

SPECIAL PROVISIONS FOR
BROADWAY ROAD BRIDGES
OVER THE RWCD CANAL
AND FLOODWAY

A121.506

E.E. Canal Bridge 183,859.50
 Floodway Bridge 321,899.00
 Total 505,758.50

BID SUMMARY & CHECKLIST

2:00 P.M.

PROJECT: Bradway Rd. Bridges over RWCD CONTRACT FCD: 84-28 DATE: July 17, 1984
Canal and Floodway

Item	Name TWS Contracting (2)	Brenholt Contracting (3)	Tanner Companies (1)	Royden Construction (4)
Schedule Complete	✓	✓	✓	✓
Addenda Noted	✓	✓	✓	✓
No Exceptions	✓	✓	✓	✓
Changes Initialed	✓	✓	✓	✓
Proposal Signed	✓	✓	✓	✓
License Number	✓	✓	✓	✓
Bid Security	✓	✓	✓	✓
No Collusion Affidavit	✓	✓	✓	✓
1				
2				
3				
TOTAL CONTRACT	\$464,980 ⁰⁰	\$550,687 ⁹⁰	\$450,593 ⁰⁰	\$626,623 ⁰⁰

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

SPECIAL PROVISIONS
FOR

BROADWAY ROAD BRIDGES
OVER RWCD IRRIGATION CANAL
AND FLOODWAY

CONTRACT NO. FCD 84-28



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

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CONTRACT NO. FCD 84-28

TABLE CONTENTS:

1. Invitation for Bids
2. Bid Form
3. Construction Special Provisions
4. No Collusion Affidavit
5. Contract
6. Statutory Payment Bond
7. Statutory Performance Bond
8. Certificate of Insurance
9. Drawings: Broadway Road Bridge Over RWCD Irrigation Canal
Sheets 1 through 9

Broadway Road Bridge Over RWCD Floodway
Sheets 1 through 8

INVITATION FOR BIDS
(Construction Contract)

Project: Broadway Road Bridges
Over RWCD Irrigation Canal
and Floodway

Ref. Invitation FCD 84-28
Date: July 3, 1984
Issued by: Flood Control District
Maricopa County

Location: Broadway Road at the
RWCD Irrigation Canal
Mesa, Arizona

SEALED BIDS, IN SINGLE COPY FOR THE WORK DESCRIBED HEREIN WILL BE RECEIVED UNTIL 2:00 P.M. LOCAL TIME AT THE PLACE OF THE BID OPENING, JULY 17, 1984 IN THE OFFICE OF THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, 3335 WEST DURANGO STREET, PHOENIX, ARIZONA 85009, AND AT THAT TIME PUBLICLY OPENED.

BID SECURITY IN AN AMOUNT OF NOT LESS THAN FIVE PERCENT (5%) OF THE TOTAL BID PRICE MUST BE SUBMITTED WITH EACH BID. THE BID SECURITY MAY BE IN THE FORM OF A BID BOND, CASHIERS CHECK, POSTAL MONEY ORDER, OR CASH. THE BID SECURITY WILL BE MADE PAYABLE TO THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY AS A GUARANTEE THAT IF THE WORK IS AWARDED TO THE BIDDER, HE WILL WITHIN TEN (10) DAYS FROM THE DATE OF SUCH AWARD, ENTER INTO PROPER CONTRACT AND BOND CONDITIONS FOR THE FAITHFUL PERFORMANCE OF THE WORK. OTHERWISE, SAID AMOUNT WILL BE FORFEITED TO THE FLOOD CONTROL DISTRICT. BID SECURITY, WILL BE RETURNED AS PRESCRIBED BY MAG 103.

THE SUCCESSFUL BIDDER SHALL BE REQUIRED TO FURNISH PERFORMANCE AND PAYMENT BONDS IN PENAL SUMS NOT LESS THAN ONE HUNDRED PERCENT (100%) RESPECTIVELY, OF THE ORIGINAL AMOUNT OF THE CONTRACT.

DESCRIPTION OF WORK:

1. Widening of a single-span precast voided slab concrete bridge, approach roadways, construction of a new water line and miscellaneous related items.
2. Construction of a three-span continuous cast-in-place reinforced concrete bridge, approach roadways, channel excavation and other miscellaneous items of work.

THE WORK SHALL COMMENCE WITHIN SEVEN (7) CALENDAR DAYS AND BE COMPLETED WITHIN ONE HUNDRED TWENTY (120) CALENDAR DAYS AFTER RECEIPT OF THE NOTICE TO PROCEED.

NOTICE: THE BID SCHEDULE, SPECIAL PROVISIONS, INSTRUCTIONS TO BIDDERS, UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1979 EDITION (MAG) AND REVISIONS AND SUPPLEMENTS THERETO, DRAWINGS LISTED UNDER THE CONTENTS, WILL BE INCORPORATED IN AND BECOME A PART OF THE RESULTANT CONTRACT.

CHERIE ELLIG, CLERK
BOARD OF DIRECTORS
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
INVITATION FOR BIDS, FCD 84-28
INSTRUCTIONS TO BIDDERS

1. Explanation to Bidders. Any explanations desired by the bidder, questions, or items for clarification regarding the meaning or interpretation of the invitation for bids, drawings, specification, etc., may be addressed to the Chief Engineer and General Manager, preferably in writing, prior to the pre-bid conference. Any answers, interpretations or clarifications affecting the cost will be addressed to all bidders in an addendum to the invitation. The receipt of an addendum by the bidder must be acknowledged in the space provided on the bid form or by letter or telegram received before the time set for the bid opening. Oral explanations or instructions given before the award of the contract will not be binding.
2. Conditions Affecting the Work. Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature of the work, the general and local conditions which can affect the work and the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work. (See MAG 102.4)
3. Bidder's Qualifications. Before a bid is considered for award, a bidder may be requested by the Chief Engineer and General Manager of the Flood Control District to submit a statement regarding his previous experience in performing comparable work, his business and technical organization, financial resources, and plant available to be used in performing the work.
4. Bid Guarantee. Where a bid guarantee is required by the invitation for bids, failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

If the successful bidder, upon acceptance of his bid by the Flood Control District with the period specified herein for acceptance (sixty days if no period is specified) fails to execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten days if no period is specified) after receipt of the forms by him, his contract may be terminated for default. In such event he shall be liable for any cost of procuring the work which exceeds the amount of his bid, and the bid guarantee shall be available toward offsetting such difference.

5. Preparation of Bids. Bids shall be submitted on the forms furnished, or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each erasure or change must be initialed by the person signing the bid. Unless specifically authorized in the invitation for bids, telegraphic bids will not be considered.

No bid will be considered unless all items in the bid schedule are priced. In case of an error in the extension of price, the unit price shall govern. The quantities listed on the bid schedule on which unit prices are requested are estimates only.

Unless called for, alternate bids will not be considered.

Modifications of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening bids.

6. Submission of Bids. Bids must be sealed, addressed to the Chief Engineer and General Manager, Flood Control District of Maricopa County, 3335 West Durango, Phoenix, Arizona 85009, and marked to identify the bid to the referenced Contract FCD Number. Failure to appropriately identify the bid may result in a premature opening of, or a failure to open, such bid. The name of the bidder shall be on the outside of the envelope. (See MAG 102.9).
7. Withdrawal of Bids or Modifications. Bids may be withdrawn by written request received from the bidder prior to the time set for the opening of bids.
8. Public Opening of Bids. Bids will be publicly opened at the time and place set for the opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.
9. Award of Contract. Award and execution of a contract shall be in accordance with MAG Section 103.
10. Specifications. Specifications referred to herein shall include all revisions and amendments in effect on the date of issuance of the invitation for bids. These instructions, Special Instructions to Bidders, and the herein contained Construction Special Provisions supplement the Uniform Standard Specifications herein referred to by "MAG" section number of paragraph number; however, in case of conflict, these instructions and Special Provisions supersede the Uniform Standard Specifications (MAG).

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
INVITATION FOR BIDS, FCD 84-28
SPECIAL INSTRUCTIONS TO BIDDERS

Location of the Work

Broadway Road Bridges
at the RWCD Irrigation Canal and Floodway
Mesa, Arizona

Contract Plans, Special Provisions and Contract Documents: Plans, Special Provisions, and forms for proposal, Bidding Schedule, Contract Agreement and Performance Bond may be obtained from the Flood Control District of Maricopa County, 3335 West Durango Street, Phoenix, Arizona, upon payment of \$13.50 by check payable to the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY. This payment will not be refunded.

APPROXIMATE QUANTITY

<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
816	C.Y.	Concrete (3000 psi)
156,300	Lbs.	Reinforcing Steel
21	Each	Precast Prestressed Concrete Voided Slab
475	Ton	B-1, Asphalt Concrete
217	Ton	E-3/8, Asphalt Concrete
770	L.F.	Drilled Shaft Foundations
4,010	S.Y.	Subgrade Preparation

and such other pertinent items as are necessary for the completion of the project as shown on the plans or as called for in the Special Provisions or in the Maricopa Association of Governments Uniform Standard Specifications for Public Works Construction.

