

AGREEMENT FOR MODELING AND FINANCIAL PLANNING SERVICES

Fairfield Transit Electrification Transition Model

THIS AGREEMENT, made and entered into as of _____, 2020, by and between the CITY OF FAIRFIELD, a municipal corporation, hereinafter referred to as "CITY" and WILL DAN ENGERGY SOLUTIONS, hereinafter referred to as "CONSULTANT."

RECITALS

A. CITY desires to contract for modeling and financial planning services necessary for the Fairfield Transit Electrification Transition Model Project, and for the purposes of this Agreement shall be called "PROJECT," and,

B. CONSULTANT is willing and qualified to undertake said consulting work.

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements herein set forth, the parties do hereby agree as follows:

AGREEMENT

I. DUTIES OF CONSULTANT

The CONSULTANT shall provide professional modeling and financial planning services required for the PROJECT as follows (collectively, "Consultant's Services"):

- A. Project Coordination. The CONSULTANT's primary contact with the CITY shall be the CITY's Project Manager, Shaun Vigil, or any other as designated by the City Engineer.
- B. Project Scope. The CONSULTANT shall provide the modeling and financial planning services in accordance with the Scope of Work attached hereto as Exhibit "A".

- C. CONSULTANT shall, at its sole cost and expense, furnish all facilities and equipment, which may be required for furnishing services pursuant to this agreement.

II. DUTIES OF CITY

The CITY shall:

- A. Make available previous plans, reports, and all other data relative to the design of the PROJECT and full information as to the CITY's requirements, including title reports and condemnation guarantees as required.
- B. Review preliminary and final plans, specifications, estimates, and other documents presented by CONSULTANT and render decisions within a reasonable time, and give prompt notice to CONSULTANT at any time CITY observes or otherwise becomes aware of any error, omission, or defect in the PROJECT.
- C. Provide soils reports if necessary.
- D. Provide for all necessary environmental clearances.
- E. Reproduce and distribute bid documents, advertise the project for bidding purposes, maintain a plan holders list, and distribute addenda.
- F. Make all necessary provisions for CONSULTANT to enter upon public and private property as required in the performance of Consultant's Services under this Agreement.

III. MISCELLANEOUS PROVISIONS

- A. CONSULTANT shall not assign any rights or duties under this Agreement to a third party without the prior written consent of CITY.
- B. It is understood by and between the parties hereto that CONSULTANT, in the performance of this Agreement, shall act as, and be, an independent contractor and not an agent or employee of CITY. CITY shall have the right to control CONSULTANT only insofar as the results of CONSULTANT's Services rendered pursuant to this Agreement; however, CITY shall not have

the right to control the means by which CONSULTANT accomplishes the Consultant's Services rendered pursuant to this Agreement.

- C. CONSULTANT represents and warrants to CITY that CONSULTANT has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for CONSULTANT to practice CONSULTANT'S profession. CONSULTANT represents and warrants to CITY that CONSULTANT shall, at its sole cost and expense, keep in effect at all times during the term of this Agreement, any licenses, permits, and approvals which are legally required for CONSULTANT to practice his or her profession.
- D. Except as CITY may specify in writing, CONSULTANT shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONSULTANT shall have no authority, express or implied, pursuant to this Agreement, to bind CITY to any obligation whatsoever.
- E. CONSULTANT shall assign only competent personnel to perform Consultant's Services. In the event that CITY, in its sole discretion, at anytime during the term of this Agreement, desires the removal of any person or persons assigned by CONSULTANT to perform Consultant's Services, CONSULTANT shall remove any such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person or persons.
- F. CONSULTANT shall perform Consultant's Services in the manner and according to the standards observed by a competent practitioner of the profession in which CONSULTANT is engaged in the geographical area in which CONSULTANT practices his or her profession. All products of whatsoever nature which CONSULTANT delivers to CITY pursuant to this Agreement shall be prepared in a substantial, first-class, and workmanlike manner, and conform to the standards of quality normally observed by a person practicing in CONSULTANT's profession. CITY shall be the sole judge as to whether the product of the CONSULTANT is satisfactory.
- G. CONSULTANT is not a "public official" for purposes of Government Code §§ 87200 et seq. CONSULTANT conducts research and arrives at conclusions with respect to his or her rendition of information, advice, recommendation or

counsel independent of the control and direction of the CITY or any CITY official, other than normal contract monitoring. In addition, CONSULTANT possesses no authority with respect to any CITY decision beyond the rendition of information, advice, recommendation or counsel.

- H. The parties hereto agree to immediately and diligently proceed with their respective duties as set forth herein to the end that the PROJECT will be completed satisfactorily within the shortest reasonable time.
- I. The CONSULTANT is not responsible for delay, nor shall CONSULTANT be responsible for damages or be in default or deemed to be in default by reason of strikes, lockouts, accidents, or acts of God: or the failure of CITY to furnish timely information or to approve or disapprove CONSULTANT's Services promptly; or delay or faulty performance by CITY, other contractors, or governmental agencies; or any other delays beyond CONSULTANT's reasonable control.

IV. COMPENSATION OF CONSULTANT

- A. Basis of Compensation. For and in consideration of Consultant's Services, CITY agrees to pay CONSULTANT, and CONSULTANT agrees to accept from CITY as full compensation for said services the following maximum, not to exceed, amount(s):
 - 1. For those services described in Section I. compensation shall be on a time and material basis with a maximum fee not to exceed SIX HUNDRED FORTY SEVEN THOUSAND FIVE HUNDRED DOLLARS (\$647,500.00).
- B. Extra Work and Change Order Fee. Extra Work performed by the CONSULTANT for any work required by the CITY which is not specified as part of Consultant's Services in Section I, including but not limited to, any changes to CONSULTANT's Services including but not limited to contract change orders after the award of the construction contract by the City Council, or testimony in Court, shall be compensated by the use of the time and material fee rates of the attached Exhibit "A." No extra work will be compensated for unless required by CITY in writing.

C. Schedule of Payments.

1. CONSULTANT shall submit, and CITY shall pay, monthly invoices for work performed during the previous month. For the time and material services billing shall be based on the hourly and fee rate charges set forth in Exhibit "A" attached hereto, and on the number of hours expended on the PROJECT by each classification of employee.
2. In the event PROJECT is terminated, CITY shall pay to CONSULTANT full compensation for work performed up until the date of CONSULTANT's receipt of written notification to cease work on the PROJECT.
3. CONSULTANT shall notify the CITY in writing when the CONSULTANT's invoices total billing is within 25% of the contract compensation as indicated in Section IV.A.

V. TIME OF COMPLETION

Consultant's Services shall be completed by April 16, 2021 or until the scope of work is complete.

VI. PROJECT MANAGER

CONSULTANT designates Steven Clarke as Project Manager, to remain such unless or until CONSULTANT requests to change said designation and said request is approved by CITY. Major duties shall include:

- A. Personally direct all work essential to the PROJECT.
- B. Sign all letters and instruments as requested by, and on behalf of, CITY.
- C. Attend public meetings related to the PROJECT.

VII. CANCELLATION OF AGREEMENT

This Agreement may be canceled at any time by CITY for its convenience upon written notification to CONSULTANT. CONSULTANT shall be entitled to receive full compensation payment for all services performed and all costs incurred to the date of receipt of written notice to cease work on the PROJECT. Said compensation will be determined in accordance with Section IV. CONSULTANT

shall be entitled to no further compensation for work performed after the date of receipt of written notice to cease work on the PROJECT.

