, (Edmonton, AB)
B.Sc. Degree in Electrical Engineering, 2008

- Graduated with Distinction
- Elective courses in Power Systems, Motors, Drives, and Reliability

Northern Alberta Institute of Technology, (Edmonton, AB)
Diploma in Electrical Engineering Technology, 2003

- Graduated with Honors
- Louise McKinney scholarship recipient (top standing in program)

PROFESSIONAL ASSOCIATIONS

- APEGA – Association of Professional Engineers and Geoscientists of Alberta
- PMI – Project Management Institute

SPECIALIZATION

- Project management
- Preparing estimates and budgets
- Working with clients and subcontractors
- Negotiations with suppliers
- Preparation, reviewing, and managing of engineered designs and drawings
- Technical Skills include:
  - Detailed design
  - Electrical Power and Instrumentation systems for Mining Facilities, Water Management Facilities, Commercial Facilities, and Industrial Facilities.
  - Standby generator design
  - VFD applications
  - MV and LV portable electrical buildings
- Factory Acceptance Testing

- Power system studies (Short Circuit, Coordination and Arc Flash)
- Transformer oil dissolved gas analysis
- Electrical maintenance
- Harmonics Investigations

WORK EXPERIENCE

2019 – Present
Magna IV Engineering (Edmonton, AB)
Senior Engineer / Project Manager

2019 (February - August)
Magna IV Engineering (Edmonton, AB)
Senior Engineer / Imperial Oil Kearl Lake Reliability Team (6-month assignment)

2015 – 2019
Magna IV Engineering (Edmonton, AB)
Material Handling Team Lead / Senior Project Manager

2009 – 2015
Magna IV Engineering (Edmonton, AB)
Electrical Engineer / Project Manager

2008 – 2009
ReLumen Engineering (Edmonton AB)
Electrical Engineer / Project Manager

2005 – 2007 (Part-Time)
Magna IV Engineering (Edmonton AB)
Power Systems Studies - Engineer-in-Training

2003 – 2005
Magna IV Engineering (Edmonton AB)
Electrical Engineering Technologist

2002
Tracer Industries Canada (Edmonton AB)
Electrical Heat Trace Designer

PROJECT EXPERIENCE

Kearl Lake – Plant Electrical Reliability Project (Athabasca Region, Alberta)
Plant Electrical Reliability Support

- Site Engineer working with plant operations
- Identifying and documenting critical spare equipment.
- Providing engineering support to plant maintenance and operations teams.

Fort Hills – OPP PLC Commissioning (Athabasca Region, Alberta)
Ore Preparation Plant PLC Commissioning

- Project Manager for PLC Support Team
- Create/manage a team for commissioning Rockwell PlantPAX System.

Roxborough Water Treatment Plant (Roxborough, Colorado)
New Water Treatment Plant
- » Lead Control System Engineer
- » Communications and Control System Design
- » Interfacing with Power System Engineering Team.

Radomiro Tomic (Copper Mine, Chile)
Conveyor System Expansion and Hopper Car Project
- » Project Manager and Electrical Engineer
- » Cost and Schedule Control for Electrical, Controls, Programming and Commissioning
- » Power System Design
- » Raceway & Grounding Design
- » Portable E-house and E& I Equipment Procurement Management

Peñasquito (Gold Mine, Mexico)
Conveyor System Expansion Project
- » Project Manager and Interim Electrical Lead Engineer
- » Cost and Schedule Control for Electrical, Controls, and Programming
- » Power System Design
- » Raceway & Grounding Design
- » Delivery of SRC Cabinets for Motor Control

Lomas Bayas (Copper Mine, Chile)
New Crusher / Conveyor Project
- » Project Electrical Lead Engineer
- » Power System Design
- » Raceway & Grounding Design

Escondida Ore Access (Copper Mine, Chile)
Conveyor System Expansion Project
- » Project Assistant Electrical Lead Engineer
- » Preliminary Power System Design
- » Preliminary Instrumentation P&ID design for multiple conveyor system
- » E&I Cost Estimations and Material Quotations (Multi-Million $USD Project)
- » Technical reviews and FAT's for major electrical equipment supply
- » Portable electrical house design

Alberta Capital Region Water Commission (Edmonton, AB)
Control Systems Design for Pumpstation PLC Replacement
- » Project Engineering and Construction Management

