CITY OF ALHAMBRA

PURCHASE AGREEMENT
WITH
HAAKER EQUIPMENT COMPANY

Contract No. C2M18-58

THIS AGREEMENT is made and entered into effective as of the 12th day of December, 2018, by and between the CITY OF ALHAMBRA, a charter law city, located in the County of Los Angeles, State of California, hereinafter referred to as CITY and HAAKER EQUIPMENT COMPANY, with its principal place of business located at 2070 N. White Ave, La Verne, CA 91750 hereinafter called SELLER.

WITNESSETH:

For and in consideration of the promises and of the mutual covenants and agreements herein contained, said parties hereby agree as follows:

1. **RECITALS.** This AGREEMENT is made and entered into with respect to the following facts:

(a) Notice Inviting Sealed Bid No. N2M18-87 was issued for the purchase of one (1) New CNG Combination Truck-Sewer. Bidders were required to submit a sealed bid on or before September 27, 2018. The bids were publicly opened that same day.

(b) That at its regular meeting held on October 18, 2018 the City Council accepted the bid of Haaker Equipment Company, as the lowest responsible bidder.

(c) The City Council directed that a written contract be entered into with SELLER upon the terms and conditions as hereinafter set forth.

2. **CONTRACT DOCUMENTS.** The Contract Documents shall consist of the CITY's Notice Inviting Bids No. N2M18-87, Bid Form and Specifications, a copy of which is attached hereto as Exhibit "A", SELLER's Proposal, a copy of which is attached hereto as Exhibit "B", and all referenced specifications, details, and appendices, together with this contract and all required certificates, permits, notices and affidavits, and also including any and all addenda or supplemental agreements clarifying, amending, or extending the purchase contemplated as may be required to insure its purchase and delivery in an acceptable manner.

All of the rights and obligations of the CITY and SELLER are fully set forth and described in the Contract Documents.

All of the above-mentioned documents are intended to complement the other documents so that any work called for in one, and not mentioned in the others, or vice versa, is to be executed the same as if mentioned in all of said documents. The document comprising the complete contract are hereinafter referred to as the CONTRACT DOCUMENTS and are incorporated herein by this reference and made and part hereof as though they were fully set forth herein.

3. **CONTRACT PRICE AND PAYMENT.** CITY hereby agrees to pay SELLER and SELLER hereby agrees to accept as payment in full the total sum of Four Hundred Eighty Six Thousand Five Hundred and Fifty-Five Dollars and Eighty-Six cents ($486,555.86) to be paid as provided for in the CITY's Notice Inviting Bids attached hereto as Exhibit "A."

4. **WARRANTY.** The vehicles are warranted by SELLER to be new and to be free from defects in materials and workmanship and perform to specifications provided in the CONTRACT DOCUMENTS, and by reference made a part hereof as though fully set forth herein. During said warranty periods, the vehicles shall maintain their structural and functional integrity. The warranty is based on regular operation, under operating conditions prevailing in the CITY's operating area.

5. **WARRANTY OF FITNESS.** SELLER hereby warrants that all materials furnished shall meet the requirements and conditions of the CONTRACT DOCUMENTS and shall be fit for the purposes intended.

It is understood and agreed that by acceptance of this warranty and the acceptance of materials or supplies to be manufactured or assembled pursuant to the specifications in these CONTRACT DOCUMENTS, does not waive any warranty, either expressed or implied.

6. **TERMINATION OF AGREEMENT.** The CITY shall have the right to terminate this AGREEMENT upon giving a ten (10) day advance written notice of such termination to SELLER. In the event of such termination, the City Manager, or his designee, based upon services accomplished by SELLER prior to notice of such termination, shall determine the amount of fees to be paid to SELLER for such services based upon accepted practices within SELLER'S field, and such finding by the City Manager, or his designee, and approved by the Alhambra City Council, shall be final and conclusive as to the amount of such fee.

7. **INDEPENDENT CONTRACTOR.** SELLER shall act as an independent contractor in the performance of the services provided for in this AGREEMENT and shall furnish such services in SELLER's own manner and

method and in no respect shall SELLER be considered an agent or employee of the CITY.

8. **NONASSIGNMENT.** This AGREEMENT is not assignable, either in whole or in part, by SELLER without the written consent of CITY.

9. **INDEMNIFICATION.** SELLER hereby agrees to and shall hold CITY, its elective and appointive boards, officers, agents, and employees, harmless from any liability for damage or claims for damage for personal injury, including death, as well as from claims for property damage which may arise from SELLER's negligent acts, errors or omissions under this AGREEMENT. SELLER agrees to, and shall defend CITY and its elective and appointive boards, officers, agents, and employees from any suits or actions at law or in equity for damages caused, or alleged to have been caused, by reason of any of the aforesaid negligent acts, errors or omission; provided

(a) That CITY does not, and shall not, waive any rights against SELLER which it may have by reason of the aforesaid hold-harmless AGREEMENT because of the acceptance by CITY or the deposit with CITY by SELLER, of any of the insurance policies hereinafter described in this AGREEMENT.

(b) That the aforesaid hold-harmless AGREEMENT by SELLER shall apply to all damages and claims for damages of every kind suffered, or alleged to have been suffered, by reason of any of the aforesaid operations of SELLER, or any subcontractor of SELLER, regardless of whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

CITY hereby agrees to and shall hold SELLER, its officers, agents, and employees, harmless from any liability for damage or claims for damage for personal injury, including death, as well as from claims for property damage which may arise from CITY's negligent acts, errors or omissions under this AGREEMENT. CITY agrees to, and shall defend SELLER and its officers, agents, and employees from any suits or actions at law or in equity for damages caused, or alleged to have been caused, by reason of any of the aforesaid negligent acts, errors, or omission.

10. **NON-DISCRIMINATION.** SELLER shall not discriminate in its recruiting, hiring, promotion, demotion or termination practices on the basis of race, religion, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, or sexual preference, in the performance of this AGREEMENT and shall comply with the provisions of the California Fair Employment and Housing Act as set forth in Part 2.8 of Division 3,

Title 2 of the California Government Code; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246; and all administrative rules and regulations issued pursuant to such acts and order.

11. **UNAUTHORIZED ALIENS.** SELLER hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act (8 USC 1101, *et seq.*), as amended; and, in connection therewith, shall not employ unauthorized aliens as defined therein. Should SELLER so employ such unauthorized aliens for the performance of work and/or services covered by this AGREEMENT, and should the Federal Government impose sanctions against the CITY for such use of unauthorized aliens, SELLER hereby agrees to, and shall, reimburse CITY for the cost of all such sanctions imposed, together with any and all costs, including attorneys' fees, incurred by the CITY in connection therewith.

12. **WAIVER.** Waiver by any party hereto of any term, condition, or covenant of this AGREEMENT shall not constitute the waiver of any other term, condition or covenant hereof.

13. **ATTORNEYS' FEES.** If litigation is reasonably required to enforce or interpret the provisions of this AGREEMENT, the prevailing party in such litigation shall be entitled to an award of reasonable attorneys' fees, in addition to any other relief to which it may be entitled.

14. **BINDING EFFECT.** This AGREEMENT shall be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

15. **PROVISIONS, CUMULATIVE.** The provisions of this AGREEMENT are cumulative, and in addition to, and not in limitation of, any rights or remedies available to CITY.

16. **NO PRESUMPTION RE: DRAFTER.** The parties acknowledge and agree that the terms and provisions of this AGREEMENT have been negotiated and discussed between the parties and their attorneys, and this AGREEMENT reflects their mutual AGREEMENT regarding the same. Because of the nature of such negotiations and discussions it would be inappropriate to deem any party to be the drafter of this AGREEMENT; and, therefore, no presumption for or against validity or as to any interpretation hereof, based upon the identity of the drafter, shall be applicable in interpreting or enforcing this AGREEMENT.

17. **ASSISTANCE OF COUNSEL.** Each party to this AGREEMENT warrants to each other party as follows:

(a) That each party either had the assistance of counsel or had counsel available to it, in the negotiation for, and execution of, this AGREEMENT, and all related documents; and,

(b) That each party has lawfully authorized the execution of this AGREEMENT.

18. **MODIFICATION**. This AGREEMENT shall not be modified, except by written AGREEMENT of the parties.

29. **GOVERNING LAW.** This AGREEMENT shall be interpreted and construed according to the laws of the State of California.

20. **NOTICE.** Whenever it shall be necessary for either party to serve notice on the other regarding this AGREEMENT, such notice may be furnished in writing by either party to the other, and shall be served by personal service, as required in judicial proceedings or by certified mail, postage prepaid, return receipt requested, addressed to the parties as follows:

CITY: Martin Ray, Director of Utilities
City of Alhambra
111 South First Street
Alhambra, CA 91801

SELLER: Matthew Woods
Haaker Equipment Company
2070 N. White Ave
La Verne, CA 91750

21. **EFFECTIVE DATE AND EXECUTION.** This AGREEMENT shall be effective from and after the date it is signed by the representatives of the CITY. This AGREEMENT may be executed in counterparts. The vehicle shall be delivered eight weeks after the effective date.

22. **FORCE MAJEURE.** Neither party shall be responsible for delays or failures in performance resulting from acts beyond the control of the offending party. Such acts include, but are not limited to, acts of God, fire, flood, earthquake, or other natural disaster, nuclear accident, strike, lockout, riot, freight embargo, publicly regulated utility, or government statutes or regulations superimposed after the fact.

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Signatures on next page

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed on its effective date by their respective officers duly authorized to bind the parties on their behalf.

