TO: James L. App, City Manager

FROM: Doug Monn, Public Works Director

SUBJECT: Video Inspection for Sewer Collection System

DATE: May 20, 2008

NEEDS:

For the City Council to consider the purchase of video inspection van and camera for on-going inspection and maintenance of the sewer collection system.

FACTS:

- The City operates approximately 115 miles of collection sewers, with 2500 manholes and 15 lift stations, within the City limits. Sewer collection systems are regularly inspected to look for breaks, blockages, root intrusion, sags, or other problems which may cause a sewer system overflow (SSO).
- 2. The City is required to perform and document on-going maintenance to protect public health and as a condition of our State-permitted and mandated Sewer System Management Plan (SSMP). One of the mandatory elements of the SSMP, is to "develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation."
- 3. In the event that the City experiences an SSO, public health can be at risk, and the State Water Resources Control Board will evaluate not only the severity of the spill, but also our preventative maintenance plan, in determining enforcement action and/or administrative penalties. If the Board determines that the City did not have adequate preventative maintenance, the potential liabilities associated with SSOs may be increased.
- 4. The City currently performs limited video inspection using a CCTV system purchased over 12 years ago. The system requires frequent repairs to the electronics, and uses obsolete VHS tape recordings. Additionally, the equipment does not have a permanent transportation system and must be disassembled and reconnected for each inspection event. The existing system is inefficient and unreliable for a regular preventative maintenance program.
- 5. The City has obtained a quote of \$120,208 for the purchase of new video inspection van and camera equipment. The new equipment would include a van to permanently house and transport the video camera and related computer system. Recorded data can be stored on DVDs for reporting requirements.

ANALYSIS & CONCLUSIONS:

The City must perform regular inspection and maintenance activities of its sewer collection system. Some of the regular activities performed using video inspection equipment includes SSOs, preventative maintenance, infiltration and inflow, new construction, and CIP mainline replacement inspections. Without these inspections, the

sewer collection system may experience an increase in SSOs. The City has three options for performing these inspections; (1) continue with existing equipment, (2) purchase new equipment, or (3) contract with a vendor for video inspection services.

The obsolete video inspection system currently used is inefficient and unreliable and frequent repairs are required. As a result of the equipment's age, replacement parts are increasingly difficult to find. Additionally, the existing system requires staff to handwrite information in the field, and then return to the office to enter the same information into the sewer collection system database. Last year, staff was only able to video inspect approximately 12% of the high maintenance area lines due to problems with the equipment and staffing. Staffing issues have been addressed, but equipment problems remain.

An integrated video camera system can significantly increase preventative maintenance, staff productivity and equipment reliability. By purchasing video equipment that is integrally housed within the vehicle, staff can enter the data into the on-board computer, generate a work order, and record the inspection onto DVD all while still inside the inspection vehicle. The City has obtained a competitive quote (\$120,208) by "piggy-backing" on a similar order by the City of Los Angeles. The quote includes a properly equipped video van to replace the 1947 Army Ambulance currently used and all necessary cameras, system electronics, generator and software necessary. Additionally, replacement of the video equipment has never been incorporated into the City Equipment Replacement Fund resulting in the equipment becoming obsolete or unserviceable before replacement. Therefore it is being suggested that \$13,300.00 per year be transferred from sewer operations funding to the City Equipment Replacement Fund to provide for future equipment on a schedule consistent with industry replacement standards.

Outside contracting for video inspection services costs about \$0.55 per foot of sewer line. Based on the State's recommended interval-video all sewer collection lines every 5 years, and high maintenance areas more frequently, this would cost approximately \$88,000 annually. Based on the cost of the recommended van and equipment, plus depreciation, would recover its investment cost in months.

POLICY

REFERENCE:

Integrated Water Resource Management Plan (May 2007), Sewer System Management Plan (January 2007).

FISCAL IMPACT:

Forty thousand dollars (\$40,000) has been provided in the 2008 budget to offset the basic van chassis cost. An additional \$93,600.00 would need to be allocated from Waste Water Operation funds to offset the cost of electrical wiring and generating upgrades to the van to power the equipment in the field, purchase the necessary video equipment and provide the 09 fiscal year contribution to the equipment replacement fund. Sewer operations revenues are sufficient to cover the costs without impacting user rates.

OPTIONS:

- **a)** Approve Resolution 08-XX for \$133,600.00 to purchase a video van, equipment and provide for replacement. Further allocating \$93,600 from Waste Water Operation funds to supplement the \$40,000 allocated in the 2008 budget to replace the existing video van: or
- **b)** Amend, reject, or modify the above option.

Prepared by: Doug Monn, Director of Public Works.

To:

Doug Monn

Public Works Director

From:

Chris Slater

Wastewater Division Supervisor

Date:

3-3-08

Subject:

CTTV Cost Breakdown for MME

Municipal Maintenance Equipment broke down the costs for van and equipment into line items as described in their bid. As requested I separated them into Van and Equipment and Camera and Computer Equipment.

Van

Line Item A – Vehicle Outfitting	7707.60
Line Item B – Carpentry	5890.30
Line Item C – Electrical	10,311.60
Line Item M – Downhole Guides	932.00
Line Item N – Delivery	3661.20
Line Item T – Chassis	26,670.00
	55,172,70

Computer and Camera

Line Item E – System Electronics	13,236.60
Line Item P – Training and Inspections	4000.00
Line Item Q – Software	8012.90
Line Item R – Software Training	1600.00
Line Item S – Pathfinder System	27367.00
Line Item D – System Outfitting	2692.80
	56909.30

Total	112,082.00
Tax	8125.95
Combined Total	\$120,207.95



Municipal Maintenance Equipment

2360 Harvard Street • Sacramento, CA 95815 • (916) 922-1101 • Fax: (916) 922-1034 1061 N. Shepard Street, Unit B • Anaheim, CA 92806 • (714) 632-2871 • Fax: (714) 632-2874 4750 Caterpillar Road, Unit D • Redding, CA 96003 • (530) 243-4856 • Fax: (530) 243-1447

February 5, 2008

City of El Paso de Robles 3200 Sulphur Springs Road Paso Robles, CA 93446

PHONE 805-237-7473 FAX 805-237-3886 (Total 10 Pages)

Attention: Wade Hatch, Fleet Supervisor

We are pleased to provide the following information from the County of Los Angeles for their recent purchase of an Aries Pathfinder TV Inspection System mounted in a Ford Hi-Cube Van for your review.