Quebrada Blanca (Copper Mine, Chile)
- » Materials Handling – Preliminary Power System Design for Feasibility Study
- » Preliminary Instrumentation P&ID design for multiple conveyor system
- » E&I Cost Estimations and Material Quotations (Multi-Million $USD Project)

BC Hydro - Lighting Energy Studies (Various Locations, BC)
- » Perform onsite lighting audit and propose new lighting systems
- » Perform energy calculations on existing and proposed system
- » Determine payback of proposed system

- Completed at the following sites:
  - Tolko – White Valley Division (Planer Mill)
  - Tolko – Armstrong division (sawmill, planer mill, plywood, co generation)
  - Tolko – Lavington Division (sawmill, planer mill)
  - Lakeland Mills Ltd – Price George (Sawmill, Planer Mill)
  - Winton Global – Prince George (Planer Mill, Finger-Joint Mill)
  - Winton Global – Hart Sawmill (Sawmill)

University of Alberta (Edmonton, AB)

- TIMMS Centre – Outdoor Lighting Upgrade
  - Project Manager (Engineering / Construction Supervision)
- Clinical Sciences Building (23,000ft² high rise)
  - Lighting Energy and Electrical Infrastructure Study

Kinder Morgan – Vancouver Wharves Terminal (North Vancouver, BC)

- Berth One, Standby Power System Project –2009
  - Design of a 2000 kW standby power system including automatic transfer scheme and automatic load shedding.
  - Create project tender drawings, specification, and control philosophy.
  - Perform site load calculations
  - Review Owner-purchased switchgear, generator, and transformer.
  - Project Management
- Liquids Ship Loading Arms –2008
  - Electrical design including intrinsically safe e-stop and ship boarding remote e-stop system.

AltaFab Structures Ltd.

- Black Diamond – Horn River Lodge (BC) – 2008 - 2009
  - Electrical and fire alarm code review
  - Fire alarm upgrade installation detail package
  - Project Management
- Keyano College Dorms – 2008
  - Conceptual design report (Electrical &Telecom)

Inuvik Satellite Station (Inuvik, N.W.T.)

- Neil Crawford Centre - 3rd Floor Lighting Upgrade Feasibility Study – 2008
  - Design power system, generator system, and prepare engineering drawings for power, data and communication systems
  - Design outdoor duct system and satellite antenna lightning and grounding system
  - Coordination with construction contractors.
  - Project Management

Alberta Infrastructure (Edmonton, AB)

- Government Centre HV System Upgrade
  - Assist electrical design
  - Drafting
  - Tender bid review
  - O&M Manual Review
- Neil Crawford Centre - 3rd Floor Lighting Upgrade Feasibility Study – 2008

- Review existing lighting
- Propose new system for pilot project; incorporating daylighting controls
- Prepare cost estimate for lighting upgrade.

» 97th Street Tunnel Lighting Upgrade Feasibility Study – 2008

- Review existing tunnel lighting system and power infrastructure.
- Explore potential lighting technologies for most practical, functional, and economic solution.
- Prepare conceptual design for new tunnel lighting system.
- Prepare cost estimate for project (Multi-million Dollar)

Infrastructure Systems Ltd. (Various, AB)

- Power System, Controls and Communication Design
- Tender Bid Review
- O&M Manual Review
  - Village of Chateh – Water System Upgrade (2004/2005)
  - City of Lloydminster West End Water Reservoir (2004/2005)
  - Driftpile Water Treatment Plant (2005)
  - Driftpile Pumphouse (2005)
  - Swan River Water Reservoir (2005)

Focus Corporation (Various, AB)

- Power System, Controls and Communication Design
- Tender Bid Review
- O&M Manual Review
  - Suncor Steepbank Mine Water Treatment Plant Upgrade (2004/2005)
  - WESS (Sewer) Liftstation in Edmonton (2004/2005)

Oxford Properties Group Inc. (Edmonton, Alberta)

- Creating Cost Estimates
- Analyzed procedures for power system upgrades
- Creating drawings to reflect proposed work
- Evaluating Switchgear Proposals

Canadian Natural Resources Limited (Primrose Alberta)

» Assist in the design of logics, controls, equipment layouts, and wiring for a 144/25 kV substation expansion