VIII. INDEMNIFY AND HOLD HARMLESS

- A. Indemnity for Design Professional Services. In connection with its design professional services hereunder, and to the fullest extent permitted by law, Consultant shall hold harmless and indemnify City, and its elected officials, officers, employees, servants, designated volunteers, and those City agents serving as independent contractors in the role of City officials (collectively, "Indemnitees"), with respect to any and all claims, demands, damages, liabilities, losses, costs or expenses, including reimbursement of attorneys' fees and costs of defense (collectively, "Claims" hereinafter), including but not limited to Claims relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to in whole or in part to the negligence, recklessness, or willful misconduct of Consultant or any of its officers, employees, subcontractors, or agents in the performance of its design professional services under this Agreement by a "design professional," as the term is defined under California Civil Code Section 2782.8(c)(2).
- B. Other Indemnities. In connection with any and all claims, demands, damages, liabilities, losses, costs or expenses, including attorneys' fees and costs of defense (collectively, "Damages" hereinafter) not covered by Section VIII. A, and to the fullest extent permitted by law, Consultant shall defend, hold harmless and indemnify the Indemnitees with respect to any and all Damages, including but not limited to, Damages relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to the acts or omissions of Consultant or any of its officers, employees, subcontractors, or agents in the performance of this Agreement, except for such loss or damage arising from the sole negligence or willful misconduct of the City, as determined by final arbitration or court decision or by the agreement of the parties. Consultant shall defend Indemnitees in any action or actions filed in connection with any such Damages with counsel of City's choice, and shall

pay all costs and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. Consultant's duty to defend pursuant to this Section VIII. B shall apply independent of any prior, concurrent or subsequent misconduct, negligent acts, errors or omissions of Indemnitees.

- C. Survival of Indemnification Obligations. Acceptance of insurance certificates and endorsements required under this Agreement does not relieve CONSULTANT from liability under this indemnification and hold harmless clause. The Indemnities in this Section VIII shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

IX. INSURANCE

During the term of this Agreement CONSULTANT shall obtain and maintain in full force and effect at his/her own cost and expense the following insurance coverage:

- A. Worker's Compensation Insurance. Worker's Compensation Insurance, as required by the State of California, shall be provided that is necessary in connection with the performance of this Agreement. Such insurance shall relieve CITY from all responsibility for such benefits. Said policy shall also include employer's liability coverage no less than one million dollars (\$1,000,000.00) per accident for bodily injury and disease.
- B. General Liability Insurance. CONSULTANT shall obtain at its sole cost and keep in full force and effect during the term of this agreement commercial general liability insurance in the amount of one million dollars (\$1,000,000.00) per occurrence for bodily injury, personal injury, and property damage. Said insurance shall provide (1) that the CITY, its officers, agents, employees, and volunteers shall be named as additional insureds under the policy, and (2) that the policy shall operate as primary insurance, and that (3) no other insurance effected by the CITY or other named insureds will be called upon to cover a loss covered thereunder.
- C. Automobile Liability Insurance.

CONSULTANT shall obtain at its sole cost and keep in full force and effect during the term of this agreement automobile liability insurance in the amount of one million dollars (\$1,000,000.00) per occurrence for bodily injury and property damage. Said insurance shall provide (1) that the CITY, its officers, agents, employees, and volunteers shall be named as additional insureds under the policy, and (2) that the policy shall operate as primary insurance, and that (3) no other insurance effected by the CITY or other named insureds will be called upon to cover a loss covered thereunder.

D. Certificates of Insurance.

CONSULTANT shall file with the CITY's Director of Public Works upon the execution of this agreement, certificates of insurance which shall provide that no cancellation, major change in coverage, expiration, or renewal will be made during the term of this Agreement, without thirty (30) days written notice to the Director of Public Works prior to the effective date of such cancellation, or change in coverage.

E. Professional Liability Insurance. During the term of this Agreement, CONSULTANT shall maintain a professional liability insurance policy covering any loss arising out of errors, omissions, or negligent actions of CONSULTANT in the amount of not less than one million dollars (\$1,000,000.00).

X. OWNERSHIP OF DOCUMENTS

All documents prepared by CONSULTANT in the performance of his or her duties under this Agreement, including but not limited to, the plans, reproducible mylar plans, specifications, studies, reports, and contract documents shall be the property of the City of Fairfield. If this Agreement is canceled in accordance with Section VII above, all completed and partially completed documents prepared by CONSULTANT shall be delivered to the CITY in both printed and electronic format within two weeks of notice of cancellation. CONSULTANT shall not obtain or attempt to obtain copyright protection as to any documents prepared hereunder.

XI. SCOPE OF AGREEMENT

This writing constitutes the entire agreement between the parties relative to CONSULTING services on the PROJECT and no modification hereof shall be effective unless or until such modification is evidenced by a writing signed by both parties to this Agreement.

XII. PROHIBITED INTERESTS

No employee of the City of Fairfield shall have any direct financial interest in this Agreement. This Agreement shall be voidable at the option of the CITY if this provision is violated.

XIII. LOCAL EMPLOYMENT POLICY

- A. The City of Fairfield desires wherever possible to hire qualified local residents to work on City projects. Local resident is defined as a person who resides in Solano County.
- B. The City encourages an active affirmative action program on the part of its contractors, consultants, and developers.
- C. When local projects require, subcontractors, contractors, consultants, and developers will solicit proposals from qualified local firms where possible.
- D. As a way of responding to the provisions of the Davis-Bacon Act and this program, contractors, consultants, and developers will be asked to provide no more frequently than monthly, a report which lists the employee's name, job class, hours worked, salary paid, City of residence, and ethnic origin.

XIV. EMPLOYMENT DEVELOPMENT DEPT. REPORTING REQUIREMENTS

When CITY executes an agreement for or makes payment to CONSULTANT in the amount of \$600 (six hundred dollars) or more in any one calendar year, CONSULTANT shall provide the following information to CITY to comply with Employment Development Department (EDD) reporting requirements:

- A. Whether CONSULTANT is doing business as a sole proprietorship, partnership, limited liability partnership, corporation, limited liability corporation, non-profit corporation or other form of organization.
- B. If CONSULTANT is doing business as a sole proprietorship, CONSULTANT shall provide the full name, address and social security number or federal tax identification number of the sole proprietor.
- C. If CONSULTANT is doing business as other than a sole proprietorship, CONSULTANT shall provide CONSULTANT's federal tax identification number.

XV. MISCELLANEOUS PROVISIONS

A. Legal Action.

- 1. Should either party to this Agreement bring legal action against the other, the validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding California's choice of law rules. Venue for any such action relating to this Agreement shall be in the Solano County Superior Court.
- 2. If any legal action or other proceeding, including action for declaratory relief, is brought for the enforcement of this Agreement or because of an alleged dispute, breach, default or misrepresentation in connection with this Agreement, the prevailing party shall be entitled to recover reasonable attorneys' fees, experts' fees, and other costs, in addition to any other relief to which the party may be entitled.
- 3. Should any legal action about a project between CITY and a party other than CONSULTANT require the testimony of CONSULTANT when there is no allegation that CONSULTANT was negligent, CITY shall compensate CONSULTANT for its testimony and preparation to testify at hourly rates that are agreed-upon in advance in writing by both parties.

- ##### B. Entire Agreement; Modification.
- This Agreement, including any other documents incorporated herein by specific reference, represents the entire and integrated agreement between CITY and CONSULTANT and supersedes all prior negotiations, representations or agreements, either written or oral.

This Agreement may be modified or amended, or provisions or breach may be waived, only by subsequent written agreement signed by both parties.