CITY

CITY OF ALHAMBRA, a Charter Law City

By: _____
JEFFREY KOJI MALONEY, Mayor

ATTEST:

_____
LAUREN MYLES, City Clerk

APPROVED AS TO FORM:
CITY ATTORNEY

By: _____
JOSEPH M. MONTES

SELLER

Robin Hacker
Signature

By: Robin Hacker
Print Name

Its: President
Officer Title (President/Vice Pres)

_____
Signature

By: John W. "Jake" Hacker
Print Name

Its: Director of Operations / Secretary /
Officer Title (Secretary/Treasurer)

Exhibit "A"

CITY OF ALHAMBRA

NOTICE INVITING BIDS NO. N2M18-87

PUBLIC NOTICE IS HEREBY GIVEN that the City of Alhambra will receive sealed bids **on or before the hour of 10:30 AM on Thursday, September 27, 2018,** at the office of the City Clerk, City Hall, 111 South First Street, Alhambra, California, to be opened by the City Clerk at 11:00 AM on that same day in the City Council Chambers to provide to the City the following, with the minimum specifications attached thereto and, by this reference, made a part hereof:

CNG COMBINATION TRUCK-SEWER

Bid shall include all applicable State and Local Sales Taxes.

Supplier shall be responsible for registration of equipment with the Department of Motor Vehicles.

Bid price to be F.O.B. Alhambra City Yard, 900 South New Avenue, Alhambra, California.

Payment is to be made approximately 30 days after delivery.

All bids are to specify a firm delivery date. Liquidated damages of $250.00 per day will be assessed for each day in excess of the agreed-upon delivery date.

If product on which bid is submitted varies in any detail from these specifications, special mention must be made of each variance.

Proposals may not be withdrawn after the time is fixed for opening of proposals.

The designation of a brand name in these specifications is merely for illustrative purposes and is not intended to restrict bidding. It shall be to the absolute discretion of the City of Alhambra, however, to determine whether or not any substitute product is, in fact, equal. Within (30) days after the award of a contract hereunder, the successful bidder shall, if requested by the City, submit to the City data substantiating any request for the substitution of "an equal" item.

Any contract awarded hereunder shall become effective or enforceable against the City of Alhambra only when a formal written contract has been duly executed by the appropriate officers of the City of Alhambra.

Each bidder shall specify whether such bidder is a corporation, a partnership or an individual. If a corporation, designate the name of the state of incorporation; if a partnership, the bidder shall state the names and addresses of all partners.

The City of Alhambra reserves the right to reject any and all bids and to waive any informality, technical defect, or minor irregularity in any bid submitted.

Any questions concerning the Notice Inviting Bids, please contact Dennis Ahlen at 626-570-3274 or email at dahlen@cityofalhambra.org.

Bidders are hereby notified that the Alhambra Municipal Code Section 3.36.125 reads as follows:

"Bidding preferences for local businesses. For the purposes of determining the lowest responsible bidder, as required by sections 3.36.110 and 3.36.120, one percent of that portion of any bid subject to sales or use tax shall be deducted from such bid where it is determined that, if such bid were accepted by the City as the lowest responsible bid received, the City would receive a refund of the one percent sales and use tax imposed by Chapter 3.08 of this code; and further, that the same preference shall be given to those items on which sales and use tax do not apply. (Ord. 3760, Sec. 1)."

Bids shall be submitted in a sealed envelope bearing the name and address of the bidder and plainly marked:

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

BY ORDER OF:
Lauren Myles, CMC
ALHAMBRA CITY CLERK

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

TO THE ALHAMBRA CITY COUNCIL:

In compliance with the Notice Inviting Bids, and by this reference made a part hereof, the undersigned hereby proposes and agrees to furnish and deliver the following equipment at the prices set forth below, in strict conformity with the specifications proposed therefor. **Price shall include State and Local Sales Taxes.**

CNG COMBINATION TRUCK-SEWER

TOTAL BID AMOUNT IN WORDS

_____

_____

Note: Bidders are hereby notified that the Alhambra Municipal Code Section 3.36.125 reads as follows:

Bidding preferences for local businesses. For the purposes of determining the lowest responsible bidder as required by Section 3.36.110 and 3.36.120, one percent of that portion of any bid subject to sales or use tax shall be deducted from such bid where it is determined that, if such bid were accepted by the City as the lowest responsible bid received, the City would have received a refund of the one percent sales and use tax imposed by Chapter 3.08 of the code; and further, that the same preference shall be given to those items on which sales or use tax do not apply. (Ord. 3760, Sec. 1).

_____

Signature of Bidder Date

_____

Name Printed Phone Number

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

EXCEPTION TO SPECIFICATIONS
(The following must be filled in and signed by bidder.)

DOES YOUR BID COMPLY WITH THE CONDITIONS AND SPECIFICATIONS IN THIS ADVERTISEMENT IN EVERY PARTICULAR?

(CHECK) YES_____ NO_____

IF YOUR ANSWER IS "NO," EXPLAIN IN DETAIL BELOW IN EACH INSTANCE WHERE THE EQUIPMENT OFFERED DOES NOT COMPLY WITH THE CONDITIONS AND/OR SPECIFICATIONS:

_____

_____

_____

_____

_____

_____

_____ _____
Company Name Signed by

_____ _____
Company Address Title of Signatory

_____
Phone Number

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

_____
Company Name

_____ _____
Street Address City, State, Zip

_____
Phone Number

_____
Individual, Corporation, or Partnership

BY _____ _____
Printed Name Signature

If bidder is a corporation, name the state under which incorporated:

_____

If bidder is a partnership, list below the names and addresses of all partners:

NAME	ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____

DETAILED SPECIFICATIONS

FOR

CNG COMBINATION TRUCK-SEWER

		COMPLY	
		YES	NO
1.0	**INTENT**		
1.01	The intent of this specification is to provide for the purchase of one (1) new and unused single-engine combination sewer and catch basin cleaner used for removing all debris commonly found in catch basins/storm lead structures and sanitary sewer lines/manhole structures using a front mounted operating station. The unit shall consist of a Positive Displacement (PD) Blower vacuum system, a hydraulically driven high pressure water pump, an enclosed sealed body for storage of collected debris and equipped with a self-contained water supply as the source for the water pump system. The unit shall have the capability of operating both vacuum and water system simultaneously at full operating speeds continuously. (Submit horsepower requirements of all systems on unit)		
2.0	**EQUIVALENT PRODUCT**		
2.01	Bids will be accepted for consideration on any make or model that is equal or superior to the equipment specified. Decisions of equivalency will be at the sole interpretation the City of Alhambra.		
2.02	Bidder shall demonstrate a reasonable likeness of the equipment being offered within a reasonable time of request. Equipment demonstrated shall be equipped with all accessories and components required in this specification to ascertain equivalence.		
2.03	A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.		
3.0	**BIDDER REFERENCES**		
3.01	To ensure adequate local availability of parts and competent service from experienced suppliers, bids are preferred from local vendors who have sold and serviced at least 30 units of same manufacturer within service area of Alhambra, city of is preferred and should include contacts with phone numbers.		
4.0	**SERVICE AND SUPPORT**		
4.01	Location of warranty service center and amount of inventory shall be noted which may be verified and inspected.		
4.02	Amount of OEM parts at this facility: $		
4.03	Years of servicing equipment being bid: Years		
4.04	Number of factory qualified service technician:		
5.0	**GENERAL**		
5.01	The specification herein states the minimum requirements of the Alhambra, city of. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. Any bid not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable the Alhambra, city of to make a reasonable determination of compliance to the specification will be considered "non-responsive" and grounds for rejection.		
6.0	**SUBFRAME**		

6.01	The equipment shall be of modular design consisting of vacuum system, water tanks system, debris body and drive system.		
6.02	A sub frame shall be fabricated to the exact dimensions of the truck chassis for mounting of modular components.		
6.03	All components of the module shall attach to the sub frame and not directly to the chassis.		
6.04	Sub frame shall be designed to ASME standards for maximum applied loads, chassis frame movement and even distribution of weight to the chassis and suspension.		
6.05	Sub frame shall be continuous and uninterrupted from back of cab to end of frame.		
7.0	**DEBRIS BODY**		
7.01	Efficiency of air movement through debris body will be measured for minimal restriction as measured by vacuum pressure gauge while operating blower at full speed. Pressure drop throughout entire system (from 8" hose inlet to blower inlet) including specified filtration and blower protection devices shall be no greater than 3" hg as measured at blower.		
7.02	The body shall be cylindrical having a minimum usable capacity of 10 cubic yards.		
7.03	The body shall be capable of a 48" dump height.		
7.04	The debris storage body shall be constructed with a minimum 3/16" corrosion and abrasion resistant Ex-Ten steel.		
7.05	The debris storage body shall have a minimum yield point of 50,000 PSI and a minimum tensile strength of 70,000 PSI.		
7.06	Body shall have a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal. Adjustable for periodic compensation of door seal wear.		
7.07	Dual outward mounted rear door props shall be included as standard to prevent operator from entering door swing path when engaging rear door prop.		
7.08	For optimal particulate separation, vacuum shall be drawn from separate ports in the top of the debris body.		
7.09	Body shall be dumped by raising the body to a 50 degree angle utilizing a forward mounted, double acting hydraulic dump cylinder.		
7.10	Dump controls, accessory controls, e-stop control shall be provided at a central curb side location directly behind the cab of the truck.		
7.11	For stability and safety, dumping must be accomplished while the pivot point of the body remains fixed to the subframe.		
7.12	Industrial style rear debris body door shall be flat, and shall open and close hydraulically by cylinders mounted at the top of the body. Door shall open 50 degrees from the fully closed position. Door shall be unlocked, opened, closed, and locked by a failsafe hydraulically activated sequential positive locking system, cam operated by a single hydraulic cylinder, with all controls located behind truck cab, forward of the debris body, so operator is not subject to sewage when dumping.		
7.13	Debris body shall have a body flush out system with a fan-type spray nozzle located in the front wall of the debris body to aid in the flushing of heavy debris. The nozzle shall also utilize (2) spray nozzles to flush the front most area of the debris body. System must produce a flow of 80GPM. Control valve shall be on the curb side of the unit.		
7.14	Debris body load limit alarm coupled to float indicator arm automatically activating vacuum relief to be provided.		
7.16	Body shall have a float type automatic shut-off system protecting the Positive Displacement Blower with (2) 10" stainless steel shut-off balls located in the debris body. Each float ball housing shall be within a non-corrosive slide-out screen assembly and be accessed without the use of tools.		

