Summary Title: Pool Vehicle Reservation/Key Manager System

Title: Approval of Amendment No. 4 to Service Order S07121018 with Invers Mobility Systems for the Purchase of an Automated Pool Vehicle Reservation/Key Manager System in the Amount of $86,665

From: City Manager

Lead Department: Public Works

Recommendation
Staff recommends that Council approve and authorize the City Manager or his designee to execute the attached Contract Amendment No. 4 (Attachment A) with Invers Mobility Systems (S07121018) to purchase additional KeyManager kiosks and vehicle-related hardware required to fully implement a pool vehicle reservation and key management system ($86,655).

Discussion
In late 2007, Equipment Management implemented the first phase of a citywide employee pool vehicle reservation and key management system (VR-07001), which is being used in conjunction with a decentralized, manual reservation and tracking system. The original contract (S07121018) included the purchase of one Invers KeyManager system, which includes an outdoor kiosk, vehicle-mounted computers, and a vendor-hosted web-based reservation system.

System operation is simple and efficient. Vehicle keys are secured in the KeyManager kiosk. When a web reservation is made, a confirmation number is generated. Frequent pool users can be issued a “smart card,” which precludes the need for a confirmation number. When the driver is ready to pick up the vehicle, they will enter the confirmation number into the KeyManager via a keypad, or touch their smart card to a reader, and the vehicle key will be released to them. The KeyManager also allows vehicle users to make “walk-up” or spontaneous reservations without the need for web access, depending on vehicle availability. As soon as the driver enters the vehicle, a wireless key fob communicates with the onboard computer, which authorizes the vehicle for use. Once the vehicle is authorized, the driver may start the engine and begin their trip. In addition to authorizing the vehicle for use, the onboard vehicle computer monitors and downloads vehicle data; including trip mileage and vehicle operating time. This data is transmitted to the KeyManager when the key is returned. This allows Equipment Management to accurately and efficiently track pool vehicle usage, and bill using departments accordingly.
The first KeyManager kiosk was installed at the Municipal Services Center (MSC) and eight existing pool vehicles were outfitted with the onboard computers.

This Contract Amendment No. 4 will facilitate the purchase of the equipment required to implement the second phase of the project, which will expand the system to MSC Building “C,” the Civic Center and the Elwell Court site. The order includes three additional 16-key KeyManager kiosks, one 16-key slave kiosk (which will provide a 32-vehicle capacity at the Civic Center), and updated vehicle hardware for 40 vehicles. Since the implementation of the first phase, the vehicle mounted hardware has evolved significantly, and Invers now offers wireless vehicle computers that require no interaction from the driver. Previously, drivers would need to touch an encoded key fob to a vehicle-mounted reader in order to authorize the computer and start the vehicle’s engine, and repeat the process at the end of the trip to complete the transaction. With the wireless system, the encoded key fob is detected automatically, so the authorization and data collection routines are transparent to the vehicle user. The new KeyManager kiosks will be equipped with the wireless feature; however, the existing kiosk at the MSC will need to be upgraded with the wireless interface.

Audit of Vehicle Utilization and Replacement

The recent vehicle audit recommended that: "The Public Works Department fleet management should complete implementation of a centralized Citywide vehicle and equipment pool, and make the Citywide pool accessible to all departments."

The completion of the second phase of this project will allow the Fleet Management Division to implement this recommendation through the establishment of fully automated, centralized vehicle pools at the MSC, the Civic Center and Elwell Court. The centralized aspect of this new system will expand the availability of pool vehicles to all authorized City employees. Any vehicle in the pool can be reserved by any authorized City employee, regardless of location. After the KeyManager kiosks are installed (see Timeline below), vehicle modules will be installed in all existing pool vehicles, and staff will be trained in the operation of the reservation system.

This fall the City Manager established a Fleet Review Committee (FRC) consisting of the Assistant City Manager, Administrative Services Director and the Public Works Director. The FRC is responsible for overseeing the City’s fleet to ensure that it is managed efficiently and cost effectively. The automated vehicle reservation system will assist the FRC’s efforts to improve the utilization of fleet assets by allowing more vehicles and equipment to be assigned to centralized pools. Over the last several months, the FRC has reviewed underutilized transport vehicles (vehicles which are primarily used to transport passengers), and has made recommendations for:

- removing vehicles from the fleet,
- reassigning vehicles to the vehicle pool, or
- approving vehicles for continued assignment to departments.
Once the pool vehicle reservation system is fully operational, existing assigned vehicles that the FRC has recommended be re-assigned to the vehicle pool will be integrated into the system.

**Timeline**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Estimated Completion Date</th>
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<tbody>
<tr>
<td>Delivery of new KeyManager kiosks and vehicle-mounted hardware</td>
<td>October 2011</td>
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<tr>
<td>Installation of vehicle-mounted hardware into existing City pool vehicles</td>
<td>December 2011</td>
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<tr>
<td>Train City staff on operation of new reservation system</td>
<td>January 2012</td>
</tr>
<tr>
<td>Integration of departmentally-assigned vehicles into vehicle pool</td>
<td>February 2012</td>
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**Resource Impact**

Funds have been budgeted for this purchase in the Vehicle Replacement Fund Capital Improvement Program project VR-07001.

Because the Fleet Review Committee has removed a substantial number of vehicles from the fleet, the demand on the vehicle pool will increase significantly. It is imperative that the existing automated reservation system be expanded as soon as possible to avoid impacts and inconvenience to City employees that would result if Fleet continued to use the existing manual reservation and tracking system.