Municipal Maintenance Equipment, Inc. is happy to offer additional unit(s) as provided to the County of Los Angeles. We will honor the price of \$161,099.80 plus sales tax for each Aries Pathfinder and Ford Hi-Cube Van Unit as per the County of Los Angeles Purchase Order No. 31106364/T43711 dated 6-29-07 and Bid No. 229187 dated 4-30-07. Options noted in bid are also available at the bid price for your consideration.

To meet the City of El Paso de Robles requirements, we are pleased to provide an alternate proposal, Attachment A, which notes the changes and provides the Aries TV Inspection System Equipment and GMC Savana 3500 Cargo Van. Attachment A will be supplied to the City in lieu of County of Los Angeles Bid No. 229187 specifications. This alternate proposal can be provided for \$112,082.00 plus sales tax.

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Summary:	County of Los Angeles Purchase	\$161,099.80
	Savings for Changes including Cargo Van	- 49,017.80
* ,	Alternate Proposal (Attachment A)	\$112,082.00
•	7.25% Sales Tax	8,125.95
	Total	\$120,207.95

Itemized Summary of Items Provided in Attached Specifications:

	the state of the s	**	
Line Item A – Vehicle Outfitting		\$	7,707.60
Line Item B – Carpentry			5,890.30
Line Item C – Electrical			10,311.60
Line Item D – System Outfitting			2,692.80
Line Item E – System Electronics		V.	13,236.60
Line Item M – Downhole Guides	• '		932.00
Line Item N – Delivery			3,661.20
Line Item P – Training and Inspections			4,000.00
Line Item Q – Software	Maria de la companya della companya della companya della companya de la companya della companya		8,012.90
Line Item R – Software Training			•
			1,600.00
Line Item S – Pathfinder System	•		27,367.00
Line Item T – Chassis	•		26,670.00
			,

February 5, 2008 City of El Paso de Robles Aries Industries Proposal Page 2

This proposal is valid for 30 days. F.O.B. Paso Robles, CA. Delivery time dependent on cargo van availability.

Thank you for your continued interest in the Aries products. We appreciate the opportunity to offer to the Aries TV Inspection System for your review and look forward to being of further service.

Sincerely,

Municipal Maintenance Equipment

Frank Wheeler III, Vice President

Attachments



FOR COOPERATIVE PURCHASES ONLY

Reference Quote 080204CA r2 Van, Step, Television Monitor

This sewer television system is delivered complete, ready for operation. The system includes a Pan & Tilt camera and transporter with light head capacity from 6" to 30" lines. Components can be used with the base unit including a small diameter color camera for pull, push or tractor applications. Other options include tractor systems and mainline lateral launch camera system.

LINE ITEM A - Vehicle Outfitting

- 1 Full width rear bumper step, high grip tread
- 1 Backup alarm
- 1 Reverse-only camera with monitor above driver's seat
- 2 Adjustable floodlights, mounted above rear doors
- 1 LED arrow bar, mounted rear facing, with controls in cab
- 2 Amber strobe lights, 1ea mounted front and rear of roof, with control switch in cab
- 4 Peterson 153SA-1 corner strobe heads, with control switch in cab
- 1 Underbody pole storage compartment
- 1 Underbody 18x18x36 lockable storage-box
 - 1 Roof mounted air conditioner, 13500 BTU with 5600 BTU heat strip
- 1 Bumper mounted crane, 500lb. rating

LINE ITEM B - Carpentry

1 Hi-cube "Command Center" control room interior including:

- 1 Armstrong Hydro industrial grade non-skid floor covering
- 1 Gray Formica surface wall covering
- 1 White embossed ceiling cover
- Bulkhead wall-with Plexiglas window and swing passage door to equipment room
- 1—Modular control center, 19" rack mounted above the bulkhead window
- 1 Ergonomically contoured and finished control desk
- 1 Padded bench seat with storage underneath
- Storage shelf-above padded-bench seat
- Closet/cabinet/storage space, 24"W x 20"D x full height, minimum 4 removable shelves

1 Hi-cube van equipment room interior including:

- 1 Aluminum tread plate non-skid floor covering
- 1 Aluminum-embossed-surface wall-covering
- 1 White embossed ceiling cover
- 1 Work bench with ABS worktop and vise
- 1 Storage shelves over work bench approximately 4'-long

1 Van control room interior including:

- 1 Armstrong Hydro industrial floor covering with 1/2" AC-rated plywood substrate with built-in water relief channels
- 1 Gray Formica laminated wall covering
- 1 Bulkhead wall with Plexiglas sliding window, equipment room viewing
- 1 Modular control center, 19" rack mount, located above the bulkhead window



1 Van equipment room interior including:

- 1 Aluminum tread plate flooring
- 1 Set equipment storage brackets and hooks, shipped loose

LINE ITEM C - Electrical

- 1 7,000W, gas powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:
 - 1 Generator enclosure lined with fire retardant and noise reduction material
 - 1 Hinged, ventilated cover with lock mechanism and air spring supports
 - 1 Set exhaust hose and power cables
 - 1 Auxiliary battery, 12V DC and case
 - 1 Auxiliary battery charger, 10A
 - 1 Electric power transfer system, house or generator
 - 1 Electric distribution panel and circuit breaker box
 - 1 House power exterior connection with cover
 - 1 25' house power cord with plug and socket
 - 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch
- 2 Fluorescent light fixtures control room
 - 1 Fluorescent light fixture control room
 - 2 Quad grounded 120V AC sockets control room
 - 2 Quad electrical outlets, 120V AC grounded equipment room
- 2 Fluorescent light fixtures equipment room
 - 1 Fluorescent light fixture equipment room

LINE ITEM D - System Outfitting

- 1 Operator chair, swivel with casters
- 1 Lista 6-drawer heavy duty tool chest with ABS top
 - 1 Set equipment storage brackets and hooks
 - 1 Tie down brackets along floor
 - 1 Fire extinguisher, 10 BC rating
 - 1 Downhole pole storage tube