7.18	The debris body shall be equipped with a rear door drain to drain off excess liquids while retaining solids and shall include a manually operated 6" butterfly valve with 10' of lay flat hose.		
7.19	The debris body shall be equipped with a rear door drain at bottom dead center to drain off excess liquids with an internal screen to prevent large solids from passing.An air operated 6" knife valve controlled by a switch located at the operator station shall be provided at this location. Valve to be supplied with cam-lock coupler and 25' of lay flat hose having camlock quick connects.		
7.27	(4) Dual vertical (cyclone) centrifugal separators shall be installed in-line between the debris body and the air mover, (2) per side for each debris body discharge port. Each dual separator shall include large fallout chamber cleanout door.		
7.28	For safety, a minimum of (5) vacuum tubes shall be stored on curbside storage racks to minimize operator exposure to traffic side of unit. Shall include quick release retainer handles (no bungees or clamps).		
7.29	A curb-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.30	A street-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).		
7.32	(2) Pipe Storage Racks Curbside waist level and (2) on rear door with quick releases.		
7.33	A stainless steel micro-strainer (to 30 microns) shall be provided prior to the blower inlet, with (3) removable cartridge style screens and bottom drain port.		
7.34	A splash shield shall be mounted around the lower 60% of door opening to direct liquid and debris away from the chassis. Shield shall be minimum 10" deep bolted assembly with no openings.		
7.35	A lubrication manifold system shall be provided to allow ground level greasing of boom lift and swing cylinders, float level indicator, top rear door hinges and debris body hoist cylinder pins.		
7.37	A 6" valve with 3" vent to atmosphere, electrically activated, air operated valve debris body vacuum relief system shall be located in the inlet of the vacuum system to allow the venting of the tank and relieve vacuum at the debris intake hose.(3) Kunkel relief valves shall be included.		
7.38	A debris inlet deflector distributing load evenly in debris body shall be included.		
8.0	**WATER TANKS**		
8.01	The water tanks shall be manufactured from a non-corrosive material to prevent rust yet still provide for maximum strength.		
8.02	The water tank material shall require no internal coating and shall be repairable if patching is required.		
8.03	The water tanks shall be easily removed from the subframe to provide complete access to the truck chassis for maintenance purposes.		
8.04	The water tanks shall be adequately vented and connected to provide complete filling.		
8.05	The water tanks shall be totally separate from the debris tanks and provide no structural support.		
8.06	The water tanks shall share no common walls with the debris tanks to prevent corrosion.		
8.07	The water tanks shall come equipped with an anti-siphon device and 25' of hydrant fill hose and fittings.		
8.08	The water tanks shall carry a 10 year warranty against corrosion or cracking.		
8.09	All water tanks shall be fully baffled to form a maximum compartment storage of 150 gallons for each compartment. Alhambra, city of has determined that for the stability of the vehicle when turning and stopping and for safety of personnel that systems baffled at 150 maximum gallon compartments are preferred. Exceptions of requirement shall be explained in detail accompanied with detailed engineering drawings.		

8.10	The water tank shall be located for the lowest possible center of gravity while providing 100% gravity flooded intakes to water pump.		
8.11	Fresh water shall enter the tanks through an in line 6" air gap, all aluminum covered anti-siphon device.		
8.12	Water level sight tubes of non-yellowing plastic shall be installed on both tanks.		
8.13	The sides of these water tanks shall not extend more than 48" out from the centerline of the truck chassis.		
8.14	A fresh water drain system shall be provided to completely drain the fresh water system from one location utilizing a 3 drain port and plug.		
8.15	A minimum 6" connection between tanks shall be provided.		
8.16	For stability safety, the water tanks shall not elevate with debris body during dump cycle.		
8.17	A low water alarm with indicator on control screen shall alert operator when water storage has reached an operator set remaining water level.		
8.23	A 3 in-line "Y" trap strainer shall be located at inlet of water tank fill air-gap.		
8.24	A 3 in-line "Y" trap Monel stainless steel strainer shall be located between the water cells and water pump.		
8.25	A 3" Gate Valve shall be provided at water pump.		
8.26	Water tank must be a certified metered capacity of 1000 gallons. Certification shall be necessary upon delivery.		
8.27	Water tanks shall be constructed of 1/8" aluminum with baffled compartments maximum 150 gallons each.		
8.30	An additional water tank sight gauge shall be provided.		
8.31	Liquid Float Level Indicator shall be provided.		
9.0	**VACUUM/VACUUM DRIVE SYSTEM**		
9.01	Vacuum shall be provided by a positive displacement rotary lobe type blower driven via chassis engine and heavy duty split transfer case direct to the blower.		
9.02	Interlock safety system shall prevent drive axle from engaging.		
9.03	A horizontal silencer with rain cap shall exhaust above the cab.		
9.04	A blower tachometer / hourmeter shall be provided and displayed digitally on front control screen.		
9.05	For most efficient use of horsepower and fuel consumption, full vacuum and/or combination operation shall be approximately 1750 RPM of chassis drive engine.		
9.06	Blower shall be driven by the chassis engine and shall produce inlet volume of 3600 cfm @ 0" hg @ 2080 rpm, and 3150 cfm @ 15" hg @ 2080 rpm vacuum (Roots 821 RCS-15 or equal).		
9.07	For added protection, the vacuum system shall have three (3) Kunkel relief valves set at 15" hg, heavy duty horizontal mounted noise muffler, removable and cleanable stainless steel filter screen, and shall be enclosed with a steel cage guard for safety.		
9.08	Transfer case shall be activated by air via a one touch control located in cab with animated confirmation on screen.		
9.10	Blower shall be driven from chassis engine via the transmission drive shafts and heavy duty split shaft transfer case direct to blower, engagement via one touch control on front control panel.		
9.12	Blower shall be provided with a horizontal silencer with exhaust above the cab and rain cap protecting the silencer from rain water.		
9.13	Blower shall draw air from two (2) separate ports in the debris body.		
9.14	Hydraulic shut off valves shall be provided at the suction, return and filter lines to permit servicing of the hydraulic system.		
10.0	**VACUUM BOOM SYSTEM**		

10.01	Vacuum hose shall be designed for front operation with hose mounted and stored at front mounted work station. The hose must also allow for transport with a 5&#65533;catch basin tube attached for quick setup.The hose must also be able to be transported fully retracted to eliminate any obstruction to a driver&#65533;s view of the road. A front mounted location is required for ease of positioning vacuum hoseas well as minimizing need for operator to swing hose into traffic.		
10.02	All connections between debris body and vacuum system will be of the self-adjusting pressure fitting type.		
10.03	Vacuum hose will remain stationary and not rise with debris body.		
10.04	Upper debris tube shall consist of an anchored steel tube and elbow.		
10.05	A sub-frame mounted cab guard shall be mounted behind cab with boom rest cradle.		
10.06	All vacuum pipes shall be connected to vacuum pick up tube and extension pipes by adjustable over-center quick clamps to join the aluminum flanges on pipes.		
10.07	One (1) quick clamp for each pipe supplied shall be provided.		
10.08	Boom pedestal shall be directly mounted to module subframe.		
10.09	Boom support used for travel mode shall not interfere with access or require removal to tilt hood forward.		
10.10	A control station shall be equipped with a control joystick for all directions as well as a safety emergency shut-down button, which shall automatically eliminate power to boom.		
10.11	The vacuum boom shall have a heavy-duty flexible hose assembly joining the transition pipe to the debris body make break, and a 7&#65533; heavy duty hose at the suction end of the boom.		
10.12	Boom shall rotate 180 degrees and shall be operated by an electric over hydraulic system. Lift and swing movements shall be actuated by hydraulic cylinders.		
10.13	The 10&#65533;x15&#65533; style hydraulic telescopic boom with 180 degree rotation shall be located at the front work station in its retracted position, providing 282" minimum reach off the longitudinal axis of unit,providing a boom work area will be 850 square feet. The moving boom hose shall be 7&#65533; x 279&#65533; with yellow liner for durability.The boom hose shall hydraulically telescope a minimum of 10 feet forward from the operator's station storage position and shall have the ability to extend the hose downward 15&#65533; vertically without activating the hydraulic up/down function.		
10.14	Boom shall be fully controlled by a remote push button pendant control station with 25 ft. cable. Controls to include up / down, left / right, in / out boom functions, vacuum relief, e-stop and main power switch.		
10.15	A joystick for hydraulic control of the boom shall be installed on hose reel front panel.		
10.18	A removeable 4" diameter storage "Post" to stabilize the lower boom hose during transport. Storage device shall not interfere with raising hood.		
10.21	A detailed engineering drawing must be supplied showing the relationship of the hose reel in relation with the vacuum boom range of motion. Drawing shall show module mounted on chassis, full arc of vacuum hose both retracted and extended, full rotation of arc for hose reel in the extended position and dimension all arc lengths of vacuum boom retracted and extended. Drawing shall highlight intersection areas whereby combination cleaning is possible (within full arc on telescoping boom system).		
11.0	**WATER PUMP AND DRIVE**		
11.01	For most efficient use of horsepower and reduced fuel consumption, high pressure rodder pump shall be hydraulically driven via (2) variable displacement pumps		
11.02	Hydraulic powered rodder pump via (2) variable displacement hydraulic pumps utilizing (2) 10-bolt PTO's.		
11.03	High pressure water pump shall be rated capable of continuous delivery of 100 GPM at 2500 PSI (submit manufacturer support documentation).		