CHERIE ELLIG, CLERK
BOARD OF DIRECTORS
FLOOD CONTROL DISTRICT OF
MARICOPA COUNTY

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
(Construction Contract)

BID FORM

Project: Broadway Road Bridges
Over RWCD Irrigation Canal
and Floodway

Invitation FCD 84-28
Date: July 3, 1984

Location: Broadway Road at the
RWCD Irrigation Canal and Floodway

To: Chief Engineer and General Manager
Flood Control District of Maricopa County
3335 West Durango
Phoenix, Arizona 85009

The following Proposal is made on behalf of _____

_____ and no others. The Total contract
amount of this proposal is (in words) _____

_____ and _____/100 dollars, (in figures)

_____. This amount being the sum total of the extended
amount for each pay item on the Bidding Schedule.

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 Flood Control District 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, Uniform Standard Specifications for Public Works Construction, 1979 Edition (MAG) and revisions and supplements thereto, together with the Special Provisions, forms of Contract and Bond 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, Specifications, Special Provisions, or conditions to be overcome, be plead. On the basis of the Plans, Specifications, Special Provisions, the forms of Contract, and the Bond 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 therefor, the sum of various products obtained by multiplying each unit price, herein bid for work or materials, by the quantity thereof actually incorporated in the completed project, as determined by the Chief Engineer and General Manager, Flood Control District of Maricopa County.

The Undersigned understands that the quantities mentioned herein are approximate 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.

BIDDING SCHEDULE
FLOODWAY BRIDGE

Project: Broadway Road Bridge
over the R.W.C.D. Floodway

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
211	900	CY	Fill Construction			
215	1200	CY	Earthwork for Open Channels			
301	2410	SY	Subgrade Preparation			
310	1270	TON	Untreated Base			
315	3.9	TON	Bituminous Prime Coat			
321-1	345	TON	B-1, Asphalt Concrete			
321-2	134	TON	E-3/8, Asphalt Concrete Surface			
321-3	0.5	TON	Bituminous Tack Coat			
340-1	449	LF	Concrete Curb and Gutter			
340-2	2245	SF	Concrete Sidewalk			

BIDDING SCHEDULE
FLOODWAY BRIDGE

Project: Broadway Road Bridge
over the R.W.C.D. Floodway

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
340-3	196	SF	Concrete Driveway Entrance			
345-1	1	EA	Adjust Water Valve Cover			
345-2	1	EA	Adjust Manhole Cover			
350-1	1	LS	Removal of Existing Box Culvert			
350-2	2330	SY	Asphalt Concrete Removal			
350-3	186	LF	Curb and Gutter Removal			
350-4	930	SF	Sidewalk Removal			
350-5	210	LF	Chain Link Fence Removal			
401	1	LS	Traffic Control			

BIDDING SCHEDULE
FLOODWAY BRIDGE

Project: Broadway Road Bridge
over the R.W.C.D. Floodway

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
502	770	LF	Drilled Shaft Foundations			
505-1	665	CY	Class "A" Concrete			
505-2	130,600	LBS	Reinforcing Steel			
520	174	LF	Pedestrian Handrail			

Sub-Total _____

BIDDING SCHEDULE
CANAL BRIDGE

Project: Widen Broadway Road Bridge
Over the R.W.C.D. Canal

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
211	120	CY	Fill Construction			
301	1600	SY	Subgrade Preparation			
310	453	TON	Untreated Base			
315	1.5	TON	Bituminous Prime Coat			
321-1	130	TON	B-1, Asphalt Concrete			
321-2	83	TON	E-3/8, Asphalt Concrete Surface			
321-3	0.3	TON	Bituminous Tack Coat			
340-1	233	LF	Concrete Curb and Gutter			
340-2	1165	SF	Concrete Sidewalk			

BIDDING SCHEDULE

CANAL BRIDGE

Project: Widen Broadway Road Bridge
Over the R.W.C.D. Canal

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
340-3	179	SF	Concrete Driveway Entrance			
345-1	1	EA	Adjust Water Valve Cover			
345-2	1	EA	Adjust Manhole Cover			
350-1	1	LS	Existing Deck Removal			
350-2	930	SY	Asphalt Concrete Removal			
350-3	204	LF	Curb and Gutter Removal			
350-4	1020	SF	Sidewalk Removal			
350-5	31	LF	Chain Link Fence Removal			
350-6	100	SF	Shotcrete Removal			
401	1	LS	Traffic Control			

BIDDING SCHEDULE
CANAL BRIDGE

Project: Widen Broadway Road Bridge
Over the R.W.C.D. Canal

Contract: FCD 84-28

Item No.	Approximate Quantity	Unit	Description	Unit Cost (in writing) and /100 dollars	Unit Cost	Extended Amount
502	168	LF	Drilled Shaft Foundations			
505-1	151	CY	Class "A" Concrete			
505-2	25,700	LBS	Reinforcing Steel			
506	21	EA	P.P.C. Voided Slabs			
510	1	LS	J.Box Extension Including Cover			
520	38	LF	Pedestrian Handrail			
618	1	LS	Remove & Replace RCP Including Collar			
610	450	LF	12" Asbestos cement pipe and fittings			
610-1	80	LF	20" steel casing			

Sub-Total _____

BROADWAY ROAD BRIDGES OVER

Page 3f of 5

RWCD CANAL AND FLOODWAY

Contract: FCD 84-28

BIDDING SCHEDULE SUMMARY

Floodway Bridge, Approaches and Miscellaneous

Canal Bridge, Approaches and Miscellaneous

Total

The Bidder hereby acknowledges receipt of and agrees his proposal is based on the following Addenda _____

The Undersigned further proposes to execute the Contract Agreement and furnish satisfactory Bonds within ten (10) days from the date of award, time being of the essence. The Undersigned further proposes to begin the work as specified in the Contract attached hereto, and to complete the work within the time limits as specified in the Special Provisions and maintain at all times a Contract Bond, approved by the Board of Directors, in an amount equal to one hundred percent (100%) of the total bid. 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 Bond to be in full force and effect until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions are fulfilled.

A Proposal guaranty in the amount and character named in the Invitation for Bids is enclosed amounting to not less than five percent (5%) of the total bid, which Proposal guaranty is submitted as a guaranty of the good faith of the Bidder and that 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 this Proposal, or if the Proposal is accepted and there should be failure on the part of the Undersigned to execute the Contract and furnish satisfactory Bond 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.

Date: _____, 19____.

IF BY AN INDIVIDUAL:

(Name) (Address)

IF BY A FIRM OR PARTNERSHIP:

(Firm Name) (Firm Address)

By: _____

*Name and Address of Each Member:

Date: _____, 19____.

IF BY A CORPORATION:

(Corporate Name) (Corporation Address)

By: _____

**Incorporated under the Laws of _____

Names and Addresses of Officers:

(President) (Address)

(Secretary) (Address)

(Treasurer) (Address)

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

**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.

CONSTRUCTION SPECIAL PROVISIONS
FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
WIDEN BROADWAY ROAD BRIDGE
OVER THE
R.W.C.D. CANAL

LOCATION OF THE WORK: This project is located on Broadway Road over the R.W.C.D. Irrigation Canal, and is approximately 1000 feet west of 56th Street and 200 feet west of the R.W.C.D. Floodway in Mesa, Arizona.

PROPOSED WORK: The work consists of widening a single-span precast voided slab concrete bridge, approach roadway, and other miscellaneous items of work required for the completion of the project. This work is to be concurrent and coordinated with adjacent construction of the RWCD Floodway Bridge.

SPECIFICATIONS: The work embraced herein and as shown on the plans for the construction of this project shall be done in accordance with the Maricopa Association of Governments' Uniform Standard Specifications for Public Works Construction, dated 1979, and the current revisions thereto, together with the Maricopa County Highway Department Supplement to the Uniform Standard Specifications, adopted August 3, 1981, and October 19, 1981, amendments by the City of Mesa, and the Construction Special Provisions Contained herein.

CONTRACT TIME: The Contractor shall complete all work on the project within one hundred twenty (120) calendar days after the Notice to Proceed.

PROGRESS SCHEDULE: The Contractor shall submit his proposed work progress schedule to the Engineer for Approval before starting the work.

MAINTENANCE OF FLOW IN R.W.C.D. CANAL: The flow of water in the R.W.C.D. Canal shall be maintained at all times during partial demolition and reconstruction of the bridge. The contractor shall provide sheet piling, sand bags and other means as required to allow for construction of the new caissons and extension of the existing abutments. Any restrictions on the flow of the Canal shall be kept to an absolute minimum and are subject to prior approval of the Engineer.

ITEM COMMENTS: The herein contained Construction Special Provisions supplement the Uniform Standard Specifications and the Maricopa County Highway Department Supplement to the Uniform Standard Specifications; however, in case of conflict, these Special Provisions supersede the Uniform Standard Specifications and the Maricopa County Supplement.

MATERIAL SOURCES: Fill for the roadway embankment may be obtained from roadway excavation and from the floodway bridge excavation. The excavation shall be uniform and the area bladed to a level condition to the lines and grades as shown in the floodway bridge plans. Select material, aggregate base

and mineral aggregate may be obtained from commercial sources. However, if the Contractor elects to secure material from other sources, he 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 satisfactory evidence that the material produced from any commercial source will meet Maricopa County Standard Specifications and these Special Provisions for such material.

SOIL BORING REPORT: A copy of the soil boring report is available for viewing at the offices of the Maricopa County Flood Control District.

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 CFS Part 5).

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 the requirements of the work by the contractor at his expense.