- C. Non-Waiver of Terms, Rights and Remedies. Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by the CITY of any payment to CONSULTANT constitute or be construed as a waiver by the CITY of any breach of covenant, or any default which may then exist on the part of CONSULTANT, and the making of any such payment by the CITY shall in no way impair or prejudice any right or remedy available to the CITY with regard to such breach or default.
- D. Time. Time is of the essence in the performance of this Agreement.
- E. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.
- F. Notices

Except as otherwise required by law, any notice, request, direction, demand, consent, waiver, approval or other communication required or permitted to be given hereunder shall not be effective unless it is given in writing and shall be delivered (a) in person or (b) by certified mail, postage prepaid, and addressed to the parties at the addresses stated below, or at such other address as either party may hereafter notify the other in writing as aforementioned:

To CITY:

City of Fairfield
Public Works Department
1000 Webster Street
Fairfield, CA 94533

To CONSULTANT:

ATTN: Jonathan Stage
Willdan Energy Solutions
2401 E Katella Ave #300
Anaheim, CA, 92806

A party may change its address by giving written notice to the other party. Thereafter, any notice or other communication shall be addressed and transmitted to the new address. If sent by mail, any notice, tender, demand, delivery or other communication shall be deemed effective three (3) business days after it has been deposited in the United States mail. For purposes of communicating these time frames, weekends and CITY holidays shall be excluded. No communication via facsimile or electronic mail shall be effective to give any such notice or other communication hereunder.

- G. Counterparts. This Agreement may be executed in counterparts, each of which shall be considered an original.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CITY OF FAIRFIELD
a municipal corporation (CITY)

City Manager


By 
Jonathon W. Stage, Vice President
Willdan Energy Solutions 2401 E
Katella Ave #300 Anaheim, CA,
92806

EXHIBIT "A"
Scope of Work



February 21, 2020

910022.NAM.122

Mr. Phil Layoso
Junior Engineer
Fairfield City Hall
1000 Webster Street, 3rd Floor
Fairfield, CA 94533

Re: Final Revised Scope and Budget for Fairfield Transit Electrification Transition Model:
Feasibility Analysis, Corporation Yard Improvement Needs Assessment and Project
Management Services

Dear Mr. Layoso,

Willdan Group, Inc. (Willdan) is pleased to submit the following final revised scope of work to the City of Fairfield (City, Client) for services to conduct Transit Electrification Transition Modeling, including Feasibility Analysis, Corporation Yard Improvements Needs Assessment and Project Management Services. Also enclosed is a proposed budget and estimated timeline to perform the proposed scope of work.

Willdan proposes the following tasks and associated deliverables for this project:

Task 1: Contract Administration, Reporting and Subcontractor Management

Description: Willdan, acting as the lead for the consulting team, will coordinate and negotiate the scope of work with Fairfield to ensure client needs are being met. Willdan will make task assignments to subcontractors in alignment with subcontractor's areas of expertise and as necessary. Willdan will also manage subcontractor invoicing per the contract and handle submittal of monthly billing and progress reports for this project.

Willdan proposes the following tentative Project Schedule of Key Deliverables and Major Milestones which are also shown in the attached project schedule

- *Contract Award anticipated April 7, 2020*
- *Kick Off meeting, site inspection with subcontractors, RFI issued – mid-April 2020*
- *Data Collection Complete – mid-May 2020*
- *Summary and Recommendations complete – early August 2020*
- *Check in meeting following feasibility analysis results –August 2020*
- *Financial Analysis and Business Plan report – December 2020*
- *Funding and Training – January 2020*
- *3rd party coordination – Entire project duration*
- *Master Buildout Plan April 2021*

Deliverables:

- Initial Scope of Work Assignment including subcontractor team assignments
- Initial Project Schedule and Workplan
- Initial Project Budget
- Monthly Invoices for Work Performed
- Monthly Project Progress Reports

Task 2: Staff and Public Planning Meetings

Description: In accordance with the wishes of the Client, and negotiated and agreed upon scope of work, Willdan will arrange a kickoff meeting with the larger project team. At this kickoff meeting, Willdan and the Client will review the Scope of Work, Project Goals, Project Timeline, and Project Deliverables. During, or shortly after the Kickoff meeting, Willdan and our subcontractors will conduct a complete site walk and maintenance facility investigation to understand the existing conditions to inform what upgrades will be needed to support an electric bus fleet.

Willdan will also participate in Public Planning meetings as needed for this project. Willdan anticipates participating in 2-3 Public Planning Meetings throughout the project at the direction of the client.

Willdan plans to have on-going meetings with Fairfield staff throughout the course of the project to review intermediate and key deliverables or to discuss major impediments for Fairfield to implement an electric bus fleet. Willdan anticipates participating in at least 3, but no more than 5 on-going staff meetings throughout the course of the project. At the request of Fairfield, Willdan will conduct these meetings in-person at City facilities. Subcontractors will participate in staff meetings and public planning meeting as needed based on the agenda for the meeting and their areas of expertise.

Willdan anticipates one of these meetings to be held following the City's review of the Summary and Recommendations document described in Task 3. At this meeting, Willdan will present a high-level overview of route modelling results, minimum BEB technical specifications, minimum charger specifications, and preliminary infrastructure upgrades needed to support a BEB fleet, and potential solutions to overcome BEB limitations such as on-route charging. It will include the results from some initial outreach and coordination from 3rd party stakeholders described in Task 6 including, but not limited to PG&E, MCE, BART, STA, and MTC to better understand how these partners will be able to support Fairfield's transition to a BEB/ZEB fleet. Following this meeting, Willdan anticipates Fairfield will have enough information needed to set key direction regarding further BEB analysis.

Scope of work and budget will be negotiated if additional public planning meetings and/or on-going staff meetings are required.



Deliverables:

- Agendas for Kickoff Meeting, Public Planning Meetings, and On-going staff meetings
- Meeting Minutes/Notes for Kickoff Meeting, Public Planning Meetings, and On-going staff meetings

Task 3: BEB Conversion Feasibility and Needs Assessment Analysis

Description: The BEB conversion feasibility analysis is a foundational element of Fairfield's overall Transportation Electrification Master Plan and eventual Master Buildout Plan, providing key insight from analysis of:

- Route modeling to determine bus energy consumption and efficiency on Fairfield's existing and planned local and commuter routes and for different manufacturers of electric buses. Given Fairfield's desire to compare the operation cost of different brands of buses, we will model each of Fairfield's routes with up to three different makes of EV buses. CALSTART will lead this effort. The Willdan team will also conduct a high level review and conservative route modelling analysis of paratransit vehicles within this effort.
- Operational analysis for battery electric buses and paratransit vehicles– which buses and paratransit vehicles on the market today which meet route needs and associated minimum technical specifications required. Willdan will lead this effort and be supported by ANSER and CALSTART.
- A fleet replacement plan which considers the existing bus and paratransit vehicle retirement schedule and current bus technology and availability to meet route needs. Willdan will lead this effort and be supported by In-Charge.
- Operational analysis for vehicle chargers – including charging strategies, EV charger specifications, interoperability of vehicle chargers between buses and paratransit vehicles load growth based on fleet replacement plan, and a “smart charging” schedule. In-Charge will lead this effort and be supported by Willdan.
- DER integration, backup power provisions and load growth management strategies. Willdan will lead this effort and be supported by In-Charge.
- Facilities Assessment – evaluation of existing maintenance facility and grounds for suitability for a zero-emission fleet. ANSER will lead this effort and be supported by KKCS.
- Corporation yard assessments – review and provide recommendations or design changes needed to support an electric bus and paratransit fleet, including any electrical infrastructure upgrades needed, and designing a cable management system. Willdan will lead this effort and be supported by KKCS and In-Charge
- Financial analysis of transitioning to and operating an electric bus fleet. Willdan will lead this effort.

The first task Willdan will complete is to prepare a request for information (RFI) that details out all the information needed to conduct the route analysis, maintenance facility assessment,



corporation yard infrastructure requirements, charging schedule, and DER analysis. Willdan intends for the RFI to be comprehensive though subsequent RFIs may be sent depending on the intermediate analysis results.