11.04	High-pressure water (rodder) pump system shall allow front-mounted controls for operation of three modes: (1) Low flow range 0-22 GPM; (2) medium-flow range, 22-60 GPM / 2500 psi; and (3) High-flow range: 60 up to 100 GPM / 2500 psi.		
11.05	Digital flow meter shall be displayed in front LCD display. Flow meter shall be capable of displaying system flow in all pump operating modes. In addition, a low water alarm shall be provided.		
11.06	Water pump speed to remain fully adjustable via an independent operator input regardless of the selected vacuum drive speed.		
11.07	Variable flow systems routing water back-to-tank are not considered equal due to additional wear, horsepower and fuel consumption. Any deviation from this drive requirement should have full explanation of horsepower consumption.		
11.08	Water (rodder) pump shall include smooth and pulsation operation mode feature.		
11.09	When required to assist nozzle breaking through obstructions, water pump "pulsation mode" shall provide a forward-acting nozzle surge. Pulsation surge wave shall allow nozzle to punch forward 2" to 18" depending on flow dynamics and length of hose in sewer pipe.		
11.10	Explanation of forward-acting pulsation method shall be submitted with bid or explained below. Systems that require the use of air induction into the water pump shall not be accepted.		
11.11	Water pump location shall provide a flooded gravity suction inlet to eliminate potential cavitations damage.		
11.12	An oil to water heat exchanger will be provided in the water system to cool all hydraulic fluids on the unit. State horsepower requirement to operate hydraulics at full speed:		
11.13	The water pump shall provide precise 0-80 GPM controlled flow at variable pressure up to 2500 PSI.		
11.15	A hydro-pneumatic nitrogen charged accumulator system shall be provided with all control valves, piping and hoses for either continuous flow or jackhammer rodding.Accumulator shall be a 2.5 gallon capacity and 1000 to 2500 PSI pressure rating.		
11.16	Two (2) 1/2" high pressure ball valves shall be provided for draining the water pump and flushing sediment from the bottom of the pump.		
11.17	A nozzle rack accommodating (3) nozzles shall be provided in curbside toolbox. The nozzles shall be labeled on storage rack for pipe size/flow and application.		
11.18	System shall be relieved to protect operator.		
11.19	Handgun shall be supplied that allows for changing of flow pattern from a fine mist to a steady stream.		
11.20	Handgun shall come equipped with quick connect couplers.		
11.21	An additional 1" water relief valve shall be provided.		
11.22	A mid-ship quick disconnect handgun couplers shall be provided.		
11.23	Front and rear quick disconnect handgun couplers shall be provided.		
11.25	A water pump hour meter shall be provided.		
13.0	**HOSE REEL**		
13.01	Hose reel assembly shall be direct frame mounted.		
13.02	Hose reel assembly shall be mounted on an independent frame that can be removed from brackets attached permanently to front of main truck frame members.		
13.03	Reel will be manufactured out of 1/4" spun steel for added structural strength and shall require no internal or external reinforcements that could damage rodder hose.		
13.04	Hose reel shall be driven by adjustable gear reduction chain and sprocket assembly.		
13.05	Hose reel shall operate at full rotational speed while chassis engine is at idle.		
13.06	Hydraulic Telescoping Rotating Hose Reel - 800' capacity of 1" hose shall be provided.		

13.07	The front mounted hose reel shall telescope 15" forward down centerline of truck.		
13.08	Entire reel assembly shall rotate 270 degrees on a large diameter ball bearing.		
13.09	Hose reel shall include a dual locking device to positively lock reel in any position across operating range.		
13.10	The hose reel shall rotate about the reel assembly centerline so the reel shall never extend beyond the truck width. Reel coverage diagram shall be submitted with bid.		
13.12	800' x 1" Piranha Sewer Hose / 2500 Psi shall be provided		
13.15	An air-cylinder actuated pinch-roller shall exert downward pressure across full width of reel to retain hose on reel when encountering nozzle blockages.Pinch roller must be activated via a one touch, backlit button with lighted feedback on the control panel.		
13.16	A hose footage counter shall be supplied to indicate the amount of hose travel within pipe.		
13.18	Digital footage counter displaying footage values shall be provided. System must be capable of resetting value to ensure operator safety.Accuracy To Within One Percent Of Actual Distance, Large Easy To Read Lcd Screen located on the 7 front control panel screen.		
13.22	10' Leader Hose		
15.0	**WASHDOWN EQUIPMENT**		
15.01	A spring retractable storage reel for handgun hose shall be provided to allow the operator to deliver water to area served by pick up hose and to the inside of the debris body for clean out. Reel shall be mounted midship on curbside, equipped with 1/2 x 50' 2000 psi hose. An additional 35' of 1/2" hose with quick disconnect couplers shall be supplied loose.		
15.03	Hand sprayer with adjustable spray-pattern to be provided with trigger-style gun.		
16.0	**IN CAB CONTROLS**		
16.01	All In cab controls are to be located on a single in cab control screen. This shall be a 7 full color display screen.It shall utilize 12 back lit tactile (glove ready) buttons on the sides of the screen as well as feature touch screen operation.		
16.02	All Back up camera Features shall be displayed on the In Cab Control Screen.		
16.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.		
16.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.		
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16.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.		
16.06	Jet or Combo mode shall be activated via one touch button on the control panel.Control screen must display an on screen representation of the chassis drive system and must animate to show as drive systems activate or deactivate.		
17.0	**FRONT OPERATING STATION AND CONTROLS**		
17.01	Primary operator station will be located at front of truck on right curb side of hose reel.		
17.02	All operator controls should be located on a single control panel that can be rotated on a 90 degree arc for an operator customizable location. The control panel shall also feature the ability to raise and lower through a range of not less than 8 to accommodate operators of different height.		
17.03	Station shall include a 7 Touch enabled display screen with corresponding tactile buttons for reading critical machine data including (hose footage, hose reel speed settings, water pressure, water flow.Air mover information, chassis data, mode indicator, chassis fuel level, and diagnostic controls), Back lit button keypads with, laser etched function icons, and 4 light feedback indicators.These buttons shall operate the following functions: All setup functions (remote/panel selector, work lights, hose reel extend/retract, hose reel lock, and pinch roller activation) and Vacuum functions.Additionally, there will be separate sealed rocker switches for Water Pump		

	on/off and Throttle up/down. There shall be a multi flow control dial for controlling the full range of the water pump.		
17.03	There shall be a hose reel joystick to control the pay in and pay out of the hose reel, this joystick shall offer speed control that increases the further the joystick is moved in either direction.There shall be an additional hose reel speed dial for setting specific speed ranges of the reel. There shall be a boom joystick that controls all function of the boom including up/down, left/right, and extend/retract.There shall be a E-Stop button to bring all machine		
17.04	Tachometer and hour meter for chassis engine provided at control station shall be provided.		
17.05	Tachometer and hour meter for blower provided at control station shall be provided.		
17.06	All Hydraulic Functions - Color Coded, Sealed Electric/Hydraulic NEMA 4 switches shall be provided.		
17.07	Blower Engagement/Vacuum Relief - Sealed Electric/Air NEMA 4 Switch shall be provided.		
17.08	Water pump hour meter shall be provided.		
17.099	PTO hour meter shall be provided.		
18.0	**ELECTRICAL & SAFETY LIGHTING**		
18.01	The entire system shall be vapor sealed to eliminate moisture damage, "Nema-4" type or equal.		
18.02	IQAN Electronic Package: Chassis Tachometer, Blower Tachometer, Operating Mode, PTO Mode, Hydraulic Oil Temperature shutdown, Hose Reel Speed, Water Pressure, and E-Stop shall be included.E-Stop activation must turn off rodder pump, shutdown Hydraulics, set chassis throttle to idle, stop vacuumE-stop must be located at each operator interface; including hose reel controls, pendant control, wireless control (if equipped)Diagnostics for basic machine functions and all inputs and outputs shall be accessible via the display.◆ Advanced diagnostics, updates, data retrieval, and remote diagnostics will be available via PC or Bluetooth connection.		
18.02	Logs, reports, and hour meters will be accessible via the display.		
18.03	All electrical connections shall be void of exposed wires or terminals nor should they be painted. Paint process shall be completed prior to installation of wiring.		
18.04	All wiring shall be color-coded and encased in conduit to scaled terminal boxes with circuit breakers.		
18.05	All light bulbs shall be shock mounted to eliminate bulb failure.		
18.06	All other lights required by State and Federal Laws.		
18.09	A pistol grip hand light with bumper plug and 25' coiled cord shall be provided.		
18.09	Handheld, Pistol Grip LED Spot light with rechargeable Lithium Ion battery.		
18.12	Operator station shall have back lit buttons for low light operation.		
18.13	Hose reel manhole work lights shall be provided		
18.14	(2) L.E.D. Boom worklights shall be provided.		
18.18	L.E.D. Work light at midship curbside shall be provided.		
18.24	L.E.D. Lights, Clearance, Back-Up, Stop, Tail & Turn shall be provided.		
18.25	Mid-Ship L.E.D Bubble Type Turn Signals Shall be Provided		
19.0	**SAFETY EQUIPMENT**		
19.01	E-stop shall be located at each operator interface location. Standard locations to include: front hose reel, mid-ship curbside dump controls, & wireless controller (if equipped.)		
19.02	Electrical system controls shall be configured to allow for single point operation only. Upon engagement of controls at specified locations, additional controls shall be disabled.		
19.03	Electrical system must enable self-check to ensure all switches are in home position prior to critical function enablement. System must "lock out" controls when switch is not in home position.		
19.05	(1) Emergency Flare Kit		
19.06	(1) 5# Fire Extinguisher.		