» Create many of the preliminary, and construction drawings

» In-depth three-dimensional drafting of the entire substation and related equipment

GENERAL PROJECT EXPERIENCE

Power System Studies

- System data gathering
- System modeling and studies including: Short circuit, load flow, coordination, and arc flash
- Use of SKM and ETAP programs
- Prepare results and recommendations report for clients.
- Clients include:
  - Alberta Blue Cross

- BP Global (multiple sites)
- Oxford Properties (multiple sites)
- Petro Canada(multiple sites)
- SemCAMS
- Winspear (Edmonton, AB)

Dissolved Gas Analysis

» Analysis of laboratory test results on power transformer oil samples
» Prepare results and recommendations report for clients based on analysis and transformer history
» Reports completed for various industrial and commercial sites including: Nova Chemicals, Imperial Oil, Husky Energy, Shell Canada, EnCana and many others.

Field Services, Magna IV

» General Preventative Maintenance on various power systems and equipment (including Cables, Relays, Switchgear, Transformers, H.V. Breakers and Switches)
» Equipment utilized includes: Megger, Ductor, Hipot, and various Transformer and Relay test equipment
» MV Switchgear Commissioning
» Related work in areas such as:
  - Nova Chemicals Joffre Plant
  - Bell Tower
  - Southgate Mall
  - Millwoods Town Centre
  - Red Deer College
  - West Edmonton Mall
  - ESSO Refineries (Norman Well, NWT)
  - Tolko Industries (High Prairie, AB)
  - Consort Hospital
  - Neil Crawford Centre
  - AT Plastics
  - Provident Energy
  - Various other facilities

MICHAEL MANSOUR, P. Eng.

MAGNA IV ENGINEERING

MICHAEL MANSOUR

HIGHLIGHTS

- Electrical Engineer
- 6+ years of electrical and controls experience
- Project management experience
- Design, implementation, and system integration of integrated architecture control systems
- Field experience as engineer
- PLC, HMI, SCADA, VFD, and Industrial Networks experience
- Water Treatment, Oil & Gas, Materials Handling, Mining, and Pulp & Paper experience

EDUCATION

University of Waterloo (Waterloo, ON, Canada)
Master of Applied Science, Electrical and Computer Engineering, 2013

Cairo University (Giza, Egypt)
Bachelor of Applied Science, Electronics and Telecommunications Engineering, 2011

PROFESSIONAL DEVELOPMENT

- **Association of Professional Engineers and Geoscientists of Alberta (APEGA)**
  - Member – Professional Engineer

WORK HISTORY

January 2019 – Present
Magna IV Engineering *(Edmonton, AB)*
Electrical Engineer

June 2017 – December 2018
Magna IV Engineering *(Edmonton, AB)*
Controls Systems Engineer

June 2013 – June 2017
Rockwell Automation *(Edmonton, AB)*
Field Service Support Engineer

May 2012 – December 2012
University of Waterloo (Waterloo, ON)
Teaching Assistant

September 2011 – December 2012
University of Waterloo (Waterloo, ON)
Research Assistant

WORK EXPERIENCE/SPECIALIAZATION

- Project management for electrical and control projects
- Development and management of projects' plans, budgets, and schedules
- Change management
- Design, implementation, and system integration of electrical and integrated architecture control systems
- Development and reviewing of engineered designs and drawings
- Documentation of projects' technical and administrative work
- Facilitation of product and solutions training sessions and classes for customers and peers

PROJECT EXPERIENCE

- **SCADA and Communication Networks Upgrades, Sylvan Lake AB, 2019**
  - Project Manager
    - Assessing the existing SCADA and communication networks design and specifications
    - Designing the SCADA and communication networks upgrades to enhance the overall system performance and minimize the associated risks
    - Developing a new smart control philosophy for the Town's control system to implement continuous coordination and collaborative decision-making process between all PLCs
    - Designing and implementing redundancy in the communication networks, SCADA server, and alarm system

- **South Reservoir Emergency Chlorination System, Sylvan Lake AB, 2019**
  - Project Manager
    - Managing all electrical and control activities required for the transfer of the chlorination system at the South Reservoir from chlorine gas to sodium hypochlorite
    - Reviewing the electrical and control engineering drawings
    - Modifying the PLC and Ignition programming
    - Managing the work of the electrical contractor, and inspecting and approving the quality of work
    - Developing as-built drawings for the PLC cabinet at the South Reservoir building