SUBSECTION 101.2 - DEFINITIONS AND TERMS: Change the definition of Budget Project to read as follows: A project financed by funds set aside in the annual budget or otherwise approved by the City of Mesa.

Change the definition of Engineer to read as follows: The Chief Engineer and General Manager of the Flood Control District of Maricopa County acting directly or through his duly authorized representative.

Change the definition of Owner to read as follows: The City of Mesa acting through its legally constituted officials, officers or employees.

SECTION 102 - ADDENDA & SUBMISSION OF BIDDING SCHEDULE: It shall be the responsibility of prospective bidders to determine, prior to submission of a bid, if any addenda have been issued. This may be accomplished by calling 602-262-1501. Any addendum issued, if not already bound into the Special Provisions, must be included as a 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 that do not include appropriate addenda and show appropriate changes to the Bidding Schedule shall be invalid.

SECTION 102.5 - PREPARATION OF PROPOSAL: The bidder's Arizona State Contractor's License number and classification need not be shown on the proposal. The possession of such a license is no longer a bidding requirement; however the Contractor may be required to provide certification of prior satisfactory completion for similar construction.

SECTION 103.6 - CONTRACTOR'S INSURANCE: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance. The types of insurance and the limits of liability shall be as indicated thereon, i.e.

\$1,000,000	bodily injury per person
\$5,000,000	bodily injury each occurrence
\$1,000,000	property damage

SECTION 105.2 - PLANS AND SHOP DRAWINGS: The number of copies of shop drawings required for review and/or approval shall be as follows:

Initial submittal: Three (3) copies. One (1) copy will be returned to the Contractor.

Final submittal: Five (5) copies. Two (2) copies will be returned to the Contractor.

SECTION 105.6 - COOPERATION WITH UTILITIES: 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 following phone numbers should put the Contractor in contact with the proper personnel:

Flood Control District.....	262-1501
Mountain Bell Telephone Company.....	263-3219
Salt River Project.....	236-2202
Arizona Public Service.....	271-7014
Location Staking (A.P.S., Mtn. Bell, S.R.P.).....	263-1100
City of Mesa.....	834-2516
Maricopa County Highway Department.....	262-3631
Roosevelt Water Conservation District.....	963-3414

SECTION 105.8 - CONSTRUCTION STAKES, LINES AND GRADES: The project control line and bench mark elevation are shown on the drawings and will be established by the Engineer. The Contractor shall establish offset stakes and temporary bench marks for referencing the designated construction lines and grades. The Contractor shall provide all rough grade, fine grade, and structural reference lines and shall be responsible for their conformance with the plans and specifications.

Survey work shall be performed by a qualified and experienced surveyor under the supervision of a licensed land surveyor.

No separate payment will be made for construction surveying and the cost thereof shall be included in the price bid for related items of work.

SECTION 108.9 - FAILURE TO COMPLETE ON TIME: The amount of \$350.00 per calendar day, or the actual cost per calendar day incurred by the District for Engineering and Inspection Services on this project, whichever is less, and any other costs incurred by the District directly attributing to the delay in completing this contract, 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 incomplete after the time specified for the completion of the work in the proposal, or as adjusted by the Engineer.

SECTION 205 ROADWAY EXCAVATION: Roadway excavation shall conform to Section 205 of the Uniform Standard Specifications.

No separate payment will be made for this item. Payment for all work under this section, including watering and compacting, shall be included in ITEM 211 - FILL CONSTRUCTION.

SECTION 206 - STRUCTURE EXCAVATION AND BACKFILL: Structure excavation and backfill shall conform to Section 206 of the Uniform Standard Specifications.

The area behind the abutments shall be compacted in accordance with Table 601-2, Type I of the Uniform Standard Specifications.

All backfill against the bridge abutments shall consist of free-draining granular material. Backfill should be placed in horizontal lifts consistent with the maximum material size and type of compaction equipment in use and to a minimum of 95% of the maximum density at the optimum moisture content plus or minus 3% as determined in accordance with ASTM D-2922 and D-3017. Compaction equipment should be maintained at least two (2) feet from the structure.

No separate payment will be made for structure excavation and backfill and the cost of these items shall be included in the contract price bid for related items.

SECTION 210 - BORROW EXCAVATION: Borrow excavation shall consist of the furnishing and placing of borrow material in the roadway embankments in accordance with Section 210 of the Uniform Standard Specifications and as shown on the plans.

No separate payment will be made for this item. Payment for all work under this section, including watering and compacting, shall be included in ITEM 211 - FILL CONSTRUCTION.

SECTION 211 - FILL CONSTRUCTION: The work under this section consists of constructing embankments for the approach roadways. The material required for the construction of the fill shall be suitable material obtained from roadway excavation or the R.W.C.D. Floodway Bridge excavation and shall be free of all debris and vegetation.

Prior to the placement of fill material all loose soil, vegetation, any roadside debris, concrete pavement, and existing structures within the proposed fill areas shall be completely removed. Depressions and ditches shall be cleaned of all loose or wet soils and widened to accommodate compaction equipment. Sloping surfaces shall be benched to provide a level surface for fill placement.

All exposed subgrade surfaces shall be scarified, brought to the proper moisture content and compacted for a minimum depth of eight (8) inches.

The fill shall be compacted in horizontal lifts to subbase level. The depth of the uncompacted lifts shall not exceed eight (8) inches.

Compaction shall be to a minimum of 95% of the maximum density as determined in accordance with ASTM D-2922 and D-3017 within a moisture content range of plus or minus 3% of optimum.

The quantities of fill required to construct embankments for approach roadways will be those of the completed bid item, in place, measured from the original ground surface, within the limits of the dimensions shown on the plans. Volume will be computed by the average end area method.

Payment for all work under this section will be made at the unit price bid per cubic yard for ITEM 211 - FILL CONSTRUCTION which price shall include placing, water, and compaction of fill construction.

SECTION 301 - SUBGRADE PREPARATION: Subgrade preparation shall consist of shaping the roadway subgrades to the grades and cross-sections for the approach roadways as shown on the plans and in accordance with Section 301 of the Uniform Standard Specifications.

This item shall also include all work necessary for the construction of ditches, any excavation, filling, grading, shaping and miscellaneous grading work between the back of curb or edge of pavement and the right-of-way or construction easement. Pavement removal shall be included in Section 350 - REMOVAL OF EXISTING IMPROVEMENTS.

Subsection 301.3 - RELATIVE COMPACTION, should be modified as follows:

- | | |
|------------------------------------|------------|
| (B) Other streets and traffic ways | 95 percent |
| (c) Curbs, gutters and sidewalks | 90 percent |

Payment for all work under this section shall be included in ITEM 301 - SUBGRADE PREPARATION.

SECTION 310 - UNTREATED BASE: Aggregate Base shall conform to the requirements of Section 702 of the Uniform Standard Specifications. Aggregate Base shall be crushed in accordance with Section 702.2.

The Contractor will be required to furnish the Engineer certified weight tickets covering all of the Select Material and Aggregate Base placed on the project. Final pay quantities will be based upon the scale tickets accepted by the Engineer.

SECTION 315 - BITUMINOUS PRIME COAT: The bituminous material shall be Grade MC-70 or MC-250 liquid asphalt. Prime coat shall be applied at the rate of 0.4 gallon per square yard unless otherwise specified by the Engineer. The Engineer shall determine whether prime coat will be used.

SECTION 321 - ASPHALT CONCRETE PAVEMENT: Asphalt concrete pavement shall consist of furnishing and placing a plant-mixed asphalt concrete base course and asphalt concrete road surfacing material to the compacted thickness shown on the plans and in accordance with Section 321 of the Uniform Standard Specifications.

Bituminous material shall be AR-4000 paving asphalt conforming to Section 710 and 711 of the Uniform Standard Specifications or AC-30 complying with ADOT Table 705-1 as modified October 16, 1981.

The mineral aggregate shall meet the grading requirements within the range of the specified tolerances for Mix-Designation B-1 or E-3/8 in accordance with Section 710 of the Uniform Standard Specifications and Maricopa County Highway Department Supplement to the Uniform Standard Specifications. A tack coat will be required and paid for under this section.

The work shall fully comply with Section 321 except that no mineral filler or blending sand will be required.

In addition to pugmill type mixing plants, drum dryer mixers will be allowed in accordance with the Uniform Standard Specifications Section 710.8. The moisture content of the bituminous mixture immediately behind the paver shall not exceed three percent. If a drum dryer is used, the type of oil shall be AR-8000 or AC-30 as specified above.

The proper proportioning of the material at the cold feed shall be determined by the Contractor and approved by the Engineer prior to the production of asphalt concrete. Production shall not commence until calibration tests indicate that an acceptable product can be obtained.

The correct proportions of each aggregate size introduced into the mixer shall be drawn from the storage bins by an approved type of continuous feeder which shall supply the correct amount of aggregate in proportion to the bituminous material and shall be so arranged that the proportion of each aggregate size can be separately adjusted. The continuous feeder for the aggregate may be mechanically or electrically activated.

The plant shall be equipped with a sampling device to take representative composite samples of the cold feed. If tests indicate non-compliance with specifications, operation shall cease until proper corrections have been made.

The production of the plant shall be governed by the rate required to obtain a thorough and uniform mixture of the materials. Mixing shall continue until the uniformity of coating, when tested in accordance with the requirements of AASHTO T-195, is at least 95 percent.