19.07	Voyager Quad-Cam Safety vision kit, 7" dash monitor, 4-camera system shall be provided.		
19.07	The Dash Mounted Rear and Side Vision Camera System shall include the following:		
19.07	Dash Mounted 7"Diagonal x 1" Deep Flat LCD Color Monitor shall be provided.		
19.07	Screen Backlighting shall be provided.		
19.07	Menu Driven Menu Screens shall be provided.		
19.07	Multi-View Available On Monitor, Up To (4) Camera Inputs and Up To (4) Simultaneous Views shall be provided.		
19.07	Back-Lit Soft Touch Controls shall be provided.		
19.07	Front Hose Reel ColorCamera With 130 Viewing Angle shall be provided.		
19.07	Rear Back-up Color Camera With 130 Viewing Angle shall be provided.		
19.07	Left and Right Side Mounted Color Cameras,Each With 130 Viewing Angle shall be provided.		
19.07	LED Low Light Assist On Each Camera shall be provided.		
19.07	Automatic Activation of Rear Camera When Transmission REVERSE is selected shall be provided.		
19.07	Automatic Activation of Appropriate Side Camera When Turn Signal is activated shall be provided.		
19.07	Normal Image / Mirror Image Orientation shall be provided.		
19.07	Manual Selection of Camera, Except In Reverse shall be provided.		
19.07	PAL compatibility shall be provided.		
19.07	Quad- Adapter shall be provided.		
19.07	Waterproof cable connector shall be provided.		
19.11	Digital water pressure shall be displayed in front LCD display.◆ Pressure gauge shall be capable of displaying water system pressure in all pump operating modes.		
20.0	**SEWER TOOLS AND ACCESSORIES**		
20.02	(1) 30 Sand Nozzle		
20.03	(1) 30 deg. Sanitary Nozzle		
20.04	(1) 15 deg. Penetrator Nozzle		
20.05	(1) 1" Small finned nozzle pipe skid		
21.0	**VACUUM TOOLS AND ACCESSORIES**		
21.01	The basic vacuum tube package shall include the following:		
21.02	(1) 7" x 3' aluminum pipe		
21.03	(2) 7" x 5' aluminum pipe		
21.04	(1) 7" x 6'6" catch basin tube		
21.05	(4) 7" quick clamps		
22.0	**CHASSIS EQUIPMENT AND STORAGE**		
22.01	Two (2) front tow hooks shall be provided.		
22.02	Two (2) rear tow hooks shall be provided.		
22.05	A safety cone storage racks shall be provided to contain safety cones in the upright position.		
22.06	A water cooler storage rack shall be provided.		
22.10	(1) 48" x 22" x 24" Aluminum Toolbox Mounted curb side shall be provided.		
22.11	(2) 18 In. x 16 In. x 12 In. Aluminum Toolbox - Front Bumper shall be provided.		
22.12	(4) Long Handle Tool Storage Locations Behind Cab shall be provided		
23.0	**MODULE FINISH**		
23.01	Painting of the module shall be with a DuPont Imron Elite Polyurethane Enamel Top Coat. Application is to be a wet top coat applied to a dried and sanded primer base.		
24.0	**CHASSIS SPECIFICATION**		

24.01	The unit shall be a new model. No discontinued models will be accepted		
25.0	**ADDITIONAL PARTS**		
25.02	(2) 8" x 5' Aluminum Vacuum Tube		
25.13	(2) 8" Quick Clamp Assembly		
25.16	(1) 8" Adjustable Air Adapter		

CITY OF ALHAMBRA

ADDENDUM NO. 1

CNG COMBINATION TRUCK-SEWER

PROJECT NO. N2M18-87

Date Issued: September 19, 2018

By: _____

Dennis Ahlen, Deputy Director - Utilities

The City of Alhambra hereby issues Addendum No. 1 to the above referenced solicitation. The purpose of this Addendum is to alter, clarify and/or modify the NIB as stated herein. Conditions and requirements of the NIB remain unchanged.

1) Addendum No. 1 is to clarify the specifications on CNG Combination Truck-Sewer. The truck must be a **Standard Cab** and **Single Axle**.

PLEASE SIGN AND ATTACH THIS ADDENDUM COVER SHEET TO YOUR PROPOSAL.

I hereby acknowledge that I have received, read and understand this Addendum.

Company Name: _____

Signature: _____

Title: _____

"EXHIBIT B"

FILED

2018 SEP 27 AM 9:40

CITY OF ALHAMBRA
CITY CLERK'S OFFICE

HAAKER EQUIPMENT COMPANY
2070 N. WHITE AVENUE
LA VERNE, CALIFORNIA 91750

CITY OF ALHAMBRA
OFFICE OF CITY CLERK – CITY HALL
111 SOUTH FIRST ST
ALHAMBRA CA

BID #N2M18-87 THURS 9/27 10:30 AM
CNG COMBINAITON TRUCK-SEWER

CITY OF ALHAMBRA

NOTICE INVITING BIDS NO. N2M18-87

PUBLIC NOTICE IS HEREBY GIVEN that the City of Alhambra will receive sealed bids **on or before the hour of 10:30 AM on Thursday, September 27, 2018,** at the office of the City Clerk, City Hall, 111 South First Street, Alhambra, California, to be opened by the City Clerk at 11:00 AM on that same day in the City Council Chambers to provide to the City the following, with the minimum specifications attached thereto and, by this reference, made a part hereof:

CNG COMBINATION TRUCK-SEWER

Bid shall include all applicable State and Local Sales Taxes.

Supplier shall be responsible for registration of equipment with the Department of Motor Vehicles.

Bid price to be F.O.B. Alhambra City Yard, 900 South New Avenue, Alhambra, California.

Payment is to be made approximately 30 days after delivery.

All bids are to specify a firm delivery date. Liquidated damages of $250.00 per day will be assessed for each day in excess of the agreed-upon delivery date.

If product on which bid is submitted varies in any detail from these specifications, special mention must be made of each variance.

Proposals may not be withdrawn after the time is fixed for opening of proposals.

The designation of a brand name in these specifications is merely for illustrative purposes and is not intended to restrict bidding. It shall be to the absolute discretion of the City of Alhambra, however, to determine whether or not any substitute product is, in fact, equal. Within (30) days after the award of a contract hereunder, the successful bidder shall, if requested by the City, submit to the City data substantiating any request for the substitution of "an equal" item.

Any contract awarded hereunder shall become effective or enforceable against the City of Alhambra only when a formal written contract has been duly executed by the appropriate officers of the City of Alhambra.

Each bidder shall specify whether such bidder is a corporation, a partnership or an individual. If a corporation, designate the name of the state of incorporation; if a partnership, the bidder shall state the names and addresses of all partners.

The City of Alhambra reserves the right to reject any and all bids and to waive any informality, technical defect, or minor irregularity in any bid submitted.

Any questions concerning the Notice Inviting Bids, please contact Dennis Ahlen at 626-570-3274 or email at dahlen@cityofalhambra.org.

Bidders are hereby notified that the Alhambra Municipal Code Section 3.36.125 reads as follows:

"Bidding preferences for local businesses. For the purposes of determining the lowest responsible bidder, as required by sections 3.36.110 and 3.36.120, one percent of that portion of any bid subject to sales or use tax shall be deducted from such bid where it is determined that, if such bid were accepted by the City as the lowest responsible bid received, the City would receive a refund of the one percent sales and use tax imposed by Chapter 3.08 of this code; and further, that the same preference shall be given to those items on which sales and use tax do not apply. (Ord. 3760, Sec. 1)."

Bids shall be submitted in a sealed envelope bearing the name and address of the bidder and plainly marked:

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

BY ORDER OF:
Lauren Myles, CMC
ALHAMBRA CITY CLERK

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

TO THE ALHAMBRA CITY COUNCIL:

In compliance with the Notice Inviting Bids, and by this reference made a part hereof, the undersigned hereby proposes and agrees to furnish and deliver the following equipment at the prices set forth below, in strict conformity with the specifications proposed therefor. **Price shall include State and Local Sales Taxes.**

CNG COMBINATION TRUCK-SEWER

TOTAL BID AMOUNT IN WORDS

Four hundred eighty-six thousand five hundred and fifty five dollars and fifty eight cents. (tax included)

Delivery: 200-330 DAYS ARO

Note: Bidders are hereby notified that the Alhambra Municipal Code Section 3.36.125 reads as follows:

Bidding preferences for local businesses. For the purposes of determining the lowest responsible bidder as required by Section 3.36.110 and 3.36.120, one percent of that portion of any bid subject to sales or use tax shall be deducted from such bid where it is determined that, if such bid were accepted by the City as the lowest responsible bid received, the City would have received a refund of the one percent sales and use tax imposed by Chapter 3.08 of the code; and further, that the same preference shall be given to those items on which sales or use tax do not apply. (Ord. 3760, Sec. 1).

Matthew Woods 9/25/18

Signature of Bidder Date

Matthew Woods / Haaker Equipment Co. 909 598-2706

Name Printed Phone Number

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

EXCEPTION TO SPECIFICATIONS
(The following must be filled in and signed by bidder.)

DOES YOUR BID COMPLY WITH THE CONDITIONS AND SPECIFICATIONS IN THIS ADVERTISEMENT IN EVERY PARTICULAR?

