

If you plan to submit a bid directly to the Department of Transportation

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

REQUESTS FOR AUTHORIZATION TO BID

Contractors downloading and/or ordering CD-ROM's and are wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) and the ORIGINAL, signed and notarized, "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID? When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization form within a reasonable time of complete and correct original document submittal should contact the department as to status. This is critical in the week before the letting. These documents must be received three days before the letting date. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS: It is the contractor's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum will be placed with the contract number. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidder check IDOT's website <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT is not responsible for any e-mail related failures.

Addenda Questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or garmantr@dot.il.gov.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	(217)782-3413
Preparation and submittal of bids	(217)782-7806
Mailing of plans and proposals	(217)782-7806
Electronic plans and proposals	(217)524-1642

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated the addendum and/or revision prior to submitting their bid. Failure by the bidder to include an addendum could result in a bid being rejected as irregular.

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RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting August 5, 2005

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.
(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

Notice To Bidders, Specifications, Proposal, Contract and Contract Bond



Illinois Department
of Transportation

Springfield, Illinois 62764

Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
District 8 Construction Funds
Route FAI 55/70

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included.

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Proposal Forms and Plans" he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Proposal Denial and/or Authorization Form**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

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Mailing of CD-ROMS	217/782-7806

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

for the improvement identified and advertised for bids in the Invitation for Bids as:

Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
Route FAI 55/70
District 8 Construction Funds

Intelligent Transportation System 1-A permanent communication devices on I-55/70 from IL Route 111 in Collinsville to district Traffic Management Center.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.

8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 76966

State Job # - C-98-135-05
 PPS NBR - 8-82952-0800
 County Name - MADISON- ST CLAIR-
 Code - 119 - 163 -
 District - 8 - 8 -
 Section Number - D8 ITS2006-1

Project Number

Route
 FAI 55/70

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
XX005229	VIDEO TRANSM SYSTEM	L SUM	1.000				
X0322227	CCTV CAMERA SYSTEM	EACH	1.000				
X0322343	LOCATE EX DRAIN STR	EACH	20.000				
X0322925	ELCBL C TRACER 14 1C	FOOT	25,637.000				
X0323150	JUN BX AL AS 18X18X10	EACH	4.000				
X0324592	2070 CONTROLLER	EACH	4.000				
X0325066	2955 LAYER 2 SWITCH	EACH	4.000				
X0325067	3550-12G LAY 3 SWITCH	EACH	2.000				
X0325068	5483 GBIC SWITCH	EACH	2.000				
X0325069	5486 GBIC SWITCH	EACH	8.000				
X0325070	CB VEH DET 3/4 LANE	EACH	1.000				
X0325071	CB VEH DET 3 LANE	EACH	3.000				
X0325072	MOD EX CONTR CAB TY A	EACH	3.000				
X0325073	MOD EX CONTR CAB TY B	EACH	1.000				
X0325074	TRAF DATA COLLECT SYS	L SUM	1.000				

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Project Number

Route
 FAI 55/70

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0325075	CONDUIT ATT STR 4 FBR	FOOT	60.000				
X0325076	WIDE AREA NETWORK	L SUM	1.000				
X0325077	FIB OPT UTILIT MARKER	EACH	110.000				
X8100065	CON T 4 PVC TY C	FOOT	25,637.000				
X8102020	CON P 4 PVC SCHED 80	FOOT	1,365.000				
X8110128	CON AT ST 4 PVC TY C	FOOT	710.000				
X8305420	LP S 45 W/CAM LOW	EACH	1.000				
X8360100	LIGHT POLE FDN 28D	FOOT	7.500				
X8710075	FO CAB C 72 SM FO	FOOT	27,748.000				
X8730050	ELCBL C SERV 2 3C COP	FOOT	1,807.000				
X8730312	EC C LEAD 18 4C TW SH	FOOT	8,484.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
67000400	ENGR FIELD OFFICE A	CAL MO	6.000				
67100100	MOBILIZATION	L SUM	1.000				
70100305	TRAF CONT-PROT 701400	L SUM	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
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 CONTRACT
 NUMBER -

76966

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 County Name - MADISON- ST CLAIR-
 Code - 119 - 163 -
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Project Number

Route
 FAI 55/70

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70101500	TC-PROT 701406 SPL	EACH	1.000				
80300100	LOCATE UNDERGR CABLE	FOOT	14,126.000				
80500100	SERV INSTALL TY A	EACH	1.000				
81012600	CON T 2 PVC	FOOT	260.000				
81012800	CON T 3 PVC	FOOT	1,875.000				
81018700	CON P 3 GALVS	FOOT	650.000				
81400400	CONC HANDHOLE	EACH	57.000				
81400600	CONC DBL HANDHOLE	EACH	17.000				
81500200	TR & BKFIL F ELECT WK	FOOT	27,772.000				
86300305	CONT CAB TYPE III SPL	EACH	1.000				
87100105	FO CAB C 62.5/125 4F	FOOT	92.000				
87301125	ELCBL C SIGNAL 12 3C	FOOT	102.000				
87301505	ELCBL C LEAD 18 1PR	FOOT	102.000				
87800210	CONC FDN TY D SPL	FOOT	3.500				
87900100	DRILL EX FOUNDATION	EACH	8.000				

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 SCHEDULE OF PRICES
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 Code - 119 - 163 -
 District - 8 - 8 -
 Section Number - D8 ITS2006-1

Project Number

Route

FAI 55/70

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87900200	DRILL EX HANDHOLE	EACH	23.000				

CONTRACT NUMBER

76966

THIS IS THE TOTAL BID

\$ _____

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.**
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.**
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.**
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.**

RETURN WITH BID

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any state agency from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$150,700.00. Sixty percent of the salary is \$90,420.00.

RETURN WITH BID

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

H. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

RETURN WITH BID

I. Insider Information

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

A. The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

RETURN WITH BID

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

E. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

F. Drug Free Workplace

1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

G. Debt Delinquency

1. The Illinois Procurement Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

I. ADDENDA

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

TO BE RETURNED WITH BID

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

C. Disclosure Form Instructions

Form A: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may sign the following certification statement indicating that the information previously submitted by the bidder is, as of the date of signature, current and accurate. The Certification must be signed and dated by a person who is authorized to execute contracts for the bidding company. Before signing this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder signs the Certification, the Bidder should proceed to Form B instructions.

CERTIFICATION STATEMENT

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

(Bidding Company)

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative

Date

Form A: For bidders who have NOT previously submitted the information requested in Form A

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$90,420.00? YES ___ NO ___
3. Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? YES ___ NO ___

(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. *Note: Signing the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, signed and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the signature box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

- The bid submitted for letting item _____ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form A
Financial Information &
Potential Conflicts of Interest
Disclosure**

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$10,000, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$90,420.00 (60% of the Governor's salary as of 7/1/01). **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):
% or \$ value of ownership/distributable income share: _____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH BID/OFFER

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60 % of the Governor's salary as of 7/1/01) provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the salary of the Governor as of 7/1/01) are you entitled to receive (i) more then 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.

Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.

Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.