The Contractor shall furnish certified weight tickets covering all plant-mixed asphalt concrete placed on the project.

Payment for this item will be made at the contract unit price bid per ton for ITEM 321-1 B-1 - ASPHALT CONCRETE, and ITEM 321-2 E-3/8 - ASPHALT CONCRETE SURFACE COURSE, and ITEM 321-3 - BITUMINOUS TACK COAT.

SECTION 340 - CONCRETE CURB AND GUTTER, SIDEWALK AND DRIVEWAYS: Work under this item shall conform to Section 340 of the Uniform Standard Specifications and shall include concrete curb and gutter, concrete sidewalk and concrete driveway entrance.

All concrete shall be Class B and shall conform to Section 725 of the Uniform Standard Specifications.

All concrete items shall conform to the Standard Details and the details shown on the plans.

Payment for these items will be made at the unit price bid per lineal foot for ITEM 340-1 - CONCRETE CURB & GUTTER, and the unit price bid per square foot for ITEM 340-2 - CONCRETE SIDEWALK and ITEM 340-3 CONCRETE DRIVEWAY ENTRANCE.

SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS: The work under this section shall consist of removing and disposing of any obstacle to construction whether it is shown on the plans or not, unless it is specifically called out on the plans to be removed or relocated by other agencies, and shall be in accordance with Section 350 of the Uniform Standard Specifications.

The removal of existing bridges, either wholly or in part, shall be as shown on the project plans. Bridge removal operations shall proceed after the roadway has been closed to thru traffic.

Approach slabs, piling, piers, abutments, footings and pedestals shall be removed to at least one foot below ground line or three feet below finished grade unless specified otherwise on the project plans.

When partial bridge removal is specified or alteration of an existing bridge requires removal of portions of the existing structure, such removal shall be performed with sufficient care as to leave the remaining portion of the structure undamaged. In case of damage to the existing bridge structure, the contractor shall make all necessary repairs at his expense. Reinforcing steel extending from the remaining portion of the structure shall be protected, cleaned and incorporated in the new portion of the structure in accordance with the details shown on the project plans or as directed by the Engineer.

Flame cutting and saw cutting may be used for removing, widening, or modifying bridges provided the contractor complies with all protection, safety and damage requirements.

Explosives shall not be used in bridge removal operations. Before beginning concrete removal operations involving the removal of a portion of a monolithic concrete element, a saw cut approximately one inch deep shall be made to a true line along the limits of removal on all faces of the element which will be visible in the completed work. Waste concrete shall be removed from the site and disposed of at a site secured by the Contractor.

The removal of the existing asphalt concrete pavement necessary to construct the new pavement shall be included in this item.

The disposal of all waste materials removed under this item shall be the responsibility of the Contractor. The disposal site shall be approved by the Engineer.

If the Maricopa County landfill is selected for disposition of construction waste and/or debris, a Maricopa County Landfill Use Permit will be required. Application for permit can be made at the Maricopa County Landfill Office, located at 3325 West Durango Street, Phoenix Arizona 85009 (Telephone 269-2661). Charges will be levied on a volume basis for each load delivered to the landfill in accordance with the current fee schedule.

Payment for this item will be made at the contract lump sum price bid for ITEM 350-1 - EXISTING DECK REMOVAL - and the contract price bid per square yard for ITEM 350-2 - ASPHALT CONCRETE REMOVAL, and the contract price bid per lineal foot for ITEM 350-3 - CURB AND GUTTER REMOVAL, and the contract bid per square foot for ITEM 350-4 - SIDEWALK REMOVAL, and the contract bid price lineal foot for ITEM 350-5 - CHAIN LINK FENCE REMOVAL, and the contract bid price per square foot for Item 350-6 - SHOTCRETE REMOVAL.

SECTION 401 - TRAFFIC CONTROL: Traffic control shall conform to the applicable paragraphs of Section 401 of the Uniform Standard Specifications, the City of Mesa requirements and as specified herein.

Broadway Road is to be closed to all traffic for the duration of the project. The number and types of barricades, signs, delineators, barriers and all other traffic control devices shall be subject to approval. However, approval of traffic control devices and the approval of the Contractor's method of application of all traffic control measures shall not relieve the Contractor of the responsibility of protecting the work, the workmen and the traveling public.

All necessary signs and barricades shall remain three working days beyond acceptance of the project by the Owner.

Payment for providing and maintaining traffic control will be at the lump sum bid price in the proposal. Such prices shall include all traffic control devices and traffic control measure, such as warning and control signs, barricades, lighting devices, paint striping, delineators, flagmen and other appurtenant items related to traffic control and safety.

SECTION 502 - DRILLED SHAFT FOUNDATIONS:

DESCRIPTION

The work under this section shall include furnishing all materials and constructing reinforced concrete shafts formed within a drilled excavation. Each drilled shaft foundation shall consist of a shaft section with or without casing left in place, as directed or specified, with or without a rock socket or a belled footing, and shall be constructed in reasonably close conformity with the details and dimensions shown on the project plans and the requirements of these specifications.

MATERIALS

Concrete shall conform to the requirements of Section 725 for the class and strength of portland cement concrete shown on the project plans. Where concrete is placed in drilled shaft excavations containing bentonite slurry or water, the cement content of the concrete shall be between 658 or 752 pounds per cubic yard and the size of the coarse aggregate shall not exceed one inch.

Reinforcing steel shall conform to the requirements of Section 727.

Casing may be of unit or sectional construction and shall be of sufficient strength to withstand handling stresses, the pressure of concrete and of the surrounding earth and prevent seepage of water.

CONSTRUCTION REQUIREMENTS:

1. Excavation:

The Contractor shall perform all excavation required for the shafts, rock sockets or belled footings, through whatever substances encountered, to the dimensions and elevations shown on the project plans or required by the site conditions. Unless otherwise shown on the project plans, the maximum deviation from plumb shall be not more than one percent, and the maximum permissible variation of the center axis of any shaft at the top shall be three inches from its project plan location. When bells or rock sockets are required, they shall be excavated so as to form a bearing area of the size and shape shown on the project plans. Blasting methods may be used only with permission of the Engineer and when used shall be so conducted as to avoid disturbance of the formations below or outside the limits of the proposed shaft concrete.

Any excavation beyond the dimensions shown on the project plans, where shells are not used, shall be filled with concrete at the contractor's expense.

The project plans are indicative of anticipated subsurface conditions and depths where satisfactory bearing material may be encountered. The project plans may be used as a guide for the contractor to become familiar with the site subsurface condition but shall not be construed as a warranty of the subsurface condition except at locations actually drilled.

If satisfactory material is not encountered at plan elevation, the bottom of any drilled hole may be lowered, with written approval of the Engineer. Alteration of plan depth will be made to satisfactorily comply with design requirements. Reinforcing steel and concrete shall not be placed in the shaft until this final elevation has been established. Raising of the foundation elevation shall be approved by the Engineer.

When the drilling operation reaches a point where caving conditions are encountered, no further drilling will be allowed until a construction method is employed that will prevent excessive caving and which is acceptable to the Engineer. If steel casing is proposed, the shell shall be clean and shall extend to the top of the drilled shaft excavation. The inside diameter of the casing shall not be less than the specified size of the shaft; otherwise, the size of casing and the size of the drilled shaft in which the shell is to be placed will be left to the discretion of the contractor.

Casing specified on the project plans to be left in place shall be installed in such manner that there will be no voids between the earth and the casing.

If the use of drilling slurry is to be employed, either with or without the use of casing, the contractor shall use a method of construction which will allow completion of the drilled shaft in a continuous manner without any mixing of concrete and drilling slurry.

Material excavated from shafts and bells and not incorporated elsewhere on the project shall be disposed of as directed by the Engineer.

2. Drilling Slurry:

When slurry is used by the contractor to maintain an excavation, the contractor shall provide for a specialist, experienced in slurry drilling, to design and monitor the slurry. The slurry shall consist of a stable suspension of commercial bentonite in water. The contractor's specialist shall submit slurry design criteria, including density, viscosity, shear strength, Ph, and suspended sand content, for drilling and concrete placement operations to the Engineer for review prior to commencement of any slurry drilling. During the drilling operations, the contractor shall monitor the properties of the slurry for conformance to the submitted design criteria. The density of the slurry shall be the minimum required to maintain the excavation.

Just prior to placement of the reinforcing steel, the contractor shall conduct tests on the slurry, including samples obtained from the bottom of the excavation, to establish conformance to the submitted criteria. The consistency of the slurry shall be adjusted as required to maintain the excavation and to provide a suitable environment for the concreting operation. Unless otherwise specified on the project plans, at the time of concrete placement the density of the slurry shall not exceed 75 pounds per cubic foot and the viscosity of the slurry shall not exceed 90 seconds per quart as measured by the Marsh Funnel Method.

The slurry shall be mixed in an approved mixer before being placed into the excavation. No dry material will be allowed to be placed in the excavation and mixed with water by the drilling auger.

Slurry shall be fed into the excavation as drilling progresses, keeping the holes filled to the top or maintained within any casing.

The contractor shall be responsible for the slurry design and control as well as the resulting drilled shaft foundation produced by this method.

3. Inspection:

After completion of the drilled shaft excavation and prior to placement of the reinforcing steel cage and concrete, the drilled shaft shall be inspected and approved by the Engineer. The contractor shall provide suitable equipment for the engineer to inspect the completed foundation excavation and check the minimum dimensions and alignment of the drilled shafts.