(CHECK) YES X NO_____

IF YOUR ANSWER IS "NO," EXPLAIN IN DETAIL BELOW IN EACH INSTANCE WHERE THE EQUIPMENT OFFERED DOES NOT COMPLY WITH THE CONDITIONS AND/OR SPECIFICATIONS:

n/a

Haaker Equipment Company
Company Name

Matthew Woods
Signed by

2070 N. White Avenue, La Verne CA 91750
Company Address

VP Sales
Title of Signatory

909 598-2706
Phone Number

CITY OF ALHAMBRA

BID FORM

NOTICE INVITING BIDS NO. N2M18-87

CNG COMBINATION TRUCK-SEWER

Haaker Equipment Company
Company Name

2070 N. White Avenue La Verne CA 91750
Street Address City, State, Zip

909 598-2706
Phone Number

Corporation
Individual, Corporation, or Partnership

BY Matthew Woods
Printed Name

Matthew Woods
Signature

If bidder is a corporation, name the state under which incorporated:

CA

If bidder is a partnership, list below the names and addresses of all partners:

NAME	ADDRESS

DETAILED SPECIFICATIONS

FOR

CNG COMBINATION TRUCK-SEWER

		COMPLY	
		YES	NO
1.0	INTENT		
1.01	The intent of this specification is to provide for the purchase of one (1) new and unused single-engine combination sewer and catch basin cleaner used for removing all debris commonly found in catch basins/storm lead structures and sanitary sewer lines/manhole structures using a front mounted operating station. The unit shall consist of a Positive Displacement (PD) Blower vacuum system, a hydraulically driven high pressure water pump, an enclosed sealed body for storage of collected debris and equipped with a self-contained water supply as the source for the water pump system. The unit shall have the capability of operating both vacuum and water system simultaneously at full operating speeds continuously. (Submit horsepower requirements of all systems on unit)	✓	
2.0	EQUIVALENT PRODUCT		
2.01	Bids will be accepted for consideration on any make or model that is equal or superior to the equipment specified. Decisions of equivalency will be at the sole interpretation the City of Alhambra.	✓	
2.02	Bidder shall demonstrate a reasonable likeness of the equipment being offered within a reasonable time of request. Equipment demonstrated shall be equipped with all accessories and components required in this specification to ascertain equivalence.	✓	
2.03	A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.	✓	
3.0	BIDDER REFERENCES		
3.01	To ensure adequate local availability of parts and competent service from experienced suppliers, bids are preferred from local vendors who have sold and serviced at least 30 units of same manufacturer within service area of Alhambra, city of is preferred and should include contacts with phone numbers.	✓	
4.0	SERVICE AND SUPPORT		
4.01	Location of warranty service center and amount of inventory shall be noted which may be verified and inspected.	✓	
4.02	Amount of OEM parts at this facility: $ 2.8 Million	✓	
4.03	Years of servicing equipment being bid: Years 46	✓	
4.04	Number of factory qualified service technician: 19	✓	
5.0	GENERAL		
5.01	The specification herein states the minimum requirements of the Alhambra, city of. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. Any bid not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable the Alhambra, city of to make a reasonable determination of compliance to the specification will be considered "non-responsive" and grounds for rejection.	✓	
6.0	SUBFRAME		

6.01	The equipment shall be of modular design consisting of vacuum system, water tanks system, debris body and drive system.	✓	
6.02	A sub frame shall be fabricated to the exact dimensions of the truck chassis for mounting of modular components.	✓	
6.03	All components of the module shall attach to the sub frame and not directly to the chassis.	✓	
6.04	Sub frame shall be designed to ASME standards for maximum applied loads, chassis frame movement and even distribution of weight to the chassis and suspension.	✓	
6.05	Sub frame shall be continuous and uninterrupted from back of cab to end of frame.	✓	
7.0	**DEBRIS BODY**		
7.01	Efficiency of air movement through debris body will be measured for minimal restriction as measured by vacuum pressure gauge while operating blower at full speed. Pressure drop throughout entire system (from 8" hose inlet to blower inlet) including specified filtration and blower protection devices shall be no greater than 3" hg as measured at blower.	✓	
7.02	The body shall be cylindrical having a minimum usable capacity of 10 cubic yards.	✓	
7.03	The body shall be capable of a 48" dump height.	✓	
7.04	The debris storage body shall be constructed with a minimum 3/16" corrosion and abrasion resistant Ex-Ten steel.	✓	
7.05	The debris storage body shall have a minimum yield point of 50,000 PSI and a minimum tensile strength of 70,000 PSI.	✓	
7.06	Body shall have a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal. Adjustable for periodic compensation of door seal wear.	✓	
7.07	Dual outward mounted rear door props shall be included as standard to prevent operator from entering door swing path when engaging rear door prop.	✓	
7.08	For optimal particulate separation, vacuum shall be drawn from separate ports in the top of the debris body.	✓	
7.09	Body shall be dumped by raising the body to a 50 degree angle utilizing a forward mounted, double acting hydraulic dump cylinder.	✓	
7.10	Dump controls, accessory controls, e-stop control shall be provided at a central curb side location directly behind the cab of the truck.	✓	
7.11	For stability and safety, dumping must be accomplished while the pivot point of the body remains fixed to the subframe.	✓	
7.12	Industrial style rear debris body door shall be flat, and shall open and close hydraulically by cylinders mounted at the top of the body. Door shall open 50 degrees from the fully closed position. Door shall be unlocked, opened, closed, and locked by a failsafe hydraulically activated sequential positive locking system, cam operated by a single hydraulic cylinder, with all controls located behind truck cab, forward of the debris body, so operator is not subject to sewage when dumping.	✓	
7.13	Debris body shall have a body flush out system with a fan-type spray nozzle located in the front wall of the debris body to aid in the flushing of heavy debris. The nozzle shall also utilize (2) spray nozzles to flush the front most area of the debris body. System must produce a flow of 80GPM. Control valve shall be on the curb side of the unit.	✓	
7.14	Debris body load limit alarm coupled to float indicator arm automatically activating vacuum relief to be provided.	✓	
7.16	Body shall have a float type automatic shut-off system protecting the Positive Displacement Blower with (2) 10" stainless steel shut-off balls located in the debris body. Each float ball housing shall be within a non-corrosive slide-out screen assembly and be accessed without the use of tools.	✓	

7.18	The debris body shall be equipped with a rear door drain to drain off excess liquids while retaining solids and shall include a manually operated 6" butterfly valve with 10' of lay flat hose.	✓	
7.19	The debris body shall be equipped with a rear door drain at bottom dead center to drain off excess liquids with an internal screen to prevent large solids from passing.An air operated 6" knife valve controlled by a switch located at the operator station shall be provided at this location. Valve to be supplied with cam-lock coupler and 25' of lay flat hose having camlock quick connects.	✓	
7.27	(4) Dual vertical (cyclone) centrifugal separators shall be installed in-line between the debris body and the air mover, (2) per side for each debris body discharge port. Each dual separator shall include large fallout chamber cleanout door.	✓	
7.28	For safety, a minimum of (5) vacuum tubes shall be stored on curbside storage racks to minimize operator exposure to traffic side of unit. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.29	A curb-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.30	A street-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.32	(2) Pipe Storage Racks Curbside waist level and (2) on rear door with quick releases.	✓	
7.33	A stainless steel micro-strainer (to 30 microns) shall be provided prior to the blower inlet, with (3) removable cartridge style screens and bottom drain port.	✓	
7.34	A splash shield shall be mounted around the lower 60% of door opening to direct liquid and debris away from the chassis. Shield shall be minimum 10" deep bolted assembly with no openings.	✓	
7.35	A lubrication manifold system shall be provided to allow ground level greasing of boom lift and swing cylinders, float level indicator, top rear door hinges and debris body hoist cylinder pins.	✓	
7.37	A 6" valve with 3" vent to atmosphere, electrically activated, air operated valve debris body vacuum relief system shall be located in the inlet of the vacuum system to allow the venting of the tank and relieve vacuum at the debris intake hose.(3) Kunkel relief valves shall be included.	✓	
7.38	A debris inlet deflector distributing load evenly in debris body shall be included.	✓	
8.0	**WATER TANKS**		
8.01	The water tanks shall be manufactured from a non-corrosive material to prevent rust yet still provide for maximum strength.	✓	
8.02	The water tank material shall require no internal coating and shall be repairable if patching is required.	✓	
8.03	The water tanks shall be easily removed from the subframe to provide complete access to the truck chassis for maintenance purposes.	✓	
8.04	The water tanks shall be adequately vented and connected to provide complete filling.	✓	
8.05	The water tanks shall be totally separate from the debris tanks and provide no structural support.	✓	
8.06	The water tanks shall share no common walls with the debris tanks to prevent corrosion.	✓	
8.07	The water tanks shall come equipped with an anti-siphon device and 25' of hydrant fill hose and fittings.	✓	
8.08	The water tanks shall carry a 10 year warranty against corrosion or cracking.	✓	
8.09	All water tanks shall be fully baffled to form a maximum compartment storage of 150 gallons for each compartment. Alhambra, city of has determined that for the stability of the vehicle when turning and stopping and for safety of personnel that systems baffled at 150 maximum gallon compartments are preferred. Exceptions of requirement shall be explained in detail accompanied with detailed engineering drawings.	✓	