Yes ___ No ___

RETURN WITH BID/OFFER

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by: _____
Name of Authorized Representative (type or print)

Completed by: _____
Title of Authorized Representative (type or print)

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative Date _____

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT
OF TRANSPORTATION

Form B
Other Contracts &
Procurement Related Information
Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___

If **“No” is checked**, the bidder only needs to complete the signature box on the bottom of this page.

2. If “Yes” is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE SIGNED

Name of Authorized Representative (type or print)	

Title of Authorized Representative (type or print)	
_____	_____
Signature of Authorized Representative	Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

**Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
Route FAI 55/70
District 8 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.

B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
- Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
- Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

**Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
Route FAI 55/70
District 8 Construction Funds**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

Firm Name _____
(IF AN INDIVIDUAL) Signature of Owner _____
Business Address _____

Firm Name _____
By _____
(IF A CO-PARTNERSHIP) Business Address _____

Name and Address of All Members of the Firm:

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____
(IF A CORPORATION) Attest _____
Signature _____
(IF A JOINT VENTURE, USE THIS SECTION
FOR THE MANAGING PARTY AND THE
SECOND PARTY SHOULD SIGN BELOW) Business Address _____

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____
(IF A JOINT VENTURE) Attest _____
Signature _____
Business Address _____

If more than two parties are in the joint venture, please attach an additional signature sheet.



RETURN WITH BID

Division of Highways
Proposal Bid Bond
(Effective November 1, 1992)

Item No.
Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We
as PRINCIPAL, and

held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, That Whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the Department; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this day of A.D.,

PRINCIPAL SURETY
(Company Name) (Company Name)
By: (Signature & Title) By: (Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
COUNTY OF

I, a Notary Public in and for said County, do hereby certify that
and

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this day of, A.D.

My commission expires
Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# Company/Bidder Name Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

**Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
Route FAI 55/70
District 8 Construction Funds**



Illinois Department of Transportation



NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., August 5, 2005. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.

2. **DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 76966
MADISON County
Section DIST 8 ITS 2006-1
Route FAI 55/70
District 8 Construction Funds**

Intelligent Transportation System 1-A permanent communication devices on I-55/70 from IL Route 111 in Collinsville to district Traffic Management Center.

3. **INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Timothy W. Martin, Secretary

BD 351 (Rev. 01/2003)

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted March 1, 2005

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-02) (Revised 3-1-05)

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2002, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 55-70; Section Dist 8 ITS 2006-1; Madison County; Contract No. 76966 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

PROJECT OVERVIEW

This project is part of the regional Intelligent Transportation System. The equipment deployed as part of this project will provide IDOT the ability to monitor and verify traffic conditions on the urban interstate system. The images and data gathered by this equipment will also be shared with the Missouri Department of Transportation and will be made available to the public via an internet web-site.

As part of this project, one (1) new color camera will be installed with pan, tilt, and zoom capabilities and will be mounted on a new camera lowering system steel pole on I-55/70 at .27 Miles east of Sand Prairie Lane. Also, four (4) existing cameras' telecommunications will be transferred to the new communications backbone constructed with this project. Five (5) conduit based vehicle detection stations will be installed to measure traffic conditions including volume, occupancy, and speed. The images and data will be transmitted from the communications cabinets to the fiber backbone and into the Traffic Management Center (TMC) located at 1102 Eastport Plaza Drive, Collinsville, IL. The images will then go through a matrix switch and will be displayed on one of the 8 existing color LCD monitors at the District 8 TMC.

The equipment suppliers must have a minimum of three years direct manufacturing experience in surveillance camera system and or conduit based vehicle detection, and will be required to establish a record of proven field service for the system's hardware and software being provided for this contract. The equipment supplier also must have installed at least one system of the type to be provided for this contract that has demonstrated at least one year of satisfactory operation prior to the letting of this contract. The system hardware and copyrighted software to be provided by this contract shall have been fully operational for a period of at least three months prior to the letting date of this contract. The equipment supplier shall furnish the Department with the location of the system(s) and the persons responsible, who shall be available for discussion and/or recommendation.

The manufacturer of the Intelligent Transportation System equipment must have product liability insurance of not less than \$5 million in effect at the time of bid.

LOCATION OF PROJECT

The project involves a 4.5 mile stretch of I-55/70 from approximately milepost 5.9 to milepost 10.5 directly in front of Illinois Department of Transportation building. There are four proposed conduit-based vehicle detection stations, one proposed CCTV camera locations, and four existing CCTV locations. Also, a complete fiber optic backbone communications system to bring all of the proposed and existing ITS elements back to the TMC center.

The proposed conduit-based detection systems are located at the following:

- I-55/70 0.5 Miles west of IL 111 # - 557005.9A.27D
- I-55/70 0.6 Miles east of IL 111 # - 557007.0A.28D
- I-55/70 0.27 Miles east of Sand Prairie Lane # - 557008.0A.29D
- I-55/70 @ Fairmont Lane # - 557009.1A.30D

The proposed CCTV camera location is at the following:

- I-55/70 .27 Miles east of Sand Prairie Lane # - 557008.0A.39C

The existing CCTV camera locations are at the following:

- # - 557005.9A.20C
- # - 557007.0A.21C
- # - 557009.1A.22C
- # - 025524.7A.23C

The Fiber Optic Backbone will go from the communications cabinet at milepost 5.9 along the south side of I-55/70. It will cross under I-55/70 just west of I-255 where it will continue along the north side of I-55/70 to mile post 10.5. At milepost 10.5 it will cross under Eastport Plaza Drive (owned and maintained by the City of Collinsville, call Mike Tongarelli @ 618-410-5542 for permit issues) to the northeast side of the IDOT/Illinois State police complex, before entering into the Illinois State Police communications vault and into the IDOT TMC.

DESCRIPTION OF PROJECT

This work shall consist of installing:

- Four new conduit based vehicle detection systems
- One new CCTV camera system
- Fiber Optic Backbone communications system with cabinets and termination equipment into the TMC

PAYROLLS AND PROCEDURES

Effective: 2/5/1975

Revised: 11/7/1986, 1/14/ 1994, and June 2001

The prime contractor and each subcontractor shall submit a weekly certified original and one copy of their company's payroll directly to the District Engineer.

Payrolls must be received within seven days of the payroll ending period.

Payroll data shall be submitted on Payroll Form RE 48 or an approved facsimile.

Every person paid by a contractor or subcontractor in any manner for his or her labor in the construction, prosecution, completion, or repair of this public work is **employed** and receiving “wages”, regardless of any contractual relationship alleged to exist between him or her and the real employer.

Payroll data shall include all persons employed on the job site.

The following employee codes are to be used to identify each individual on the payroll:

- A. **Gender:** M - Male F - Female
- B. **Ethnic Group:** 1 - White 2 - Black 3 - Hispanic
4 - American Indian/Alaskan Native 5 - Asian/Pacific Islander
- C. **Work Classification:** OF - Officials SU - Supervisors FO – Foremen
CL - Clerical CA - Carpenters EO - Operators ME – Mechanics
TD - Truck Drivers IW - Ironworkers PA - Painters CM - Cement Masons
EL - Electricians PP - Pipefitters TE - Technical LA – Laborers
OT - Other
- D. **Employee Status:** O - Owner Operator J - Journeyman C – Company
A - Apprentice T - Trainee

Payroll data shall be submitted by the prime contractor and each subcontractor for each consecutive week, from the start to the completion of their work. When there has been no activity during a work week, a payroll is still required to be sent to the District Engineer, with the appropriate box (“No Work”, “Suspended”, “Completed”) checked at the bottom of the Payroll Form RE 48. Do Not check any of these boxes when payroll data is being reported on the payroll.