Once the City has completed the RFI, the Willdan team will begin the feasibility analysis, starting with the route modelling. CALSTART's modelling tool uses inputs including topography, climate, passenger load, charging station design, hours of operations, average speed and other factors to calculate energy consumption to complete a route during each season of the year. The Willdan team will need route maps, pull-out times, pull-in times, typical washing and maintenance times, and operational data including passenger loads and average speeds to complete the route modelling. CALSTART will model each of Fairfield's fixed local and commuter routes with BEBs from up to three different OEMs to provide insight on which manufacturer produces buses that can serve Fairfield's routes and inform future operating costs.

Willdan will develop FAST's natural fleet replacement schedule through 2040 in parallel with CALSTART's modelling efforts. This natural fleet replacement schedule will then be used to inform the ZEB phase-in plan once all the routes have been modelled.

The route modelling results will inform the subsequent feasibility analysis tasks including developing minimum technical specifications for BEBs and chargers. Developing these minimum technical specifications will be a joint effort between Willdan, In-Charge, ANSER, and CALSTART. The team will develop an operational analysis summary of BEBs describing what buses are currently available on the market that can meet existing route service requirements. For routes that cannot be served with available BEBs Willdan will evaluate other strategies including on-route charging, delaying electrifying certain routes. CALSTART's EBCA tool cannot be used for paratransit vehicles, so Willdan will review published electric paratransit vehicle specifications for battery capacity and efficiency and apply conservative assumptions to determine suitability for Fairfield's needs.

Once the bus operational analysis is complete, Willdan develop a charger operational analysis which will determine the quantity of chargers needed, the minimum viable power output of chargers, the quantity of dispensers per charger, and the location of the charger (depot vs on-route). Willdan will consider up to three different depot charger configurations in the analysis, defined as different power levels of chargers. If on-route charging is required, Willdan will consider up to two different power levels of on-route chargers. Willdan will then calculate the preliminary peak load, without smart charging, at the depot and on-route locations.

The Willdan team will complete a survey of the electrical infrastructure at the corporation yard to understand the level of upgrades needed to support a full BEB fleet. Willdan will engage with PG&E to determine the available site capacity and understand general timelines and processes needed to provide additional capacity needed based on our preliminary peak load calculations. Willdan may also engage other 3rd party stakeholders such as MCE, BART, MCT, and STA to understand, at a high-level, how infrastructure and on-route chargers may be shared with connecting agencies.



At this point in the project the Willdan Team will prepare a Summary and Recommendations document that describes the route modelling results and the needs assessment for Fairfield to transition to a BEB fleet. It will include:

- Route modeling results, including energy consumption for existing and planned routes for up to 3 different bus types
- Types of buses and chargers which will allow Fairfield to provide reliable transit service on your existing and planned routes, including paratransit vehicles
- A summary of which routes can be reliably operated with depot-only charging and which routes will require on-route charging.
- High-level site infrastructure upgrades required to provide capacity for BEB charging
- Summary of manufacturer's recommended maintenance requirements between different brands of buses
- Preliminary budget estimates of different BEB and charger options (but not a detailed financial analysis – yet).

The intent of the summary and recommendations document is to assist Fairfield in understanding the needs of a BEB fleet operating on their existing routes and making key decisions on how to implement a full EV fleet to meet CARB's zero-emission mandates. Such decisions may include pursuing on-route charging strategies or expanding the fleet size if on-route charging is not viable for certain longer routes.

Following the review and discussion of the Summary and Recommendations document and Fairfield's concurrence that BEBs are a viable solution, the Willdan team will begin a more detailed analysis focused on phasing in BEBs over time, a deeper analysis on laying out and planning infrastructure upgrades at the corporation yard, assessing the existing maintenance facility, a DER analysis, developing a charging schedule, and a complete financial analysis. One of the first tasks following the Summary and Recommendations deliverable will be developing a BEB phase-in schedule. Willdan will lead this effort and the phase-in schedule will consider route energy requirements, current BEB capabilities and the natural replacement schedule of Fairfield's buses. Willdan will develop potential route electrification schedules as needed, recommending delaying electrifying more energy intensive routes to allow BEB technology (range, efficiency) to potentially develop further. The phase-in schedule will be folded into Fairfield's natural fleet replacement plan provided previously, as replacing diesel buses when they are due for replacement minimizes stranded assets and can allow more time for BEB technology improvements to better serve harder-to-electrify routes. The final replacement schedule will also comply with CARB's ICT replacement requirements for small transit agencies targeting a full zero-emission fleet by 2040. Willdan anticipates developing a single fleet replacement schedule.

Following the minimum charger specification analysis, Willdan will develop charging schedules for each (up to 3) depot charging scenario presented in the Summary and Recommendations. Willdan will consider factors such as pull-out time, pull-in time, and typical times allotted to wash and perform maintenance on the buses. If needed, Willdan will then consider up to two different charging scenarios for on-route chargers. The first would be the power level and stop



times needed to keep a bus near full charge all day, eliminating the need for further charging at the depot at night. The second would be power level and stop times needed to finish the day with at least 20% SOC and then a full recharge at the depot overnight. The charging analysis will include a preliminary financial assessment of each charging scenario including budgetary charger costs, installation costs, and annual demand charges. **Willdan anticipates discussing and deciding on a preferred charging strategy with the Client that will then inform future aspects of the analysis.** Following this discussion and a selected preferred charging strategy, In-Charge will develop a preliminary smart charging schedule to demonstrate the load and demand reductions using a dedicated charge management system.

Willdan will conduct a distributed energy resources (DER) analysis to include on-site solar PV and battery storage to manage the increased load of the EV buses and provide resiliency to the site. Willdan will evaluate the expected facility load and determine the most advantageous size of on-site solar PV. Willdan will use the projected depot load of a full EV bus fleet. If the sum of solar PV generation potential exceeds the existing facility usage, Willdan will recommend a construction timeline of the solar array(s) to be phased in with the bus phase-in schedule such that the energy generation does not exceed total site metered usage. Concurrently, Willdan will also evaluate the potential financial impacts of installing all the solar arrays at once versus phasing them in. Willdan will also consider the timing of installing solar PV with corporation yard infrastructure improvements as a large bus carport may impede future EVSE infrastructure upgrades. Willdan will also evaluate adding battery storage systems to storage excess solar generation during the day to charge the buses at night. Willdan will consider different battery configurations to meet the following targets: most cost-effective or most resilient. Willdan will also incorporate retired bus batteries to supplement on-site energy storage into our analysis and phase-in plan.

The buses, paratransit vehicles, chargers, and DER analysis will all factor into the maintenance facility and corporation yard site analysis. This effort will review initial analysis performed by IEC Corporation and, amending as necessary, describe what upgrades are needed at the corporation yard to support a BEB fleet including new transformers, electrical panels, proposed locations for charger pads, interconnections for DERs, and cable management systems based on chosen bus and charger solutions agreed upon previously.

The Willdan team will conduct a thorough review of the existing maintenance facility to determine what retrofits, technologies and modifications and upgrades will be required to perform maintenance on an electric bus fleet. It is expected that similar upgrades will be needed between the different brands of BEBs evaluated. Should substantially different upgrades be required for different BEB brands, they will be discussed with the client, as that may impact future purchasing decisions.

All of these tasks will inform the final financial analysis and business plan report. The financial analysis will evaluate the impact of purchasing, operating, and maintaining electric buses starting in 2020 through 2040. Willdan intends for the financial analysis to compare the long term costs between up to three brands of buses, under the same viable fleet replacement plan



and charging strategy given the selected buses. It will also include cost estimates for any maintenance facility upgrades, corporation yard upgrades, and potential savings from DERs. All of the background information and assumptions used in the analysis will be documented within the report.