Any sloughage or other loose material shall be machine cleaned from the shaft prior to placing reinforcing steel concrete. An accumulation of loose soils, muck, etc., at the bottom of the excavation will not be allowed at the time of placing steel or concrete.

4. Reinforcing Steel:

The reinforcing steel cage for the drilled shaft, consisting of longitudinal bars and lateral ties shall be completely assembled and placed into the shaft as a unit. The reinforcing steel unit shall not be placed until immediately before concreting operations are to be started and shall be placed in accordance with the details shown on the project plans.

The reinforcing cage shall be adequately supported and anchored to prevent movement from the required location during and for four hours after completion of concrete placement. Spacers shall be at sufficient intervals along the shaft to insure concentric spacing for the entire length of shaft. The type of spacer used shall be approved by the Engineer.

If the shaft is lengthened and the project plans indicate full depth reinforcement, the bars in the lower portion of the shaft shall be extended accordingly, as directed by the Engineer, to the bottom of the hole. These bars may be lap spliced or spliced by butt welding or other connecting procedures approved by the Engineer.

CONCRETE:

1. General:

Concrete shall be placed as soon as possible after completion of excavation of the drilled shaft and the reinforcing steel placement. Concrete placement shall be continuous in the shaft to the top elevations or to construction joint shown on the project plans and shall be in accordance with the requirements of Section 725 and as specified herein.

2. Placement in Dry Excavations:

For placement in dry excavations, concrete shall be placed through a suitable tube or tremie to prevent segregation of materials.

3. Placement under Slurry or Water:

Care shall be taken to ensure that all the fluid and suspended solids are expelled from the hole during concrete placement. In order to prevent contamination of the concrete placed initially, the lower end of the pump pipe shall be provided with a valve or plug. The discharge end of the pump pipe shall always remain between one and three diameters of the drilled shaft below the surface of fluid concrete.

Slurry ejected during concrete placement may be reused provided that it passes through a desander to remove gravel chips or other granular materials. Slurry to be discarded shall be disposed of in a manner approved by the Engineer.

4. Casting Removal:

During removal of any casing, a sufficient head of not less than five feet of fluid concrete shall be maintained above the bottom of the casing except at the top of the shaft. All contaminated concrete shall be removed from the shaft. If any upward movement of the concrete and/or reinforcing steel occurs at any time during the pulling operation, the following criteria shall govern:

- (a) If the upward movement is one inch or less, the casing may continue to be pulled provided no further movement occurs and if the concrete is vibrated or rodded to reconsolidate the concrete. Vibration or rodding shall not be used to attempt to break the casing loose for extraction.
- (b) If the upward movement is greater than one inch, the casing shall be left in place as a permanent sleeve at the contractor's expense. A load test may be required by the Engineer to determine the adequacy and acceptability of the drilled shaft.

5. Method of Measurement:

Drilled shafts will be measured by the linear foot from the completed bottom of the shaft, as directed or established by the Engineer, to the elevation of the top of the shaft as indicated on the project plans. Rock sockets will be considered as being part of the drilled shaft for measurement purposes.

6. Basis of Payment:

The accepted quantities of drilled shaft foundations, measured as provided above, will be paid for at the contract unit price per linear foot for the diameter designated in the bidding schedule, complete in place, including excavation, drilling slurry, metal casing, steel reinforcing, portland cement concrete, and any needed forming, curing and finishing. No additional payment will be made for belled sections, rock sockets or for metal casing that is to remain in place, under ITEM 502 - DRILLED SHAFT FOUNDATIONS.

SECTION 506 - PRECAST PRESTRESSED CONCRETE MEMBERS: The work under this section consists of furnishing concrete precast prestressed voided deck slabs, in accordance with the details and specifications shown on the plans and Section 506 of the Uniform Standard Specifications.

Payment for all work under this section will be made at the unit price bid for ITEM NO. 506 - PPC voided slabs. The prices shall be full compensation for the items complete in place, including concrete and reinforcing steel.

SECTION 520 - PEDESTRIAN HANDRAIL: The work under this section consists of the construction of a pedestrian rail on the bridge deck and abutments as shown on the plans and in accordance with Section 520 of the Uniform Standard Specifications.

Payment for this item will be made at the contract unit price bid per lineal foot for ITEM 520-1 - PEDESTRIAN HANDRAIL.

SECTION 610 - WATER LINE CONSTRUCTION: The work under this section consists of the construction of a new 12 " water line on the north side of the structures as shown on the plans and in accordance with Section 610 of the Uniform Standard Specifications.

The water line shall be Asbestos-cement pipe, class 150.

SECTION 618 - REMOVAL AND REPLACE RCP INCLUDING COLLAR: Work under this section shall conform to SECTION 618 of the Uniform Standard Specifications and shall include removal of existing reinforced concrete pipe and headwall, replacement in kind with new reinforced concrete pipe, and joining the new and existing with a concrete collar. Payment for this item will be made at the contract lump sum price of ITEM 618 - REMOVE AND REPLACE RCP INCLUDING COLLAR.

SECTION 725 - PORTLAND CEMENT CONCRETE: In addition to the requirements of Section 725:

Include Class "S" Concrete in Table 725 with the following minimum properties:

Minimum Cement Content	= 611 lbs/cu.yd.
Minimum Compressive Strength at 28 days	= 5,000 PSI
Minimum Compressive Strength at Strand Release	= 4,000 PSI

Nonshrink grout shall be a hydraulic type cement which hardens when mixed with water to produce a permanent anchoring bond. The grout shall have a pourable consistency and shall attain a compressive strength of 4000 psi minimum after one hour and 8000 psi after 7 days. Payment for nonshrink grout shall be incidental to the cost of providing the concrete associated with the grout.

SECTION 728 - BITUMINOUS JOINT FILLER: Bituminous joint filler shall have thickness as noted on the project plans and shall conform to the requirements of AASHTO M 213. Payment for joint filler shall be incidental to providing the concrete for the abutments.

SECTION 730 - ELASTOMERIC BEARING PADS: Elastomeric bearing pads shall conform to the requirements of Table B of AASHTO Section 25 - Elastomeric Bearings of the AASHTO Standard Specifications for Highway Bridges, except as modified herein. The Durometer hardness of the elastomer will be shown on the project plans.

Pads 1/2 inch or less in thickness shall be either all elastomer or laminated and pads over 1/2 inch thickness shall be laminated. Laminated pads shall consist of alternate layers of elastomer and metal or fabric reinforcement bonded together. The top and bottom layers of reinforcement shall be uniformly covered with a maximum of 1/8 inch of elastomer.

The elastomer portion of the elastomeric compound shall be 100 percent virgin chloroprene (neoprene) meeting the requirements of Table B of Section 25 - Elastomeric Bearings. The durometer hardness of the elastomer will be shown on the project plans.

Fabric reinforcement shall be woven from 100 percent glass fibers of "E" type yarn with continuous fibers. The minimum thread count in either direction shall be 25 threads per inch. The fabric shall have either a crowfoot or an eight Harness Satin weave. Each ply of fabric shall have a breaking strength of not less than 800 pounds per inch of width in each thread direction when three inch by 36 inch samples are tested on split drum grips. Fabric reinforcement shall be single ply at the top and bottom surfaces of the pad and double ply within the pad. The bond between double plies shall have a minimum peel strength of 20 pounds per inch.

Pads of all elastomer or with fabric reinforcement may be cut from large sheets. Cutting shall be performed in such a manner as to avoid heating of the material and to produce a smooth edge with no tears or other jagged areas and to cause as little damage to the material as possible.

Payment for bearing pads shall be incidental to the cost of providing P.P.C. voided slabs.

SECTION 745 - PVC PIPE AND FITTINGS: All polyvinyl chloride (PVC) conduit shall conform to SECTION 745 except payment shall be incidental to the cost of providing concrete walks and barriers.

SECTION 770 - STRUCTURAL STEEL: All structural steel shall conform to SECTION 770 except payment shall be incidental to reinforced concrete.

CONSTRUCTION SPECIAL PROVISIONS
FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
BROADWAY ROAD BRIDGE
OVER THE
R.W.C.D. FLOODWAY
FCD 84-28

LOCATION OF THE WORK: This project is located on Broadway Road over the R.W.C.D. Floodway, and is approximately 800 feet west of 56th Street and 200 feet east of the R.W.C.D. Canal in Mesa, Arizona.

PROPOSED WORK: The work consists of constructing a three-span continuous cast-in-place reinforced concrete bridge, approach roadway, channel excavation, and other miscellaneous items of work required for the completion of the project. This work is to be concurrent and coordinated with adjacent construction of the widening of RWCD Canal Bridge.

SPECIFICATIONS: The work embraced herein and as shown on the plans for the construction of this project shall be done in accordance with the Maricopa Association of Governments' Uniform Standard Specifications for Public Works Construction, dated 1979, and the current revisions thereto, together with the Maricopa County Highway Department Supplement to the Uniform Standard Specifications, adopted August 3, 1981, and October 19, 1981, amendments by the City of Mesa, and the Construction Special Provisions contained herein.

CONTRACT TIME: The Contractor shall complete all work on the project within one hundred twenty (120) calendar days after the Notice to Proceed.

PROGRESS SCHEDULE: The Contractor shall submit his proposed work progress schedule to the Engineer for approval before starting the work.