The Department of Transportation is requesting disclosure of information necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act. Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

Compliance with this Special Provision shall be considered incidental to the cost of the contract and no additional compensation will be allowed for any costs incurred.

This Special Provision must be included in each subcontract agreement.

MONTHLY LABOR SUMMARY AND ACTIVITY REPORTING SYSTEM

Effective: 1-1-1995

Revised June 2001

- I. Monthly Labor Summary Report, Form SBE 148

The prime contractor and each first and second tier sub-contractor, (hereinafter referred to as "subcontractor") shall submit a certified Monthly Labor Summary Report directly to the District Engineer.

This report is in lieu of submittal of the Monthly Workforce Analysis Report, Form SBE 956.

This report must be received in District Eight no later than the tenth day of the next month.

This Report shall be submitted by the prime contractor and each subcontractor, for each consecutive month, from the start, to the completion of their work on the contract.

The data source for this Report will be a summation of all personnel and hours worked on each subject contract for the month based on weekly payrolls for that month.

The Monthly Labor Summary Report is required to be submitted in one of the following formats:

- a.) For contractors having IDOT contracts valued in the aggregate at \$250,000 or less, the report may be typed or clearly handwritten using Form SBE 148 for submittal to the District Engineer for District Eight.
- b.) For contractors having IDOT contracts valued in the aggregate at more than \$250,000, the report must be submitted in a specific "Fixed Length Comma Delimited ASCII Text File Format". The subject file format is detailed on the next page. Submittal of this file may be by 3.5 inch disk, modem, or by e-mail.

II. Monthly Contract Activity Report, Form SBE 248

The prime contractor and each subcontractor shall submit a monthly report directly to the District Engineer reflecting their contract activity on all Illinois Department of Transportation contracts they have in force in District Eight.

This report shall be submitted for each consecutive month, from the start, to the completion of all contracts in District Eight.

The report must be received in the District Office no later than the tenth day of the next month.

Monthly Labor Summary and Activity Reporting System Codes and Formats

Indicated below for your reference are the Employee Codes and File Formats required for this system.

I.) Monthly Labor Summary Report, Form SBE 148

The following employee codes are to be used to identify each individual on the Summary Report:

- 1. **Gender:** **M** - Male **F** - Female
- 2. **Ethnic Group:** **1** - White **2** - Black **3** - Hispanic
 4 - American Indian/Alaskan Native **5** - Asian/Pacific Islander

The Department of Transportation is requesting disclosure of information necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act. Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

Compliance with this Special Provision shall be considered incidental to the cost of the contract and no additional compensation will be allowed for any costs incurred.

This Special Provision must be included in each subcontract agreement.

OFFICE COPY MACHINE

Effective: January 1, 1987

Revised: October 15, 1996

The copier specified in Article 670.02 shall meet the following specifications:

- (1) Edge-to-edge copying.
- (2) Up to 275 mm x 425 mm (11 in x 17 in) size for copy-size capabilities.
- (3) A detachable platen cover in order to copy portions of large-bound documents.
- (4) A cabinet stand for the copier.

TELEPHONE ANSWERING MACHINE

Effective: January 11, 1990

Revised: June 7, 1996

The telephone answering machine specified in Article 670.02 shall meet the following minimum specifications:

- (1) Time/Day Indication - A computerized voice records the date and time that each message is received.
- (2) Beeperless Remote - Any remote touch-tone phone can be used to review all messages by the use of an access code.
- (3) Dual-Cassette System - Pre-recorded and received messages are managed on separate cassettes.
- (4) Conversation Record - The operator can record any phone call.
- (5) Remote Turn-On - Any remote touch-tone phone can be used to turn on the answering machine by the use of an access code.
- (6) Tape-Full Message - The Caller is advised if the message tape is too loaded to record the call.

- (7) Battery Back-Up - The settings and messages are protected from power failures.
- (8) Two-Line Capacity - Projects that have a second phone line through the provision of a 670.05 Engineer's Field Laboratory shall provide a single phone answering machine that services both lines.

Prior to the purchase of this item, the Contractor shall submit specifications for the proposed machine to the Engineer for his approval.

TRAFFIC CONTROL PLAN

Effective: July 12, 1993

Revised: May 12, 1997

Traffic control shall be in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction", the applicable guidelines contained in the "National Manual on Uniform Traffic Control Devices for Streets and Highways", Illinois Supplement to the National Manual of Uniform Traffic Control Devices, these Special Provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the "Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to traffic control:

701001 701101 701106 701400 701406 702001

In addition, the following Special Provision(s) will also govern traffic control for this project:

- Construction and Maintenance Sign Supports
- Flagger Vest
- Penalty During Peak Hours
- Temporary Closure of all Lanes
- Traffic Control and Protection, Standard 701406 (Special)
- Traffic Control Deficiency Deduction
- Work Zone Traffic Control
- Work Zone Traffic Control Devices

PENALTY DURING PEAK HOURS

If the Contractor fails to have all lanes of traffic open during the peak hours of traffic or conducts operations that will impede the flow of traffic during peak hours, a monetary penalty shall be assessed to the Contractor. The penalty shall be \$1000.00 for each 15 minute period or a portion thereof during the peak hours.

TEMPORARY CLOSURE OF ALL LANES

The Contractor will be permitted to close all lanes to traffic on I-55/70 (less than 15 minutes) during non-peak hours 9:00 a.m. to 3:00 p.m. provided the following traffic control requirements are met:

1. Prior approval to the Resident Engineer will be required.
2. Two flaggers will be required at the work site.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701406 (SPECIAL)

A truck-mounted attenuator (TMA) shall be required for crew protection during traffic control set up and removal.

The truck should have an actual weight no less than 11,000 pounds and no greater than 26,000 pounds or as recommended by the TMA manufacturer. The truck should be positioned to allow a roll-ahead distance as follows (or as recommended by the TMA manufacturer):

Stationary operation – 100 ft.
Moving operation – 180 ft.

The TMA shall also have a Type C (48" X 96" (min.)) arrow board attached.

Note: When utilized in a stationary work operation, the truck should be in neutral and the brakes engaged.

A Variable Message Sign board shall be placed in advance of closure of the lane as directed by the Engineer.

During peak hours the lane closure shall be as follows:

No WB lane closure from 6:00 A.M. to 9:00 A.M. on I-55/70
No EB lane closure from 3:00 P.M. to 6:00 P.M. on I-55/70

The cost to pay for this requirement shall be included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, STANDARD 701406 (SPECIAL).

CONSTRUCTION AND MAINTENANCE SIGN SUPPORTS

Effective: April 21, 1981

Revised: October 15, 1996

This work shall be done in accordance with Article 1084.04 of the Standard Specifications and Highway Standard 702001 except as herein modified.

All construction signs mounted on permanent support for use in temporary traffic control having an area of 1 square meter (10 square feet) or more shall be mounted on two 100 mm x 100 mm (4 in x 4 in) or two 100 mm x 150 mm (4 in x 6 in) wood posts.