Deliverables:

Data Collection

- Complete request for information (RFI) needed to complete route analysis, maintenance facility assessment, corporation yard infrastructure requirements, charging schedule, and DER analysis

Route Modeling

- Copies of CALSTART EBCA route modelling results for transit buses. Each individual route will be modelled with up to 3 different brands and/or types of buses. If existing route requirements cannot be met on a single charge routes with available buses, they will be modelled with on-route charging.
- For paratransit vehicles, a list of assumptions used to estimate vehicle range, efficiency and charging needs.

Summary and Recommendations Report - A summary document that includes the following with enough detail and analysis for Fairfield to make key decisions on how to proceed with the BEB analysis.

- Minimum BEB and Paratransit technical specifications including battery size, range, charging speed, and currently available product offerings that meet minimum requirements.
- High-level comparison of manufacturers' recommended O&M requirements for different brands of buses will also be presented at this time
- Minimum charger technical specifications including power level, dispenser per chargers, location (depot vs. on-route) and preliminary peak load calculations.
- High level summary of existing corporation yard electrical infrastructure including circuit capacity and high-level estimates of upgrades including minimum transformer sizes.
- Natural fleet replacement plan through 2040.

Distributed Energy Resources – to be completed after Summary and Recommendations

- Feasibility analysis of on-site solar PV generation and battery storage and phase in plan with existing site load and load growth generated by BEB procurement. Ultimate BEB load used in analysis will be based on a fully electric bus fleet and the smart charging schedule
- Use case for BEBs as an integral strategy in Fairfield's disaster and/or outage response strategies. Detail potential use of BEBs as mobile power units as well as operation of BEB fleet during times of grid outage.

Maintenance Facility Assessment – to be completed after Summary and Recommendations



- Summary document of maintenance facility upgrades and/or retrofits needed to support an electric bus fleet including the following:
 - Fall protection
 - Shop tool list
 - On-site electrical/battery lab
 - Electrical upgrade requirements
 - Structural upgrades
- Summary document of corporation yard improvements needed to support an electric bus fleet including the following elements:
 - Review the existing plans, specifications and estimates for the corporation yard improvements for transit electrification project.
 - Evaluation and consideration of up to two additional corporation yard design concepts, including bus parking, charging equipment locations, bus flow diagrams, ingress/egress traffic flows to minimize bus reversing as well as ensure adequate space for roll-back flatbed tow trucks to load/unload buses and optimal circulation through the bus wash.
 - corporation yard engineering design modifications/recommendations
 - Electrical and structural infrastructure upgrades needed and build out schedule, including DERs
 - Bus charger cable management strategies

Charging Schedules and Solutions – to be completed following Summary and Recommendations

- Willdan will consider up to three different depot charger configurations, defined as different power levels, in the charging analysis, and prepare approximate charging schedules for each of them. Willdan will also factor in up to two on-route charging strategies, as needed based on the Summary and Recommendations document.
- In-Charge will prepare a preliminary smart charging schedule for Fairfield's bus fleet on the preferred charging configuration. This will be created for up to three points in the fleet electrification, one at a fully electrified fleet and two intermediate points to be determined with the Client to better understand the demand reduction effects of smart charging. Conversely the Client may opt for a smart charging schedule for each charging configuration, but only at the full EV fleet.
- Assessment of internal IT network / connectivity needs to support over-the-air software updates for chargers and buses.
- One fleet replacement schedule with up to three associated load growth calculations, to be based on the different charger configurations. This will be represented as a graphic and include a summary write-up document.

Detailed Corporation Yard Infrastructure Layout Concepts – to be completed following Summary and Recommendations and selection of a preferred charging strategy



- Review and comment of existing future corporation yard layout design as it pertains to EV charging, BEB maintenance and Distributed Energy Resources (DERs)
- Willdan will work alongside the City's Civil Engineer, Bennett Engineering to provide input on alternate corporation yard layout designs to potentially optimize bus parking, charging equipment locations, bus flow diagrams, ingress/egress traffic flows to minimize bus reversing as well as ensure adequate space for roll-back flatbed tow trucks to load/unload buses and optimal circulation through the bus wash. Alternate design layouts will seek to prioritize installation of infrastructure to support ultimate full buildout of BEB charging and DERs to secure rights to expand and transition corporation yard to adjacent parcel of land.
- Corporation yard preliminary engineering design modifications/recommendations to be provided in CAD and/or PDF.
- Electrical and structural infrastructure upgrade plan and build out schedule, including DERs to be developed in MS Project
- Includes up to three cable management strategies including mockup drawings and preliminary engineering drawings in CAD and/or PDF.

Project Financials – to be completed following Summary and Recommendations

- Financial analysis and overall Business Plan Report summarizing the cost of transitioning to and operating an electric bus fleet from 2020 through 2040. Financial metrics used in the analysis will be discussed and agreed upon between the Client and Willdan. Willdan assumes the financial analysis will compare up to three different brands of buses (based on route modelling) and a “business as usual” case that assumes Fairfield would continue to operate a diesel bus fleet through 2040. Willdan assumes a single fleet replacement schedule and charging strategy, based on the fleet replacement schedule and charging strategy previously developed, will be used in the financial analysis

Task 4: Funding Analysis and Grant Assistance

Description: The Willdan team will provide an overview of available funding sources and incentives for transitioning to and operating an electric bus fleet. This effort will be led by KKCS and supported by ANSER and Willdan. The team will summarize total available funding, typical funding cycles and expected upcoming grant timeline, and procurement strategies as appropriate for each identified source of funding. KKCS will specifically evaluate FTA funding applicability for the buses considered in the operational analysis and business plan report and highlight any areas of concern/non-compliance. The Willdan team will also assist writing grants intended to fund the first round of electric buses, associated chargers, and DERs as part of the overall strategy. Willdan recognizes that this will be critical for the Client to continue maximizing opportunities to bridge funding gaps in this project.

Deliverables



- Summary table and complimentary document describing available funding sources, requirements, expected timelines and procurement strategies to align purchasing needs with grant funding.
- Written portions of grant applications for first round of electric buses associated chargers and/or associated DERs as part of the overall strategy.

Task 5: Training Requirements

Description: With the deployment of a new technology, those involved in its maintenance and operation will need to be trained on the proper use and practices with the buses and chargers. ANSER will lead this effort and be supported by Willdan and KKCS. The team will compile different relevant trainings suggested for the Fairfield staff including:

- Recommended training provided by bus and charger OEMs versus and other private entities such as trade schools or community colleges
- Staff training requirements for workforce training, relevant certifications and licenses
- Service material updates to account for phase in of a fleet of electric buses.
- 800 Volt high voltage service training
- Charger operations and maintenance training
- BEB warranty claim trainings. The Willdan team will evaluate where warranty claims and service can take place, on-site or at a regional service center.
- Potential Human Resources or Labor Union issues with the transition to electric buses and the impacts to operators and maintenance staff.

Deliverables

- Summary table and supporting document describing suggested trainings for bus operators, maintenance staff, first responders, and potential Human Resources and/or Labor Union issues with the transition to EV buses and service requirements and industry best practices for addressing potential issues.

Task 6: 3rd Party Stakeholder Coordination

Description: With the transition to electric buses, 3rd party stakeholder coordination is critical to a successful implementation of this plan. Key 3rd party stakeholders include:

- **PG&E:** Willdan has a long-standing relationship with PG&E and their various programs and incentives. We will coordinate discussions to better understand the existing electrical capacity and upgrades needed to support an electric bus fleet, including the minimum size of potential transformers. Willdan will also work with PG&E to determine the most favorable rates for Fairfield considering an EV fleet and DERs. Willdan will investigate the feasibility of using net energy metering aggregation (NEM-A) to maximize DER's potential. Willdan and ANSER will work together to support Fairfield



applying for PG&E's EV Fleet Ready program, leveraging ANSER's longstanding participation and support of the lessons learned from SCE's Charge Ready Program. InCharge will support coordinating utility applications needed for corporation yard upgrades.