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 15-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle
- 1 Wash sink with faucet, drain and 8-gallon gray water tank under vehicle
- 1 Maintenance tool kit



LINE ITEM E - System Electronics

- 3 15" LCD flat panel multimedia monitor
 - 2 Mounted to control room desktop
 - 1 Mounted rear facing in the equipment room

1 DVD/VCR combination recording unit, including:

- 1 Modular control center tray mount for combination recording unit
- 1 DVD/VHS recorder with one-touch DVD or VHS dubbing
- 1 Audio recording microphone
- 1 Set power and video cabling
- 1 2-hour 1/2" recording tape cassette
- 5 Blank DVDs

1 Rack-mounted computer and video overlay system, including:

- 1 VL3100 data logging overlay module, rack mounted
- 1 Industrial hardened case with air filtering, vibration dampening hard drive mounts, peripheral cards support bar, 19" rack

2.66GHz Intel Core2 Duo processor

1GB of RAM

250GB SATA hard drive

250GB USB-connection hot-swappable external hard drive

On-board video graphics accelerator, 96MB shared memory

On-board sound

- (1) LAN ports
- (6) USB ports, (2) on front of case

DVD-R/W drive

3.5", 1.44MB floppy disk drive

104 key enhanced heavy duty keyboard

Microsoft optical mouse

- 1 Windows XP operating system
- 1 UPS back-up battery system

1 Color TV power control unit, multi-conductor, modular control center mount, with:

- 1 Camera power supply with adjustable voltage and amp level, DC amp and voltmeters, on/off switch and circuit breaker
- 1 TV camera light head intensity control with on/off switch and circuit breaker
- 1 Light head power supply with DC amp and voltmeters, switch and circuit breaker
- 1 Light head power selector switch, 5-position with light head bulb overdrive auto resetting protective circuit breaker
- 1 Set prewired connections for tractor and/or pan and tilt camera controllers



LINE ITEM F - Standard Cameras

- 1 Aries PE2710 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LEDilluminated, zoom, color sewer TV camera, consisting of:
- 1 Maintenance-free directional camera LED light system for 6" to 72" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
- 1 Camera storage and transport case
- 1 Spare parts kit
- 1 Test cable, components to 12-pin PCU connector
 - -- Camera features include:
 - 360° continuous axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - --- Automatic or remote adjustable iris
 - Automatic home feature with forks at top and bottom of camera head
 - --- Automatic white balance circuitry
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode
 - 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch

LINE ITEM G - Standard Reel

- 1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:
- 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display-system
- 1- Transmission control linkage at control console
- 1 Local reel mount electrical and mechanical control
- -1-Sealed continuous contact collector assembly, 12 slip rings minimum
- 1—Drop down cable guide assembly

LINE ITEM H - Standard Cable

- 1 Combination TV-transmission and tow cable assembly, .410" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' multi-conductor, to include:
- 1 Cable terminal connector, 12 pin resinfree
- 1 Dummy plug, 12 pin
- 1 Tow/tag line bridle set, multi-conductor cable
 - 1-Cable terminal repair kit



LINE ITEM K - Standard Tractor

- 1 Aries TR3200 "Badger" steerable self-propelled transporter for 6" to 30" lines, including:
- -1 Tractor assembly with continuous duty drive motors
- 1 Set each of 3", 4" and 5" rubber tires for 6" 30" sewer lines
- 1 Set transmission couplings and weighted adjustment bars for operation in 8" to 30" sewer lines—
 - 1 Tractor power supply and control module with volt and amp meters, circuit breakers (2), on/off switch and direction control display, rack mount location
 - 1 Desktop hand-held controller with speed and direction controls
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts
- 1 Set of 4" carbide impregnated high traction wheels

LINE ITEM M - Downhole Guides

- 1 Cable manhole guide system including:
 - 1 Manhole top roller assembly
 - 1 Manhole bottom roller assembly and adapter hook
 - 5 Quick lock extension poles
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Tiger tail bottom cable guide

LINE ITEM N - Delivery

1 Delivery of system

LINE ITEM P - Training and Inspections

- 3 Manuals operation and maintenance
- 3 Spare parts catalogs
- 1 Training video TV Systems Operating Procedures
- 1 Training video Troubleshooting and Cable Repair Procedures
- 2 Days of training, TV system
- 1 Day of follow-up training, within 30 days
- 1 One year warranty, TV system
- 1 Pre-delivery factory inspection trip for (2) County employees, location TBD

LINE ITEM Q - Software

- 1 WinCan version 8 software package, including:
 - 1 Core module and license
 - 1 Overlay control module
 - 1 Digital video compression module and hardware
 - 1 PACP NASSCO certified software coding system

LINE ITEM R - Software Training

2 Days of setup and training, software system



LINE ITEM S - Pathfinder System

1 Aries "Pathfinder" miniature inspection system, including:

- 1 Zoom pan and tilt camera head with internal LED light ring, sealed, detachable from tractor
 - 1 Auxiliary (Internal) Luxeon LED Forward Light with lifetime warranty on the LEDs
 - 1 40X zoom (10X optical & 4X digital)
 - 1 Rear viewing camera system with integrated lighting
 - 1 Pressurized body with Fast-check pressure monitoring for protection
 - 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; and home switch
- 1 Tractor, 6" to 24" capable, 6-wheel drive with dual, brushless drive motors and electronic drive clutches
 - 1 Set of 3" wheels
 - 1 Set of 3 3/8" wheels
 - 1 Set of 4 3/4" wheels
 - 1 Manual camera lifting mechanism
 - 1 Pressurized body with Fast-check pressure monitoring for protection
- 1 Pathfinder reel spooled with 1000' of multi-conductor cable
 - 1 Clamping system for removable vehicle installation
 - 1 Snap in downrigger roller

