AGREEMENT FOR CONSULTANT SERVICES

This Agreement, entered into this <u>22</u> day of <u>September, 2004</u>, by and between the City of Hermosa Beach (hereinafter referred to as "City") and <u>Crossroads Software</u> (hereinafter referred to as "Consultant").

RECITALS

WHEREAS, City desires to obtain the services of a private consultant to provide a <u>Handheld Traffic Citation, Traffic Collision, DUI Arrest and Collision Analysis Database</u> <u>System</u>; and

WHEREAS, Consultant is a(n) <u>Computer Software</u> consultant and has represented that Consultant possesses the necessary qualifications to provide such services; and

WHEREAS, City has authorized the preparation of an agreement to retain the services of Consultant as hereinafter set forth.

NOW, THEREFORE, IT IS MUTUALLY AGREED THAT CITY DOES HEREBY RETAIN CONSULTANT ON THE FOLLOWING TERMS AND CONDITIONS:

1. <u>Scope of Services</u>.

Consultant shall provide services as described in Exhibit "A" entitled "Scope of Work" attached hereto and made a part hereof.

2. <u>Compensation and Reimbursement</u>.

City shall compensate Consultant a not-to-exceed fee of **\$671,300.00**, for tasks including, not but not limited to, Project Organization, Database Software which includes data input, data verification, reports and queries, collision diagrams, traffic citation statistics, GIS Collision Mapping Software and Implementation, and Training and Support. Consultant shall submit invoices no more frequently than monthly. Invoices shall include a summary of work performed for the period being billed, percentage of work completed for each task, and overall percentage of work completed for services as identified in the Scope of Work.

3. <u>Term of Agreement</u>.

This Agreement shall be effective from the period commencing <u>October 1</u>, <u>2004</u> and ending <u>December 31, 2005</u>, unless sooner terminated by City as provided in the section of this Agreement entitled "Termination." Upon expiration or termination of this Agreement, Consultant shall return to City any and all equipment, documents or materials and all copies made thereof which Consultant received from City or produced for City for the purposes of this Agreement.

4. <u>General Terms, Conditions, and Certifications.</u>

Contractor and any and all subcontractors agree to abide by the General Terms, Conditions, and Certifications contained in OTS Program Manual, Volume II, Chapter 6, Exhibit 6-B, Rev. 4-01, all of which by reference herein shall be made a part of this agreement.

5. <u>Termination.</u>

This Agreement may be terminated with or without cause by City. Termination without cause shall be effective only upon 15-day written notice to Consultant. During said 15-day period Consultant shall perform all consulting services in accordance with this Agreement. This Agreement may be terminated by City for cause in the event of a material breach of this Agreement, misrepresentation by Consultant in connection with the formation of this Agreement or the performance of services, or the failure to perform services as directed by City. Termination for cause shall be effected by delivery of written notice of termination to Consultant. Such termination shall be effective upon delivery of said notice.

6. <u>Confidential Relationship</u>.

City may from time to time communicate to Consultant certain information to enable Consultant to effectively perform the services. Consultant shall treat all such information as confidential, whether or not so identified, and shall not disclose any part thereof without the prior written consent of the City. Consultant shall limit the use and circulation of such information, even within its own organization, to the extent necessary to perform the services. The foregoing obligation of this Paragraph 5, however, shall not apply to any part of the information that (i) has been disclosed in publicly available sources of information; (ii) is, through no fault of Consultant, hereafter disclosed in publicly available sources of information; (iii) is now in the possession of Consultant without any obligation of confidentiality; or (iv) has been or is hereafter rightfully disclosed to Consultant by a third party, but only to the extent that the use or disclosure thereof has been or is rightfully authorized by that third party.

Consultant shall not disclose any reports, recommendations, conclusions or other results of the services or the existence of the subject matter of this contract without the prior written consent of the City. In its performance hereunder, Consultant shall comply with all legal obligations it may now or hereafter have respecting the information or other property of any other person, firm or corporation.