- *Marin Clean Energy (MCE)*: While Fairfield is not currently part of the MCE community choice aggregation, potential on-route chargers outside the city limits may fall within MCE's service area. Willdan will engage MCE as needed to understand generation capacity at potential on-route locations additional programs available to support the fleet electrification effort.
- *Metropolitan Transportation Commission*: KKCS has a long-standing relationship with MTC, which may provide additional support and regional coordination between Fairfield and connecting transit agencies.
- *BART*: Fairfield's routes connect to BART stations which may provide unique opportunities to install on-route chargers that serve multiple agencies and thus share costs. Willdan staff have key relationships with BART Staff and can assist in setting up and participating in coordinating discussions.
- *Solano Transit Authority (STA)*: The City of Fairfield operates two commuter bus routes, Solano Express Blue Line and GX Line. STA oversees management of both routes. STA also coordinates funding with participating for commuter buses and electrification infrastructure. Willdan will facilitate coordination as needed with bus procurement and infrastructure plans.

Deliverables:

PG&E:

- Summary document of existing electrical capacity at the site and minimum upgrade requirements to support a fully electric bus fleet.
- Results of favorable rates and NEM-Aggregate discussion to be incorporated into financial analysis.
- Data collection, presentation, technical and writing support needed to apply for PG&E's EV Fleet Ready Program

Other 3rd Parties (BART, STA, MCT, MCE)

- Assessment of efforts needed to start and implement regional coordination efforts including the possibility of shared charging infrastructure.
- Other coordination efforts as needed.

Task 7: Master Buildout Plan

Description: This task will involve combining the entirety of the elements previously discussed in this scope document into one overarching corporation yard and fleet electrification master plan. With the key decisions made by Fairfield and the internal stakeholders above, it will include:



- The fleet replacement timeline and what levels of base infrastructure need to be installed to support the EV fleet as it is expected to grow.
- Project timelines needed to meet each level of infrastructure improvements.
- A complete financial analysis, including
 - estimated cost to procure and maintain a fleet of electric buses
 - construction and infrastructure upgrade costs for the corporation yard, and maintenance facility upgrades
 - tooling and maintenance support costs
 - supporting DERs and Smart Charging Load Management Strategies
 - Training and support costs
 - Any other areas identified throughout the course of the project needed to transition to and support an EV fleet through 2040.

Deliverables

- Full report and buildout plan for Fairfield to convert to and operate a fully zero-emission battery electric bus fleet between 2020 and 2040.

Willdan proposes the above scope of work, billed on a monthly time and materials (T&M) basis up to a not to exceed amount of \$647,500, which includes \$22,547 of direct costs, billed at cost without markup. A task level budget breakdown with hours and billing rates can be seen attached to this document. Also attached below is a preliminary project schedule for this effort.

Willdan looks forward to engaging with Fairfield on this important and comprehensive strategy document which will set the Agency up with a roadmap to a successful zero-emission bus implementation. Please don't hesitate to contact the Project Lead, Steve Clarke, at 415-699-9310 if you have any questions about the proposed scope of work.








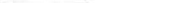




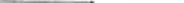






Respectfully submitted,



Ann L. McCormick, P.E.
Senior Vice President
Willdan Energy Solutions



Fairfield Transit Electrification Transition Feasibility Analysis, and Corporation Yard Improvements Needs Assessment and Project Management Services																			
ID		Task Name	Duration	Start	Finish	Predecessors													
							April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021
1		KickOff Meeting		Mon 4/20/20	Mon 4/20/20														
2		Data Collection	1 mon	Mon 4/20/20	Fri 5/15/20	1													
3		Summary and Recommendations	60 days	Mon 5/18/20	Fri 8/7/20														
4		Natural Fleet Replacement Plan	2 wks	Mon 5/18/20	Fri 5/29/20	2													
5		Route Modelling	1.5 mons	Mon 5/18/20	Fri 6/26/20	2													
6		Minimum Bus Spec	30 days	Mon 6/29/20	Fri 8/7/20	5													
7		Minimum Charger Spec	30 days	Mon 6/29/20	Fri 8/7/20	5													
8		Site Infrastructure Evaluation	1 mon	Mon 5/18/20	Fri 6/12/20	2													
9		Check In Meeting	0 days	Mon 8/24/20	Mon 8/24/20	3FS+10 days													
10		Financial Analysis and Business Plan Report	80 days	Mon 8/24/20	Fri 12/11/20														
11		BEB Phase-in Plan	10 days	Mon 8/24/20	Fri 9/4/20	9													
12		Charging Strategy and Schedule	2 mons	Mon 8/24/20	Fri 10/16/20	9													
13		DER Analysis	2 mons	Mon 8/24/20	Fri 10/16/20	9													
14		Corporate Yard Improvements and Design	2 mons	Mon 8/24/20	Fri 10/16/20	9													
15		Maintenance Facility Assessment and Retrofit Design	2 mons	Mon 8/24/20	Fri 10/16/20	9													
16		Financial Assesment	80 days	Mon 8/24/20	Fri 12/11/20	9													
17		Training Analysis	3 mons	Mon 10/19/21	Fri 1/8/21	9FS+2 mons													
18		Funding Analysis	3 mons	Fri 10/16/20	Fri 1/8/21	9FS+2 mons													
19		3rd Party Coordination	12.05 mons	Fri 5/15/20	Fri 4/16/21														
20		Master Buildout Plan	90 days	Mon 12/14/20	Fri 4/16/21	10													

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

City of Fairfield
Willdan Budget For:
Fairfield Transit Electrification Transition Model: Feasibility Analysis, Corporation Yard Improvement Needs Assessment and Project Management Services