LINE ITEM T - Chassis

1 Ford E450 16' hi cube van, 14050 GVWR, 6.8L gas engine

Chassis

Ford E450 Super Duty cutaway chassis

176" wheelbase, 118" cab to axle

14,050lb-gross-vehicle-weight rating

Front GAWR 4600lb, tapered leaf suspension

Rear GAWR 9450lb, multi-leaf suspension

Dual rear wheels

(6) tires, LT225/75R16E BSW AS

(6) wheels, 16" x-6" steel disc 8-hole

Power steering

Hydraulic front and rear disc brakes

12V 115A alternator

12V 650CCA automotive battery

ICC running lights plus standard lights including stop, turn, reverse, plate, and 4-way

55g fuel tank, driver's side fill

Drivetrain

6.8L gas engine, 305hp @ 3250rpm, 420lb ft @ 3250rpm

Differential ratio 4.56

Dry type air filter

Spin on type oil filter, disposable type

Fuel filter

Heavy-duty cooling system

Heavy-duty automatic 5-speed transmission with overdrive



Cab

Fresh air heater and defrosters

Cab air conditioning

AM/FM-radio

Dual high back bucket seats with 3-point seatbelts

Sun visors and arm rests, driver and passenger seats

Intermittent windshield wipers with washers

12V dome light

Dual-rear view mirrors, external, manual swing-away type with standard top and convex bottom section, retractable and adjustable

Tilt steering wheel

Hobbs hour meter

Hi-Cube Body

Aluminum construction

84" interior clear height

96" exterior width

Minimum interior load space of 185"

Flat floor

Full undercoating

Rear rollup style door with slam lock hardware and grab handles

Aerodynamic wind fairing with full height walkthrough sliding lockable door to cab area

Chassis

GMC Savana 3500 extended van chassis

155" wheelbase

GVWR 9600

Independent front suspension with coil springs and stabilizer bar, GAWR 4300

Rear multi-leaf spring suspension, GAWR 6084

Tires (5) LT245/75R16E BSW all-season

Power steering

Four wheel disc brakes with ABS

105A alternator

12VDC 600 CCA battery

12V dome light

31 gallon fuel tank

Drivetrain

6.0L Vortec V8 gas engine, 300 hp @ 4400 rpm, 360 lb·ft @ 4000 rpm

3.73 rear axle ratio

Internal transmission oil cooler

4-speed electronic automatic transmission

Interior / Exterior

Front driver's and passenger seats, full reclining adjustable bucket

Cab heater with defrost fan

Cab air conditioning



AM/FM stereo

Instrument panel including tachometer, oil pressure gauge, engine temperature gauge, voltmeter Intermittent windshield wipers with pulse washers

Paint = Summit white

Swing-out passenger side cargo door

Body dimensions: 147.8" interior cargo length, rear door to back of seats

75.9" cargo height, with 24" extension 52.7" width between wheel wells

1 Extended 24" top

OPTIONAL EQUIPMENT

Option #1 - Substitute Rear Door

1 Swing opening rear doors with 3 hinges per door and cam locks

1 Door mounted pole storage brackets in lieu of underbody box

Option #2 - Add Hoist

1 Equipment hoist, 500lb. rating, reel mounted



FAX COVER SHEET

Life is Short... it Pays to be Advanced!

DATE: February 19, 2008

TO: Chris Slater

FAX: (805) 237-3886

FROM: Bryan Fox

PHONE: 310.532.9050 FAX: 310.532.9051

Number of pages Including cover sheet: 17

Subject: CCTV Truck Proposal



City of El Paso de Robles Wastewater Division 3200 Sulphur Springs Road Paso Robles, CA 93446

Envirosight Rovver 125 Vehicle Inspection Unit City of Mauldin, SC Bid Piggyback Proposal

Truck:

Ford E250 Econoline Van Chassis with 24" Reinforced Bubble Top Roof (8,900 GVWR)

- -V8 gas engine
- -AM/FM Radio
- -Air Conditioning
- -Vinyl Seats
- -Industrial rubber floor (non-slip)

Truck Build Out:

- -Inside walls insulated and covered with 1/2" plywood.
- -Onan 4000watt Gas Generator
- -Automatic Transfer Switch
- -Auxiliary battery for Gen
- -25' shore power cord
- -(2) beacons front and back
- -LED arrow board
- -back up alarm
- -12v florescent lighting front & back
- -Dividing bulk head wall with large window

Equipment Area:

- -Industrial textured rubber flooring non-slip heavy duty wear
- -FRP laminated walls
- -Workbench sealed with rubber top, over heat shielded Gen compartment and Craftsman "Grip latch" Toolbox.
- -Stanley Vidmar Storage Drawer (mounted under cable reel)
- -wash down system, 20 Gallon water tank with Cox EZ Coil hose reel & spray nozzle.
- -110v adjustable spot lamps in back
- -15" monitor with industrial adjustable mounting rack

www.advancedworld.com 16422 South Avalon Blvd. - Gardena, California - 310-532-9050

- -RCA video plug in back for use of push camera, Quick View zoom camera, etc.
- -Hand sanitizer dispenser
- -Aluminum components, rubber glove, paper towel, upper manhole roller and cleaning bottle holders.

Operator Area:

- -Industrial smooth rubber flooring matching equipment area
- -carpeted walls (grey)
- -Roof mount air conditioner (13,500 BTU) with heat strip (5,600 BTU)
- -Tower cabinet for electronics and shelf
- -Generator remote start-stop switch
- -15" TV monitor for Main inspection
- -17" computer monitor
- -Sony DVD/VHS Recorder
- -"L" shape desk
- -File cabinet
- -Office chair
- -Aluminum components, coffee cup holder

ROVVER 125 Crawler Zoom System

- -Includes: 125 crawler, RA 200 motorized cable reel with 670' of cable, color RC90 Zoom pan/tilt camera, crawler / camera shipping case, pressurization kit, truck mount CCU, text generator, desk mount and rear truck pendant, pendant junction box, tools, spare windshields, set of 4 medium grease wheels, set of 6 small rubber wheels, set of 4 medium rubber wheels, set of 4 large rubber wheels, wheel hub extenders, and all necessary hardware.
- -Top Manhole Roller
- -2" Tiger Tail

WinCan V8 Inspection Software:

- -WinCan Version 8 Inspection Software Core License
- -Overlay Control
- -Rack mount industrial cased computer

Bid Total Price: \$133,735.00 A.I.T. Discount: -\$18,735.00

> Total Price: \$115,000.00 Sales Tax: \$8,337.50

@Grand Total: \$123,337.50

www.advancedworld.com 16422 South Avaion Blvd. - Gardena, Celifornia - 310-532-9050

PURCHASE ORDER

BILL TO

CITY OF MAULDIN

P.O. BOX 249

5 EAST BUTLER ROAD

MAULDIN SC 29662 PHONE:

864-288-4910

FAX:

864-297-3411

PURCHASE ORDER NO:

200822

This PO number must appear on all packages

and correspondence

l of l

VENDOR: 004085

PUBLIC WORKS EQUIPMENT & SUPPLY, INC.