- **North Reservoir Electrical and Control Design, Sylvan Lake AB, 2019**
  - Controls Lead
    - Providing the engineering design for the electrical and control systems for the new North Reservoir building
    - Reviewing the design of the instrumentation and control systems
    - Designing the SCADA and communication networks systems
    - Reviewing the control philosophy and developing the communication and coordination philosophy for smart control implementation

- **Zone 2 Pump Station Commissioning and System Integration, Spruce Grove AB, 2019**
  - Project Manager
    - Developing the control philosophy for Zone 2 Pump Station

- Programming, commissioning, and start-up of the new PLC and SCADA systems
- Performing system integration between Zone and Zone 2 Pump Stations
- Developing as-built drawings for the control cabinet at Zone 2 Pump Station

» **Drayton Valley Raw Water Pump Station, Drayton Valley AB, 2019**

- Controls Lead
  - Providing the engineering design for the electrical and control systems for the new raw water pump station
  - Reviewing the design of the instrumentation and control systems
  - Designing the SCADA and communication networks systems
  - Programming of the new PLC and SCADA at the war water pump station
  - Performing system integration of the new station with the existing WTP

» **Three Hills WTP Upgrades, Three Hills AB, 2019**

- Controls Lead
  - Providing the engineering design for the electrical and control systems upgrades
  - Reviewing the design of the instrumentation and control systems
  - Designing the SCADA and communication networks systems
  - Programming and system integration of the new PLC and SCADA

» **Water Treatment Plant Ownership Transfer, Hinton AB, 2018-2019**

- Project Manager
  - Managing all electrical and control activities required to transfer the ownership of the Hinton Water Treatment Plant from West Fraser to the Town of Hinton
  - Planning, coordinating, and scheduling all the work performed by different stakeholders
  - Managing procurement activities for various equipment
  - Designing new UPS systems for the control room, and DCS and PLC cabinets
  - Designing and programming a new Alarm Dialer system
  - Working with the town's IT on the industrial network infrastructure design and configuration
  - Working with Pall Water and Trojan UV on upgrading the PLC and SCADA systems in their vendor packages
  - Developing and reviewing the engineered designs and drawings
  - Reviewing and approving the installation and wiring of the new electrical/control panels
  - Developing as-built electrical and control drawings for the entire WTP

» **Giant Mine Advanced Freeze Design, Yellowknife NT, 2018-2019**

- Designer/Programmer
  - Designing the control system to collect, log, analyze, and report the temperature data from the underground sensor holes and freezing pipes
  - Designing the PLC, remote IO, and communications cabinets
  - Designing the UPS systems for the PLC, remote IO, and communications cabinets
  - Designing the heating systems for the PLC, remote IO, and communications cabinets
  - Working with various manufacturers on the instrument design for the underground temperature sensors
  - Developing and reviewing the engineered designs and drawings
  - Preparing the engineering design report

- **Ridley Terminals Railcar Indexers and Dumpers Safety System, Prince Rupert BC, 2018-2019**
  - Project Manager
    - Designing a new safety system for the railcar indexers and dumpers in RTI coal terminal in Prince Rupert
    - Developing and reviewing the engineered designs and drawings
    - Managing procurement activities for various equipment
    - Installing and commissioning Safe Torque-Off cards in the existing PowerFlex 700S drives
    - Working with RTI, Rockwell Automation, and UBSafe to coordinate the on-site risk assessment and the creation of functional safety specification documents
    - Manage the development of complex group lockout/tagout program for RTI

- **Nilex Silt Fence Machine Upgrade, Edmonton AB, 2018**
  - Project Manager
    - Managing the upgrade project of the Silt Fence machine in Nilex's Edmonton facility
    - Developing the project's estimates, budgets, and plans
    - Managing procurement activities for various equipment
    - Reviewing the engineered designs and drawings, and the new PLC and HMI programming
    - Reviewing and approving the installation and wiring of the new control system
- **Translink RTU Panels' Supply and Configuration, Vancouver BC, 2018**
  - Project Manager
    - Designing the new RTU panels for Translink Willingdon East and West stations
    - Developing the engineered designs and drawings for the new RTU panels
    - Configuring and mapping the communications data for the new Survalent Hunter RTUs
    - Managing procurement activities for various equipment
    - Coordinating the RTU panels' building and wiring activities with the panel manufacturer