Proposed Personnel		Ann McCormick Senior Executive	Steve Clarke Team Leader	Jonathan Mitchell Senior Advisor	Molly McKay Senior Advisor	Jeffery Lau Senior Advisor	Dominic Molinari Senior Engineer	Ben Laboy Senior Engineer	Audrey Rempher Engineer	Sripad Kamdadi Engineer	Taylor Briglio Project Manager	Daniela Aramayo Project Manager	CALSTART Subcontractor	KKCS Subcontractor	ANSER Subcontractor	InCharge Subcontractor	Total Deliverable Cost
Title/Role																	
Rate		\$ 280	\$ 240	\$ 240	\$ 240	\$ 240	\$ 200	\$ 200	\$ 155	\$ 155	\$ 130	\$ 130					
Task Number	Task and Deliverable Description	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
1	Contract Admin, Reporting, Subcontractor Management																
1.1	Overall project management	20	\$ 5,600	40	\$ 9,600	0	\$ -	0	\$ -	0	\$ -	8	\$ 1,600	8	\$ 1,600	0	\$ -
2	Staff and Public Planning Meetings																
2.1	Kick Off Meeting, Site Walk, Maintenance Facility Review	4	\$ 1,120	16	\$ 3,840	8	\$ 1,920	0	\$ -	0	\$ -	4	\$ 800	4	\$ 800	0	\$ -
2.2	Public Planning Meetings (2-3)	4	\$ 1,120	12	\$ 2,880	12	\$ 2,880	0	\$ -	4	\$ 960	4	\$ 800	4	\$ 800	0	\$ -
2.3	Ongoing Staff Meetings (3-5)	0	\$ -	20	\$ 4,800	8	\$ 1,920	2	\$ 480	2	\$ 480	2	\$ 400	20	\$ 4,000	2	\$ 310
3	BEB Conversion Feasibility and Analysis																
3.1	Data Collection	0	\$ -	2	\$ 480	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	4	\$ 620
3.2	Route Modeling	0	\$ -	8	\$ 1,920	4	\$ 960	0	\$ -	0	\$ -	4	\$ 800	4	\$ 800	0	\$ -
3.3	Summary and Recommendations Report	2	\$ 560	28	\$ 6,720	12	\$ 2,880	2	\$ 480	4	\$ 960	32	\$ 6,400	24	\$ 4,800	8	\$ 1,240
3.4	Conduct DER (Solar+ Battery) Analysis	8	\$ 2,240	16	\$ 3,840	2	\$ 480	0	\$ -	2	\$ 480	8	\$ 1,600	24	\$ 4,800	64	\$ 9,920
3.5	Maintenance Facility Analysis	0	\$ -	8	\$ 1,920	0	\$ -	0	\$ -	8	\$ 1,920	14	\$ 2,800	2	\$ 400	16	\$ 2,480
3.6	Develop Charging Requirements, Schedule and Strategy	0	\$ -	16	\$ 3,840	4	\$ 960	0	\$ -	4	\$ 960	18	\$ 3,600	17	\$ 3,400	8	\$ 1,240
3.7	Corp Yard Plan	0	\$ -	24	\$ 5,760	14	\$ 3,360	0	\$ -	32	\$ 7,680	24	\$ 4,800	20	\$ 4,000	24	\$ 3,720
3.8	Financial Analysis and Business Plan Report	4	\$ 1,120	16	\$ 3,840	4	\$ 960	12	\$ 2,880	0	\$ -	8	\$ 1,600	16	\$ 3,200	8	\$ 1,240
4	Funding Analysis and Grant Assistance																
4.1	Funding Summary	0	\$ -	6	\$ 1,440	0	\$ -	12	\$ 2,880	0	\$ -	6	\$ 1,200	0	\$ -	6	\$ 930
4.2	Grant Assistance (for first round of buses and chargers)	0	\$ -	2	\$ 480	0	\$ -	2	\$ 480	0	\$ -	2	\$ 400	0	\$ -	2	\$ 310
5	Training Requirements Analysis and Recommendations																
5.1	Develop comprehensive training recommendations	0	\$ -	10	\$ 2,400	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
6	3rd party Stakeholder Engagement and Coordination																
6.1	PG&E Coordination	4	\$ 1,120	8	\$ 1,920	4	\$ 960	0	\$ -	4	\$ 960	8	\$ 1,600	8	\$ 1,600	4	\$ 620
6.2	Other 3rd Party Stakeholder Coordination	12	\$ 3,360	4	\$ 960	12	\$ 2,880	0	\$ -	0	\$ -	4	\$ 800	0	\$ -	4	\$ 620
7	Master Buildout Plan																
7.1	Master Buildout Plan report	8	\$ 2,240	40	\$ 9,600	10	\$ 2,400	4	\$ 960	10	\$ 2,400	20	\$ 4,000	20	\$ 4,000	16	\$ 2,480
Project Total		66	\$ 18,480	276	\$ 66,240	94	\$ 22,560	34	\$ 8,160	70	\$ 16,800	166	\$ 33,200	171	\$ 34,200	162	\$ 25,110
Direct Costs (Airfare, Mileage, etc. Will be billed without markup.)																	\$ 22,547
Total Cost																	\$ 647,500

EXHIBIT "B"
Fee Schedule



Schedule of Hourly Rates

Effective July 1, 2019 to June 30, 2020

ENGINEERING		BUILDING AND SAFETY		CONSTRUCTION MANAGEMENT	
Technical Aide I	\$67	Assistant Code Enforcement Officer	\$89	Labor Compliance Specialist	\$120
Technical Aide II	\$87	Code Enforcement Officer	\$102	Labor Compliance Manager	\$150
Technical Aide III	\$107	Senior Code Enforcement Officer	\$120	Utility Coordinator	\$159
CAD Operator I	\$108	Supervisor Code Enforcement	\$145	Assistant Construction Manager	\$150
CAD Operator II	\$125	Plans Examiner Aide	\$95	Construction Manager	\$176
CAD Operator III	\$139	Plans Examiner	\$145	Senior Construction Manager	\$178
GIS Analyst I	\$145	Senior Plans Examiner	\$159	Project Manager IV	\$203
GIS Analyst II	\$164	Assistant Construction Permit Specialist	\$102	Deputy Director	\$211
GIS Analyst III	\$176	Construction Permit Specialist	\$107	Director	\$216
Environmental Analyst I	\$121	Senior Construction Permit Specialist	\$125	INSPECTION SERVICES	
Environmental Analyst II	\$135	Supervising Construction Permit Specialist	\$133	Public Works Observer I***	\$93
Environmental Analyst III	\$144	Assistant Building Inspector	\$120	Public Works Observer II***	\$103
Environmental Specialist	\$155	Building Inspector***	\$133	Senior Public Works Observer I***	\$111
Designer I	\$145	Senior Building Inspector	\$145	Senior Public Works Observer II***	\$123
Designer II	\$150	Supervising Building Inspector	\$159	Senior Public Works Observer III***	\$134
Senior Designer I	\$159	Inspector of Record	\$174	Senior Public Works Observer IV***	\$142
Senior Designer II	\$167	Deputy Building Official	\$174	Senior Public Works Observer V***	\$151
Design Manager	\$170	Building Official	\$176	MAPPING AND EXPERT SERVICES	
Senior Design Manager	\$176	Plan Check Engineer	\$174	Survey Analyst I	\$125
Project Manager I	\$156	Supervising Plan Check Engineer	\$176	Survey Analyst II	\$145
Project Manager II	\$177	Principal Project Manager	\$207	Calculator I	\$125
Project Manager III	\$187	Deputy Director	\$211	Calculator II	\$139
Project Manager IV	\$203	Director	\$216	Calculator III	\$151
Principal Project Manager	\$207	PLANNING		Senior Survey Analyst	\$164
Program Manager I	\$174	CDBG Technician	\$70	Supervisor - Survey & Mapping	\$178
Program Manager II	\$188	CDBG Specialist	\$85	Principal Project Manager	\$207
Program Manager III	\$208	CDBG Analyst	\$100	LANDSCAPE ARCHITECTURE	
Assistant Engineer I	\$121	CDBG Coordinator	\$125	Assistant Landscape Architect	\$125
Assistant Engineer II	\$137	CDBG Manager	\$150	Associate Landscape Architect	\$145
Assistant Engineer III	\$144	Planning Technician	\$107	Senior Landscape Architect	\$159
Assistant Engineer IV	\$149	Assistant Planner	\$133	Principal Landscape Architect	\$176
Associate Engineer I	\$155	Associate Planner	\$145	Principal Project Manager	\$207
Associate Engineer II	\$161	Senior Planner	\$164	ADMINISTRATIVE	
Associate Engineer III	\$168	Principal Planner	\$176	Administrative Assistant I	\$79
Senior Engineer I	\$171	Planning Manager	\$192	Administrative Assistant II	\$95
Senior Engineer II	\$174	ENERGY SOLUTIONS		Administrative Assistant III	\$111
Senior Engineer III	\$177	Energy Analyst	\$125	Project Accountant I	\$90
Senior Engineer IV	\$185	Project Manager	\$130	Project Accountant II	\$105
Senior Engineer V	\$200	Energy Engineer I	\$155	Project Controller I	\$111
Supervising Engineer	\$190	Energy Engineer II	\$175	Project Controller II	\$125
Traffic Engineer I	\$188	Senior Energy Engineer I	\$185		
Traffic Engineer II	\$203	Senior Energy Engineer II	\$200		
City Engineer I	\$203	Senior Advisor	\$240		
City Engineer II	\$213	Vice President	\$250		
Deputy Director	\$211	Senior Vice President	\$280		
Director	\$216				
Senior Director	\$240				
Principal Engineer	\$240				

*** \$172/hour for Prevailing Wage Project

Mileage/Field Vehicle usage will be charged at the rate in accordance with the current FTR mileage reimbursement rate, subject to negotiation.