3405 WESTWOOD INDUSTRIAL DR

MONROE NC 28110

SHIP TO:

CITY OF MAULDIN

P.O. BOX 249

5 EAST BUTLER ROAD

MAULDIN SC 29662

Notes to Vendor:

Order Date: 01/09/2008

Date Required:

Ship Via:

Unit Price Total Quantity U/M Catalog No Description 133,735,0000 133,735.00 1.00 SEWER INSPECTION SYSTEM W/VAN SEWER INSPECTION SYSTEM W/STEERABLE CRAWLER, ZOOM/PAN/TILT COLOR CAMERA FULLY AUTOMATIC CABLE REEL W/660FT CABLE, WASH DOWN, GENERATOR, SEP OFFICE AREA, COMPUTER SOFTWARE 200**8** E-350 TOP VA 300.0000 300.00 1.00 SALES TAX SubTotal 134,035.00 0.00 Sales Tax Order Total 134,035.00

Requested By: GFINCHER

Account Distribution

REV APPRY ACCOUNT NUMBER

SAC SAC 200-430-000-970

AMOUNT 134,035.00

yol - Entely -

REV APPRY ACCOUNT NUMBER

AMOUNT

SEE COUNCIL MINUTES



Department of Public Works

and Administrative Services

P.O. Box 249 • Mauldin, SC 29662-0249 • (864)-289-8891 • Fax: (864) 234-3498 • E-Mail: mauldinpwd@charter.net

May we please have your competitive bid to furnish item (s) listed below delivered complete and F.O.B. to the Mauldin City Hall, 5 East Butler Road, Mauldin, SC. The sealed bid must be returned to City of Mauldin, P.O. Box 249, Mauldin, SC 29662 no later then 1:00 p.m., October 19, 2007 or delivered in person to Mauldin City Hall, 5 East Butler Road, Mauldin, SC, prior to public opening at 1:00 p.m. in the same date and marked "Sewer Inspection System" on the envelope.

Do not include any federal taxes that may be eliminated in sales to the city government. Show South Carolina sales tax on as a separate item. Bid # 1 Sewer Inspection System as per \$ 103,085.00 attached specifications (per unit) Bid #2 Sewer Inspection System as per \$ <u>133,735.00</u> attached specifications (per unit) Total estimates SC Sales Tax __300.00 To be paid by the City at time of tag and title application. Note: Please indicate is GSA no or State Contract no Terms: Net 10Days Firm Name: PUBLIC WORKS EQUIPMENT AND SUPPLY, INC. Delivery: 45-60 Days A.R.O. Signature Required Date: October 26, 2007

VENDOR NOTICE: "No bids" shall be in writing. Vendor wishing to remain on the city bid list should submit "no bid" in writing.

The City of Mauldin reserves the right to reject any and all bids and is not bound to accept the lowest bid if in the opinion of the city such award would be in the best interest of the city.

Dedicated to Service · Committed to Excellence

CITY OF MAULDIN INSTRUCTIONS TO BIDDERS

1. Unless otherwise require, submit only one copy of each bid.

 Bids, amendments thereto or withdrawal requests received after the time advertised for opening will be void if mailed after specified date and time.

Quote prices on units specified with packing included.

 Attach complete specifications for and substitutions offered, or when amplification is desirable or necessary.

5. If specifications or descriptive papers are submitted with bids, enter bidder's name thereon.

6. If the article bid upon has a trade name or brand, show same in the bid.

7. When required, furnish samples, free of expense, prior to the opening bid label each sample with bidder's name and item number. Should you wish samples returned, at your expense, when not destroyed in tests, make request for return within 10 days following opening bid.

8. Show delivery time required after order is received (see bid below).

9. Address and mark bids as indicated in the notice.

- 10. Complete vendor questionnaire and include with bid.
- 11. Complete specification list and include with bid,

CONDITIONS

1. The City of Mauldin reserves the right to reject and all bids and to waive all technicalities.

Unit prices will govern over extended prices, unless otherwise stated in notice.

- Tine in connection with discount offered, will be computed from date of delivery of commodities to carrier.
- In case of default of contractor, the City of Mauldin reserves the right to purchase any or all items in default on open market charging contractor with any excessive costs.

 All materials and products offered must be guaranteed to meet the requirements of the specifications indicated, given, or referred to.

Prices bid must be based upon payment in thirty days. Discounts for payment in less than thirty
days will not be considered in making award.

The right is reserved, to make award, which is considered by city council to be most advantageous
to the city.

 The right is reserved to reject any bid in which the delivery time indicated is considered sufficient to delay the operation for which the commodity is intended.

9. Unless otherwise indicated by the City of Mauldin, submitting this

BID: \$See Bid Page FOR Sewer Inspection System In compliance with invitation and subject to all conditions, thereof the undersigned bid is accepted within 45 days from date of opening, furnish and or all items quoted after the item and otherwise specified, within 30 days after receipt of order, delivered to the state of the stat	1 AM AN MANINES A Frankli
costs included.	30, all transportation
Discount will be allowed as follows: 30 calendar days _0_ per cent.	
FIRM Name FUBLIC WORKS FOULPMENT AND SUPPLY, INC.	

3405 WESTWOOD INDUSTRIAL DRIVE MONROE, NC 28110
Street or PO Box, City

By: Tony Helms Tyr Clehr Title: General Sales Manager

SEWER INSPECTION SYSTEM

BID #1

Sewer Inspection system with steerable crawler, zoom/pan/tilt color camera fully automatic cable reel with 660 ft cable. Wash down system, generator, separate office/work area with A/C and heat, computer and reporting software. Mounted in a tandem axle fully enclosed trailer with standard build out.