8.10	The water tank shall be located for the lowest possible center of gravity while providing 100% gravity flooded intakes to water pump.	✓	
8.11	Fresh water shall enter the tanks through an in line 6" air gap, all aluminum covered anti-siphon device.	✓	
8.12	Water level sight tubes of non-yellowing plastic shall be installed on both tanks.	✓	
8.13	The sides of these water tanks shall not extend more than 48" out from the centerline of the truck chassis.	✓	
8.14	A fresh water drain system shall be provided to completely drain the fresh water system from one location utilizing a 3 drain port and plug.	✓	
8.15	A minimum 6" connection between tanks shall be provided.	✓	
8.16	For stability safety, the water tanks shall not elevate with debris body during dump cycle.	✓	
8.17	A low water alarm with indicator on control screen shall alert operator when water storage has reached an operator set remaining water level.	✓	
8.23	A 3 in-line "Y" trap strainer shall be located at inlet of water tank fill air-gap.	✓	
8.24	A 3 in-line "Y" trap Monel stainless steel strainer shall be located between the water cells and water pump.	✓	
8.25	A 3" Gate Valve shall be provided at water pump.	✓	
8.26	Water tank must be a certified metered capacity of 1000 gallons. Certification shall be necessary upon delivery.	✓	
8.27	Water tanks shall be constructed of 1/8" aluminum with baffled compartments maximum 150 gallons each.	✓	
8.30	An additional water tank sight gauge shall be provided.	✓	
8.31	Liquid Float Level Indicator shall be provided.	✓	
9.0	**VACUUM/VACUUM DRIVE SYSTEM**		
9.01	Vacuum shall be provided by a positive displacement rotary lobe type blower driven via chassis engine and heavy duty split transfer case direct to the blower.	✓	
9.02	Interlock safety system shall prevent drive axle from engaging.	✓	
9.03	A horizontal silencer with rain cap shall exhaust above the cab.	✓	
9.04	A blower tachometer / hourmeter shall be provided and displayed digitally on front control screen.	✓	
9.05	For most efficient use of horsepower and fuel consumption, full vacuum and/or combination operation shall be approximately 1750 RPM of chassis drive engine.	✓	
9.06	Blower shall be driven by the chassis engine and shall produce inlet volume of 3600 cfm @ 0" hg @ 2080 rpm, and 3150 cfm @ 15" hg @ 2080 rpm vacuum (Roots 821 RCS-15 or equal).	✓	
9.07	For added protection, the vacuum system shall have three (3) Kunkel relief valves set at 15" hg, heavy duty horizontal mounted noise muffler, removable and cleanable stainless steel filter screen, and shall be enclosed with a steel cage guard for safety.	✓	
9.08	Transfer case shall be activated by air via a one touch control located in cab with animated confirmation on screen.	✓	
9.10	Blower shall be driven from chassis engine via the transmission drive shafts and heavy duty split shaft transfer case direct to blower, engagement via one touch control on front control panel.	✓	
9.12	Blower shall be provided with a horizontal silencer with exhaust above the cab and rain cap protecting the silencer from rain water.	✓	
9.13	Blower shall draw air from two (2) separate ports in the debris body.	✓	
9.14	Hydraulic shut off valves shall be provided at the suction, return and filter lines to permit servicing of the hydraulic system.	✓	
10.0	**VACUUM BOOM SYSTEM**		

10.01	Vacuum hose shall be designed for front operation with hose mounted and stored at front mounted work station. The hose must also allow for transport with a 5◆catch basin tube attached for quick setup.The hose must also be able to be transported fully retracted to eliminate any obstruction to a driver◆s view of the road. A front mounted location is required for ease of positioning vacuum hoseas well as minimizing need for operator to swing hose into traffic.	✓	
10.02	All connections between debris body and vacuum system will be of the self-adjusting pressure fitting type.	✓	
10.03	Vacuum hose will remain stationary and not rise with debris body.	✓	
10.04	Upper debris tube shall consist of an anchored steel tube and elbow.	✓	
10.05	A sub-frame mounted cab guard shall be mounted behind cab with boom rest cradle.	✓	
10.06	All vacuum pipes shall be connected to vacuum pick up tube and extension pipes by adjustable over-center quick clamps to join the aluminum flanges on pipes.	✓	
10.07	One (1) quick clamp for each pipe supplied shall be provided.	✓	
10.08	Boom pedestal shall be directly mounted to module subframe.	✓	
10.09	Boom support used for travel mode shall not interfere with access or require removal to tilt hood forward.	✓	
10.10	A control station shall be equipped with a control joystick for all directions as well as a safety emergency shut-down button, which shall automatically eliminate power to boom.	✓	
10.11	The vacuum boom shall have a heavy-duty flexible hose assembly joining the transition pipe to the debris body make break, and a 7◆ heavy duty hose at the suction end of the boom.	✓	
10.12	Boom shall rotate 180 degrees and shall be operated by an electric over hydraulic system. Lift and swing movements shall be actuated by hydraulic cylinders.	✓	
10.13	The 10◆x15◆ style hydraulic telescopic boom with 180 degree rotation shall be located at the front work station in its retracted position, providing 282" minimum reach off the longitudinal axis of unit,providing a boom work area will be 850 square feet. The moving boom hose shall be 7◆ x 279◆ with yellow liner for durability.The boom hose shall hydraulically telescope a minimum of 10 feet forward from the operator's station storage position and shall have the ability to extend the hose downward 15◆ vertically without activating the hydraulic up/down function.	✓	
10.14	Boom shall be fully controlled by a remote push button pendant control station with 25 ft. cable. Controls to include up / down, left / right, in / out boom functions, vacuum relief, e-stop and main power switch.	✓	
10.15	A joystick for hydraulic control of the boom shall be installed on hose reel front panel.	✓	
10.18	A removeable 4" diameter storage "Post" to stabilize the lower boom hose during transport. Storage device shall not interfere with raising hood.	✓	
10.21	A detailed engineering drawing must be supplied showing the relationship of the hose reel in relation with the vacuum boom range of motion. Drawing shall show module mounted on chassis, full arc of vacuum hose both retracted and extended, full rotation of arc for hose reel in the extended position and dimension all arc lengths of vacuum boom retracted and extended. Drawing shall highlight intersection areas whereby combination cleaning is possible (within full arc on telescoping boom system).	✓	
11.0	WATER PUMP AND DRIVE		
11.01	For most efficient use of horsepower and reduced fuel consumption, high pressure rodder pump shall be hydraulically driven via (2) variable displacement pumps	✓	
11.02	Hydraulic powered rodder pump via (2) variable displacement hydraulic pumps utilizing (2) 10-bolt PTO's.	✓	
11.03	High pressure water pump shall be rated capable of continuous delivery of 100 GPM at 2500 PSI (submit manufacturer support documentation).	✓	

11.04	High-pressure water (rodder) pump system shall allow front-mounted controls for operation of three modes: (1) Low flow range 0-22 GPM; (2) medium-flow range, 22-60 GPM / 2500 psi; and (3) High-flow range: 60 up to 100 GPM / 2500 psi.	✓	
11.05	Digital flow meter shall be displayed in front LCD display. Flow meter shall be capable of displaying system flow in all pump operating modes. In addition, a low water alarm shall be provided.	✓	
11.06	Water pump speed to remain fully adjustable via an independent operator input regardless of the selected vacuum drive speed.	✓	
11.07	Variable flow systems routing water back-to-tank are not considered equal due to additional wear, horsepower and fuel consumption. Any deviation from this drive requirement should have full explanation of horsepower consumption.	✓	
11.08	Water (rodder) pump shall include smooth and pulsation operation mode feature.	✓	
11.09	When required to assist nozzle breaking through obstructions, water pump "pulsation mode" shall provide a forward-acting nozzle surge. Pulsation surge wave shall allow nozzle to punch forward 2" to 18" depending on flow dynamics and length of hose in sewer pipe.	✓	
11.10	Explanation of forward-acting pulsation method shall be submitted with bid or explained below. Systems that require the use of air induction into the water pump shall not be accepted.	✓	
11.11	Water pump location shall provide a flooded gravity suction inlet to eliminate potential cavitations damage.	✓	
11.12	An oil to water heat exchanger will be provided in the water system to cool all hydraulic fluids on the unit. State horsepower requirement to operate hydraulics at full speed:	✓	
11.13	The water pump shall provide precise 0-80 GPM controlled flow at variable pressure up to 2500 PSI.	✓	
11.15	A hydro-pneumatic nitrogen charged accumulator system shall be provided with all control valves, piping and hoses for either continuous flow or jackhammer rodding.Accumulator shall be a 2.5 gallon capacity and 1000 to 2500 PSI pressure rating.	✓	
11.16	Two (2) 1/2" high pressure ball valves shall be provided for draining the water pump and flushing sediment from the bottom of the pump.	✓	
11.17	A nozzle rack accommodating (3) nozzles shall be provided in curbside toolbox. The nozzles shall be labeled on storage rack for pipe size/flow and application.	✓	
11.18	System shall be relieved to protect operator.	✓	
11.19	Handgun shall be supplied that allows for changing of flow pattern from a fine mist to a steady stream.	✓	
11.20	Handgun shall come equipped with quick connect couplers.	✓	
11.21	An additional 1" water relief valve shall be provided.	✓	
11.22	A mid-ship quick disconnect handgun couplers shall be provided.	✓	
11.23	Front and rear quick disconnect handgun couplers shall be provided.	✓	
11.25	A water pump hour meter shall be provided.	✓	
13.0	**HOSE REEL**		
13.01	Hose reel assembly shall be direct frame mounted.	✓	
13.02	Hose reel assembly shall be mounted on an independent frame that can be removed from brackets attached permanently to front of main truck frame members.	✓	
13.03	Reel will be manufactured out of 1/4" spun steel for added structural strength and shall require no internal or external reinforcements that could damage rodder hose.	✓	
13.04	Hose reel shall be driven by adjustable gear reduction chain and sprocket assembly.	✓	
13.05	Hose reel shall operate at full rotational speed while chassis engine is at idle.	✓	
13.06	Hydraulic Telescoping Rotating Hose Reel - 800' capacity of 1" hose shall be provided.	✓	