Additional billing classifications may be added to the above listing during the year as new positions are created. Consultation in connection with litigation and court appearances will be quoted separately. The above schedule is for straight time. Overtime will be charged at 1.5 times, and Sundays and holidays, 2.0 times the standard rates. Blueprinting, reproduction, messenger services, and printing will be invoiced at cost plus fifteen percent (15%). A sub-consultant management fee of fifteen percent (15%) will be added to the direct cost of all sub-consultant services to provide for the cost of administration, consultation, and coordination. Valid July 1, 2019 thru June 30, 2020, thereafter, the rates may be raised once per year to the value between the 12-month % change of the Consumer Price Index for the Los Angeles/Orange County/Sacramento/San Francisco/San Jose area up to five percent.

EDD REPORTING REQUIREMENTS CHECKLIST

Effective January 1, 2001 the State Employment Development Department (EDD) requires the following.

Please complete the following: (To be complete by the department)

Department: _____ Date of Contract: _____
Authorized by Res. No.: _____ Contract Expiration Date: _____
Person Reviewing EDD Requirements: _____ Phone: _____

EDD REPORTING REQUIREMENTS. When CITY executes an agreement for or makes payment to CONSULTANT in the amount of \$600 (six hundred dollars) or more in any one calendar year, CONSULTANT shall provide the following information to CITY to comply with EDD reporting requirements:

- A. Whether CONSULTANT is doing business as a sole proprietorship, partnership, limited liability partnership, corporation, limited liability corporation, non-profit corporation or other form of organization.
- B. If CONSULTANT is doing business as a sole proprietorship, CONSULTANT shall provide the full name, address and social security number or federal tax identification number of the sole proprietor.
- C. If CONSULTANT is doing business as other than a sole proprietorship, CONSULTANT shall provide CONSULTANT's federal tax identification number.

*

Dear Contracting Company:

Pursuant to your contract with the above-mentioned City of Fairfield Department, you are required to complete box 1 AND box 2 below.

Please indicate the type of business and provide the information requested:

BOX 1

NAME AND ADDRESS	
FULL NAME	Willdan Energy Solutions
ADDRESS	2401 E. Katella Ave., Suite 300
CITY, STATE, ZIP	Anaheim, CA 92806

AND

BOX 2

X Box	TYPE OF BUSINESS	SOCIAL SECURITY NUMBER AND/OR FEDERAL ID NUMBER
	SOLE PROPRIETORSHIP	
	PARTNERSHIP	
	LIMITED LIABILITY PARTNERSHIP	
X	CORPORATION	56-2417519
	LIMITED LIABILITY CORPORATION	
	NON-PROFIT CORPORATION	
	OTHER FORM OF ORGANIZATION	

PLEASE RETURN THIS FORM WITH THE SIGNED CONTRACT TO THE CITY OF FAIRFIELD



Schedule of Hourly Rates

Effective July 1, 2019 to June 30, 2020

ENGINEERING		BUILDING AND SAFETY		CONSTRUCTION MANAGEMENT	
Technical Aide I	\$67	Assistant Code Enforcement Officer	\$89	Labor Compliance Specialist	\$120
Technical Aide II	\$87	Code Enforcement Officer	\$102	Labor Compliance Manager	\$150
Technical Aide III	\$107	Senior Code Enforcement Officer	\$120	Utility Coordinator	\$159
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Environmental Analyst II	\$135	Supervising Construction Permit Specialist	\$133	Public Works Observer I***	\$93
Environmental Analyst III	\$144	Assistant Building Inspector	\$120	Public Works Observer II***	\$103
Environmental Specialist	\$155	Building Inspector***	\$133	Senior Public Works Observer I***	\$111
Designer I	\$145	Senior Building Inspector	\$145	Senior Public Works Observer II***	\$123
Designer II	\$150	Supervising Building Inspector	\$159	Senior Public Works Observer III***	\$134
Senior Designer I	\$159	Inspector of Record	\$174	Senior Public Works Observer IV***	\$142
Senior Designer II	\$167	Deputy Building Official	\$174	Senior Public Works Observer V***	\$151
Design Manager	\$170	Building Official	\$176	MAPPING AND EXPERT SERVICES	
Senior Design Manager	\$176	Plan Check Engineer	\$174	Survey Analyst I	\$125
Project Manager I	\$156	Supervising Plan Check Engineer	\$176	Survey Analyst II	\$145
Project Manager II	\$177	Principal Project Manager	\$207	Calculator I	\$125
Project Manager III	\$187	Deputy Director	\$211	Calculator II	\$139
Project Manager IV	\$203	Director	\$216	Calculator III	\$151
Principal Project Manager	\$207	PLANNING		Senior Survey Analyst	\$164
Program Manager I	\$174	CDBG Technician	\$70	Supervisor - Survey & Mapping	\$178
Program Manager II	\$188	CDBG Specialist	\$85	Principal Project Manager	\$207
Program Manager III	\$208	CDBG Analyst	\$100	LANDSCAPE ARCHITECTURE	
Assistant Engineer I	\$121	CDBG Coordinator	\$125	Assistant Landscape Architect	\$125
Assistant Engineer II	\$137	CDBG Manager	\$150	Associate Landscape Architect	\$145
Assistant Engineer III	\$144	Planning Technician	\$107	Senior Landscape Architect	\$159
Assistant Engineer IV	\$149	Assistant Planner	\$133	Principal Landscape Architect	\$176
Associate Engineer I	\$155	Associate Planner	\$145	Principal Project Manager	\$207
Associate Engineer II	\$161	Senior Planner	\$164	ADMINISTRATIVE	
Associate Engineer III	\$168	Principal Planner	\$176	Administrative Assistant I	\$79
Senior Engineer I	\$171	Planning Manager	\$192	Administrative Assistant II	\$95
Senior Engineer II	\$174	ENERGY SOLUTIONS		Administrative Assistant III	\$111
Senior Engineer III	\$177	Energy Analyst	\$125	Project Accountant I	\$90
Senior Engineer IV	\$185	Project Manager	\$130	Project Accountant II	\$105
Senior Engineer V	\$200	Energy Engineer I	\$155	Project Controller I	\$111
Supervising Engineer	\$190	Energy Engineer II	\$175	Project Controller II	\$125
Traffic Engineer I	\$188	Senior Energy Engineer I	\$185		
Traffic Engineer II	\$203	Senior Energy Engineer II	\$200		
City Engineer I	\$203	Senior Advisor	\$240		
City Engineer II	\$213	Vice President	\$250		
Deputy Director	\$211	Senior Vice President	\$280		
Director	\$216				
Senior Director	\$240				
Principal Engineer	\$240				

*** \$172/hour for Prevailing Wage Project

Mileage/Field Vehicle usage will be charged at the rate in accordance with the current FTR mileage reimbursement rate, subject to negotiation.

Additional billing classifications may be added to the above listing during the year as new positions are created. Consultation in connection with litigation and court appearances will be quoted separately. The above schedule is for straight time. Overtime will be charged at 1.5 times, and Sundays and holidays, 2.0 times the standard rates. Blueprinting, reproduction, messenger services, and printing will be invoiced at cost plus fifteen percent (15%). A sub-consultant management fee of fifteen percent (15%) will be added to the direct cost of all sub-consultant services to provide for the cost of administration, consultation, and coordination. Valid July 1, 2019 thru June 30, 2020, thereafter, the rates may be raised once per year to the value between the 12-month % change of the Consumer Price Index for the Los Angeles/Orange County/Sacramento/San Francisco/San Jose area up to five percent.