Same as Bid # I with the exception that it is mounted in hi-top van with gas engine.

Lightweight Crawler Transmission Cable

If not circled, we will assume that specs are not

PLEASE CIRCLE ONE

	 660 feet of continuous length multi-conductor cable shall be provided. The cable must be Kevlar reinforced and have a minimum break strength of 500 lbs. 	Yes) No
2	2. The cable shall be no greater than .30 inches in diameter.	Yos	No
3	3. The cable must not weigh more than 15 pounds per 330 feet.	Yes	No
4	 A connector strain relief fixture must be provided to fit the cable and work with steel strain relief on the crawler side. 	Yes	No
5	The cable must be able to connect to the following directly without any modification:		
6.	a. Pan and tilt camera. b. Axial forward-view camera. c. Pan, tilt and 40:1 200m camera. d. Camera raise kits. e. 4" minimum ID Pipe capable crawler. f. 5" minimum ID Pipe capable crawler. g. 9" minimum ID Pipe capable crawler. h. DVSS Sewer camera for manhole and pipe scanning.	Y :: 1 Y	No No No No No No No
V.	Cable must be able to be removed from cable reel without tools, single electrical connector for easy replacement.	Yes	No
7.	Cable must have tough outer jacket to resist toars and scrapes.	Yes	No
8.	Outer jacket must be smooth to reduce friction.	Yes	No
9.	Crawler connect end must have a minimum of 8" steel armored jacket to prevent cable damage while going around pipe bends and during entry.	Yes	No
	Crawler connect end must have solid stainless steel bayonet style connector that locks with a single quarter turn with lifetime warranty.	Yes	No
11.	Crawler connector end must have connector that has electrical keyway for proper alignment of cable to camera or crawler connector without damaging electrical pins	s. Yes	No
12.	Cable must be able to be directly reterminated without the need for epoxy. Scotch cast style unites that require lengthy cure times will be deemed unacceptable.	Ŷes	No
13.	Cable must be able to be used with fully automatic cable reel, manual cable reel and cable reel with anto-assist motors for easy management.	Yes	No

Motorized Auto-Sensing Cable Drum

If not circled, we will assume that specs are not met.

PLEASE CIRCLE ONE

1	 A cable drum shall be provided to contain the cable for camera and crawler operation. 	Yes	Νo
2	The hub of the cable drum shall be equipped with a continuous contact slip- ring assembly to allow the cable to be dispensed and retrieved while the camera and tractor are operational.	Yes	No
3.	Cable feed out and retrieval must happen AUTOMATICALLY via a motorized system with sensors that operate the cable drum at the exact speed and direction of the crawler. Cable is paid-out or "pushed" toward the crawler so the crawler does not have to pull the cable off the reel and reduce power and traction. Cable reels that require operator control or lack the ability to operate in tandem with speed and direction of the crawler without adjustment will be deemed unacceptable.	Yes	No
4.	Cable reel must have a level wind system which neatly rolls and stores cable without excessive loops and tangling.	Yes	No
5.	The cable drum must have a red lighted emergency stop switch.	Yes	No
6.	To further enhance safety, the cable drum must have an automatic shut down.	Yes	No
7.	The cable drum must have a normal and inverse switch which allows the crawler controls to be used normally if the crawler was to flip and be operated in an upside down position.	Yes	No
8.	The cable drum must be able to operate in both automatic and manual modes.	Yes	No
9.	System must have back-up manual crank arm in case of power loss.	Yes	No
10.	Front panel must have LCD readout of footage.	Yes	No
11.	System must have outward cable rolling arm to help with pressures of cable when crawler is being reversed and for allowing for easy deployment when crawler is moving forward. Roller and arms must be able to be stored in an upright position when not in use to facilitate portability.	Yes	Ν̈́o
12.	Cable reel system must have overheat sensor protection so motors will not be destroyed if the reel were to pull on an object that is not moving for a long period of time.	Yes	No



- The cable drum must have speed and torque controls to adjust for different pipe conditions and user preferences.
- 14. The cable reel shall not weight more than 100 lbs. with 660 feet of cable.
- 15. Cable reel must have top handle to be able to be carried easily into the field.
- Cable reel system must come with 20' control cable to control unit and have ability to work with a 165 foot extension cable.
- 17. Cable drum must come with stationary mounting plate where cable drum remains secure, but can easily be removed for maintenance, shipping or portable use without the use of any tools or loose hardware.
- 18. The system shall include a footage counter attached to the counter arm assembly which extends from the cable arm.
- 19. The footage counter assembly shall be constructed of machined aluminum parts and shall include the necessary guide wheels to maintain cable tension.
- 20. The footage counter shall measure passage of the cable from the wheel graduated in 0.1-foot steps up to 660 feet.
- The footage counter shall function electronically and transmit footage data for monitor display and video recording.
- Cable drum must work with minimum 4" ID pipe crawler and minimum 9" pipe ID crawler without any modifications.



No



No



No



No



Nο



No



No



No



No



No

Zooming Pan/Tilt Color Camera

If not circled, we will assume that spees are not

met.
PLEASE CIRCLE ONE

	The pan & tilt camera must connect directly to the cable, and minimum 4", 5.5" and 9" ID crawler without modification to the cable, control unit or any other part of the system.
--	---

Yes No

2. When connected to any crawler there can not be external wires, connectors, clamps or tie-downs.

(Yes) No

 The camera will pan (+/- 175) and tilt (+/- 135) allowing for full view of laterals and joints.

Yes No

 Camera will have the ability to view behind crawlers to inspect upstream lateral rubber seal on gravity flow PVC pipes.

Yes No

 Pan and tilt will have mechanical stops to avoid slip-ring maintenance issues and prevent camera from inadvertently being directly positioned into dirty flow at bottom of pipe.

(Yes) No

 Camera must have 10X optical 4X digital zoom capability for viewing up laterals and magnifying observations.