In the event of termination of this Agreement, Consultant agrees that it shall return any confidential information which was provided by City, in the event such information is in a format that makes it feasible to return same to City.

7. <u>Ownership of Documents</u>.

All memoranda, reports, plans, specifications, maps and other documents prepared or obtained under the terms of this Agreement shall be the property of City and shall be delivered to City by Consultant upon demand.

8. Office Space and Clerical Support.

Consultant shall provide its own office space and clerical support at its sole cost and expense.

9. <u>Covenant Against Contingent Fees</u>.

Consultant declares that it has not employed or retained any company or person, other than a bona fide employee working for Consultant, to solicit or secure this Agreement, that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from the award or making of the Agreement. For breach of violation of this warranty, City shall have the right to annul this Agreement without liability, or, at its sole discretion, to deduct from the Agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee

10. <u>Conflict of Interest and Political Reform Act Obligations</u>.

During the term of this Agreement Consultant shall not act as consultant or perform services of any kind for any person or entity whose interests conflict in any way with those of the City. Consultant shall at all times comply with the terms of the Political Reform Act and the local conflict of interest ordinance. Consultant shall immediately disqualify itself and shall not use its official position to influence in any way any matter coming before the City in which the Consultant has a financial interest as defined in Government Code Section 87103. Consultant represents that it has no knowledge of any financial interests which would require it to disqualify itself from any matter on which it might perform services for the City.

Consultant shall comply with all of the reporting requirements of the Political Reform Act and local ordinance. Specifically, Consultant shall file Statements of Economic Interest with the City Clerk of the City in a timely manner on forms which Consultant shall obtain from the City Clerk.

11. <u>No Assignments</u>.

Neither any part nor all of this Agreement may be assigned or subcontracted, except as otherwise specifically provided herein, or to which City, in its sole discretion, consents to in advance thereof in writing. Any assignment or subcontracting in violation of this provision shall be void.

12. <u>Maintenance of Records</u>.

Consultant shall maintain all books, documents, papers, employee time sheets, accounting records, and other evidence pertaining to costs incurred and shall make such materials available at its office at all reasonable times during the contract period and for three (3) years from the date of final payment under this Agreement, for inspection by City and copies thereof shall be furnished, if requested.

13. <u>Independent Contractor</u>.

At all times during the term of this Agreement, Consultant shall be an independent contractor and shall not be an employee of the City. City shall have the right to control Consultant only insofar as the results of Consultant's services rendered pursuant to this

Agreement; however, City shall not have the right to control the means by which Consultant accomplishes such services.

14. <u>Licenses, Permits, Etc</u>.

Consultant represents and declares to City that it has all licenses, permits, qualifications, and approvals of whatever nature that is legally required to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect at all times during the term of this Agreement, any license, permit, or approval which is legally required for Consultant to practice its profession.

15. <u>Consultant's Insurance</u>.

1. Policies:

Consultant shall obtain and maintain during the entire term of this Agreement the following insurance policies from companies authorized to issue insurance in the State of California:

(a). <u>Comprehensive General Liability</u>, including premises-operations, products/completed, broad form property damage, bodily injury, and blanket contractual liability with the following coverage:

General Liability \$1,000,000 per person per occurrence; \$1,000,000 annual aggregate combined; \$1,000,000 property damage or bodily injury per occurrence; Cross-liability exclusions prohibited

(b). <u>Automobile Liability</u>, including owned, hired, and non-owned vehicles with the following insurance coverage:

Auto Liability \$1,000,000 per person per occurrence; \$1,000,000 annual aggregate combined; \$1,000,000 property damage or bodily injury per occurrence; Cross-liability exclusions prohibited

(c) <u>Workers' Compensation</u> insurance in amounts in accordance with statutory requirements.

2. Endorsements:

Endorsements shall be obtained so that each policy contains the following

provisions:

(a) <u>Additional Insured</u>. (Not required for Professional Errors and Omissions Liability Insurance or Workers' Compensation.)