- **Tintaya PLC Panels' Supply and Software Development, Arequipa Peru, 2017-2018**
  - Designer
    - Developing the engineered designs and drawings for the new PLC panels
    - Managing procurement activities for various equipment
    - Coordinating the PLC panels' building and wiring activities with the panel manufacturer
    - Providing documentation control support

- **Koch Nitrogen UREA 2 Material Handling System Commissioning, Enid OK, 2017**
  - Project Lead
    - Providing commissioning support for the new material handling system in Koch Nitrogen Urea 2 project
    - Reviewing, modifying, and testing Rockwell Automation ControlLogix PLC code
    - Testing Wonderware HMI applications
    - Programming and testing communications between Schneider Electric Altivar VFDs and Rockwell Automation ControlLogix PLC
    - Loop testing for all the transfer, loading, and storage systems' instrumentation

- **Husky New Plants Commissioning,** Lloydminster SK, 2016 Project Manager
- **Nova Chemicals Expansion Project Commissioning,** Joffre AB, 2015-2016 Project Manager
- **ConocoPhillips E-Houses Commissioning,** Edmonton AB, 2015-2016 Project Lead
- **Agrium Joffre Inventory Based Evaluation (IBE) & PLC Modifications,** Joffre AB, 2015 Project Lead
- **ConocoPhillips Surmont Commissioning,** Fort McMurray AB, 2014-2015 Project Manager

- **Encana Kaybob New Gas Plant Commissioning**, Fox Creek AB, 2014-2015 Project Manager
- **Shell Scotford Quest Project Commissioning,** Fort Saskatchewan AB, 2014-2015 Project Manager
- **Devon Jackfish PLC & Network Modifications,** Conklin AB, 2014-2015 Project Manager
- **CNRL Cold Lake New Pads Commissioning,** Cold Lake AB, 2014 Project Lead
- **Kearl Oil Sands MCC Modifications,** Fort McMurray AB, 2014 Project Lead
- **Wastewater Treatment Plant Commissioning,** Red Deer AB, 2014 Project Manager

RYAN KJORLIEN, P.Eng.

MAGNA IV ENGINEERING

RYAN KJORLIEN

HIGHLIGHTS

- Seven years of experience as Design Engineer for industrial power projects.
- Two years of experience as Field Engineer for Oil and Gas projects.
- Four+ year member of Magna IV Engineering's Nova Chemicals project team.

EDUCATION

University of Alberta (Edmonton, AB)
BSc in Electrical Engineering, 2005

PROFESSIONAL DEVELOPMENT

- **Association of Professional Engineers, Geologists and Geophysicists of Alberta**
  - Registered Member

WORK HISTORY

2009 – Present
Magna IV Engineering (Edmonton, AB)
Project Engineer

2008 – 2009
TIC Canada (Kiewit) *(Edmonton, AB and Ft. Saskatchewan, AB)*
Field Engineer

2005 – 2008
Westwood Electric
Field Engineer (Nisku, AB and Ft. McMurray, AB)

PROJECT EXPERIENCE

- **Main Substation and High Lift Pumphouse – Nova Chemicals (Joffre AB)**
  - Engineering design, procurement, and on-site commissioning for replacement battery chargers and battery bank UPS systems.
  - Load flow study for High Lift Pumphouse system using ETAP software.
- **Ethylene 3 Plant and Cooling Tower – 2014 Turnaround – Nova Chemicals *(Joffre AB)***
  - Engineering design, procurement, construction supervision, and commissioning for Maintenance Mode switches, voltage monitoring ports, zone-interlock protection, undervoltage relays, and MCC metering installations during E2 2014 shutdown.
- **Polyethylene 1 Plant – 2013 Turnaround – Nova Chemicals *(Joffre AB)***
  - Construction supervision and commissioning for Minivac 13.8kV breaker retrofits and breaker trip units during 2013 PE1 shutdown.
- **Ethylene 2 Plant and Cooling Tower – 2013 Turnaround – Nova Chemicals (Joffre AB)**

- Engineering design, procurement, construction supervision, and commissioning for 600V Magnum DS circuit breakers, mimic panels, and DC battery charger during E2 2013 shutdown.