Type A metal post (two for each sign) conforming to Article 1006.29 of the Standard Specifications may be used in lieu of wood posts. Type A metal posts used for these signs may be unfinished.

This work shall not be measured and paid for but shall be considered incidental to the contract.

STATUS OF UTILITIES TO BE ADJUSTED

NAME AND ADDRESS OF UTILITY	TYPE	LOCATION	ESTIMATED DATE RELOCATION COMPLETED
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NO UTILITIES TO BE ADJUSTED

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Sections 102, 103, and Articles 105.07 and 107.20 of the Standard Specifications for Road and Bridge Construction shall apply.

If any utility adjustment or removal has not been completed when required by the Contractor's operation, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's operations were affected.

LIGHT POLE FOUNDATION

Effective: Unknown

Revised: January 1, 2002

The light pole foundation shall be in accordance with Section 836 of the Standard Specifications except Article 836.03(d) shall be deleted.

MAINTENANCE OF EXISTING ELECTRICAL DEVICES

Effective: Unknown

Revised: October 15, 1996

The existing electrical devices which lie within the construction limits of this project will continue to be the maintenance responsibility of the Illinois Department of Transportation. Electrical devices are defined to mean highway lighting installations, traffic signals, flashing beacons, sign truss illumination units, changeable message signs, motorist aid call boxes, dewatering pumps, speed monitoring devices, traffic volume count stations, wrong way movement detectors, following-too-close monitors, ice/fog detectors or any such devices or facilities the Department may have to maintain.

Any damage or malfunctions of these devices, observed by the Contractor, shall be reported immediately to the Department.

If it is determined by the Engineer that the Contractor is responsible for damage of any type to above-mentioned existing electrical devices, including underground wiring, as a result of negligence or poor workmanship, the Contractor shall be responsible for the repair of these facilities. These repairs shall be accomplished by whatever method the Department deems necessary. In the event the repairs are not made by the Contractor, the Contractor will be required to reimburse the Department for such repairs within 60 days of receiving written notification of said damage.

The Department will continue to maintain the existing electrical devices until such time as the Contractor removes these devices, if required by this contract. Any new, rebuilt, or modernized equipment installed as a requirement of this contract shall be the maintenance responsibility of the Contractor until such time as this equipment is final inspected and found to be installed in a satisfactory manner by the Department. Existing individual equipment not involved with the work of this Contract will continue to be the maintenance responsibility of the Department.

DOCUMENTATION

At the pre-construction meeting, the Contractor shall submit the following items for approval by the Engineer.

- Five complete copies of the manufacturer's descriptive literatures and technical data for the equipment that will be installed on the contract. The descriptive literatures and technical data shall be adequate for determining whether the equipment meets the requirements of the plans and specifications. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.
- Five complete copies of the shop drawings for the surveillance camera system components showing in detail the fabrication thereof and the certified mill analysis on the materials used in the fabrication, anchor bolts and reinforcing materials.

Three (3) operations and maintenance manuals shall be supplied for all equipment and components of this project. The system operator's manual and equipment manuals shall contain as a minimum the Operator's manual which includes:

- Step-by-step system operation instructions
- Theory of system operation
- Explanations and descriptions of data elements
- Recovery procedures to be followed in case of system malfunction
- Procedures for updating all elements of the data base
- Functional descriptions of all equipment in the system

Equipment installation and maintenance manual for each controller, auxiliary device, software, and all other equipment and components provided on this project which includes:

- Technical descriptions of the operation of each system component
- Operation instructions for each type of equipment
- Theory of operation describing the interaction of equipment components and signal flow
- Detailed schematic diagrams
- Wiring diagrams that identify wire tagging used for all electrical connections
- Troubleshooting procedures to assist the maintenance staff in the identification and isolation of malfunctions
- Wiring diagrams for each location's cabinet

The Engineer will review the literature and furnish written approval or rejection to the Contractor within 15 calendar days after receipt of the literature. If the literature is rejected, the Contractor shall resubmit corrected literature within an additional 15 calendar days. Within 10 calendar days after receipt of written approval of any material or equipment, the Contractor shall order such material or equipment and shall furnish a copy of such order to the Engineer.

2070 CONTROLLER

The controller shall be a standard 2070. The controller shall include any software and/or configuration required to generate Volume, Occupancy, Speed, and Classification data, and communicate it via the Ethernet via National Transportation Communications for ITS Protocols (NTCIP).

The 2070 controller shall conform to the Caltrans specification as detailed in the TRANSPORTATION ELECTRICAL EQUIPMENT SPECIFICATIONS (TEES) dated August 16, 2002.

This work will be paid for at the contract unit price each for 2070 CONTROLLER, which price shall be payment in full for furnishing, installing, programming and configuring a 2070 controller, with necessary connections and adjustments for proper operations to the satisfaction of the Engineer.

2070 CONTROLLER (NOT INSTALLED)

This work shall consist of furnishing, providing compatible firmware with 2070 controllers installed on this contract, and testing one (1) 2070 CONTROLLER. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of CONDUIT-BASED VEHICLE DETECTION, THREE-FOUR LANE CONFIGURATION.

DESCRIPTION OF PAN-TILT-ZOOM CAMERA IMAGE AND CONTROL

1. Junction Box

The camera is a Sensormatic Speed Dome Ultra VII Day/Night Enhanced, RAS917LSE or equivalent and is connected to the junction box components. The video image and the camera control are connected to the International Fiber Systems VT 1910 video transmitter/data transceiver (VT/DT) or equivalent with coaxial cable and twisted shielded pair cable, respectively, to convert electric signals to optic signals to minimize radio frequency interference. It receives power from a 110VAC/24VAC transformer with standard cables.

The VT/DT is powered with a 120VAC/12VDC adapter connected to a duplex receptacle. The 120VAC/24VAC transformer is connected to a 15A circuit breaker. The duplex receptacle and the 15A circuit breaker are connected to an EDCO, Inc. SHA-1250 surge arrestor or equivalent.

The junction box is connected to the control cabinet with fiber optic cable from the VT/DT, standard cables for power are connected to the surge arrestor and twisted shielded pair cable are connected to the surge arrestor failure indication relay contacts.

All cables shall be specified to the junction box component and camera requirements.

2. Controller Cabinet

The fiber optic cables from the junction box VT/DT are connected to the International Fiber Systems VR 1910 video receiver/data transceiver (VR/DT) or equivalent to convert optic signals to electric signals. The VR/DT is connected to the Cornet CDX350T digital video encoder (VDE) or equivalent to convert analog signals to digital signals. The DVE is connected to the Cisco Ethernet switch for forwarding to the TMC.

The VR/DT and FOM are powered by 120VAV/12VDC adapters connected to a duplex receptacle. The DVE and Ethernet switch are connected to a duplex receptacle. The VR/DT, DVE and Ethernet switch duplex receptacles are connected to a 20A circuit breaker. A spare ground fault interruptible duplex receptacle is connected to a 15A circuit breaker. The 20A and 15A circuit breakers are connected to an EDCO, Inc. SHA 1250 surge arrestor. Power cables from the surge arrestor are connected to the service installation.

All cables shall be specified to controller cabinet component requirements.