"City of Hermosa Beach and their elected and appointed boards, officers, agents, and employees are additional insured with respect to this subject project and contract with City."

(b) <u>Notice</u>.

"Said policy shall not terminate, nor shall it be canceled or reduced in coverage, without thirty (30) days' written notice to City of Hermosa Beach."

(c) <u>Primary Coverage</u>.

"The policy provides primary coverage to City of Hermosa Beach and its elected and appointed boards, officers, agents, and employees. It is not secondary or in any way subordinate to any other insurance or coverage maintained by City of Hermosa Beach."

16. <u>Insurance Certificates</u>:

Consultant shall provide City of Hermosa Beach with certificates of insurance and accompanying endorsements showing the insurance coverage described in the paragraphs above, in a form and content approved by the City, prior to beginning work under this Agreement

17. <u>Liability</u>.

Notwithstanding any other provision contained in this Agreement, Consultant shall be responsible for all injuries to persons and for all damage to real or personal property of City or others, to the extent caused by or resulting from the wrongful act or negligent acts, errors, or omissions of itself, its employees, or its agents during the progress of, or in connection with, the rendition of services hereunder. Consultant shall hold harmless and indemnify City and their elected and appointed boards, officers, agents and employees from all costs and claims for damages to real or personal property, or personal injury to any third party, including reasonable attorney fees resulting from the negligent performance of Consultant, its employees, or its agents, under this Agreement.

18. <u>Consultant Not an Agent</u>.

Except as City may specify in writing, Consultant shall have no authority, expressed or implied, to act on behalf of City in any capacity whatsoever as an agent. Consultant shall have no authority, expressed or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

19. <u>Personnel</u>.

Consultant shall assign qualified and certified personnel to perform requested services. The City shall have the right to review and disapprove personnel for assignment to City Projects.

City shall have the unrestricted right to order the removal of any person(s) assigned by Consultant by giving oral or written notice to Consultant to such effect.

Consultant's personnel shall at all times comply with City's drug and alcohol policies then in effect.

20. <u>Notices</u>.

All notices, billings and payments which are required or permitted to be made hereunder shall be in writing and shall be sent by personal delivery; first-class mail, return receipt requested; overnight or express mail service; or facsimile. Notices shall be deemed to have been received: upon delivery if personally delivered; seventy-two (72) hours after deposit in the U.S. Mail; on the day of transmission via facsimile unless sent after business hours and in that event, on the next business day. Notices may be sent to the following addresses; the parties may deliver notice of change of address or delivery information in the manner outlined in this Section E.

City (original):

City of Hermosa Beach Finance Department 1315 Valley Drive Hermosa Beach, CA 90254 Phone: (310) 318-0239

Consultant:

Crossroads Software 201 W. Birch Street Suite #207 Brea, CA 92821 Attn: Jeff Cullen (714) 990-6433 Facsimile: (714) 990-5628

20. <u>Conflict Resolution.</u>

In the event of a dispute between City and Consultant concerning the terms of this Agreement or its performance, the parties agree to submit such dispute to arbitration before the American Arbitration Association or other mutually acceptable arbitrator. In the event that the subject of such arbitration is compensation claimed by Consultant in the event of termination, Consultant's damages shall be limited to compensation for the 15-day period for which Consultant would have been entitled to receive compensation if terminated without cause. In the event of arbitration, each party shall bear its own attorneys' fees and costs incurred.

21. <u>Gender</u>.

Whether referred to in the masculine, feminine, or as "it," "Consultant" shall mean the individual or corporate consultant and any and all employees of consultant providing services hereunder.

22. <u>Exhibits</u>.

All Exhibits referenced in this Agreement, and each of them, are incorporated into this document as though set forth in full at this point.

23. Entire Agreement.

This Agreement shall constitute the entire understanding between Consultant and City relating to the terms and conditions of the services to be performed by Consultant.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement on the date first above written.