Yes) No

 Camera construction shall include all solid-state circuitry designed to withstand shocks and vibrations while being pushed, pulled or propelled through the pipe.

Yes) No

 All camera electronics shall be of modular construction for ease of exchange and repair, and shall be designed to facilitate future upgrades.

Yes No

The housing shall be fully sealed and waterproof to withstand external pressure up to 15 psi without damage or leaking.

Yes No

10. The camera power supply shall be provided form a solid-statepower source and the camera input shall be 12 volts DC. The lighting for the camera shall be supplied through an isolated power supply and shall regulate the light voltage up to a nominal 36 volts DC.

Yes No

11. Pan/Tilt Motor power 12V/3Watt.

Yes No

Camera illumination must be provided with a minimum of 28 field-replaceable LED's that have a 50 degree lighting angle and provide 45000mcd/piece to light pipes up to 60" diameter.

Yes No

13. The camera shall have a visible internal pressure indicator allowing the operator to detect a pressure loss. A solid red indicator light will show if the system is over-pressurized, green indicator when the system is holding between 5 and 10 lbs. of pressure and blinking red indicator for when pressure is below 5 lbs.

14. Camera shall have shraeder valve for purge and pressurization of camera body.

Yes No

Yes

No



- 15. Camera will pan and filt at the same time to increase speed of inspection and home position placement when continuing forward,
- No

16. Camera must not weigh more than 4.0 lb.

- No
- 17. Side stainless plates must be a minimum or 13mm for increased durability when inserting the camera in a manhole.
- Νo

18. Rotation axle must be made of stainless steel.

- Νo
- 19. Following camera functions must be able to be controlled via a remote pendant:
- Nο

Single click for normal Zoom IN/OUT.

Νo

Double click same button for full IN/OUT Zoom position. Hold down for longer than 1.5 sec for fast zoom IN/OUT.

Νo

Shutter speed button for Up, Down and Auto.

Nο

e. Focus button for far, near and auto.

No

Button for centering pan and tilt to center forward position. Double click home button to set wide zoom setting.

No Νo

Joystick control of pan and tilt.

Νo

Rheostat control of lighting.

No

20. Pan and tilt must have integrated clutch for pan and tilt motor.

Νo

. Steerable Motorized Crawler for 6-24" Dia, Pipe

If not circled, we will assume that spees are not met.

Ι.	The system shall include a gear driven; all wheel drive tractor to carry the camera for rapid remote inspection of pipes ranging from 6" to 24" diameter.	Yes	No
2.	The tractor shall have forward/reverse and left/right steerable movement via the pendant control on the CCU.	Yes	Nç
3.	The tractor shall provide sufficient traction, under suitable conditions, to tow 660 feet of transmission cable. Such traction shall be provided by six gear driven wheels with tapered tires. Tractors propelled by chains, belts or continuous tracks will not be acceptable.	Yes	No
4.	Both the camera and cable shall be easily removed from the tractor.	(Yes)	Νo
S.	The tractor shall have a maximum size of 3" (76mm) wide by 3 3/10" (84 mm) high. To allow for proper clearance in 6" and lined pipes.	Ϋ́es	No
6.	Front bottom edge of crawler shall be solid anodized aluminum and bo curved upward to assist with moving over and through common debris and obstacles.	Yes	No
7.	To allow for performance in soft sediment and debris and ease of use the tractor shall weigh a minimum of 18 lbs. and 20 lbs. with camera.	Yes	Νo
8.	The tractor shall be no longer than 15" with the pan and tilt carners in order to easily navigate through 90-degree inverts without rolling.	Yes	No
9.	The tractor shall be no longer than 12" when deploying the forward view camera.	Yes	No
10.	The tractor shall allow for forward view camera to be fully enclosed (not sticking out in front of crawler) to provide for added durability and short overall length for maneuverability.	Yes	No
11.	All wheels to have tapered edges to conform to pipe sidewall.	Yes	Νo
12.	The tractor shall have machined key fitting on all 6 axles to facilitate easy use and ensure an exact fit with all wheels. Machined axle key must be able to be replaced in the field without having to replace the axle. Crawlers without keyways or keyway fittings that can be replaced in the field without removal of axle will be deemed unacceptable.	Yes	No
13.	The tractor shall include 3 wheel sizes and spacers suitable to accommodate pipe inspection in 6" through 24" pipes. Spacers and wheels sizes shall attach with a keyway and single screw. No plates or spacer-bars will be accepted.	Yes	No

14. Tractor shall work with the following standard and optional wheel sets:

		INCLUDED -		
	a,	Set of 4 common 36mm dia by 20mm wide spacers	Yes	No
	Ъ.	(6) 3.33" (86mm) dia rubber wheels	Yes	No
	Ç,		Yes	Νo
	₫.	(4) 4.33" (110mm) dia soft composite grease wheels with		
		traction grit impregnation	(Yes)	No
	e.	(4) 5.31" (135mm) dia grooved rubber wheels	Yes	No
		OWNYON A T		
		OPTIONAL		
	u,	(6) 3.33" (86mm) dia soft composite grease wheels with traction grit impregnation	(C)	***
	b.		CY ES	No
	Ç,			Νo
	d.		(tes	No
	-	traction grif impregnation	(0)	% Y -
	e.	(4) 5.31" (135mm) dia pointed carbide whoels	Yes	No
	f.	(4) 5.31" (135mm) dia side by side rubber wheels	168	No
	g.	(4) 5.31" (135mm) dia by 2.6" wide sediment rubber wheels	Que S	No
	Ð.	(1) 2.2.1 (122 min) day by 2.0 wide setting it linds wheels	Yes	No
1	5. The	tractor must have a single waterproof screw-on connection port for		
	addit	ional upwardly angles large pipe lighting located behind the center area		
	ofth	e crawler,	Yes	No
		ξ	روي	***
10	6. Tho i	factor shall have the ability to add dual 20 want low profile (1.7" dia.)		
	auxil	lary lighting that is remotely controlled via a rheostat controller on the	_	
	opera	tor pendant.	Yes	No
		ί _{ι, (}		
17	7. Craw	ler must fit in 8" diameter pipe with a dual auxiliary lighting attached.	Yes	Νo
* *		:		
12	s. 20 W	att 12 V auxiliary lighting that is remotely controlled via a rheostat	-	
	contr	oller on the operator pendant.	(Yes)	No
10	Then	weeken must have the at itter to all a control to	4.	
13	Hoper And th	ractor must have the ability to add a rear viewing camera and rear		
	tigitii	ng for debris avoidance and cable management.	(Yes)	No
20	. Reary	viewing camera and lighting must use same connection port as		
	auxilia	ary lighting.	(Var)	N/_
		J@	(Yes)	No
21.	. Tracto	or must have two mechanical screw-down holes 20 mm apart to solidly		
	adhere	lighting and rear view camera.	Ves	No
22.	. Crawle	er must fit in 8" diameter pipe with rear viewing camera attached.	(Yea)	No
23.	The tr	actor shall have a visible internal pressure indicator allowing the		
	operat	or to detect a pressure loss. A solid red indicator light will show if the		
	system	is over-pressurized, green indicator when the system is holding		
	betwee	on 5 and 10 lbs. of pressure and blinking red indicator for when	_	
	pressu	re is below 5 lbs.	(Yes)	No
24	271 ·	7. W1		
44.	Ine in	actor shall have a tilting rear cable connector that points vertically		
	wnen c	leploying the system into a manhole but can tilt into a horizontal		
	positio	n during operation in order to protect cable and connector during		
	deploy	ment.	(Yes)	No