In addition to facilitating an expanded vehicle pool and improving the utilization of vehicles; the automated system will generate real savings in several ways:

- The Fleet Review Committee has already eliminated 24 vehicles from the fleet, generating approximately $53,000 in annual savings, and the avoidance of $400,000 in capital expenditures for vehicle replacements. 12 additional vehicles will be transferred to the pool. The FRC’s action to eliminate these vehicles from the fleet was made feasible knowing that Fleet Management would be able to readily expand and manage the vehicle pool with an automated reservation system. The former users of the eliminated vehicles have been directed to utilize the vehicle pool for their transportation needs.
- The system is far more efficient than the current decentralized manual reservation system; requiring much less time and effort for vehicle users to obtain vehicles and for Equipment Management staff to manage the reservation process. The staff time saved on this activity can be applied to promoting efficiencies in other areas.
- Once the vehicle pool is established and has operated for a period of time, utilization data from the system can be analyzed, and used to optimize the composition of the pool vehicle fleet. This optimization may result in further fleet reductions.

**Policy Implications**

Authorization of this contract amendment does not represent a change to any City policy.

**Environmental Review**
This is not a project as defined by the California Environmental Quality Act.

**Attachments:**

- A - Service Order S07121018 Invers Mobility Solutions (PDF)

**Prepared By:** Keith LaHaie, Fleet Manager

**Department Head:** J. Michael Sartor, Interim Director

**City Manager Approval:** James Keene, City Manager
**Vendor Address**

INVERS MOBILITY SOLUTIONS INC
PO BOX 46809
VANCOUVER BC V6J 5M4
CANADA

Tel: 604-742-1145 Fax: 604-648-9939

**Ship To:**
Equipment Management Division
City of Palo Alto
3201 East Bayshore Road
PALO ALTO CA 94303
USA

**Bill To:**
Equipment Management Division
City of Palo Alto
3201 East Bayshore Road
Palo Alto CA 94303

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**Service Order**

P.O. NUMBER MUST APPEAR ON ALL INVOICES, PACKAGES, SHIPPING PAPERS AND CORRESPONDENCE PERTAINING TO THIS ORDER

**PO Number**
S07121018

**Date**
04/11/2007

**Vendor No.**
105186

**Payment Terms**
Payment Due 30 days

**FOB Point**
Ship Point

**Ship via**
Vendor to ship best method

**Term**
04/12/2007 - 06/30/2012

**Buyer/Phone**
Jose Arreola / 650-329-2319

**Email**
jose.arreola@cityofpaloalto.org

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**Arrangements are indicated herein**

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**Item**

**Material/Description**

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***AMENDMENT #4 TO ADD PHASE 2 OF THE SYSTEM - SEE ITEMS 4 & 5 BELOW***

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**Item**

**Material/Description**

0010 Outdoor KeyManager System

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**Quantity**

**UM**

**Net Price**

**Net Amount**

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**CITY CONTACT PERSON:** Contact Person: Keith Lahale 650-496-6948

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**Amendment No. 1 to increase contract for travel and accommodation expense (see item #3).**

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**Amendment No. 2 to add update Maintenance w/Hosting and Support through June, 2008.**

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**Amendment No. 3 to add update Maintenance w/Hosting and Support through June, 2009.**

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**0020 Estimated Tax - Phase I**

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**Manager, Purchasing/Contract Administration**

THIS P.O. IS SUBJECT TO THE TERMS AND CONDITIONS STATED BELOW AND ON THE LAST PAGE

SPECIFICATIONS: Any specification and/or drawings referred to and/or attached hereto are expressly made a part of this Purchase Order.

DELIVERY: Please notify the City promptly if delivery cannot be made on or before the date specified. If partial shipment is authorized, so indicate on all documents. Complete packing lists must accompany each shipment.

INVOICE: A separate invoice is required for each order. Send to address indicated above.
# Service Order

**P.O. Number Must Appear on All Invoices, Packages, Shipping Papers and Correspondence Pertaining to This Order**

- **PO Number**: S07121018
- **Date**: 04/11/2007
- **Vendor No.**: 105186
- **Payment Terms**: Payment Due 30 days
- **FOB Point**: Ship Point
- **Ship via**: Vendor to ship best method
- **Term**: 04/12/2007 - 06/30/2012
- **Buyer/Phone**: Jose Arreola / 650-329-2319
- **Email**: jose.arreola@cityofpaloalto.org

**Deliveries accepted only between 7:00 AM & 3:00 PM unless otherwise arranged as indicated herein.**

## Item, Material/Description

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*Amendment #1 to increase contract for travel and accommodation expense.*

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*Phase II
Amendment No. 4 to add $86,655.40 to implement the second phase of the Automated Pool Vehicle Reservation/Key Manager System. Adding three (3) additional 16-key KeyManager kiosks, one (1) 16-key slave kiosk, and updated vehicle hardware for 40 vehicles. Also included is the second phase project management, implementation services, server set-up, hardware installation training, software and systems training, and travel expenses.*

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**Ordering via fax, if you receive an original by mail do not duplicate I faxed on:**

***Price has been quoted***

Sub-Total: **110,860.57**

Total: **110,860.57**

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**Manager, Purchasing/Contract**

This P.O. is subject to the terms and conditions stated below and on the last page. Specifications - any specification and/or drawings referred to and/or attached hereto are expressly made a part of this purchase order. Delivery - please notify the City promptly if delivery cannot be made on or before the date specified. If partial shipment is authorized, so indicate on all documents. Complete packing lists must accompany each shipment. Invoice - a separate invoice is required for each order. Send to address indicated above.