ITEM COMMENTS: The herein contained Construction Special Provisions supplement the Uniform Standard Specifications and the Maricopa County Highway Department Supplement to the Uniform Standard Specifications; however, in case of conflict, these Special Provisions supersede the Uniform Standard Specifications and the Maricopa County Supplement.

MATERIAL SOURCES: Fill for the roadway embankment may be obtained from roadway excavation and the floodway bridge excavation. The excavation shall conform to the lines and grades as shown on the plans and shall be uniform and bladed to a level condition upon completion. Select material, aggregate base and mineral aggregate may be obtained from commercial sources. However, if the Contractor elects to secure material from other sources, he 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 satisfactory evidence that the material produced from any commercial source will meet Maricopa County Standard Specifications and these Special Provisions for such material.

SOIL BORING REPORT: A copy of the soil boring report is available for viewing at the offices of the Maricopa County Flood Control District.

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 CFS Part 5).

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 the requirements of the work by the contractor at his expense.

SUBSECTION 101.2 - DEFINITIONS AND TERMS: Change the definition of Budget Project to read as follows: A project financed by funds set aside in the annual budget or otherwise approved by the Board of Directors of the Flood Control District of Maricopa County.

Change the definition of Engineer to read as follows: The Chief Engineer and General Manager of the Flood Control District of Maricopa County acting directly or through his duly authorized representative.

Change the definition of Owner to read as follows: The Flood Control District of Maricopa County, acting through its legally constituted officials, officers or employees.

SECTION 102 - ADDENDA & SUBMISSION OF BIDDING SCHEDULE: It shall be the responsibility of prospective bidders to determine, prior to submission of a bid, if any addenda have been issued. This may be accomplished by calling 602-262-1501. Any addendum issued, if not already bound into the Special Provisions, must be included as a 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 that do not include appropriate addenda and show appropriate changes to the Bidding Schedule shall be invalid.

SECTION 102.5 - PREPARATION OF PROPOSAL: The bidder's Arizona State Contractor's License number and classification need not be shown on the proposal. The possession of such a license is no longer a bidding requirement; however the Contractor may be required to provide certification of prior satisfactory completion for similar construction.

SECTION 103.6 - CONTRACTOR'S INSURANCE: Concurrently with the execution of the contract, the Contractor shall furnish a Certificate of Insurance. The types of insurance and the limits of liability shall be as indicated thereon, i.e.

\$1,000,000	bodily injury per person
\$5,000,000	bodily injury each occurrence
\$1,000,000	property damage

SECTION 105.2 - PLANS AND SHOP DRAWINGS: The number of copies of shop drawings required for review and/or approval shall be as follows:

Initial submittal: Three (3) copies. One (1) copy will be returned to the Contractor.

Final submittal: Five (5) copies. Two (2) copies will be returned to the Contractor.

SECTION 105.6 - COOPERATION WITH UTILITIES: 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 following phone numbers should put the Contractor in contact with the proper personnel:

Flood Control District.1.....	262-1501
Mountain Bell Telephone Company.....	263-3219
Salt River Project.....	236-2202
Arizona Public Service.....	271-7014
Location Staking (A.P.S., Mtn. Bell, S.R.P.)..	263-1100
City of Mesa.....	834-2516
Maricopa County Highway Department.....	262-3631
Roosevelt Water Conservation District.....	963-3414

SECTION 105.8 CONSTRUCTION STAKES, LINES AND GRADES: The project control line and bench mark elevation are shown on the drawings and will be established by the Engineer. The Contractor shall establish offset stakes and temporary bench marks for referencing the designated construction lines and grades. The Contractor shall provide all rough grade, fine grade, and structural reference lines and shall be responsible for their conformance with the plans and specifications.

Survey work shall be performed by a qualified and experienced surveyor under the supervision of a licensed land surveyor.

No separate payment will be made for construction surveying and the cost thereof shall be included in the price bid for related items of work.

SECTION 108.9 - FAILURE TO COMPLETE ON TIME: The amount of \$350.00 per calendar day, or the actual cost per calendar day incurred by the District for Engineering and Inspection Services in this project, whichever is less, and any other costs incurred by the District directly attributing to the delay in completing this contract 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 incomplete after the time specified for the completion of the work in the proposal, or as adjusted by the Engineer.

SECTION 205 ROADWAY EXCAVATION: Roadway excavation shall conform to Section 205 of the Uniform Standard Specifications.

No separate payment will be made for this item. Payment for all work under this section, including watering and compacting, shall be included in ITEM 211 - FILL CONSTRUCTION.

SECTION 206 - STRUCTURE EXCAVATION AND BACKFILL: Structure excavation and backfill shall conform to Section 206 of the Uniform Standard Specifications.

The area behind the abutments shall be compacted in accordance with Table 601-2, Type I of the Uniform Standard Specifications.

All backfill against the bridge abutments shall consist of free-draining granular material. Backfill should be placed in horizontal lifts consistent with the maximum material size and type of compaction equipment in use and to a minimum of 95% of the maximum density at the optimum moisture content plus or minus 3% as determined in accordance with ASTM D-2922 and D-3017. Compaction equipment should be maintained at least two (2) feet from the structure.

No separate payment will be made for structure excavation and backfill and the cost of these items shall be included in the contract price bid for related items.

SECTION 210 - BORROW EXCAVATION: Borrow excavation shall consist of the furnishing and placing of borrow material in the roadway embankments in accordance with Section 210 of the Uniform Standard Specifications and as shown on the plans.

No separate payment will be made for this item. Payment for all work under this section, including watering and compacting, shall be included in ITEM 211 - FILL CONSTRUCTION.

SECTION 211 - FILL CONSTRUCTION: The work under this section consists of constructing embankments for the approach roadways. The material required for the construction of the fill shall be suitable material obtained from roadway excavation or the R.W.C.D. Floodway Bridge excavation and shall be free of all debris and vegetation.

Prior to the placement of fill material, all loose soil, vegetation, any roadside debris, concrete pavement, and existing structures within the proposed fill areas shall be completely removed. Depressions and ditches shall be cleaned of all loose or wet soils and widened to accommodate compaction equipment. Sloping surfaces shall be benched to provide a level surface for fill placement.

All exposed subgrade surfaces shall be scarified, brought to the proper moisture content and compacted for a minimum depth of eight (8) inches.

The fill shall be compacted in horizontal lifts to subbase level. The depth of the uncompacted lifts shall not exceed eight (8) inches.

Compaction shall be to a minimum of 95% of the maximum density as determined in accordance with ASTM D-2922 and D-3017 within a moisture content range of plus or minus 3% of optimum.

The quantities of fill required to construct embankments for approach roadways will be those of the completed bid item, in place, measured from the original ground surface, within the limits of the dimension, shown on the plans. Volume will be computed by the average end area method.

Payment for all work under this section will be made at the unit price bid per cubic yard for ITEM 211 - FILL CONSTRUCTION which price shall include placing, water, and compaction of fill construction.

SECTION 215 - EARTHWORK FOR OPEN CHANNELS: Earthwork for open channels shall consist of excavation and grading of a retention area under the floodway bridge and drainage ditches to the lines and grades as shown on the plans in accordance with Section 215 of the Uniform Standard Specifications.

Material excavated under this item may be used for roadway embankment provided that it meets the requirements of SECTION 210 - BORROW EXCAVATION. Surplus material or material that is determined to be unsuitable for use in roadway embankments shall be disposed of within the R.W.C.D. Floodway Channel right-of-way where designated on the plans. Material that is disposed of in this manner shall be spread evenly to a maximum depth of not over ten (10) feet, and shall be done in the manner that will not block or divert the natural drainage.

The contractor must maintain the flow capability of the existing R.W.C.D. Channel at all times.

Payment for all work under this section will be made at the contract unit bid per cubic yard for ITEM 215 - CHANNEL EXCAVATION, which price shall include excavation, grading, and disposal of excess material excavated from the R.W.C.D. Floodway Channel as indicated on the plans.

SECTION 301 - SUBGRADE PREPARATION: Subgrade preparation shall consist of shaping the roadway subgrades to the grades and cross-sections for the approach roadways as shown on the plans and in accordance with Section 301 of the Uniform Standard Specifications. This item shall also include all work necessary for the construction of ditches, any excavation, filling, grading, shaping and miscellaneous grading work between the back of curb or edge of pavement and the right-of-way or construction easement. Pavement removal shall be included in Section 350 - REMOVAL OF EXISTING IMPROVEMENTS.

Subsection 301.3 - RELATIVE COMPACTION, should be modified as follows:

- | | |
|------------------------------------|------------|
| (B) Other streets and traffic ways | 95 percent |
| (c) Curbs, gutters and sidewalks | 90 percent |

Payment for all work under this section shall be included in ITEM 301 - SUBGRADE PREPARATION.

SECTION 310 - UNTREATED BASE: Aggregate Base shall conform to the requirements of Section 702 of the Uniform Standard Specifications. Aggregate Base shall be crushed in accordance with Section 702.2.

The Contractor will be required to furnish the Engineer certified weight tickets covering all of the Select Material and Aggregate Base placed on the project. Final pay quantities will be based upon the scale tickets accepted by the Engineer.

SECTION 315 - BITUMINOUS PRIME COAT: The bituminous material shall be Grade MC-70 or MC-250 liquid asphalt. Prime coat shall be applied at the rate of 0.4 gallon per square yard unless otherwise specified by the Engineer. The Engineer shall determine whether prime coat will be used.