a manhole or basin.

more than 3" beyond crawler front end.

34. Crawler must be designed so that pan and tilt camera does not protrude

No

No

CARGO VAN

FORD

E-250 Extended

24" Bubble Top Extension

GENERATOR

4.0 Onan Super Quiet Gas on Gas

NOTE: Electrical packages include a Shore Power Cord and Breaker Box. Generators include Auto Transfer Switch, 12V Converter, Wall Mounted Start/Stop/Hour Meter and Starting Battery. Inverters include 5 deep cycle Optima batteries.

CARGO VAN UPFITS

Operators Area

All operators area build outs include a solid bulkhead wall, Formica desk surface that will match the contour of the inner walls, over desk rear facing rack mount for components with an access door, 110 volt overhead fluorescent lighting, under shelf task lighting, oversized window in bulkhead wall, Formica faced storage cabinets, over head shelf and operators chair. Wall outlets will be placed under and over the desk surface. An internal/external video selector will be desk mounted. The walls will be covered with plywood and white FRP. The ceiling will be covered with dark colored carpeting. The floor will be covered with color matched industrial PVC.

Options for Operators Area

Roof mounted 13,500 BTU Air Conditioner (NA with inverter) Roof mounted 5,600 BTU Heat Strip (NA with inverter) Under desk 2-drawer file cabinet

Equipment Area

All equipment area build outs Include an enclosed generator compartment with access openings to do daily oil checks and complete maintenance, varied work bench surfaces with built in heavy duty storage/tool chest, wall mounted storage shelf, slide out crawler tray under cable reel, wash down system with on demand pressure pump, 10-20 gallon tank with exterior fill, 25'

retractable hose reel. There will be 1 ceiling mounted fluorescent light and a wall switch for the wash down pump. The walls and ceiling will be covered with plywood and white FRP. The floor will be covered with color matched industrial PVC. The generator enclosure and work benches will be constructed from plywood and covered with white FRP. The tops will be covered with black rubber sheeting. An outlet will be placed in the bulkhead wall for a rear facing monitor. An external BNC video input connection and 12VDC socket will be place at the rear of the vehicle.

Options for Equipment Area

Roof mounted work area flood lights (2)
Tool package: manhole hook, pry bar, sledge hammer and shovel (mounted)

EXTERIOR LIGHTING

Front Roof Mounted Strobe Rear Arrow Board

All vehicle build outs include the following accessories:

Hand sanitizer
Waterless soap
Paper towels
Rubber Gloves
First Aid Kit
Fire Extinguisher
Rain X
409 surface cleaner
Dry Erase Board
Boat Clamp on rear driver side
Wall mounted shelf
Wall mounted pendant tray

************Envirosight Transport Product Disclaimer***********

Envirosight LLC is dedicated to offering the highest quality components and craftsmanship. We are continually sourcing new products and materials in our effort to refine the quality and "look and feel" of our Transport Product Line. Therefore, we reserve the right to change the layouts and substitute components without notice. The photos shown on our website and in various printed materials are representative examples only and the current final product may differ slightly from representations you have previously seen. If you are committed to a certain component or style, please be sure to contact us so that we may make every reasonable effort to assure your needs and those of your end user are met.

REV11107

RESOLUTION NO. 08-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES APPROVING PURCHASE OF A VIDEO VAN AND EQUIPMENT TO PROVIDE REQUIRED REVIEW OF THE SEWER COLLECTION SYSTEM

WHEREAS, The City operates approximately 115 miles of collection sewers, with 2500 manholes and 15 lift stations, within the City limits; and

WHEREAS, the City was mandated, as a condition of our State-permit, to develop and adopt a Sewer System Management Plan (SSMP) to reduce the potential for occurrence of Sanitary System Overflows; and

WHEREAS, one of the mandatory elements of the SSMP, as defined by the State Water Resources Control Board (Board), is to "develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency; and

WHEREAS, the program must include regular visual and TV inspections of manholes and sewer pipes, as a system for ranking the condition of sewer pipes and scheduling rehabilitation."

THEREFORE, BE IT RESOLVED AS FOLLOWS:

<u>SECTION 1</u>. The City Council of the City of El Paso de Robles does hereby approve the purchase a waste water video van and necessary video equipment from Municipal Maintenance Equipment Company in an amount not-to-exceed \$120,300.00 and supplement the \$40,000.00 provided for in the 2008 budget by allocating \$93,600.00 from Wastewater Operations Fund Account No. 601-310-5221-163 cover the purchase and provide funding to the City Equipment Replacement Fund for future orderly replacement of the equipment in the future.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 20th day of May 2008 by the following vote:

AYES: NOES: ABSTAIN: ABSENT:	
ATTEST:	Frank R. Mecham, Mayor
Deborah D. Robinson, Deputy City Clerk	