» **Scotford Refinery – Nova Chemicals *(Ft. Saskatchewan AB)***
- Engineering design and drafting for replacement of pipeline flow computer.

» **Ethylene 1 Plant – 2012 Turnaround – Nova Chemicals *(Joffre AB)***
- Engineering design, drafting, and onsite commissioning for Replacement Neutral Grounding Resistors during E1 2012 shutdown.

» **Block Valve Sites 78 & 88 – Nova Chemicals Pipelines *(Edmonton** AB)*
- Engineering design and drafting for VFD and valve actuator replacements.

» **MacKay River SAGD Project – Suncor *(Fort McMurray AB)***
- Engineering design and drafting for stand-by generator, e-house, and 5kV electrical switchgear, and grounding installations.

» **Radomiro Tomic Mine Project – CODELCO *(Chile)***
- Autocad drafting and project documentation for Construction and Maintenance manuals.

» **Scotford Refinery – Shell *(Fort Saskatchewan AB)***
- Project coordination for piperack electrical and heat tracing installations.
- 3 months on-site as field engineer at Scotford.

» **Horizon Oilsands Project – Canadian National Resources (CNRL) *(Fort McMurray AB)***
- Coordination, QAQC commissioning, field checks, and turnover documentation for substations, e-houses, cable pulls, cathodic protection, grounding, and electrical equipment installations.
- 20 months on-site as field engineer at CNRL Horizon site during greenfield construction.

RUSSEL KERCHER, C.E.T.

MAGNA IV ENGINEERING

RUSSEL KERCHER

HIGHLIGHTS

- Over 15 years' experience as an electrical designer / draftsman / project coordinator
- Experienced with multiple CADD software platforms (AutoCAD / MicroStation)
- Experienced with electrical power system analysis / studies
- Lighting design experience using various computer aided software
- Field experience with maintenance and commissioning testing of electrical systems

EDUCATION

Northern Alberta Institute of Technology (Edmonton, AB)
Honors Diploma in Electrical Engineering Technology, 2001

PROFESSIONAL DEVELOPMENT

The Association of Science & Technology Professionals of Alberta (ASET)
Member – Certified Engineering Technologist

WORK HISTORY

2001 – Present
Magna IV Engineering (Edmonton, AB)
Electrical Designer / Draftsman

Summer 2000
Pace Technologies Inc. (Edmonton, AB)
Summer Student – Field Service

PROJECT EXPERIENCE

Water and Wastewater Facilities:

- Gold Bar Wastewater Treatment Plant – Numerous Projects (Edmonton, AB)
  - Primary Sludge Fermentation Facilities
  - Enhanced Primary Treatment
  - Bioreactor and Clarifier 11
  - Membrane Treatment Plant
  - Secondary UV Disinfection Facility Rehab
  - Plant-base 15 kV and 600 V single line drawings
  - Short circuit & coordination study for Clarifier 1-4 Upgrade (15kV & 600V)
  - Screen Building Two – 600V MCC Upgrade
  - Digester 1-6 Upgrading
  - Digester 7 and Digester 8
  - Heating System Expansion

- Screens Replacement (2011)
- Centralized UPS
- Condition Assessment – Site Wide Electrical (2014)
- Pretreatment Facilities Upgrade
- 5kV Switchgear Replacement – Blower Building 2 (2015)
- 1250kW Generator Replacement

» St. Albert Pumpstation – SAPS (St. Albert, AB)
» Drayton Valley Water Treatment Plant (Drayton Valley, AB)
» Nutrient Recovery Facility at Clover Bar Landfill (Edmonton, AB)
» Three Hills Water Treatment Plant (Three Hills, AB)
» Sylvan Lake North Water Reservoir (Sylvan Lake, AB)
» Drayton Valley Raw Water Pumpstation (Drayton Valley, AB)

Municipal Projects:

» Ribbon of Steel Trolley Line (Edmonton, AB)
» Churchill LRT Station Switchgear Upgrade (Edmonton, AB)
» Louise McKinney Riverfront Park (Edmonton, AB)