SECTION 321 - ASPHALT CONCRETE PAVEMENT: Asphalt concrete pavement shall consist of furnishing and placing a plant-mixed asphalt concrete base course and asphalt concrete road surfacing material to the compacted thickness shown on the plans and in accordance with Section 321 of the Uniform Standard Specifications.

Bituminous material shall be AR-4000 paving asphalt conforming to Section 710 and 711 of the Uniform Standard Specifications or AC-30 complying with ADOT Table 705-1 as modified October 16, 1981.

The mineral aggregate shall meet the grading requirements within the range of the specified tolerances for Mix-Designation B-1 or E-3/8 in accordance with Section 710 of the Uniform Standard Specifications and Maricopa County Highway Department Supplement to the Uniform Standard Specifications. A tack coat will be required and payed for under this section.

The work shall fully comply with Section 321 except that no mineral filler or blending sand will be required.

In addition to pugmill type mixing plants, drum dryer mixers will be allowed in accordance with the Uniform Standard Specifications Section 710.8. The moisture content of the bituminous mixture immediately behind the paver shall not exceed three percent. If a drum dryer is used, the type of oil shall be AR-8000 or AC-30 as specified above.

The proper proportioning of the material at the cold feed shall be determined by the Contractor and approved by the Engineer prior to the production of asphalt concrete. Production shall not commence until calibration tests indicate that an acceptable product can be obtained.

The correct proportions of each aggregate size introduced into the mixer shall be drawn from the storage bins by an approved type of continuous feeder which shall supply the correct amount of aggregate in proportion to the bituminous material and shall be so arranged that the proportion of each aggregate size can be separately adjusted. The continuous feeder for the aggregate may be mechanically or electrically activated.

The plant shall be equipped with a sampling device to take representative composite samples of the cold feed. If tests indicate non-compliance with specifications, operation shall cease until proper corrections have been made.

The production of the plant shall be governed by the rate required to obtain a thorough and uniform mixture of the materials. Mixing shall continue until the uniformity of coating, when tested in accordance with the requirements of AASHTO T-195, is at least 95 percent.

The Contractor shall furnish certified weight tickets covering all plant-mixed asphalt concrete placed on the project.

Payment for this item will be made at the contract unit price bid per ton for ITEM 321-1 B-1 - ASPHALT CONCRETE, and ITEM 321-2 E-3/8 - ASPHALT CONCRETE SURFACE COURSE, and ITEM 321-3 - BITUMINOUS TACK COAT.

SECTION 340 - CONCRETE CURB AND GUTTER, SIDEWALK AND DRIVEWAYS: Work under this item shall conform to Section 340 of the Uniform Standard Specifications and shall include concrete curb and gutter, concrete sidewalk and concrete driveway entrance.

All concrete shall be Class B and shall conform to Section 725 of the Uniform Standard Specifications.

All concrete items shall conform to the Standard Details and the details shown on the plans.

Payment for these items will be made at the unit price bid per lineal foot for ITEM 340-1 - CONCRETE CURB & GUTTER, and the unit price bid per square foot for ITEM 340-2 - CONCRETE SIDEWALK and ITEM 340-3 CONCRETE DRIVEWAY ENTRANCE.

SECTION 350 - REMOVAL OF EXISTING IMPROVEMENTS: The work under this section shall consist of removing and disposing of any obstacle to construction whether it is shown on the plans or not, unless it is specifically called out on the plans to be removed or relocated by other agencies, and shall be in accordance with Section 350 of the Uniform Standard Specifications.

The removal of the existing asphalt concrete pavement necessary to construct the new pavement shall be included in this item.

The disposal of all waste materials removed under this item shall be the responsibility of the Contractor. The disposal site shall be approved by the Engineer.

If the Maricopa County landfill is selected for disposition of construction waste and/or debris, a Maricopa County Landfill Use Permit will be required. Application for permit can be made at the Maricopa County Landfill Office, located at 3325 West Durango Street, Phoenix Arizona 85009 (Telephone 269-2661). Charges will be levied on a volume basis for each load delivered to the landfill in accordance with the current fee schedule.

Payment for this item will be made at the contract lump sum price bid for ITEM 350 - 1 - REMOVAL OF EXISTING BOX CULVERT, and the contract price bid per square yard for ITEM 350-2 - ASPHALT CONCRETE REMOVAL, and the contract price bid per lineal foot for ITEM 350-3 - CURB AND GUTTER REMOVAL, and the contract bid per square foot for ITEM 350-4 - SIDEWALK REMOVAL, and the contract bid price lineal foot for ITEM 350-5 - CHAIN LINK FENCE REMOVAL.

SECTION 401 - TRAFFIC CONTROL: Traffic control shall conform to the applicable paragraphs of Section 401 of the Uniform Standard Specifications, the City of Mesa requirements and as specified herein.

Broadway Road is to be closed to all traffic for the duration of the project. The number and types of barricades, signs, delineators, barriers and all other traffic control devices shall be subject to approval. However, approval of traffic control devices and the approval of the Contractor's method of application of all traffic control measures shall not relieve the Contractor of the responsibility of protecting the work, the workmen and the traveling public.

All necessary signs and barricades shall remain three working days beyond acceptance of the project by the Owner.

Payment for providing and maintaining traffic control will be at the lump sum bid price in the proposal. Such prices shall include all traffic control devices and traffic control measure, such as warning and control signs, barricades, lighting devices, paint striping, delineators, flagmen and other appurtenant items related to traffic control and safety.

SECTION 502 - DRILLED SHAFT FOUNDATIONS:

DESCRIPTION

The work under this section shall include furnishing all materials and constructing reinforced concrete shafts formed within a drilled excavation. Each drilled shaft foundation shall consist of a shaft section with or without casing left in place, as directed or specified, with or without a rock socket or a belled footing, and shall be constructed in reasonably close conformity with the details and dimensions shown on the project plans and the requirements of these specifications.

MATERIALS

Concrete shall conform to the requirements of Section 725 for the class and strength of portland cement concrete shown on the project plans. Where concrete is placed in drilled shaft excavations containing bentonite slurry or water, the cement content of the concrete shall be between 658 or 752 pounds per cubic yard and the size of the course aggregate shall not exceed one inch.

Reinforcing steel shall conform to the requirements of Section 727.

Casing may be of unit or sectional construction and shall be of sufficient strength to withstand handling stresses, the pressure of concrete and of the surrounding earth and prevent seepage of water.

CONSTRUCTION REQUIREMENTS:

1. Excavation:

The Contractor shall perform all excavation required for the shafts, rock sockets or belled footings, through whatever substances encountered, to the dimensions and elevations shown on the project plans or required by the site conditions. Unless otherwise shown on the project plans, the maximum deviation from plumb shall be not more than one percent, and the maximum permissible variation of the center axis of any shaft at the top shall be three inches from its project plan location. When bells or rock sockets are required, they shall be excavated so as to form a bearing area of the size and shape shown on the project plans. Blasting methods may be used only with permission of the Engineer and when used shall be so conducted as to avoid disturbance of the formations below or outside the limits of the proposed shaft concrete.

Any excavation beyond the dimensions shown on the project plans, where shells are not used, shall be filled with concrete at the contractor's expense.

The project plans are indicative of anticipated subsurface conditions and depths where satisfactory bearing material may be encountered. The project plans may be used as a guide for the contractor to become familiar with the site subsurface condition but shall not be construed as a warranty of the subsurface condition except at locations actually drilled.

If satisfactory material is not encountered at plan elevation, the bottom of any drilled hole may be lowered, with written approval of the Engineer. Alteration of plan depth will be made to satisfactorily comply with design requirements. Reinforcing steel and concrete shall not be placed in the shaft until this final elevation has been established. Raising of the foundation elevation shall be approved by the Engineer.

When the drilling operation reaches a point where caving conditions are encountered, no further drilling will be allowed until a construction method is employed that will prevent excessive caving and which is acceptable to the Engineer. If steel casing is proposed, the shell shall be clean and shall extend to the top of the drilled shaft excavation. The inside diameter of the casing shall not be less than the specified size of the shaft; otherwise, the size of casing and the size of the drilled shaft in which the shell is to be placed will be left to the discretion of the contractor.

Casing specified on the project plans to be left in place shall be installed in such manner that there will be no voids between the earth and the casing.

If the use of drilling slurry is to be employed, either with or without the use of casing, the contractor shall use a method of construction which will allow completion of the drilled shaft in a continuous manner without any mixing of concrete and drilling slurry.

Material excavated from shafts and bells and not incorporated elsewhere on the project shall be disposed of as directed by the Engineer.

2. Drilling Slurry:

When slurry is used by the contractor to maintain an excavation, the contractor shall provide for a specialist, experienced in slurry drilling, to design and monitor the slurry. The slurry shall consist of a stable suspension of commercial bentonite in water. The contractor's specialist shall submit slurry design criteria, including density, viscosity, shear strength, Ph, and suspended sand content, for drilling and concrete placement operations to the Engineer for review prior to commencement of any slurry drilling. During the drilling operations, the contractor shall monitor the properties of the slurry for conformance to the submitted design criteria. The density of the slurry shall be the minimum required to maintain the excavation.