Bv:	Crossroads Software, Inc.		
CITY OF HERMOSA BEACH	CONSULTANT		

City of Hermosa Beach

08/30/04

Stephen Burrell, City Manager

A(n) California Corporation

APPROVED AS TO FORM

	Ву:			
Michael Jenkins, City Attorney				
	Printed Name:			
ATTEST	Title:			
Elaine Doerfling, City Clerk	Ву:			
Elaine Doerfling, City Clerk	Printed Name:			
Contract Approval Date	Title:			
	Address:			

In the event CONSULTANT is a Corporation, the signatures of two separate persons holding different offices must be provided.

Exhibit "A" **Scope of Services**

Introduction

Crossroads Software, Inc. will provide a Handheld Writing System for the South Bay DUI Task Force Handheld Project. This System will include electronic citation, collision, and DUI software and devices that offer efficient input of violation and violator data; portable printers for printing citations; integration with the existing South Bay court records system; a modular design to allow for future upgrades and modifications, when necessary; and additional features. The system will be provided to the South Bay DUI task force member agencies: El Segundo Police Department; Gardena Police Department, Hawthorne Police Department; Hermosa Beach Police Department; Inglewood Police Department; Lennox Sheriff Station; Manhattan Beach Police Department; Palos Verdes Estates Police Department; Redondo Beach Police Department; and the El Camino College Police Department.

For the police departments of El Segundo, Hawthorne, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, and Redondo Beach, Crossroads Software, Inc. will also provide the Traffic Collision Database System to fulfill these agencies' traffic collision, citation, and GIS analysis and records management requirements. The Collision Database has an intuitive design and is user-friendly, making it easy to learn and intuitive to use. The complete software package is a full-featured relational management database system running under Microsoft Windows that offers inputting, editing, storing, retrieving, and analyzing of collision record and citation data.

Crossroads Software, Inc. is committed to providing automated, user-friendly systems that will improve citation, collision, and DUI issuance and reporting in the South Bay area, expedite data entry and records management, help the Cities use their resources more efficiently, and provide capability for electronic integration between public safety and the courts.

This Scope of Services is divided into two main sections: the first covers the Handheld Writing System, while the second covers the Traffic Collision Database System.

Part 1. Handheld Writing System

1.1. Handheld Software

The Crossroads Software, Inc. Handheld Writing System provides the ability to write an electronic citation, easily input violator and vehicle information, capture signatures, print citations in the field, offload completed citations in an electronic format readable by most database management systems, in addition to other features. This program replaces traditional citation-writing methods with a more efficient system for writing, printing, and reporting citations.

In addition, the System also offers full-featured collision and DUI reporting. Users can input complete collision records that include vehicle, driver, occupant, and witness information, as well as scene information, road and weather conditions, collision factors, and non-motorist data. For DUIs, users have the ability to input observation, violator, and vehicle information, in addition to data for all standard DUI Field Sobriety tests.

Data Capture

The Handheld Writing System works on any handheld computer device that runs Microsoft Windows Pocket PC. Each citation, collision, and DUI is smartly organized into screens that are accessible with the touch of a button: Violator, Driver License, Vehicle, Location, Violation, and so on. The capture fields for each section of the System consist of text fields for direct data input and, more important, of drop-down lists and checkboxes containing all relevant data. These drop-down menus expedite citation writing while reducing errors.

Automated Entry

Some citation data is automated. Officers' names and identification numbers are contained within the System and appear on the electronic and printed citations. In addition, the date and time display and print automatically. The System can be configured to check user-specified required data fields.

Transcriber

One of the convenient, user-friendly features of the Handheld Writing System is the "Transcriber." This is a data-capture feature that allows conventional handwriting, both printed and cursive, anywhere on the screen. The writing is then instantaneously converted into electronic text in the proper data field.

Mag-Stripe Reader

The Handheld Writing System allows officers to swipe the mag-stripe of a violator's driver license. All of the driver license information contained within the mag-stripe is automatically entered in the appropriate data fields in the citation. The officer then continues inputting additional violation, location, and vehicle information.