- Millennium Plaza Stage
- Riverfront Promenade
- Riverfront Buildings
- Chinese Garden

Utilities Projects:

- ATCO Electric – Various projects (Alberta)
  - Control panel design for: new 144/25kV substations, 72kV transformer addition, 144kV line additions, 25kV capacitor bank addition, protection upgrades, SCADA additions & substation record drawings
- EPCOR Genesee Generating Stn. Unit 3 short circuit & load flow study (Genesee, AB)

Industrial Projects:

- Luscar Coal Valley Mine – Load Flow Study (Edson, AB)
- Grande Cache Coal – Raw Coal Crushing & Conveyor System (Grande Cache, AB)

Materials Handling Projects:

- Cliffs HBI Plant (Toledo, Ohio)
- Gaby RT Reclaimer Relocation (Tenova, Chile)

Institutional Projects:

- Dept. of National Defense Edmonton Garrison – Numerous Projects (Edmonton, AB)
  - Substation and 25kV Vacuum Arc Resistant Switchgear
  - Mons Avenue 25kV Underground Distribution and Street Lighting
  - Rhine Road and Sapper Way Area 25kV Underground Distribution
  - Rhine Road and Sapper Way Area 25kV Coordination Study
  - Power and lighting for various parking facilities
  - Pedestrian Signals; Range Road 244, at Arras and at Churchill intersections
- Dept. of National Defense CFB Wainwright - Cable Plant 25kV O/H Distribution Upgrade Phase II (Wainwright, AB)
- Bowden Institution – Contractor Parking Lot, Lighting and Receptacles (Bowden, AB)

Lighting Projects:

- Alberta Transportation – Numerous Projects;
  - Hwy 28/37 Roundabout (Namao, AB)
  - Pedestrian Crossing Signals (Olds, AB)
  - Pedestrian Crossing Signals (Ponoka, AB)
  - Hwy 16/897 Intersection (Kitskoty, AB)
  - Hwy 9/21 Intersection (Beiseker, AB)
  - Hwy 39/770 Intersection (Warburg, AB)

SPECIALIZATION

- **Detailed electrical engineering experience with design projects involving;**
  - industrial, municipal and institutional settings
  - electrical infrastructure at 25kV,13.8 kV, 4160V, 600V, 480V and 120V levels
  - switchgear, motor control centers, VFDs, lighting systems, grounding, stand by generators, cable sizing, cabletray layout, distribution equipment
  - overhead and underground power distribution
  - specification of various electrical equipment and related components
  - preparation and review of contract documents
- **Project coordination and document control**
- **Computer Aided Drafting and Design (CADD);**
  - experienced with lead drafting responsibilities
  - fluent in AutoCAD and MicroStation platforms
  - experienced with CADD management and coordination.
- **Lighting design**
  - trained in interior and exterior lighting design including roadways
  - experience with AGi 32 computer-aided lighting design software.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/17/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lloyd Sadd Insurance Brokers Ltd. Suite 700, 10240 - 124 Street Edmonton, AB T5N 3W6 Canada	**CONTACT NAME:** Angie Pepin **PHONE (A/C, No, Ext):** 1-780-930-3883 **FAX (A/C, No):** **E-MAIL ADDRESS:** apepin@lloydsadd.com
INSURED Magna IV Engineering Inc. 96 Inverness Drive East, STE R Englewood, CO 80112 USA	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** Transportation Insurance Company 002131 **INSURER B :** Valley Forge Insurance Company 002132 **INSURER C :** American Casualty Company of Reading 002127 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY** [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR [X] Blanket Waiver of Subrogation as [X] Primary and Non-Contributory as GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC	Y	Y	6049820437	07/01/2020	07/01/2021	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$2,000,000 $500,000 $15,000 $2,000,000 $2,000,000 $2,000,000 $
B	**AUTOMOBILE LIABILITY** [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS	Y	Y	6049820440	07/01/2020	07/01/2021	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$2,000,000 $ $ $ $
	[ ] **UMBRELLA LIAB** [ ] OCCUR [ ] **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $	Y	Y				EACH OCCURRENCE AGGREGATE 	$ $ $
C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? Y / N [ ] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	6049820454	07/01/2020	07/01/2021	WC STATU-TORY LIMITS [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
		[ ]	[ ]					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

City of Grand Junction, their officers and employees are included as Additional Insured.