13.07	The front mounted hose reel shall telescope 15" forward down centerline of truck.	✓	
13.08	Entire reel assembly shall rotate 270 degrees on a large diameter ball bearing.	✓	
13.09	Hose reel shall include a dual locking device to positively lock reel in any position across operating range.	✓	
13.10	The hose reel shall rotate about the reel assembly centerline so the reel shall never extend beyond the truck width. Reel coverage diagram shall be submitted with bid.	✓	
13.12	800' x 1" Piranha Sewer Hose / 2500 Psi shall be provided	✓	
13.15	An air-cylinder actuated pinch-roller shall exert downward pressure across full width of reel to retain hose on reel when encountering nozzle blockages.Pinch roller must be activated via a one touch, backlit button with lighted feedback on the control panel.	✓	
13.16	A hose footage counter shall be supplied to indicate the amount of hose travel within pipe.	✓	
13.18	Digital footage counter displaying footage values shall be provided. System must be capable of resetting value to ensure operator safety.Accuracy To Within One Percent Of Actual Distance, Large Easy To Read Lcd Screen located on the 7◆ front control panel screen.	✓	
13.22	10' Leader Hose	✓	
15.0	**WASHDOWN EQUIPMENT**		
15.01	A spring retractable storage reel for handgun hose shall be provided to allow the operator to deliver water to area served by pick up hose and to the inside of the debris body for clean out. Reel shall be mounted midship on curbside, equipped with 1/2 x 50' 2000 psi hose. An additional 35' of 1/2" hose with quick disconnect couplers shall be supplied loose.	✓	
15.03	Hand sprayer with adjustable spray-pattern to be provided with trigger-style gun.	✓	
16.0	**IN CAB CONTROLS**		
16.01	All In cab controls are to be located on a single in cab control screen. This shall be a 7◆ full color display screen.It shall utilize 12 back lit tactile (glove ready) buttons on the sides of the screen as well as feature touch screen operation.	✓	
16.02	All Back up camera Features shall be displayed on the In Cab Control Screen.	✓	
16.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.	✓	
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16.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.	✓	
16.06	Jet or Combo mode shall be activated via one touch button on the control panel.Control screen must display an on screen representation of the chassis drive system and must animate to show as drive systems activate or deactivate.	✓	
17.0	**FRONT OPERATING STATION AND CONTROLS**		
17.01	Primary operator station will be located at front of truck on right curb side of hose reel.	✓	
17.02	All operator controls should be located on a single control panel that can be rotated on a 90 degree arc for an operator customizable location. The control panel shall also feature the ability to raise and lower through a range of not less than 8◆to accommodate operators of different height.	✓	
17.03	Station shall include a 7◆ Touch enabled display screen with corresponding tactile buttons for reading critical machine data including (hose footage, hose reel speed settings, water pressure, water flow.Air mover information, chassis data, mode indicator, chassis fuel level, and diagnostic controls), Back lit button keypads with, laser etched function icons, and 4 light feedback indicators.These buttons shall operate the following functions: All setup functions (remote/panel selector, work lights, hose reel extend/retract, hose reel lock, and pinch roller activation) and Vacuum functions.Additionally, there will be separate sealed rocker switches for Water Pump	✓	

	on/off and Throttle up/down. There shall be a multi flow control dial for controlling the full range of the water pump.	✓	
17.03	There shall be a hose reel joystick to control the pay in and pay out of the hose reel, this joystick shall offer speed control that increases the further the joystick is moved in either direction.There shall be an additional hose reel speed dial for setting specific speed ranges of the reel. There shall be a boom joystick that controls all function of the boom including up/down, left/right, and extend/retract.There shall be a E-Stop button to bring all machine	✓	
17.04	Tachometer and hour meter for chassis engine provided at control station shall be provided.	✓	
17.05	Tachometer and hour meter for blower provided at control station shall be provided.	✓	
17.06	All Hydraulic Functions - Color Coded, Sealed Electric/Hydraulic NEMA 4 switches shall be provided.	✓	
17.07	Blower Engagement/Vacuum Relief - Sealed Electric/Air NEMA 4 Switch shall be provided.	✓	
17.08	Water pump hour meter shall be provided.	✓	
17.099	PTO hour meter shall be provided.	✓	
18.0	**ELECTRICAL & SAFETY LIGHTING**		
18.01	The entire system shall be vapor sealed to eliminate moisture damage, "Nema-4" type or equal.	✓	
18.02	IQAN Electronic Package: Chassis Tachometer, Blower Tachometer, Operating Mode, PTO Mode, Hydraulic Oil Temperature shutdown, Hose Reel Speed, Water Pressure, and E-Stop shall be included.E-Stop activation must turn off rodder pump, shutdown Hydraulics, set chassis throttle to idle, stop vacuumE-stop must be located at each operator interface; including hose reel controls, pendant control, wireless control (if equipped)Diagnostics for basic machine functions and all inputs and outputs shall be accessible via the display.◆ Advanced diagnostics, updates, data retrieval, and remote diagnostics will be available via PC or Bluetooth connection.	✓	
18.02	Logs, reports, and hour meters will be accessible via the display.	✓	
18.03	All electrical connections shall be void of exposed wires or terminals nor should they be painted. Paint process shall be completed prior to installation of wiring.	✓	
18.04	All wiring shall be color-coded and encased in conduit to sealed terminal boxes with circuit breakers.	✓	
18.05	All light bulbs shall be shock mounted to eliminate bulb failure.	✓	
18.06	All other lights required by State and Federal Laws.	✓	
18.09	A pistol grip hand light with bumper plug and 25' coiled cord shall be provided.	✓	
18.09	Handheld, Pistol Grip LED Spot light with rechargeable Lithium Ion battery.	✓	
18.12	Operator station shall have back lit buttons for low light operation.	✓	
18.13	Hose reel manhole work lights shall be provided	✓	
18.14	(2) L.E.D. Boom worklights shall be provided.	✓	
18.18	L.E.D. Work light at midship curbside shall be provided.	✓	
18.24	L.E.D. Lights, Clearance, Back-Up, Stop, Tail & Turn shall be provided.	✓	
18.25	Mid-Ship L.E.D Bubble Type Turn Signals Shall be Provided	✓	
19.0	**SAFETY EQUIPMENT**		
19.01	E-stop shall be located at each operator interface location. Standard locations to include: front hose reel, mid-ship curbside dump controls, & wireless controller (if equipped.)	✓	
19.02	Electrical system controls shall be configured to allow for single point operation only. Upon engagement of controls at specified locations, additional controls shall be disabled.	✓	
19.03	Electrical system must enable self-check to ensure all switches are in home position prior to critical function enablement. System must "lock out" controls when switch is not in home position.	✓	
19.05	(1) Emergency Flare Kit	✓	
19.06	(1) 5# Fire Extinguisher.	✓	

19.07	Voyager Quad-Cam Safety vision kit, 7" desh monitor, 4-camera system shall be provided.	✓	
19.07	The Dash Mounted Rear and Side Vision Camera System shall include the following:	✓	
19.07	Dash Mounted 7"Diagonal x 1" Deep Flat LCD Color Monitor shall be provided.	✓	
19.07	Screen Backlighting shall be provided.	✓	
19.07	Menu Driven Menu Screens shall be provided.	✓	
19.07	Multi-View Available On Monitor, Up To (4) Camera Inputs and Up To (4) Simultaneous Views shall be provided.	✓	
19.07	Back-Lit Soft Touch Controls shall be provided.	✓	
19.07	Front Hose Reel ColorCamera With 130 Viewing Angle shall be provided.	✓	
19.07	Rear Back-up Color Camera With 130 Viewing Angle shall be provided.	✓	
19.07	Left and Right Side Mounted Color Cameras,Each With 130 Viewing Angle shall be provided.	✓	
19.07	LED Low Light Assist On Each Camera shall be provided.	✓	
19.07	Automatic Activation of Rear Camera When Transmission REVERSE is selected shall be provided.	✓	
19.07	Automatic Activation of Appropriate Side Camera When Turn Signal is activated shall be provided.	✓	
19.07	Normal Image / Mirror Image Orientation shall be provided.	✓	
19.07	Manual Selection of Camera, Except In Reverse shall be provided.	✓	
19.07	PAL compatibility shall be provided.	✓	
19.07	Quad- Adapter shall be provided.	✓	
19.07	Waterproof cable connector shall be provided.	✓	
19.11	Digital water pressure shall be displayed in front LCD display.◆ Pressure gauge shall be capable of displaying water system pressure in all pump operating modes.	✓	
20.0	**SEWER TOOLS AND ACCESSORIES**		
20.02	(1) 30 Sand Nozzle	✓	
20.03	(1) 30 deg. Sanitary Nozzle	✓	
20.04	(1) 15 deg. Penetrator Nozzle	✓	
20.05	(1) 1" Small finned nozzle pipe skid	✓	
21.0	**VACUUM TOOLS AND ACCESSORIES**		
21.01	The basic vacuum tube package shall include the following:	✓	
21.02	(1) 7" x 3' aluminum pipe	✓	
21.03	(2) 7" x 5' aluminum pipe	✓	
21.04	(1) 7" x 6'6" catch basin tube	✓	
21.05	(4) 7" quick clamps	✓	
22.0	**CHASSIS EQUIPMENT AND STORAGE**		
22.01	Two (2) front tow hooks shall be provided.	✓	
22.02	Two (2) rear tow hooks shall be provided.	✓	
22.05	A safety cone storage racks shall be provided to contain safety cones in the upright position.	✓	
22.06	A water cooler storage rack shall be provided.	✓	
22.10	(1) 48" x 22" x 24" Aluminum Toolbox Mounted curb side shall be provided.	✓	
22.11	(2) 18 In. x 16 In. x 12 In. Aluminum Toolbox - Front Bumper shall be provided.	✓	
22.12	(4) Long Handle Tool Storage Locations Behind Cab shall be provided	✓	
23.0	**MODULE FINISH**		
23.01	Painting of the module shall be with a DuPont Imron Elite Polyurethane Enamel Top Coat. Application is to be a wet top coat applied to a dried and sanded primer base.	✓	
24.0	**CHASSIS SPECIFICATION**		

24.01	The unit shall be a new model. No discontinued models will be accepted	✓	
25.0	**ADDITIONAL PARTS**		
25.02	(2) 8" x 5' Aluminum Vacuum Tube	✓	
25.13	(2) 8" Quick Clamp Assembly	✓	
25.16	(1) 8" Adjustable Air Adapter	✓	