Electronic Signature Capture

Once the officer has completed the citation, the violator can sign the citation on the handheld computer. The signature is electronically captured within the System and will appear on the printed copy of the citation. The signature is not a write-once field; if necessary, the field can be cleared, and the signature can be entered again.

Violation Codes and Descriptions

The Handheld Writing System contains a complete codes section that provides violation codes and titles that can easily be selected from a drop-down menu. This selection process makes the citation writing incredibly efficient. In addition, officers have the option to cite for multiple violations.

Because the violated codes and titles are contained in data tables, new codes and titles can be added to the System when necessary.

Finally, the violation section also collects approximate, posted, and vehicle speed information.

Court Date and Time

In addition to the violation, the Handheld Writing System also allows the user to specify a court, as well as a court date and time. The date and time can be selected from a pre-configured drop-down list or can be entered manually. The court names, dates, and times are

configurable, so that administrators can set up courts, as well as the number of days out for court appearance dates and times.

Field Information Card

Officers using the Handheld Writing System will be able to create field information cards in order to record and track pedestrian and vehicle stop data and also to create incident reports. The Field Information Card, while a separate option, will be integrated within the complete Handheld Writing System.

Printing Citations

The Handheld Writing System features a mobile printing system so that officers can print completed citations in the field. The handheld device connects to the printer via Bluetooth (a wireless electronic connection), transporting all citation data in a matter of seconds. Officers can preview the printed version of the citation before they print it. (While the System is engineered to work with Bluetooth-enabled portable printers, Crossroads Software can offer printing via an infrared connection as well.)

The hard-copy citations will be preformatted to conform to each South Bay agency's citation form and data element requirements. The System prints not only the citation number, officer name and ID, violator, license, location, vehicle, violation, and all other citation data, but the violator's signature as well.

Photos, Voice Recording, and Fingerprint Capture

Additional features of the Handheld Writing System include integrated devices to take photos at the scene. Users can also record the voice of the violator, or use the recorder for other purposes. Finally, the System can capture thumbprints or fingerprints using an integrated fingerprint device; while the device reads the print, the System software captures it.

1.2. Database Management/Court Software Integration

At the end of a shift, officers simply sync the handheld device to a desktop station to offload the citations, collisions, and DUI reports. The System can export all collected data into a wide variety of electronic formats, and Crossroads Software, Inc. will work directly with the South Bay agencies to set up the System so it will integrate with their existing Court electronic filing system. Crossroads Software, Inc. can be flexible about the output format of the records when they are sent to the court system.

The Handheld Sync System has a user-friendly interface that makes it easy for department staff to offload citations, collisions, and DUIs to a central server. Users can use the Sync System to retrieve and review all citation, collision, and DUI data. Moreover, the Sync System itself is designed to be compatible with the Crossroads Software Traffic Collision Database System. The Collision Database provides records management, queries and reports, extensive data analysis, and GIS mapping. Once the citation, collision, and DUI records have been offloaded, they can be queried and analyzed through the full-featured Collision Database System.

1.3. Handheld Citation-Writing System Technical Description

Handheld Devices, Printers, and Peripherals

The Crossroads Software, Inc. Handheld Writing System operates on electronic handheld computers (also known as Personal Digital Assistants, or PDAs) and portable printers. All of the hardware components, including printer paper, memory cards, and mag-stripe readers, will be supplied by Crossroads Software, Inc.

For the Handheld Writing System, Crossroads Software, Inc. will provide the Compaq Ipaq handheld computer, model series 5100 or later. Each Ipaq will have a minimum of 64 MB of RAM, 32 MB of ROM, Bluetooth, an infrared port, and a memory card slot for a 64 MB Secure Digital Card (SD) card. A Compaq Ipaq Dual Expansion Pack provides additional battery power and a PC card slot.

The Compaq Ipaq is a sturdy PDA able to withstand normal wear and tear, weather, and other conditions. Compaq Ipaqs are currently in use by many of our current public safety agency clients, and have been used to write over 100,000 handheld reports, including citations, collisions, and DUI arrests. The Ipaq can be ruggedized using a special Compaq rugged case that offers further protection from the elements and from more extreme usage. The Ipaq uses a lithium-ion battery that can be easily charged overnight and provide ten hours of field use (actual charge time is two to three hours).

For the printer, Crossroads Software, Inc. will provide the Seiko MPU-L465 Bluetooth printer. This portable device is battery-powered (which is rechargeable), allows variable paper widths, has a durable outer housing, and receives data through its wireless Bluetooth connection. The MPU-L465 prints at approximately 3 inches per second with print resolutions up to 300dpi.

System Requirements for Desktop Syncing and Database Management

For database management purposes and integration with court software, the System employs a handheld syncing interface program. This program requires a desktop workstation running Microsoft Windows 98, NT, 2000, or XP. Minimum system requirements are a 500 MB hard drive, 128MB of RAM, 600 MHz processor or better, and a CD-ROM drive.

1.4. Training and Support

Crossroads Software, Inc. will provide the South Bay agencies with three days (six hours) of training in the use of handheld devices, the writing and printing of citations, collisions, and DUIs, and syncing with desktop software and court databases. We will also provide multiple copies of a detailed user's manual.

Crossroads Software, Inc. offers technical support, maintenance, and upgrades at no additional charge for one year from the date of installation. Support, maintenance, and upgrades for each additional year are available for an annual fee.

Part 2. Traffic Collision Database System

2.1. Traffic Collision Database Software

Crossroads Software will work directly with police departments of El Segundo, Hawthorne, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, and Redondo Beach to determine the optimal sources of traffic collision records and the best methods for inputting and maintaining those records in our proposed Traffic Collision Database System. Options will likely include a combination of State-Wide Integrated Traffic Reporting System (SWITRS) data, existing police department records, and/or direct data input. The Crossroads Software team will work closely with department staff to define a streamlined approach to maintain an automated collision records system. For example, the agencies might want to use a combination of limited data inputted directly from the collision reports with more detailed information available quarterly from SWITRS. This approach provides access to updated information when necessary but minimizes the resources that are needed to maintain the database system.

Data Input

Data input into the Collision Database System can be accomplished by any of several methods. SWITRS records can be automatically read in at the touch of a button. Because SWITRS records are only available quarterly, the System provides other methods for data input. Collision records can be inputted using on-screen forms that utilize drop-down lists, enabling the user to pick entries from configured lists. This helps to expedite entry and to reduce errors. The Collision Database System also provides a "short form" input in which the user enters only the most relevant data, including date, time, location, cause, extent of injury, party types, directions of travel, and movements preceding collision. This information can be entered quickly without sacrificing the requisite amount of data to do the most effective queries and collision diagrams. The Crossroads Software team will make recommendations on the preferred data sources to use for this project.

This system will easily hold five years of collision data for the South Bay agencies. The system can also archive and delete collision records as additional years of data are added.

Data Verification

The biggest single challenge in producing an accurate traffic collision records system is the ability to verify the street name information for each collision record. This is essential because database management programs are very exacting in the execution of queries, hence the street names used to store the location information must be perfectly accurate. Officers reporting a collision will, however, use a variety of spellings or abbreviations for street names and will often use the incorrect "family name" (i.e. Street, Road, Avenue, etc.) or no family name at all, which causes the results of queries to be inaccurate. One of the strongest features of the Crossroads Software Collision Database System is its ability to resolve conflicts in the reporting of street names. The system keeps a table of all actual street names in the city along with a street layout table that defines the relationship of streets in the system by storing the distance and direction between adjacent intersections. One additional table, the Street Alias Table, is used to store common misspellings and abbreviations used by reporting officers.

The Collision Database System uses these tables to verify and correct all collision location information for each collision record. The first time the data is loaded for South Bay, it should take the user of this system approximately one hour to verify location information for an entire year's worth of data. As the Street Alias Table is expanded, the time required to verify street names become substantially reduced. Once the street names have been verified, queries can be run on both intersection and mid-block queries with near perfect accuracy.

Collision Diagram

The Crossroads Software Collision Database features a presentation-quality color collision diagram generator. Users can manually specify the data parameters for the collision diagram, including or excluding various types of collision data. These easy-to-read diagrams, which

display individual collisions along with specific collision information, can be printed on any Windows-compatible printer.

Reports and Queries

The Crossroads Software Collision Database provides a variety of substantive, informative queries and collision reports that offer maximum flexibility for selecting just the collision information the user needs.

Standard reports include:

- **High Incidence Location Report.** This query lets the user select any number of top locations to report on. This query will rank the top twenty locations (or any number the user chooses) by collision frequency or collision rate. Users may rank mid-block segments just as they would intersections.
- Intersection Historical Report. This query outputs a report of the collision history and collision rate information at any selected intersection for a specified period of time. Collision diagrams are also produced with the same query now.
- Mid-block Historical Report. The report generated from this query yields the collision history and collision rate information for any selected mid-block segment. Segments are selected on the query screen by choosing the arterial and then picking two limiting cross streets. This allows the users to select any segment length they want. In addition to selecting varying segment lengths, users may also define mid-block collisions. The user simply specifies a distance from an intersection that qualifies a collision as mid-block. Different distances may be specified for both rear-end and non rear-end collisions. Another unique feature is the option to use the direction of travel and movement-preceding-collision of each vehicle to ascertain that at least one vehicle was traveling on or turning onto the arterial. This allows users to weed out data such as rear-end collisions on cross streets that have no direct relationship to the selected arterial. Users are then assured of identifying only the collisions on the roadway being analyzed.
- **General Query.** This powerful, general-purpose query allows the user to query all collision data in the system by selecting a wide variety of search parameters to limit or expand the reported information. Not only can users run the query by collision, party, victim, and conditions information, but they can also set very specific search values, including distance, direction, collision type, degree of injury, vehicle information, movement preceding collision, weather conditions, road conditions, and much more.

All reports and queries allow users to specify the resulting information by selecting date and time periods, distances, primary collision factors, degree of injury, hit and run status, collision type, party involved with, pedestrian action, lighting, and other relevant fields. These queries can also be limited by other factors including road type or traffic volume characteristics. Users also have the flexibility to define what constitutes an intersection collision by specifying limiting distances for both rear-end and non rear-end collisions. One could, for example, define an intersection collision as all collisions within 50 feet of an intersection and within 150 feet of an intersection for any collision with a collision type of "rear-end." This allows users to secure the most relevant data for their traffic engineering needs. Color-coded bar graphs and pie charts are available to graphically represent the results of these summary reports.

Summary Reports

Reports showing a breakdown of collision factors, collision types, vehicles involved with, movements preceding collision, among other collision record parameters are available at the click of a button for any date range requested. Bar graphs and pie charts are available to graphically represent the results of these summary reports.

Custom Reports

The Crossroads Software Collision Database System has a modular design, allowing custom designed reports and queries to be easily added to the system.

Traffic Counts Management Program

A separate database for storing and managing traffic count information will be provided with the Collision Database Package. The Counts Management system allows input of 24-hour and turning movement counts by manual input using on-screen forms. A query module produces reports for locations whose counts are older than a specified date, locations with specified average daily traffic volumes, or certain count characteristics. This system also provides the traffic count information needed by the collision database to calculate collisions rates.

Traffic Citation Statistics

The Collision Database System includes a module to maintain a database of Traffic Citation Information. Reports that are output by this system include a Citation Log, a breakdown of monthly collision factors vs. citations, enforcement index calculation, Bicycle Collision Summary Report, Pedestrian Collision Summary Report, a Traffic Collision Log and a DUI Log. The system stores officer information, which allows the user to do queries based on officer duty type (i.e. Traffic Bureau vs. Patrol).

2.2 Computer Hardware Specifications

Generally, the Collision Database System should be run on a computer that meets these minimal requirements:

Pentium 200Mhz or faster 60 MB free hard drive space 32MB of RAM CD-ROM drive Windows, any version Windows-compatible printer

2.3 Geographic Information System (GIS) Mapping Software

The Crossroads Software Collision Database System produces electronic, printable GIS maps displaying graphical summaries of collision information and patterns. These GIS maps not only tell traffic engineering and police departments where collisions are occurring; they also help department personnel understand collision patterns so that they can take measures to prevent collisions.

Users can select specific collisions from the electronic GIS map and view collision report information directly. They can also highlight high-rate or high-frequency collision intersections and mid-block segments along with citation data to determine if relationships exist between the collisions and enforcement activities. Using existing GIS maps available from South Bay, Crossroads Software will edit the map so that the most accurate updated roadway information is available to the Collision Database System. These map enhancements are necessary for accurately tracking and displaying collisions.

2.4 Implement the Traffic Collision Database and GIS Mapping Software

The Crossroads Software Traffic Collision Database System allows users to import SWITRS files and input all the data needed to verify street names and calculate collision rates. In order to deliver a fully operational GIS-Based Traffic Safety Management System to South Bay, the following items will be completed:

- A master table of all street names in the cities.
- A street layout table consisting of all roadway segments with distances between crossstreets and compass orientation for use with the Collision Database System.
- The most current twenty-four hour traffic count information available from the cities entered into the Counts Management Program module.
- Three years of SWITRS collision records or existing police department records electronically imported into the Collision Database System and corrected for location and street name discrepancies using the master list of street names.
- Two years of historical traffic citation data electronically imported into the Collision Database System.
- Edit the GIS map of South Bay to ensure the accuracy of the information mapped by the System.

Licensed version of the Collision Database and GIS module setup, fully integrated and installed in the Traffic Engineering Department offices.

2.5 Training and Support

Crossroads Software, Inc. will provide South Bay agencies with two days (six hours) of training in the use the Collision Database System. We will also provide multiple copies of a detailed user's manual.

Crossroads Software, Inc. offers technical support, maintenance, and upgrades at no additional charge for one year from the date of installation. Support, maintenance, and upgrades for each additional year are available for an annual fee.

Exhibit "B" **Cost Proposal**

Cost Proposal Southbay Handheld DUI Project

Agency Training*		lision Database Hardware Cost	Handheld Sys.	Total Software		
El Camino College PD	Handheld	\$0.00	\$12,000.00	\$12,000.00		
El Segundo PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00		
Gardena PD	Handheld	\$500.00	\$32,000.00	\$32,500.00		
Hawthorne PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00		
Hermosa Beach PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00	\$28,000.00	100 Handhel
Inglewood PD	Handheld	\$1,500.00	\$32,000.00	\$33,500.00		
Lennox Sheriff	Handheld	\$0.00	\$32,000.00	\$32,000.00		
Manhattan Beach PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00		
Palos Verdes Estates PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00		
Redondo Beach PD	Collision Database and Handheld	\$28,000.00	\$32,000.00	\$60,000.00		
Sub Totals:		<u>\$170,000.00</u>	<u>\$300,000.00</u>	<u>\$470,000.00</u>	<u>\$28,000.00</u>	

Module to manage central repository for web based querying for participating agencies: \$3300.00

Total Project: \$671,300.00

* Training budget includes Installation, Training, Support and RMS Interface Modules

Friday, July 16, 2004

Exhibit "C" **Project Schedule**

Project Schedule

Key milestones for deliverables are noted below. Weeks from Notice to Proceed				
Project Kickoff	0 Weeks			
Initial Installation of Handheld Citation System *	6 Weeks			
Installation of Handheld DUI System *	8 Weeks			
Installation of Handheld Collision Reporting System *	16 Weeks			
Installation of Crossroads Collision Database System* 20 Weeks				
First training session	eks			

Total Project Duration: 52 Weeks

* **Note**: Project meetings will be held at each milestone.