Primary and Non-Contibutory

Insurer A: Transportation Insurance Company, A.M. Best #002121, Rating A (Excellent)

Insurer B: Valley Forge Insurance Company, A.M. Best #002132, Rating A (Exellent)

Insurer C: Casualty Company of Reading, P.A., A.M. Best #002127, Rating A (Excellent);

CERTIFICATE HOLDER

City of Grand Junction
250 N. 5th Street
Grand Junction, CO 81501

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Issued by LLOYD SADD INSURANCE BROKERS LTD. on behalf of CNA Solutions Inc., with their permission.

Clear All

CERTIFICATE OF INSURANCE

CERTIFICATE HOLDER:

City of Grand Junction
250 N. 5th Street
Grand Junction, CO 81501

Dated: September 17, 2020

NAMED INSURED:

Magna IV Engineering Inc.
96 Inverness Drive East STE R
Englewood, CO 80112

BROKER:

Issued by LLOYD SADD INSURANCE BROKERS LTD. on behalf of CNA Solutions Inc., with their permission.
Suite 700, 10240 - 124 Street
Edmonton, AB T5N 3W6 P: (780) 483-4544

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies below. The insurance afforded is subject to the terms, conditions and exclusions of the applicable policy.

COMPANIES AFFORDING COVERAGE:

Company Letter "A" Continental Casualty Company
Company Letter "B" Howden through Lloyds of London Newline Underwriting Management Ltd. Syndicate, A.M. Best #:078187, Rating A (Excellent)

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRY DATE	LIMIT	
	UMBRELLA LIABILITY					
B	**Follow Form** Excess Limits of:	P19A350333G	July 1, 2020	July 1, 2021	$8,000,000 USD	Per Occurrence
					$8,000,000 USD	Aggregate
	General Liability Policy # 6049820437 including: - Blanket Additional Insureds - Blanket Waiver of Subrogation as required by written contract - Primary and Non-Contributory as required by written contract					
	Automobile Liability Policy #6049820440 including: - Blanket Waiver of Subrogation as required by written contract - Primary and Non-Contributory as required by written contract					
	• **Employers Liability Policy #6049820454**					

Re: Umbrella Liability, Policy #P17A370333G in excess of Umbrella Liability, Policy #P17A370333G in excess of Commercial General Liability, Policy #6049820437, Automobile Liability Policy #6049820440, Automobile Liability Policy #6049820440 It is hereby understood and agreed that ***City of Grand Junction, their officers and employees*** are added as an Additional Insured ***Effective September 17, 2020*** but only with respect to liability arising out of the operations of the Named Insured.

Waiver of Subrogation: It is hereby understood and agreed that the insurer agrees to waive their rights of subrogation in favor of ***City of Grand Junction, their officers and employees*** but only with respect to liability arising out of the operations of the Named Insured.

Primary and Non-Contributory: The insurance evidenced herein is primary only with respect to those occurrences for which the insured may be negligent or may be held liable, specifically arising out of the operations of the insured.

CANCELLATION: Should the Commercial General Liability policy be cancelled before the expiration date thereof, the issuing company will endeavor to mail ***In Accordance to Policy Provisions*** days written notice to the certificate holder named above, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representative.

Issued by LLOYD SADD INSURANCE BROKERS LTD. on behalf of CNA Solutions Inc., with their permission.

per:

LloydSadd INSURANCE BROKERS | NAVACORD

Client#: 1480817 MAGNAIV

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 9/17/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
USI Insurance Services, LLC P.O. Box 7050 Englewood, CO 80155 800 873-8500	PHONE (A/C, No, Ext): 800 873-8500	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : XL Specialty Insurance Company	37885
INSURED Magna IV Engineering Inc. c/o Lloyd Sadd Insurance Brokers Ltd Suite 700, 10240 - 124th Street Edmonton, AB T5N3W6	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐	N / A					E.L. EACH ACCIDENT	$
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$
A	**Professional Liability Claims Made**		X	**DPR9962511**	**07/01/2020**	**07/01/2021**	**$5,000,000 per claim**	
							$5,000,000 annl aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

City of Grand Junction
250 N. 5th Street
Grand Junction, CO 81501

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE