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CONSTRUCTION SPECIAL PROVISIONS

FOR

BUSH HIGHWAY BOX CULVERT

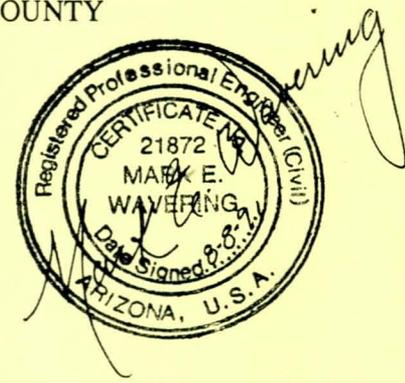
FCD CONTRACT NO. 91-22

PREPARED FOR:

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

BY

INCA ENGINEERS, INC.  
1702 E. HIGHLAND AVENUE  
SUITE 207  
PHOENIX, ARIZONA 85016



Recommended By: Edward A. Raleigh  
Edward Raleigh, P.E., Chief  
Engineering Division

Date: 8/13/91

Approved By: D.E. Sagramoso  
D.E. Sagramoso, P.E.  
Chief Engineer and General Manager

Date: 8/13/91

SUPPLEMENTARY TO MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, EDITION OF 1979, AND REVISIONS AND SUPPLEMENTS THERETO.

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ATTENTION

ALL PROSPECTIVE BIDDERS

A.R.S. Sec. 34-201(A)(3) requires that every bid be accompanied by a certified check, cashier's check or surety bond in the amount of not less than a full five percent (5%) value of the bid.

Bid bonds for less than the full five percent (5%) value of the bid amount as required by A.R.S. 34-201(A)(3) will not be accepted (such as the AIA Form of Bond). Those bids will therefore be considered nonresponsive.

Please take note and submit your bids accordingly.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
FCD CONTRACT 91-22

BUSH HIGHWAY BOX CULVERT

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
INVITATION TO BID

BID OPENING DATE: September 26, 1991

LOCATION:

This project is located on Bush Highway, approximately two miles north of Thomas Road.

PROPOSED WORK:

Install two barrel precast box, cast-in-place end sections and wing walls, road guardrail, and bank protection.

BIDS:

SEALED BIDS for the proposed work will be received by the Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona 85009 until 2:00 p.m. (Phoenix time) on the above date and then publicly opened and read at 3335 West Durango St., Phoenix, Arizona 85009. No bids will be received after the time specified for bid opening. All bids must be submitted on proposal forms furnished by the Flood Control District and included in the Proposal Pamphlet. The Board of Directors reserves the right to reject any and all bids and to waive any informality in any bid received.

ELIGIBILITY OF CONTRACTOR:

It is the policy of Flood Control District of Maricopa County to endeavor to ensure in every way possible that minority and women-owned business enterprises have every opportunity to participate in providing professional services, purchased goods, and contractual services without being discriminated against on the grounds of race, religion, sex, age, or national origin.

The bidder shall be required to certify that it is appropriately licensed as a Contractor in the State of Arizona for performing the before-mentioned type of work. Verification shall be on the form provided herein.

The bidder may be required to furnish an affidavit as evidence of previous satisfactory performance in the above-mentioned type of work.

CONTRACT TIME:

All work on this Contract is to be completed within one hundred twenty (120) calendar days after date of Notice to Proceed.

MBE/WBE PARTICIPATION:

For this project, a goal of ten (10) percent is desired for Minority/Women-Owned Business Enterprises. Instructions and required forms are included in the Minority and Women-Owned Business Enterprise Program Section.

PRE-BID CONFERENCE:

A pre-bid conference will be held on September 12, 1991 at 1:00 p.m. in the Flood Control District conference room, 3335 West Durango Street, Phoenix, Arizona 85009. It is in the best interest of prospective bidders to attend the Pre-bid Conference.

Questions or items for clarification may be addressed to the Chief, Contracts Branch, in writing, at least ten (10) days prior to bid opening date. Where appropriate, any answers or clarifications affecting the cost may be addressed to all bidders in an addendum. Under no circumstances will verbal interpretations or clarifications be given to individual contractors.

PROJECT PLANS, SPECIAL PROVISIONS AND CONTRACT DOCUMENTS:

Plans and Construction Specifications may be obtained from Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona 85009 upon payment of \$12.00 by check, payable to the FLOOD CONTROL DISTRICT of MARICOPA COUNTY. This payment will not be refunded. Mail orders for project documents must include an additional \$7.50 for first class U.S. postage and handling. The total \$19.50 will not be refunded. Regardless of circumstances, we cannot guarantee mail delivery. Each bid must be accompanied by a Bid Bond, cashier's or certified check or postal money Order equal to 5 percent (5%) of the bid, made payable to the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY as a guarantee that if the work is awarded to the bidder, the bidder will within ten (10) days of receipt of the Proposal Acceptance, enter into proper contract and bond condition for the faithful performance of the work, otherwise, said amount may be forfeited to the said BOARD OF DIRECTORS as liquidated damages.

All bids are to be marked in accordance with Section 102.9 of the Uniform Standard Specifications and addressed to the Chief Engineer and General Manager, Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona 85009.

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As provided for in the Agenda Information Form authorizing the Invitation to Bid.

\*\*\*\*\*

PRINCIPLE ITEMS AND APPROXIMATE QUANTITIES

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
597	CY	Grouted Rip Rap (Type 2)
124	CY	Structural Concrete
134	LF	Precast 10'x7' Concrete Box

PROPOSAL

TO THE BOARD OF DIRECTORS  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
PHOENIX, ARIZONA

Gentlemen:

The following Proposal is made for constructing FCD 91-22, Bush Highway Box Culvert in the County of Maricopa, State of Arizona.

The following Proposal is made on behalf of

---

and no others. Evidence of authority to submit the Proposal is herewith furnished. The Proposal is in all respects fair and is made without collusion on the part of any person, firm, or corporation mentioned above, and no member or employee of the Board of Directors is personally or financially interested, directly or indirectly, in the Proposal, or in any purchase or sale of any materials or supplies for the work in which it relates, or in any portion of the profits thereof.

The Undersigned certifies that the approved Plans, Supplementary General Conditions, Special Provisions, Forms of Contract, Bonds, and Sureties authorized by the Board of Directors and constituting essential parts of this Proposal, have been carefully examined and also that the site of the work has been personally inspected.

The Undersigned declares that the amount and nature of the work to be done is understood and that at no time will misunderstanding of the Plans, Construction Specifications, Special Provisions, or conditions to be overcome, be pled. On the basis of the Plans, Construction Specifications, Special Provisions, the Forms of Contract, Bonds, and Sureties proposed for use, the Undersigned proposes to furnish all the necessary machinery, equipment, tools, apparatus, and other means of construction, to do all the work and to furnish all the materials in the manner specified and to finish the entire project within the time hereinafter proposed and to accept, as full compensation therefore, the sum of various products obtained by multiplying each unit price, herein bid for the work or materials, by the quantity thereof actually incorporated in the complete project, as determined by the Engineer or Architect.

The Undersigned understands that the quantities mentioned herein are approximate only and are subject to increase or decrease and hereby proposes to perform all quantities of work, as either increased or decreased, in accordance with the provisions of the Specifications, at the unit price bid in the Bidding Schedule.

The Undersigned further proposes to perform all extra work that may be required on the basis provided in the Specifications and to give such work personal attention and to secure economical performance.

The Undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bonds and Sureties within ten (10) days of receipt of Notice of Proposal acceptance, **TIME BEING OF THE ESSENCE**. The Undersigned further proposes to begin work as specified in the Contract attached hereto, and to complete the work within 120 calendar days from the effective date specified in the Notice to Proceed, and maintain at all times a Payment and Performance Bond, approved by the Board of Directors, each in an amount equal to one hundred percent of the contract amount. This Bond shall serve not only to guarantee the completion of the work on the part of the Undersigned, but also to guarantee the excellence of both workmanship and material and the payment of all obligations incurred, said Bonds and Sureties to be in full force and effect until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled.

A Proposal Guaranty in the amount and character named in the Invitation to Bid is enclosed amounting to not less than five (5) percent of the total bid, which Proposal Guaranty is submitted as a guaranty of the good faith of the Bidder and the Bidder will enter into written contract, as provided, to do the work, if successful in securing the award thereof; and it is hereby agreed that if at any time other than as provided in the Proposal requirements and conditions the Undersigned should withdraw his Proposal, if the Proposal is accepted and there should be failure on the part of the Undersigned to execute the Contract and furnish satisfactory Bonds and Sureties as herein provided, the Flood Control District of Maricopa County in either of such events, shall be entitled and is hereby given the right to retain the said Proposal Guaranty as liquidated damages.

The Undersigned acknowledges receipt of the following addenda and has included their provisions in the proposal:

Addendum No. _____	Dated _____

The Undersigned has enclosed the required bid security to this Proposal.

BIDDING SCHEDULE

PROJECT: Bush Highway Box Culvert

CONTRACT: FCD 91-22

ITEM NO.	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT COST (IN WRITING) AND /100 DOLLARS	UNIT COST (NUMBERS)	EXTENDED AMOUNT
205	Roadway Excavation	230	CY			
215	Earthwork For Open Channels (Drain Excv.)	1,159	CY			
220-1	Grouted Rip Rap (Type 1)	16	CY			
220-2	Grouted Rip Rap (Type 2)	597	CY			
310	Aggregate Base Course	257	TON			
321	A.C. Pvmt (C-3/4), Inc. Tack Coat Type SS-1h	40	TON			
350	Removal of Existing Improvements	1	LS			
401	Traffic Control	1	LS			
415	Flexible Metal Guardrail	625	LF			
505-1	Structural Concrete (Class "A", 3000 psi)	124	CY			
505-2	Reinforcing Steel (nearest 5 lbs)	15,680	LB			
507-1	Precast 10' x 7' Concrete Box	134	LF			
507-2	Grout (per MAG Sect. 776)	26	CY			

TOTAL BID AMOUNT: \_\_\_\_\_

IF BY AN INDIVIDUAL:

\_\_\_\_\_  
(NAME - TITLE) (ADDRESS)  
DATE \_\_\_\_\_  
(PHONE)

IF BY A FIRM OR PARTNERSHIP:

\_\_\_\_\_  
(FIRM NAME) (FIRM ADDRESS)  
BY: \_\_\_\_\_ DATE \_\_\_\_\_  
(NAME - TITLE) (PHONE)

\*\* Name and Address of Each Member:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\* The name and post office address of each member of the firm or partnership must be shown.

IF BY A CORPORATION:

\_\_\_\_\_  
(CORPORATE NAME) (CORPORATION ADDRESS)  
BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
(PHONE)

TITLE: \_\_\_\_\_

\* Incorporated under the Laws of \_\_\_\_\_

Names and Addresses of Officers:

\_\_\_\_\_  
(PRESIDENT) (ADDRESS)  
\_\_\_\_\_  
(SECRETARY) (ADDRESS)  
\_\_\_\_\_  
(TREASURER) (ADDRESS)

\* The name of the State under which the laws of the Corporation was chartered and names, title, and business address of the President, Secretary, and Treasurer must be shown.

SUBCONTRACTOR LISTING

As required in Section 102.6 of the Supplementary General Conditions, the following is a listing of Subcontractors and material suppliers that are to be used in the event the undersigned should enter into contract with the Owner. This is not an exhaustive or inclusive list.

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(Signature) \_\_\_\_\_

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_, as Principal, (hereinafter called the Principal), and the \_\_\_\_\_, a corporation duly organized under the laws of the State of \_\_\_\_\_, as Surety, (hereinafter called the Surety), are held and firmly bound unto the Flood Control District of Maricopa County as Obligee, in the sum of five percent (5%) of the total amount of the bid of Principal, submitted by him to the Flood Control District of Maricopa County, for the work described below, for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, and administrators, successors and assigns, jointly and severally, firmly by these presents, and in conformance with A.R.S. Sec. 34-201(A)(3).

WHEREAS, the said Principal is herewith submitting its proposal for FCD 91-22, Bush Highway Box Culvert.

NOW, THEREFORE, if the Flood Control District of Maricopa County shall accept the proposal of the Principal and the Principal shall enter into a contract with the Flood Control District of Maricopa County in accordance with the terms of such proposal and give such Bonds and Certificates of Insurance as specified in the Standard Specifications with good and sufficient Surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such Bond and Certificates of Insurance, if the Principal shall pay to the Flood Control District of Maricopa County the sum of money set forth above as liquidated damages for failure of the Principal to enter into the contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 1991.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Title

Witness:

\_\_\_\_\_

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Title

Witness:

\_\_\_\_\_



VERIFICATION OF LICENSE

Pursuant to A.R.S. Sec. 32-1169, I hereby state that I hold a current contractor's license, duly issued by the office of the Registrar of Contractors for the State of Arizona, said license has not been revoked, that the license number is: \_\_\_\_\_; that my privilege license number (as required by A.R.S. Sec. 42-1305) is: \_\_\_\_\_; and that, if any exemption to the above licensing requirements is claimed;

(1) The basis for the claimed exemption is: \_\_\_\_\_ and;

(2) The names(s) and license number(s) of any general, mechanical, electrical, or plumbing contractor(s) to be employed on the work are:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

IT IS UNDERSTOOD THAT THE FILING OF AN APPLICATION CONTAINING FALSE OR INCORRECT INFORMATION CONCERNING AN APPLICANT'S CONTRACTOR'S LICENSE OR PRIVILEGE LICENSE WITH THE INTENT TO VOID SUCH LICENSING REQUIREMENTS IS UNSWORN FALSIFICATION PUNISHABLE ACCORDING TO A.R.S. SEC. 13-2704.

DATE: \_\_\_\_\_ SIGNATURE OF LICENSEE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM

- A. The following conditions will apply in the calculation of the percentage attainment:
1. All MBE/WBE firms used in attainment of the goal must be certified with the Maricopa County Minority Business Office which is located in the Maricopa County Highway Department building, 3325 West Durango Street, Phoenix. In addition, only those firms certified at least seven calendar days prior to the bid opening will be considered in the attainment of the goal.
  2. Prime contractor subcontracts to MBE or WBE:  
The MBE/WBE amount to be applied to the goal will be based on that portion (dollar value) of the contract that the MBE/WBE performs. For example, if a prime contractor subcontracts work amounting to \$100,000 of a contract for which the total project cost is \$1,000,000. the MBE/WBE participation will be credited as 10 percent.
  3. Prime Minority Contractor:  
An MBE/WBE prime contractor will be credited with the MBE/WBE participation for that portion of the contract which they themselves perform plus that portions subcontracted to other MBE/WBE firms. For example, if an MBE/WBE prime contractor proposes to perform 50 percent of a project quoted at \$1,000,000 and subcontracts 25 percent to an MBE firm and 25 percent to a non-MBE/WBE firm, MBE/WBE participation will be credited as 75 Percent, or \$750,000.
  4. Minority-Non-Minority Joint Venture:  
A joint venture consisting of MBE/WBE participation and non-MBE/WBE business enterprises, functioning as a prime contractor, will be credited with minority participation on the basis of the percentage of profit accruing to the MBE/WBE firm. For example, if a MBE/WBE and non-MBE/WBE joint venture proposes to perform 50 percent of a \$1,000,000 project and 50 percent of the joint venture profits (\$500,000) are to accrue to the MBE/WBE partner in the joint venture, MBE/WBE participation will be credited at 25 percent or \$250,000.
  5. Lower Tier Non-MBE/WBE Participation:  
MBE/WBE subcontractors proposing to further subcontract to non-MBE/WBE contractors shall not have that portion of subcontracting activity considered when determining the percentage of MBE/WBE participation.

6. MBE/WBE Suppliers:

Any MBE/WBE supplier that manufactures or substantially alters the material or product it supplies will have that portion of activity considered when determining the percentage of MBE/WBE participation. Any MBE/WBE Wholesaler, Distributor, or Jobber that does not manufacture or substantially alter the materials or product it sells will be limited to 20 percent of the sale price when determining the percentage of MBE/WBE participation.

B. Required forms:

An affidavit is included as part of this section. The form must be completed within seven calendar days after the Notice of Award of Contract. The low bidder is required to submit a Minority/Women-Owned Business Enterprise Program MBE/WBE Participation Affidavit listing the MBE/WBE participation by MBE/WBE firm and the related dollar value of the MBE/WBE contract.

C. Requests for Pay:

Each Request for Pay must be accompanied by a Maricopa County Minority/Women-Owned Business Enterprise Program MBE/WBE Participation Report. The final pay request shall include a listing of total contract MBE/WBE participation.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM

MBE/WBE PARTICIPATION ASSURANCES  
AFFIDAVIT

The undersigned, fully cognizant of the Flood Control District of Maricopa County MBE/WBE Program requirements and of the goal established, hereby certifies that in the preparation of this bid,

\_\_\_\_\_  
(the entity submitting the bid)

(CHECK ONE)

- \_\_\_ Will meet the established goal for participation by  
Minority/Women-Owned Business Enterprises.
- \_\_\_ Will provide the necessary documentation to Minority Business  
Office to establish that a good faith effort was made.
- \_\_\_ Will not participate in the MBE/WBE Program.

The bidder will specify its MBE/WBE participation on the Intended Participation Affidavit or provide documentation of its good faith efforts not later than 4:00 p.m., the seventh calendar day following the bid opening. The required affidavit shall be obtained by the apparent first and second low bidders from the Minority Business Office, Maricopa County Highway Department Building, 3325 West Durango Street, Phoenix, Arizona 85009, following the opening and reading of bids; a sample affidavit form for reference purposes follows.

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISE PROGRAM  
Actual Minority/Women-owned Participation

\_\_\_\_\_  
Name of Prime Contractor

FCD 91-22  
\_\_\_\_\_  
Project Number

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
Total Amount of Contract

\_\_\_\_\_  
Street No.

\_\_\_\_\_  
City State Zip

<u>Minority/Women-owned Firm</u>	<u>Principal</u>	<u>Address</u>	<u>Type of Work</u>	<u>Subcontract Amount</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

The undersigned has entered into a formal agreement with the minority contractors/suppliers listed above in the execution of this contract with the Flood Control District of Maricopa County.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Copy to: Minority Business Office  
Maricopa County Highway Department  
3325 West Durango Street  
Phoenix, Arizona 85009

MARICOPA COUNTY  
MINORITY/WOMEN-OWNED BUSINESS ENTERPRISES PROGRAM

MBE/WBE PARTICIPATION REPORT  
(To be attached with Request for Pay)

Date: \_\_\_\_\_

Contractor: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Project: Bush Highway Box Culvert

Contract Number: 91-22

For Pay Period of: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Person to Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Type of Firm: \_\_\_\_\_

Class of Work: \_\_\_\_\_

Subcontract Amount: \_\_\_\_\_

Amount Earned \_\_\_\_\_

(Commission) This Period: \_\_\_\_\_

Total Earned by This Subcontractor: \_\_\_\_\_

Total MBE/WBE Contract Goal, %: 10

Total Cumulative MBE/WBE \_\_\_\_\_

Participation on This Contract, %: \_\_\_\_\_

MBE/WBE subcontract payment made  
during this reporting period (yes or no): \_\_\_\_\_

cc: Minority Business Office  
Maricopa County Highway Building  
3325 West Durango Street  
Phoenix, Arizona 85009

CONTRACT AGREEMENT

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 1991, by and between FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, hereinafter called the OWNER, acting by and through its BOARD OF DIRECTORS, and

hereinafter called the CONTRACTOR.

WITNESSTH: That the said CONTRACTOR, for and in the consideration of the sum of \_\_\_\_\_ to be paid to him by the OWNER, in the manner and at the times hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees for himself, heirs, executors, administrators, successors, and assigns as follows:

ARTICLE I - SCOPE OF WORK: The CONTRACTOR shall construct, and complete in a workmanlike and substantial manner and to the satisfaction of the Chief Engineer and General Manager, a project for the Flood Control District of Maricopa County, designated as FCD Contract 91-22; Bush Highway Box Culvert, and furnish at his own cost and expense all necessary machinery, equipment, tools, apparatus, materials, and labor to complete the work in the most substantial and workmanlike manner according to the Plans and Construction Specifications on file with the Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona, and such modifications of the same and other directions that may be made by the Flood Control District of Maricopa County as provided herein.

ARTICLE II - CONTRACT DOCUMENTS: The Construction Specifications (Invitation to Bid, Plans, Standard Specifications and Details, Supplementary General Conditions, Special Provisions, Addenda, if any, Proposal, Affidavits, Performance Bond, Payment Bond, Certificates of Insurance, and Change Orders, if any,) are by this reference made a part of this Contract and shall have the same effect as though all of the same were fully inserted herein.

ARTICLE III - TIME OF COMPLETION: The CONTRACTOR further covenants and agrees at his own proper cost and expense, to do all work as aforesaid for the construction of said improvements and to completely construct the same and install the material therein, as called for by this agreement free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified within the time, or times, stated in the proposal pamphlet.

ARTICLE IV - PAYMENTS: For and in consideration of the faithful performance of the work herein embraced as set forth in the Contract Documents, which are a part hereof and in accordance with the directions of the OWNER, through its Engineer and to his satisfaction, the OWNER agrees to pay the said CONTRACTOR the amount earned, computed from actual quantities of work performed and accepted or materials furnished at the unit bid price on the Proposal made a part hereof, and to make such payment in accordance with the requirements of A.R.S. Sec. 34-221, as amended. The CONTRACTOR agrees to discharge its obligations and make payments to its subcontractors and suppliers in accordance with A.R.S. Sec. 32-1129.

ARTICLE V - TERMINATION: The OWNER hereby gives notice that pursuant to A.R.S. Sec. 38-511(A) this contract may be cancelled without penalty or further obligation within three years after execution if any person significantly involved in initiation, negotiation, securing, drafting or creating a contract on behalf of the OWNER is, at any time while the contract or any extension of the contract is in effect, an employer agent of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract. Cancellation under this section shall be effective when written notice from the Chief Engineer and General Manager of the OWNER is received by all of the parties to the contract. In addition, the OWNER may recoup any fee for commission paid or due to any person significantly involved in initiation, negotiation, securing, drafting or creating the contract on behalf of the OWNER from any other party to the contract arising as a result of the contract.

ARTICLE VI - NEGOTIATION CLAUSE: Recovery of damages related to expenses incurred by the CONTRACTOR for a delay for which the OWNER is responsible, which is unreasonable under the circumstances and which was not within the contemplation of the parties to the contract, shall be negotiated between the CONTRACTOR and the OWNER. This provision shall be construed so as to give full effect to any provision in the contract which requires notice of delays, provides for arbitration or other procedure for settlement or provides for liquidated damages.

ARTICLE VII - COMPLIANCE WITH LAWS: The CONTRACTOR is required to comply with all Federal, State and local ordinances and regulation. The CONTRACTOR's signature on this contract certifies compliance with the provisions of the I-9 requirements of the Immigration Reform Control Act of 1986 for all personnel that the CONTRACTOR and any subcontractors employ to complete this project. It is understood that the OWNER shall conduct itself in accordance with the provisions of the Maricopa County Procurement Code.

ARTICLE VIII - MBE/WBE PROGRAM: Flood Control District of Maricopa County will endeavor to ensure in every way possible that minority and women-owned business enterprises shall have every opportunity to participate in providing professional services, purchased goods, and contractual services to the Flood Control District of Maricopa County without being discriminated against on the grounds of race, religion, sex, age, or national origin.

ARTICLE IX - ANTI-DISCRIMINATION PROVISION: The CONTRACTOR agrees not to discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, or handicap and further agrees not to engage in any unlawful employment practices. The CONTRACTOR further agrees to insert the foregoing provision in all subcontracts hereunder.

IN WITNESS WHEREOF: Five (5) identical counterparts of this Contract, each of which shall for all purposes be deemed an original thereof, have been duly executed by the parties hereinabove named, on the date and year first above written.

\_\_\_\_\_  
PARTY OF THE FIRST PART

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
PARTY OF THE SECOND PART

BY: \_\_\_\_\_  
Printed Name

BY: \_\_\_\_\_  
CHAIRMAN, BOARD OF DIRECTORS

BY: \_\_\_\_\_  
Signature

DATE: \_\_\_\_\_

\_\_\_\_\_  
Title  
DATE: \_\_\_\_\_

\_\_\_\_\_  
Tax Identification Number

RECOMMENDED BY:

\_\_\_\_\_  
CHIEF ENGINEER AND GENERAL MANAGER  
FLOOD CONTROL DISTRICT OF  
MARICOPA COUNTY

ATTEST:

\_\_\_\_\_  
CLERK OF THE BOARD

DATE: \_\_\_\_\_

LEGAL REVIEW

Approved as to form and within the powers and authority granted under the laws of the State of Arizona to the Flood Control District of Maricopa County.

BY: \_\_\_\_\_  
GENERAL COUNSEL, FLOOD CONTROL  
DISTRICT OF MARICOPA COUNTY

DATE: \_\_\_\_\_

STATUTORY PAYMENT BOND PURSUANT TO TITLE 34  
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES  
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That, \_\_\_\_\_  
(hereinafter called the Principal), As Principal, and \_\_\_\_\_

\_\_\_\_\_ a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ (hereinafter called the Surety), as Surety, are held and firmly bound unto the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona (hereinafter called the Obligee), in the amount of \_\_\_\_\_

\_\_\_\_\_ dollars (\$\_\_\_\_\_), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with Flood Control District of Maricopa County, dated the \_\_\_\_ day of \_\_\_\_\_, 1991, for FCD Contract 91-22; Bush Highway Box Culvert, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall promptly pay all monies due to all persons supplying labor or materials to him or his subcontractors in the prosecution of the work provided for in said contract, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter, and Article, to the extent as if it was copied at length herein.

The prevailing party or any party which recovers judgement on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judge thereof.

Witness our hands this \_\_\_\_\_ day of \_\_\_\_\_, 1991.

\_\_\_\_\_  
PRINCIPAL SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
AGENCY OF RECORD

\_\_\_\_\_  
AGENCY ADDRESS

\_\_\_\_\_  
SURETY SEAL

BY: \_\_\_\_\_

BOND NUMBER. \_\_\_\_\_

\_\_\_\_\_  
POWER OF ATTORNEY SEAL

BY: \_\_\_\_\_

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34  
CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES  
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That, \_\_\_\_\_  
(hereinafter called the Principal), As Principal, and \_\_\_\_\_

\_\_\_\_\_ a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ (hereinafter called the Surety), as Surety, are held and firmly bound unto the Flood Control District of Maricopa County, in the County of Maricopa, State of Arizona, in the amount of \_\_\_\_\_ dollars (\$ \_\_\_\_\_), for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with Flood Control District of Maricopa County, dated the \_\_\_\_ day of \_\_\_\_\_, 1991, for FCD Contract 91-22; Bush Highway Box Culvert, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extension thereof, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived; then the above obligation shall be void, otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, of the Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter, and Article, to the extent as if it was copied at length herein.

The prevailing party in a suit on this bond shall be entitled to such reasonable attorney's fees as may be fixed by a judge of the court.

Witness our hands this \_\_\_\_\_ day of \_\_\_\_\_, 1991.

\_\_\_\_\_  
AGENCY OF RECORD

\_\_\_\_\_  
AGENCY ADDRESS

\_\_\_\_\_  
BOND NUMBER

\_\_\_\_\_  
POWER OF ATTORNEY

BY: \_\_\_\_\_

\_\_\_\_\_  
PRINCIPAL SEAL

BY: \_\_\_\_\_

\_\_\_\_\_  
SURETY SEAL

BY: \_\_\_\_\_

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CERTIFICATE OF INSURANCE

CONTRACT FCD 91-22

PROJECT TITLE Bush Highway Box Culvert

NAME AND ADDRESS OF INSURANCE AGENCY	INSURANCE COMPANIES AFFORDING COVERAGES
	Company Letter <b>A</b>
	Company Letter <b>B</b>
	Company Letter <b>C</b>
	Company Letter <b>D</b>
	Company Letter <b>E</b>
	Company Letter <b>F</b>
NAME AND ADDRESS OF INSURED	Company Letter <b>D</b>
	Company Letter <b>E</b>
	Company Letter <b>F</b>
	Company Letter <b>G</b>

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE AND ARE IN FORCE AT THIS TIME.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	EXPIRATION DATE	LIMITS OF LIABILITY IN \$1,000 MINIMUM each occurrence	
	COMMERCIAL GENERAL <input checked="" type="checkbox"/> LIABILITY FORM <input checked="" type="checkbox"/> PREMISES OPERATIONS <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input checked="" type="checkbox"/> EXPLOSION & COLLAPSE <input checked="" type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input checked="" type="checkbox"/> UNDERGROUND HAZARD <input checked="" type="checkbox"/> INDEPENDENT CONTRACTORS <input checked="" type="checkbox"/> PERSONAL INJURY			BODILY INJURY per person	2,000
	<input checked="" type="checkbox"/> LIABILITY & NON-OWNED			SAME AS ABOVE	
	<input type="checkbox"/> EXCESS LIABILITY			NECESSARY IF UNDERLYING NOT ABOVE MINIMUM	
	<input checked="" type="checkbox"/> WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY			STATUTORY each accident	\$100
	<input type="checkbox"/> OTHER				
	<input checked="" type="checkbox"/> OTHER The Flood Control District of Maricopa County and Maricopa County will be named as additional insureds.				

Except for Workers' Compensation Insurance, the Flood Control District of Maricopa County is added as an additional insured in respect to liability arising in any manner out of the performance of any contract entered into between the insured and the Flood Control District or liability arising out of any services provided or duty performed by any party as required by statute, law, purchase order, or otherwise required. It is agreed that any insurance available to the named insured shall be primary of other sources that may be available. It is further agreed that no policy shall expire, be cancelled, or materially changed to effect the coverage available to the District without thirty (30) days written notice to the District. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
 3335 West Durango Street  
 Phoenix, Arizona 85009

DATE ISSUED \_\_\_\_\_

AUTHORIZED REPRESENTATIVE \_\_\_\_\_

It is further agreed that:

The Contractor hereby agrees to indemnify and save harmless the Flood Control District of Maricopa County and Maricopa County or any of its departments, agencies, officers or employees, from and against all loss, expense, damage or claim of any nature whatsoever which is caused by any activity, condition or event arising out of the performance or nonperformance of any of the provisions of this Agreement. The Flood Control District of Maricopa County and Maricopa County shall in all instances be indemnified against all liability, losses and damages of any nature for or on account of any injuries to or death of persons or damages to or destruction of property arising out of or in any way connected with the performance or nonperformance of this Agreement, except such injury or damage as shall have been occasioned by the negligence of the Flood Control District of Maricopa County and Maricopa County. The above cost of damages incurred by the Flood Control District of Maricopa County and Maricopa County or any of its departments, agencies, officers or employees, or others aforesaid shall include in the event of an action, court costs, expenses for litigation and reasonable attorney's fees.

\_\_\_\_\_  
Firm

\_\_\_\_\_  
Date

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Title

CONTRACT FCD 91-22

SUPPLEMENTARY GENERAL CONDITIONS

SPECIFICATIONS:

Except as otherwise required in these Supplementary General Conditions and the Construction Special Provisions, construction of this project shall be in accordance with all applicable Maricopa Association of Governments (MAG) Uniform Standard Specifications and Uniform Standard Details, latest revision, and the latest revision of the City of Phoenix Supplements to the MAG Uniform Standard Specifications and Details, together with Maricopa County Highway Department Supplements to the Uniform Standard Specifications.

PRECEDENCE OF CONTRACT DOCUMENTS

In case of a discrepancy or conflict, Project Plans will govern over the MAG Standard Specifications and Details. The Supplementary General Conditions and Construction Special Provisions will govern over the MAG Standard Specifications and Details and the Project Plans.

PAYMENT

Payment will be made for only those items listed in the proposal and will be made in accordance with the measurement and payment provisions of the Standard Specifications except where this differs from the items listed in the proposal. All material and work necessary for completion of this project are included in proposal items. Any work or material not specifically referred to in these items is considered incidental to the item and included in the unit price.

WORK STANDARDS

The Contractor shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor Regulations (29 CFR Part 5).

CONTRACT TIME:

The Contractor shall commence work within seven (7) calendar days after the date of the Notice to Proceed and complete all work within one hundred twenty (120) calendar days after receipt of the Notice to Proceed. In the event the Contractor elects to work overtime, second shifts, weekends, or legal holidays, to complete the work that is not required by the Project Plans and these Supplementary General Conditions or Construction Special Provisions, the Contractor will be responsible to bear the additional costs that may be incurred by the Owner including engineering, inspections, testing, surveying and construction administration all in accordance with Section 108.5. These costs will be deducted from the monies due to the Contractor for each Payment Request. The costs associated with these items shall be incidental to the unit price items in the bid schedule.

NEGOTIATION CLAUSE:

Recovery of damages related to expenses incurred by the Contractor for a delay for which the Owner is responsible, which is unreasonable under the circumstances and which was not within the contemplation of the parties to the contract, shall be negotiated between the Contractor and the Owner. This provision shall not be construed to void any provisions in the contract which requires notice of delays, provides for arbitration or other procedure for settlement, or provides for liquidated damages.

WATER, LIGHT, POWER, HEAT, TELEPHONE:

All water for construction purposes, drinking water, lighting, temporary electric power, heat and telephone service shall be arranged for and provided for in the requirements of the work by the Contractor at his expense.

PROGRESS SCHEDULE:

The Contractor shall submit a proposed work progress schedule to the Engineer for review before starting work. Weekly updates shall be submitted to the Owner's Inspector at the weekly coordination meeting.

MATERIALS SOURCES:

Select Material, Aggregate Base, Mineral Aggregate, concrete, steel products and pipe shall be obtained from commercial sources. The Contractor shall pay all royalties, or any other charges or expenses, incurred in connection with the securing and hauling of the material. The Contractor will be required to furnish the Engineer with a list of his proposed commercial sources prior to use, and shall present certificates stating that the material produced from any commercial sources is in accordance with the Uniform Standard Specifications and these Supplementary General Conditions.

Subsection 101.2 - Definitions and Terms:

1. Change the definition of the phrase "Board of Supervisors" to being the Board of Directors acting under the authority of the laws of the State of Arizona and in their capacity of the Board of Directors of the FCDMC.
2. Change the definition of the phrase "Budget Project" to being a project financed by funds set aside in the annual budget or otherwise approved by the FCDMC Board of Directors.
3. Add to the definition of the phrase "Contract Documents", the phrase "Supplementary General Provisions".
4. Change the definition of the term "Engineer" to being the person appointed by the FCDMC Board of Directors to the office of Chief Engineer and General Manager of the FCDMC acting directly or through his authorized representative, the Chief of the FCDMC Construction and Operations Division.
5. Change the definition for the phrase "Notice of Award" to a letter from the FCDMC advising the Contractor that he is the successful bidder and the FCDMC has accepted his proposal.

6. Change the definition of the term "Owner" to the Flood Control District of Maricopa County, acting through it's legally constituted officials, officers, or employees.

Subsection 102.2 - Contents of Proposal Pamphlet: In case of a discrepancy or conflict the project plans will govern over the MCHD Supplements.

Subsection 102.5 - Preparation of Proposal: It shall be the responsibility of prospective bidders to determine, prior to submission of a bid, if any addenda have been issued by the Flood Control District. This may be accomplished by calling 602-262-1501. Any addendum issued, if not already bound into the Special Provisions, must be included as part of the Special Provisions and any quantities on the Bidding Schedule requiring change shall be adjusted by pen and ink, to the new figure.

Bids which do not include appropriate addenda and show appropriate changes to the Bidding Schedule shall be invalid.

The bidder's Arizona State Contractor's License number and classifications shall be shown on the proposal. The Contractor may be required to provide certification of prior satisfactory completion for similar construction and shall include a copy of his license and the renewal certificate with the bid proposal.

Subsection 102.6 - Subcontractors' List: A list of subcontractors proposed to be employed on the project shall be submitted with the bid.

Subsection 103.6 - Contractor's Insurance: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance using the included Certificate or one of equal wording, that names the additional insureds as set out in the Certificate. The Certificate shall also name the additional insureds as Certificate Holders. The types of insurance and the limits of liability shall be as indicated on the included form.

Subsection 103.6.1(D) - Contractor's Insurance: Add additional insureds as indicated on the included Certificate of Insurance.

Subsection 105.6 - Cooperation with Utilities: An attempt has been made to determine the location of all underground utilities and drainage pipes, culverts, and structures; however, it shall be the Contractor's responsibility to cooperate with the pertinent utility companies so that any obstructing utility installation(s) may be adjusted. Should the Contractor's operations result in damage to any utility the location of which has been brought to his attention, he shall assume full responsibility for such damage.

The Contractor shall contact Arizona Blue Stake (telephone number 263-1100) a minimum of two (2) working days before beginning any underground work. In addition, Blue Stake notification(s) shall be maintained on a current basis.

The following phone numbers should put the Contractor in contact with the proper personnel:

Flood Control District.....262-1501  
US West Communications.....831-4647  
Salt River Project.....236-2765  
Location Staking (A.P.S.,Mtn. Bell,S.R.P.).....263-1100  
Maricopa County Highway Department.....233-8600

Subsection 105.8 - Construction Stakes, Lines, and Grades: Add the following to MAG:

1. The Engineer will set the project survey control line which the construction contractor will use to set line and grade for all construction. The control line shall consist of (1) alignment staking at an interval appropriate to the project requirements and (2) elevation controls, both of which shall be at frequent enough intervals to maintain a line of sight between staking. All other surveying required for the project shall be the contractor's responsibility. The Engineer will not set any construction stakes.
2. Before any construction work is started, the Engineer shall perform all base surveys and cross sections of existing conditions that may be required as a basis for quantity determination.

Subsection 107.2 - Permits: The Contractor shall be responsible for being aware of and obtaining all permits and licenses, pay all charges, fees, taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Permits for earth moving may be obtained from the Bureau of Air Pollution Control, Maricopa County Department of Health Services, 1845 East Roosevelt, Phoenix, Arizona, telephone number 258-6381.

Subsection 107.5.2 - Compliance with the Arizona Communication Standard: The Owner will provide the Contractor with Material Safety Data Sheets (MSDS) for any products known to exist on the site that are deemed health hazards. The Contractor will provide a copy of Owner-provided MSDS to all subcontractors.

The Contractor will provide the Owner and all subcontractors with MSDS for any products that have or are deemed health hazards that will be brought onto the site or created on the site by either the Contractor or by any subcontractors.

The Contractor will provide the Owner with a statement certifying that all personnel (Contractor and subcontractor) employed by the Contractor or by a subcontractor on the job site have received the required Hazard Communication Standard training.

Subsection 108.9 - Failure to Complete on Time: The actual cost per calendar day incurred by the District for Consultant Administrative and Inspection Services on this project will be added to the daily charges as indicated by TABLE 108, LIQUIDATED DAMAGES, and will be deducted from monies due or to become due to the Contractor for each and every calendar day that work shall remain uncompleted after the time specified for the completion of the work in

the proposal, or as adjusted by the Engineer. Nothing contained in this provision shall prohibit the District from deducting from monies due or to become due to the Contractor for any other costs incurred by the District directly attributable to the delay in completing this contract.

Subsection 109.1 - Measurement of Quantities: Measurement for payment shall be made for the actual work completed as determined by the Engineer. Payment will be made at the bid unit price, which price shall include the cost of all labor, materials, tools, equipment, transportation, permits, and incidentals required for performing the work as specified. Monthly Progress Payments of the agreed to value of the work accomplished shall be made by the District.

Measurements of placed materials and/or constructed items will be made after completion of the project to determine compliance with the specifications. Any deficiencies in thickness or width shall be corrected by the contractor before acceptance by the FCDMC.

The cost of all work required under this contract as shown on the plans for which there are no specific items shown on the Bidding Schedule, shall be included in the prices bid for related items.

Subsection 109.2 - Scope of Payment:

In addition to the contained provisions, the work under this section shall consist of preparatory work and operations, including but not limited to, the movement of personnel, equipment, supplies and incidentals to the project site; the establishment of all offices, buildings and other facilities necessary for work on the project, and for all other work operations that must be performed and costs incurred prior to beginning work on the various items on the project site.

Mobilization will be measured for payment as a lump sum, a single complete unit or work.

Payment for mobilization, measured as provided above, will be made at the contract lump sum price, when so called for in the Bid Schedule, which shall be full compensation for supplying and furnishing all materials, facilities and services and performing all the work required. If payment for mobilization is not a separate bid item, then such costs shall be considered incidental.

Subsection 109.7 - Payment for Bond Issue and Budget Projects: Add the following to MAG.

1. Both progress and final pay estimates will be initially processed by the FCDMC's Construction and Operations Division on Tuesdays only, Tuesdays being the only day the Contractor may submit a pay estimate.

**SECTION 205  
ROADWAY EXCAVATION**

**205.1 DESCRIPTION:**

Shall be modified to add:

The roadway excavation includes excavating all existing material to either existing subgrade for the paved areas or to the line and grade shown on the plans. Structural excavation and backfill for the present concrete box is not included with this item, but is incidental to Bid Item 507-1.

**SECTION 206  
STRUCTURE EXCAVATION AND BACKFILL**

**206.2 FOUNDATION MATERIAL TREATMENT:**

Shall be revised to read:

"Foundation material treatment shall be performed in accordance with notes shown on project plans."

**206.4 STRUCTURE BACKFILL:**

The composite of the second and third paragraphs shall be revised to read:

"Materials and placement of structural backfill shall conform to notes shown on the project plans."

**206.5 PAYMENT:**

Shall be revised to add:

"Where rock is encountered prior to reaching the specified depth of foundation excavations, payment shall be made in accordance with MAG Section 109."

**SECTION 215  
EARTHWORK FOR OPEN CHANNELS**

**215.1 DESCRIPTION:**

Shall be modified to add:

The open channel excavation includes excavating for the proposed riprap areas and for all areas shown on the plans exclusive of the earthwork for the box and headwalls.

**SECTION 350  
REMOVAL OF EXISTING IMPROVEMENTS**

**350.1 DESCRIPTION:**

Shall be revised to read:

"The work under this section shall consist of the removal and/or replacement or relocation, wholly or in part, and satisfactory disposal of all structures, signs or other appurtenances which have been designated on the project plans. The work shall also include backfilling the resulting cavities. Materials removed shall become the property of the contractor."

**350.2 CONSTRUCTION METHODS:**

The first four paragraphs shall be deleted, and the specification shall be revised to add the following paragraphs:

"Removal operations shall not commence until satisfactory arrangements have been made to accommodate traffic."

"Blasting or other operations for removal which may damage new construction shall be completed prior to commencing the new work."

"Portions of existing structures to remain in place that are damaged or destroyed as a result of the contractor's operations shall be repaired or replaced by the contractor at his expense."

"Holes, cavities, trenches and depressions resulting from the removal of structures, except in areas to be excavated, shall be backfilled according to the requirements of MAG Section 206."

"Where new concrete is to join existing concrete, the existing concrete shall be saw cut to a true line with straight vertical edges free from irregularities."

"Existing reinforcement that is to be incorporated in new work shall be protected from damage and shall be thoroughly cleaned of all adhering material before being embedded in new concrete."

**350.4 PAYMENT:**

Shall be revised to read:

"Removal of Existing Improvements will be paid for at the contract lump sum price including all excavation and subsequent backfilling incidental to the removals and replacements, and hauling, storing and disposing of all materials as provided herein."

**SECTION 401  
TRAFFIC CONTROL**

**401.6 MEASUREMENT:**

The first paragraph shall be revised to read:

"Traffic control devices will be measured on a lump sum basis."

**401.7 PAYMENT:**

Shall be revised to add:

"Payment for traffic control devices will be at the contract lump sum price, including all mobilization, placing, storing, removal and maintenance activities incidental to the approved traffic control plan."

**SECTION 505  
CONCRETE STRUCTURES**

**505.1 DESCRIPTION**

Shall be modified to add:

Work under this section shall also include cast in place end sections and reinforcing steel. The concrete used shall be Class A, 3000 psi concrete.

The following section shall be added:

**SECTION 507  
PRECAST 10' X 7' CONCRETE BOX**

**507.1 DESCRIPTION:**

The work under this section shall consist of furnishing all materials, transporting and erecting units, grouting between segments, excavating and backfilling trenches, preparing and placing foundation bedding and otherwise constructing structures to the forms, shapes, and dimensions shown on the project plans and to the lines and grades established by the Engineer and in accordance with the requirements of these specifications.

**507.2 GENERAL**

Pipe sections shall be jointed such that the inner surfaces are centered as required. Joints shall be made with portland cement grout or rubber gaskets, or any other type approved by the Engineer. Self-centering tongue and groove grouted joints shall be finished smooth on the inside. Joints shall be thoroughly wetted before grout is applied. Grouted joints shall be protected against rapid drying by means of an approved curing method. No joint shall be grouted until the adjacent two segments have been placed in their final position. End segments shall provide protruding reinforcing bars to be incorporated into adjacent cast-in-place concrete.

**507.3 MATERIALS AND COMPOSITION:**

**507.3.1 Concrete:** Concrete shall conform to the requirements of MAG Section 725, as modified by ASTM Specification C 789-88. Precast segments may be steam cured in accordance with MAG Section 506.2.

**507.3.2 Reinforcing:** Steel Reinforcing shall consist of welded wire fabric conforming to the requirements of ASTM Specifications A185 or A497.

**507.3.3 Grout:** Portland Cement Grout shall conform to the requirements of MAG Section 776.

**507.3.4 Rubber Gasket Joints:** Rubber Gasket Joints shall conform to the requirements of MAG Section 765.

**507.4 CONSTRUCTION METHODS:**

**507.4.1 Foundation:** Bedding material shall conform to the requirements of MAG Section 702.2.

**507.4.2 Handling and Erection:** The precast segments may not be transported before the concrete attains its required strength. Extreme care shall be taken in handling, storing, moving and placing precast segments to avoid twisting, racking or other distortion that would result in cracking or damage to the segments. The precast segments shall be handled, transported and placed in an upright position and the points of support on the bottom shall be at the same plan location as the lifting points on top. Any damaged or cracked segments shall be replaced or repaired as required by the Engineer. Lifting devices shall not project above the surface of the item after placement. Surfaces of precast segments in contact with grout shall be cleaned of all adhering material prior to placing grout. Backfilling operations shall not be performed until 24 hours after grouting operations are completed.

**507.5 MEASUREMENT:**

Precast 10' x 7' Concrete Box shall be measured by the linear foot, complete in place.

**507.6 PAYMENT:**

Precast 10' x 7' Concrete Box as measured under this section will be paid for at the contract unit price per linear foot including all materials, shipping, labor, equipment and appurtenances, complete in place.

The following section shall be added:

**SECTION 508  
EPOXY GROUTED DOWELS**

**508.1 DESCRIPTION:**

The work under this section shall consist of furnishing all materials, labor and equipment necessary to install steel reinforcing dowels including drilling and cleaning holes, furnishing and placing setting materials and placing dowels in accordance with the details shown on the plans and the requirements of these specifications.

**508.2 MATERIALS AND COMPOSITION:**

**508.2.1 Epoxy:** Epoxy shall be a two-component liquid designed for anchoring dowels into concrete. Minimum performance criteria shall be:

Pot life @ 77°F (ASTM D695) 60 min.  
Tensile strength (ASTM D638) 4000 psi

**508.2.2 Steel Reinforcing Dowels:** Steel reinforcing dowels shall conform to the requirements of MAG Section 727. Steel grade shall be as shown on plans.

**508.3 CONSTRUCTION METHODS:**

Drilled holes shall be to the diameter and depth shown on the plans. Epoxy shall be mixed and applied according to the manufacturers recommendations. After placement, dowels shall not be disturbed by other work for the lesser of the manufacturers recommended set time or 24 hours.

**508.4 MEASUREMENT:**

No measurement for payment will be made for Epoxy Grouted Dowels.

**508.5 PAYMENT:**

No Payment will be made for Epoxy Grouted Dowels as such; the cost thereof shall be considered incidental to and included in the price bid for Concrete Structures.

**SECTION 703**  
**RIPRAP**

**703.2 SIZE OF STONE**

Shall be revised to read:

"Riprap shall be as large as can be conveniently placed in a layer of the required depth. The stones, excepting small stones and spalls used to chink interstices, shall conform to the following:

Type 1 - For Shoulder Placement:

Stones shall not weigh less than 10 pounds and at least 50 percent of the stone shall weigh not less than 50 pounds.

Type 2 - For Channel Placement:

Stones shall not weigh less than 25 pounds and at least 50 percent of the stone shall weigh not less than 100 pounds, with a maximum weight of 700 pounds."