Just prior to placement of the reinforcing steel, the contractor shall conduct tests on the slurry, including samples obtained from the bottom of the excavation, to establish conformance to the submitted criteria. The consistency of the slurry shall be adjusted as required to maintain the excavation and to provide a suitable environment for the concreting operation. Unless otherwise specified on the project plans, at the time of concrete placement the density of the slurry shall not exceed 75 pounds per cubic foot and the viscosity of the slurry shall not exceed 90 seconds per quart as measured by the Marsh Funnel Method.

The slurry shall be mixed in an approved mixer before being placed into the excavation. No dry material will be allowed to be placed in the excavation and mixed with water by the drilling auger.

Slurry shall be fed into the excavation as drilling progresses, keeping the holes filled to the top or maintained within any casing.

The contractor shall be responsible for the slurry design and control as well as the resulting drilled shaft foundation produced by this method.

3. Inspection:

After completion of the drilled shaft excavation and prior to placement of the reinforcing steel cage and concrete, the drilled shaft shall be inspected and approved by the Engineer. The contractor shall provide suitable equipment for the engineer to inspect the completed foundation excavation and check the minimum dimensions and alignment of the drilled shafts.

Any sloughage or other loose material shall be machine cleaned from the shaft prior to placing reinforcing steel concrete. An accumulation of loose soils, muck, etc., at the bottom of the excavation will not be allowed at the time of placing steel or concrete.

4. Reinforcing Steel:

The reinforcing steel cage for the drilled shaft, consisting of longitudinal bars and lateral ties shall be completely assembled and placed into the shaft as a unit. The reinforcing steel unit shall not be placed until immediately before concreting operations are to be started and shall be placed in accordance with the details shown on the project plans.

The reinforcing cage shall be adequately supported and anchored to prevent movement from the required location during and for four hours after completion of concrete placement. Spacers shall be at sufficient intervals along the shaft to insure concentric spacing for the entire length of shaft. The type of spacer used shall be approved by the Engineer.

If the shaft is lengthened and the project plans indicate full depth reinforcement, the bars in the lower portion of the shaft shall be extended accordingly, as directed by the Engineer, to the bottom of the hole. These bars may be lap spliced or spliced by butt welding or other connecting procedures approved by the Engineer.

CONCRETE:

1. General:

Concrete shall be placed as soon as possible after completion of excavation of the drilled shaft and the reinforcing steel placement. Concrete placement shall be continuous in the shaft to the top elevations or to construction joint shown on the project plans and shall be in accordance with the requirements of Section 725 and as specified herein.

2. Placement in Dry Excavations:

For placement in dry excavations, concrete shall be placed through a suitable tube or tremie to prevent segregation of materials.

3. Placement under Slurry or Water:

Care shall be taken to ensure that all the fluid and suspended solids are expelled from the hole during concrete placement. In order to prevent contamination of the concrete placed initially, the lower end of the pump pipe shall be provided with a valve or plug. The discharge end of the pump pipe shall always remain between one and three diameters of the drilled shaft below the surface of fluid concrete.

Slurry ejected during concrete placement may be reused provided that it passes through a desander to remove gravel chips or other granular materials. Slurry to be discarded shall be disposed of in a manner approved by the Engineer.

4. Casing Removal:

During removal of any casing, a sufficient head of not less than five feet of fluid concrete shall be maintained above the bottom of the casing except at the top of the shaft. All contaminated concrete shall be removed from the shaft. If any upward movement of the concrete and/or reinforcing steel occurs at any time during the pulling operation, the following criteria shall govern:

- (a) If the upward movement is one inch or less, the casing may continue to be pulled provided no further movement occurs and if the concrete is vibrated or rodded to reconsolidate the concrete. Vibration or rodding shall not be used to attempt to break the casing loose for extraction.
- (b) If the upward movement is greater than one inch, the casing shall be left in place as a permanent sleeve at the contractor's expense. A load test may be required by the Engineer to determine the adequacy and acceptability of the drilled shaft.

5. Method of Measurement:

Drilled shafts will be measured by the linear foot from the completed bottom of the shaft, as directed or established by the Engineer, to the elevation of the top of the shaft as indicated on the project plans. Rock sockets will be considered as being part of the drilled shaft for measurement purposes.

6. Basis of Payment:

The accepted quantities of drilled shaft foundations, measured as provided above, will be paid for at the contract unit price per linear foot for the diameter designated in the bidding schedule, complete in place, including excavation, drilling slurry, metal casing, steel reinforcing, portland cement concrete, and any needed forming, curing and finishing. No additional payment will be made for belled sections, rock sockets or for metal casing that is to remain in place, under ITEM 502 - DRILLED SHAFT FOUNDATIONS.

SECTION 520 - PEDESTRIAN HANDRAIL: The work under this section consists of the construction of a pedestrian rail on the bridge deck and abutments as shown on the plans and in accordance with Section 520 of the Uniform Standard Specifications.

Payment for this item will be made at the contract unit price bid per lineal foot for ITEM 520-1 - PEDESTRIAN HANDRAIL.

SECTION 745 - PVC PIPE AND FITTINGS: All polyvinyl chloride (PVC) conduit shall conform to SECTION 745 except payment shall be incidental to the cost of providing concrete walks and barriers.

SECTION 770 - STRUCTURAL STEEL: All structural steel shall conform to SECTION 770 except payment shall be incidental to reinforced concrete.

CONTRACT FCD 84-28

THIS AGREEMENT, made and entered into this _____ day of _____, 19 __, by and between _____

of the City of _____, County of _____, State of _____, party of the first part, hereinafter designated the CONTRACTOR, and the FLOOD CONTROL DISTRICT OF MARICOPA COUNTY, acting by and through its BOARD OF DIRECTORS, a political subdivision of the State of Arizona, a body politic with corporate power, party of the second part, hereinafter designated OWNER.

WITNESSETH: That the said Contractor, for and in consideration of the sum to be paid him by the said Owner, in the manner and at the time hereinafter provided, and of the other covenants and agreements herein contained, and under the penalties expressed in the bonds provided, hereby agrees, for himself, his heirs, executors, administrators, successors, and assigns to as follows:

ARTICLE I-SCOPE OF WORK: The contractor shall furnish any and all labor, materials, equipment, transportation, utilities, services and facilities required to perform all work for the construction of Project No. FCD 84-28, Broadway Road Bridges (Canal and Floodway) and to completely and totally construct the same and install the material therein for the Owner, in a good and workmanlike and substantial manner and to the satisfaction of the Owner through its Engineers and under the direction and supervision of the Engineer, or his properly authorized agents and strictly pursuant to and in conformity with the Plans and Specifications prepared by the Engineers for the Owner, and with such modifications of the same and other documents that may be made by the Owner through the Engineer or his properly authorized agents, as provided herein.

ARTICLE II-CONTRACT DOCUMENTS: The Invitation for Bids, Plans, Standard Specifications and Details, Special Provisions, Addenda, if any, and Proposal, as accepted by the BOARD OF DIRECTORS, Performance Bond, Payment Bond, Certificates of Insurance, and Change Orders, if any, are by this reference made a part of this Contract to the same extent as if set forth herein in full.

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 within forty (40) days after final inspection and acceptance of the work.

IN WITNESS WHEREOF: Four (4) 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.

The Contractor agrees that this Contract, as awarded, is for the stated work, and understands that payment for the total work will be made on the basis of the indicated amount(s), as bid in the Proposal.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PARTY OF SECOND PART

By: _____
Chairman, Board of Directors

Date: _____

RECOMMENDED BY:

ATTEST:

Chief Engineer and General Manager
Flood Control District
of Maricopa County

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: _____

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, 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 the
Obligee, dated the _____ day of _____, 19____, for _____

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 moneys 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 were copied at length herein.

The prevailing party or any party which recovers judgment 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 _____, 19____.

PRINCIPAL SEAL

AGENCY OF RECORD

BY: _____

AGENCY ADDRESS

SURETY SEAL

BY: _____

POWER OF ATTORNEY SEAL

BY: _____

CONTRACT NO. FCD 84-28
PAYMENT BOND

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 the
Flood Control District of Maricopa County, dated the _____ day of _____
_____, 19____, for _____

_____ 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 were 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 _____, 19____.

AGENCY OF RECORD

PRINCIPAL

SEAL

By: _____

AGENCY ADDRESS

SURETY

SEAL

BY: _____

CONTRACT NO. FCD 84-28
PERFORMANCE BOND

POWER OF ATTORNEY

SEAL

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CERTIFICATE OF INSURANCE

CONTRACT FCD 84-28

PROJECT TITLE _____

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

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	
	<input checked="" type="checkbox"/> COMPREHENSIVE GENERAL 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 \$1,000 each occurrence \$5,000 PROPERTY DAMAGE \$1,000 OR BODILY INJURY AND PROPERTY DAMAGE Combined \$5,000	
	<input checked="" type="checkbox"/> COMPREHENSIVE AUTO 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				

The Flood Control District of Maricopa County is added as an additional insured as respects work done for the District by the named insured as required by statute, contract, purchase order or otherwise requested. 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 fifteen days written notice to the District. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

NAME AND ADDRESS OF CERTIFICATE HOLDER
 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, 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 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 sole negligence of the Flood Control District of Maricopa County. The above cost of damages incurred by the Flood Control District of Maricopa County or any of its departments, agencies, officers or employees shall include in the event of an action, court costs, expenses for litigation and reasonable attorney's fees.

Date _____ Contractor _____