3. District 8 TMC:

The Ethernet WIDE AREA NETWORK comprised of Cisco and Cabletron Ethernet switches is connected to the Cornet CDX350R digital video decoder (DVD) or equivalent. The DVD converts the video image and camera controls from a digital signal to an analog signal. The DVD is connected to the existing video switcher (American Dynamics 1024 Matrix Switcher/Controller System, AD1024R32-16 or equivalent). The video switcher is connected to a total of eight 40" existing color LCD monitors, two keyboard controls (American Dynamics, AD 2088 keyboard control or equivalent), Jupiter Systems Fusion 980 Video Wall Controller, and 360 Surveillance ITS Cameleon camera control software. The DVDs are to be configured to "tune into" the video stream from a corresponding DVE. The DVDs and DVEs will form a married pair. The PTZ signals from the existing video server will be carried by these DVD / DVE pairs and delivered to the existing and new CCTV cameras. The camera system installed on this contract shall be compatible with all existing components of the ITS video and Pan/Tilt/Zoom data.

CLOSED CIRCUIT TELEVISION CAMERA SYSTEM

This work shall consist of furnishing, installing, and placing into operation a closed circuit television camera system. All new equipment shall be compatible and interchangeable with the existing closed circuit television camera system. The Contractor may replace the existing system at no cost to the Department. All work required to modify the existing closed circuit television camera system in order to integrate the new equipment to be installed as referenced below with the existing system is included in the unit cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM. This system shall consist of the following equipment:

1. Color Camera (existing system - Sensormatic Speed Dome Ultra VII Day/Night Enhanced, RAS917LSE)
2. Video Transmitter/Data Transceiver (existing system - INTERNATIONAL FIBER SYSTEMS VT 1910)
3. Video Receiver/Data Transceiver (existing system - INTERNATIONAL FIBER SYSTEMS VR 1910)
4. Digital Video Encoder (existing system – Cornet CDX350T) (provided by IDOT, installed by contractor)
5. Surge Arrestor (existing system - EDCO Inc., model SHA-1250)

The appropriate transformers, circuit breakers, surge arrestors, terminal strips, & receptacles (GFCI) required for a closed circuit television camera system are also included in this pay item.

This work will be paid for at the contract unit price each for CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustments for proper operations to the satisfaction of the Engineer.

COLOR CAMERA

Sensormatic Speed Dome Ultra VII Day/Night Enhanced, RAS917LSE or equivalent. The camera shall include all necessary accessories to provide for complete installation with LIGHT POLE, STEEL, 45 FT. WITH CAMERA LOWRING SYSTEM assembly. All accessories required to successfully complete the installation shall be included in the cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM. The unit includes the features listed below and shall meet the performance requirements listed below:

1. 1/4" Charged Coupled Device image sensor
 2. 230X total zoom
 3. 23X optical zoom
 4. 10X digital zoom
 5. Auto/manual focus control
 6. Auto/manual iris control
 7. Manual Pan/Tilt Speed, 1 degree-100 degree per second (based on zoom position)
 8. Preset Pan/Tilt Speed, 220 degree per second, maximum
 9. 470 lines of horizontal resolution
 10. Sunshield
 11. Manual/Automatic Wide Dynamic Range Modes
 12. Light levels – 0.009 lux in black and white with open shutter
 13. Privacy zone capability where it does not interfere with normal surveillance operations (only blocks out sensitive areas)
 14. Camera must have capability to display direction on monitor (direction the camera is currently pointing and the direction in which it is moving)
 15. Capability of up to 96 preset programmable positions
- A. Environmental Enclosure: The environmental enclosure shall be a Sensormatic ADODH-CLR or equivalent and shall house and protect CCTV camera, lens, and pan and tilt unit from outdoor environment which the assembly must be designed to function in. The enclosure shall be a domed housing and meet or exceed the following requirements:
1. Configuration: The top of the enclosure shall be aluminum. The inside shall be flat black. The bottom of the enclosure shall be clear acrylic. The enclosure shall be fully watertight and weatherproof. No condensation shall develop at any time during the testing period for this contract.

The CCTV camera and zoom lens shall be mounted to insure that the enclosure will not obstruct the field of view of the CCTV camera. Sufficient clearance between the zoom lens extended to its furthest point of travel and the enclosure shall be provided to insure that mirroring will not occur.

The enclosure shall be constructed so as to minimize the effort required to remove the CCTV camera assembly for maintenance.

2. Heater: The enclosure shall be equipped with a heater or heaters controlled by a thermostat. This heater shall be powered at all times, and shall operate independently of the camera. The heater or heaters shall perform such that no condensation shall develop at any humidity level less than the 95%. Condensation shall also not occur at any time due to a sharp increase or decrease relative humidity.
3. Cable Entry and Mounting: Entry into the enclosure by power, composite video output, and remote CCTV camera control and monitor functions shall be via weatherproof UL listed connectors intended for outdoor use.

Each enclosure shall contain the pan and tilt unit within the dome. The enclosure shall provide a means of securely attaching the camera and lens.

B. Pan and Tilt Units: A pan and tilt drive unit shall be supplied as part of the CCTV camera assembly and meet or exceed the following requirements:

1. Configuration: The pan and tilt unit shall be designed for outdoor applications and shall be constructed to allow maintenance of the unit without removal from the CCTV camera field location. All parts shall be corrosion protected.
2. Mechanical: The pan and tilt unit shall have the ability to handle the proposed CCTV camera and lens load within the dome. The unit shall be capable of at least 64 settable and selectable preset position points and have the ability to attach alphanumeric character identification to each scene position point. The unit shall operate as follows:
 - a. Pan (Horizontal): 360 degrees (± 1 degree), at a proportionally variable rate to obtain new position
 - b. Tilt (Vertical): 2 degrees to -90 degrees (± 1 degree) at a proportionally variable rate to obtain new position

The pan and tilt unit shall be equipped with a cable guard to prevent cable entanglement during combined pan and tilt operations.

The mounting base shall be designed for the CCTV camera and lens specified herein.

C. Electrical: The unit shall have an input voltage of 115 VAC

1. Five -amp (10 million cycle rating) limit switches for pan and tilt shall be provided to guard against motor burn-out.
2. The pan and tilt motor shall be two phase induction type, continuous duty with instantaneous reversal operation.

A 3.5 inch length of 1.5-inch NPT threaded pipe fitting for attaching the camera to a mount shall be included with each camera.

The cost of this work will be included in the cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustments for proper operations.

VIDEO TRANSMITTER/DATA TRANSCEIVER

International Fiber Systems VT 1910 or equivalent. Unit includes the features and meets the performance requirements listed below.

1. Fully color compatible
 2. Compatible with Video Receiver/Data Transceiver
 3. Pulse Frequency Modulation
 4. LED Power indicator to indicate presence of input power
 5. Solid state limiters on all power lines which provide for automatic reset
 6. UL Listed
 7. Wavelength - 850 nm
- A. Video
1. 1 volt peak to peak
 2. 5 Hz - 8.0 Hz bandwidth
 3. Less than 5% differential gain
 4. Less than 5% differential phase
 5. Less than 1% tilt
 6. 60 dB signal-noise
- A. Data
1. RS-232, RS-422 compatible
 2. DC-50Kbps data rate
 3. Simplex or Full Duplex operating mode
 4. -40° C to 74°C Operating Temperature
 5. 0% to 95% Relative Humidity

The cost of this work will be included in the cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustments for proper operations.

VIDEO RECEIVER/DATA TRANSCEIVER

International Fiber Systems VR 1910 or equivalent. Unit includes the features and meets the performance requirements listed below.

1. Fully color compatible
2. Compatible with Video Transmitter/Data Transceiver
3. Pulse Frequency Modulation
4. LED Power indicator to indicate presence of input power
5. Solid state limiters on all power lines which provide for automatic reset
6. UL Listed
7. Wavelength: 850 nm

- A. Video
1. 1 volt peak to peak
 2. 5 Hz - 8.0 Hz bandwidth
 3. Less than 5% differential gain
 4. Less than 5% differential phase
 5. Less than 1% tilt
 6. 60 dB signal-noise
- B. Data
1. RS-232, RS-422 compatible
 2. DC-50Kbps data rate
 3. Simplex or Full Duplex operating mode
 4. -40° C to 74°C Operating Temperature
 5. 0% to 95% Relative Humidity

The cost of this work will be included in the cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustments for proper operations.

DIGITAL VIDEO ENCODER

The Contractor is responsible for installing, programming, and providing all ancillary cabling for complete operation and compatibility with the WIDE AREA NETWORK and VIDEO TRANSMISSION SYSTEM. The DEPARTMENT will provide the Cornet CDX350T unit. The following information is provided for information only. This unit includes the features and meets the performance requirements listed below.

- MPEG-1 and MPEG-2 encoding at 3, 4, 6 Mbps (selectable); GOP I, IP, IPB, IPBB support, 30 fps
- 75 ohm BNC Input (Baseband Video)
- Low end-to-end latency < 400 msec.
- Formats compressed video data stream into 1 to 4 T1/E1 or fractional T1/E1 signals
- 10/100 Base-T Ethernet LAN network compatible
- SNMP network management with RMON
- Configuration control via a web browser, control software, Telnet, or console port
- Supports RTP and UDP
- NTSC input
- Minimum of two configurable serial channel RS232 or RS422

The cost of this work will be included in the cost of VIDEO TRANSMISSION SYSTEM, which price shall be payment in full for installing, configuring, programming, and placing into operation the digital video encoder with the video transmission system with all necessary hardware, cabinets, connections and adjustments for proper operations.

SURGE ARRESTOR

Surge Arrestor supplied for this project shall be EDCO Inc., model SHA-1250 or equivalent. It shall be of modular design consisting of a permanently mounted and wired base, and a removable circuit package. It shall be designed, located, and installed in a manner permitting removal and replacement without affecting normal operation.

The cost of this work will be included in the cost of CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustment for proper operations.

FIBER OPTIC CABLE IN CONDUIT, 72 COND. S.M. F.O.

This work shall consist of furnishing and installing fiber optic cable in conduit as indicated on the plans.

The cable shall be Corning Cable Systems type 072EW4-T3100A20 or equivalent (ALTOS fiber optic cable, maximum attenuation of 0.35dB/km at 1310nm, 0.25dB/km at 1550nm).

A minimum of 13 feet of slack cable shall be provided in each handhole and a minimum of 20 feet of slack cable shall be provided for the controller cabinet. The controller cabinet slack cable shall be stored as directed by the Engineer.

Basis of Payment: This work shall be paid for at the contract unit price per foot for FIBER OPTIC CABLE IN CONDUIT, 72 COND. S.M. F.O. which will be payment in full for furnishing and installing all single mode fiber optic cable in conduit.

FIBER OPTIC TERMINATION IN CABINET

This work shall consist of terminating existing fibers, new fibers, and furnishing and installing distribution enclosures in field cabinets or buildings as indicated on the plans. All 72 single mode fibers shall be terminated at each location.

A Corning CCH-04U closet connector housing or equivalent shall be provided at each termination point. 144 SC simplex connectors will be required. 72 single mode fibers from the east and 72 single mode fibers from the west shall be terminated.

Perform appropriate tests and provide documentation according to the FIBER OPTIC CABLE SPLICING, TESTING AND ACCEPTANCE STANDARDS, AND PROCEDURES special provision.

Basis of Payment: This work shall be included in the cost of FIBER OPTIC CABLE IN CONDUIT, 72 COND. S.M. F.O. and FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 4F, respectively, which will be payment in full for terminating all required multi-mode and single-mode fibers, testing, and supplying and installing new distribution enclosures at a cabinet or the TMC building location.

WIDE AREA NETWORK

This work shall consist of installing, configuring and placing into operation the wide area network furnished for this project. Additionally, one standard 19" equipment rack, a Hoffman cabinet (Catalog #EDR19FM45U, P/N 87419953) with cable management on one side of rack only, shall be provided under WIDE AREA NETWORK. The Contractor may replace components of the existing system at no additional cost to the Department. All work required to modify the existing network and in order to integrate the new equipment to be installed as referenced below with the existing system is included in the unit cost of WIDE AREA NETWORK. Any equipment that is to be replaced shall require written authorization by the Engineer. The appropriate wire, cables, and connectors for equipment connection and operation are also included in this pay item. This system shall consist of the following equipment:

- 1) New Cisco 2955 switches
- 2) New Cisco 3550 switches
- 3) Existing Cabletron 2200 switches
- 4) New Hoffman cabinet (Catalog #EDR19FM45U, P/N 87419953) with cable management on one side of rack only

Hoffman cabinet

A Hoffman cabinet (Catalog #EDR19FM45U, P/N 87419953) with cable management on one side of rack only shall be installed at location C2 in the TMC equipment room. The fiber termination panel shall reside in this cabinet.

This work will be paid for at the contract unit price lump sum for WIDE AREA NETWORK, which price shall be payment in full for installing, configuring, programming, and placing into operation the wide area network and 19" equipment rack with all necessary hardware, connections and adjustments for proper operations.

3550-12G LAYER 3 SWITCH

This work shall consist of furnishing and installing a Layer 3 switch. The layer 3 switch shall be a Cisco model number WS-C3550-12G. All components shall be tested and certified that they operate.

This work will be paid for at the contract unit price each for 3550-12G LAYER 3 SWITCH, which price shall be payment in full for furnishing, installing, and testing all equipment.

2955 LAYER 2 SWITCH

This work shall consist of furnishing and installing a Layer 2 switch and 24 VDC power supply. The layer 2 switch shall be a Cisco model number WS-C2955-S12. The 24 VDC shall be rated at 100 Watts or more and shall meet or exceed the environmental performance of the WS-C2955-S12. All components shall be tested and certified that they operate.

This work will be paid for at the contract unit price each for 2955 LAYER 2 SWITCH, which price shall be payment in full for furnishing, testing and delivering all equipment.

5483 GBIC SWITCH

This work shall consist of furnishing and installing a 5483 GBIC. The 5483 GBIC switch shall be a Cisco model number WS-G5483. All components shall be tested and certified that they operate.

This work will be paid for at the contract unit price each for 5483 GBIC SWITCH, which price shall be payment in full for furnishing, testing and delivering all equipment.

5486 GBIC SWITCH

This work shall consist of furnishing and installing a 5486 GBIC. The 5486 GBIC switch shall be a Cisco model number WS-G5486. All components shall be tested and certified that they operate.

This work will be paid for at the contract unit price each for 5486 GBIC SWITCH, which price shall be payment in full for furnishing, testing and delivering all equipment.

3550-12G LAYER 3 SWITCH (NOT INSTALLED)

This work shall consist of furnishing and testing one (1) Layer 3 switch. The layer 3 switch shall be a Cisco model number WS-C3550-12G. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of WIDE AREA NETWORK, which price shall be payment in full for furnishing, testing and delivering all equipment.

2955 LAYER 2 SWITCH (NOT INSTALLED)

This work shall consist of furnishing and testing one (1) Layer 2 switch and 24 VDC power supply. The layer 2 switch shall be a Cisco model number WS-C2955-S12. The 24 VDC shall be rated at 100 Watts or more and shall meet or exceed the environmental performance of the WS-C2955-S12. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of WIDE AREA NETWORK, which price shall be payment in full for furnishing, testing and delivering all equipment.

5483 GBIC (NOT INSTALLED)

This work shall consist of furnishing and testing one (1) 5483 GBIC. The 5483 GBIC switch shall be a Cisco model number WS-G5483. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of WIDE AREA NETWORK, which price shall be payment in full for furnishing, testing and delivering all equipment.

5486 GBIC (NOT INSTALLED)

This work shall consist of furnishing and testing one (1) 5486 GBIC. The 5486 GBIC switch shall be a Cisco model number WS-G5486. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of WIDE AREA NETWORK, which price shall be payment in full for furnishing, testing and delivering all equipment.

VIDEO TRANSMISSION SYSTEM

This work shall consist of installing, configuring and placing into operation the video transmission equipment furnished for this project. The hardware required for the American Dynamics 1024 Matrix Upgrade shall be provided under VIDEO TRANSMISSION SYSTEM. The Contractor may replace components of the existing system at no additional cost to the Department. All work required to modify the existing video system in order to integrate the new equipment to be installed as referenced below with the existing system is included in the unit cost of VIDEO TRANSMISSION SYSTEM. Any equipment that is to be replaced shall require written authorization by the Engineer. The appropriate wire, cables, and connectors for equipment connection and operation are also included in this pay item. This system shall consist of the following equipment:

- 1) Cornet CDX350T Digital Video Encoders (provided by the Department, programmed by contractor)
- 2) Cornet CDX350R Digital Video Decoders (provided by the Department, programmed by contractor)
- 3) New American Dynamics MegaPower 1024 video switch components
- 5) Existing American Dynamics MegaPower 1024 video switch

American Dynamics 1024 Matrix Upgrade

Currently the Level 3.3 bay system is 64 inputs by 48 outputs. 48 outputs is the maximum for three bays. It can be expanded with camera input cards in 16 input increments. One 16 input card is required per bay. In order to expand by 16 inputs the Contractor shall add:

3-AD2016AVIM-4
3-AD2016BP-4

To increase the number of outputs, an additional bay shall be added, creating a Level 4; 4 bay system.

In order to expand to a 64 input by 64 output system the contractor shall add:

- 1-AD2010R Switching bay with power supply (AD2010PS) and Data Buffer Module (AD2010DB)
- 4-AD2024AVOM-1 4 Port Video Output Modules
- 4-AD2024BP-1 Back Panel for AD2024 AVOM
- 4-2016 AVIM-4 16 Port Video Input Modules
- 4-AD 2016BP-4 Back Panel for AD2016 AVIM

This work will be paid for at the contract unit price lump sum for VIDEO TRANSMISSION SYSTEM, which price shall be payment in full for installing, configuring, programming, and placing into operation the video equipment with all necessary hardware, connections and adjustments for proper operations.

DIGITAL VIDEO DECODER

The Contractor is responsible for installing, programming, and providing all ancillary cabling for complete operation and compatibility with the WIDE AREA NETWORK and VIDEO TRANSMISSION SYSTEM. The DEPARTMENT will provide the following Cornet CDX350R unit. This information is provided for information only. This unit includes the features and meets the performance requirements listed below.

- MPEG-1 and MPEG-2 decoding at 3, 4, 6 MbpX (selectable); GOP I, IP, IPB, IPBB support, 30 fps
- Low end-to-end latency <400 msec.
- 10/100 Base-T Ethernet LAN network compatible
- 100 BaseFX (multimode fiber) 62.5 micron mmf (200 Mhz/Km max), launch power-19 dbm (min) at 1310 nm
- 100 BaseFX (singlemode fiber) 9/125 micron smf, launch power, 15dbm (min) at 1310 nm, receiver sensitivity -31dbm (min), receiver saturation -8 dbm (min), fiber interface type LC
- SNMP network management with RMON
- Configuration control via a web browser, control software, Telnet, or console port
- Supports RTP and UDP
- NTSC output
- Minimum of two configurable serial channels RS232 or RS422.

The cost of this work will be included in the cost of VIDEO TRANSMISSION SYSTEM, which price shall be payment in full for installing, configuring, programming, and placing into operation the digital video decoder with the video transmission system with all necessary hardware, cabinets, connections and adjustments for proper operations.

TRAFFIC DATA COLLECTION SYSTEM

This work shall consist of furnishing and installing of Wavetronix DataCollector or equivalent used to collect data from the CONDUIT BASED VEHICLE DETECTION (CBVD) unit's 2070 controller as shown on the plans, as described in this contract, and as directed by the Engineer. Test results and other documentation demonstrating TRAFFIC DATA COLLECTION SYSTEM (TDCS) performance and capabilities shall be provided.

All equipment and component parts furnished shall be new, be of the latest proven design and manufacture, and be in an operable condition at the time of delivery and installation. All parts shall be of high quality workmanship.

All equipment shall include all licenses, where required, for any software or hardware in the system.

All software shall be latest version available.

Functional Requirements

The Traffic Data Collection System (TDCS) shall be a server based data collection subsystem. This system should be an off-the-shelf ATMS subsystem appliance that streamlines the collection, management, and dissemination of traffic detector data. The TDCS collects real-time data from advanced traffic detectors and stores this data in a Microsoft SQL Server 2003 database. Distribution of this data is achieved using standard open XML Center-to-Center (C2C) data sharing messages and direct, persistent access to the database if necessary.

Real Time Data Collection

The TDCS shall collect data from up to 50 CBVDs and respective 2070 controller using 20 second time intervals or greater. It will retry up to five times or user defined number of times to get data from the CBVD controller before reporting a communication error. The TDCS shall continue to attempt to collect from a CBVDs controller that has failed to communicate unless the collection process is manually turned off. The TDCS will collect all buffered data from the CBVD controller when the next valid connection is made. The TDCS shall disconnect from the CBVD controller after retrieving data from it.

The TDCS shall display the current communication state of each CBVD as to whether it is currently receiving data, whether there has been an error in receiving data, or the CBVD is not currently being collected from. The user shall have the ability to stop and start data collection from any of the CBVD.

Data Storage

The TDCS shall store all real-time traffic data in a Microsoft SQL Server 2003 database for a minimum of 6 days. The database shall contain count, volume, occupancy, classification, and speed of the real-time data for each lane for each interval. The database shall contain flow direction information for each lane and collection interval for each CBVD. The data schema shall be open and available upon request.

Configuration Information

The TDCS shall provide an automated timer system that retrieves the configuration information from any and all CBVD units assigned to the TDCS. The timer shall run the configuration retrieval process automatically every user-defined time period from 1-24 hours without requiring user input. It shall retrieve location, description, collection interval, serial number, version, and model information. All changes to the configuration shall be updated in the database automatically.

Clock Synchronization

The TDCS shall provide an automated timer system, which synchronizes the clock and any and all CBVD units assigned to the TDCS with the TDCS server time. The timer shall run the synchronization tasks automatically every user-defined time period from 1-24 hours without requiring user input. The clock synchronization performed by the TDCS shall also take into account time zones, allowing it to handle CBVS units that exist in two or more different time zones.

The TDCS shall also provide a method by which the user can at any time run a time synchronization job with any one CBVD unit manually regardless of the current time remaining on the automatic timer. The TDCS shall also provide a method to request and display the current clock of any CBVD unit allowing the user to view the clock of any or all CBVD units attached to the TDCS.

Real Time Data

The TDCS shall retain real-time data from all connected CBVD in a Microsoft SQL Server 2003 standard database. The real-time data shall provide:

- Timestamp
- Sensor ID
- Detection Zone ID
- User defined ID, to allow correlation between a/any/all sensor/zone pairs and external client systems via Exportation or Real-Time Data.
- Collection interval duration
- Volume
- Occupancy
- Speed
- Classification 1 thru Classification 13

Classification 1 thru classification 13 columns are provided for mapping CBVD classifications to FHWA established vehicle classifications.

A CBVD driver shall ensure that collected classification data is entered into the correct TDCS classification column. A CBVD may not provide all 13 levels of classification data, but must ensure that the data levels provided are correctly mapped to the appropriate FHWA classification column.

Exportation of Real Time Data in TMDD Standard Format

The TDCS shall store the traffic data in a Microsoft SQL Server 2003 accessible database and export the data in XML format in compliance with the TMDD Traffic Detector specification as described in "Volume II Companion Annexes – ASN.1 Message Representation & TMDD Data Dictionary."

Communication Via TCP/IP

The TDCS shall communicate over standard TCP/IP based networks for the broadest amount of network compatibility. The TDCS shall also support serial communication by communicating via a serial to TCP/IP converter. The TDCS shall also support either addressing a CBVD by IP address, domain name service, or a sensor mnemonic name.

The TDCS shall collect data from multiple CBVDs that communicate on a single serial communication channel.

Upgradeable to Support Other Vehicle Detection Device Protocols

The TDCS shall allow drivers to be added for other vehicle detection device protocols without having to reinstall or recompile the software elements of the TDCS. The TDCS shall auto detect the presence of new vehicle detection device drivers and make them available for use without rebooting the machine or stopping the collection process. The TDCS shall provide the driver interface description within 6 months time since initial system delivery.

Various Security Levels

The TDCS shall be accessed by a user name/password combination, allowing users with varying levels of privileges to access some or all of the functionality of the TDCS.

Monitoring Capabilities

The TDCS shall provide a list of the CBVD units currently attached to the TDCS as well as their current status and configuration.

Web-Based Interface

The TDCS server shall provide a web-based interface, accessible to any user with a web browser and Internet connection, by means of "Microsoft Remote Desktop Web Connection" which shall be installed as a part of Windows 2003 Server operating System. The "Remote Desktop Web Connection" shall provide an ability to operate the remote TDCS server from within any Win32 based client platform, using Microsoft Internet Explorer (or any other compatible browser). The remotely managed TDCS server will also allow the user to view data queries (using Microsoft SQL Profiler), list the CBVD units currently attached to the TDCS as well as their current status and configuration, perform manual operations such as time synchronizations, configuration updates, or buffer clears, set the timers for automated tasks and add or subtract new CBVD units to and from the TDCS (using the TDCS system itself).

The TDCS server shall be accessible by a user name/password combination. The "Remote Desktop Web Connection" will be added or subtracted from the remote access system, by means of Windows XP administration procedures. The TDCS shall be designed to run as a service such that the system administrator can log off of the system and allow clients to run independently.

Hardware Specifications

The TDCS hardware shall consist of a server with dual 2.8 GHz Xeon processors (or equivalent), Windows 2003 Server operating system (or a more recent version), a minimum of 1 GB of SDRAM memory, an array of three or more RAID 5 fault tolerant, hot swappable, hard drives of no less than 72 GB each, dual power supplies and a dual 100 Mbps Ethernet network card or better. The TDCS shall also be provided with firewall software for security, and remote management software for remote maintenance and upgrades. The Contractor shall also deliver to the Department any software normally bundled, by the vendor, with the TDCS. Microsoft Windows 2003 server "software assurance" 3 yr maintenance warranty plan, and all necessary documentation, shall be included in the cost and provided to the Engineer.

The server shall be physically mounted and installed by the Contractor. The Department's District 8 Bureau of Information Services shall initially install, set-up and configure the Microsoft Windows 2003 software for compatibility with the existing network. The Contractor will then be responsible for installing and configuring all other software to be loaded on this server.

All required cables for power, computer connections, and mounting assemblies shall also be furnished.

All devices shall be approved by Underwriter's Laboratories.

Power Requirements

The TDCS furnished, assembled, fabricated, or installed under this item shall meet all of its specified requirements when the input power is 115 VAC \pm 10%, 60 \pm 3 Hz.

The equipment operation shall not be affected by the transient voltages, surges and sags normally experienced on commercial power lines. It is in the Contractor's responsibility to check the local power service to determine if any special design is needed for the equipment and any necessary modifications shall be included in the cost of the contract.

Experience Requirements

The Contractor or designated subcontractors involved in the installation and testing of the TDCS shall, as a minimum, meet the following requirements:

Three years experience in the installation of TDCS.

Two installed TDCS where systems have been in continuously satisfactory operation for at least 1 year. The Contractor shall submit as proof, photographs or other supporting documents, and the names, addresses and telephone numbers of the operating personnel who can be contacted regarding the system.

The Contractor will be responsible for providing necessary documentation of subcontractor qualifications.

Technical Assistance

The Contractor shall ensure that a manufacturer's technical representative is available on site to assist the Contractor's technical personnel at each installation site and with TDCS equipment installation and communication system configuration.

The initial powering up of the TDCS shall not be executed without the permission of the manufacturer's representative.

Basis of Payment

The work as described above shall be paid for at the contract unit price lump sum for TRAFFIC DATA COLLECTION SYSTEM which price shall be payment in full for furnishing all materials, labor, training, and documentation as described above in order to successfully complete the work.

LIGHT POLE, STEEL, 45 FT. WITH CAMERA LOWERING SYSTEM

General Description

The camera lowering system shall be designed to support and lower the closed circuit television camera, lens, housing, PTZ mechanism, cabling, connectors and other supporting field components included in this contract without damage or causing degradation of camera operations. The camera lowering system device and the pole are interdependent; and thus, must be considered a single unit or system. The lowering system shall consist of a pole, suspension contact unit, divided support arm, and a pole adapter for attachment to a pole top tenon, pole top junction box, and camera connection box. The divided support arm and receiver brackets shall be designed to self-align the contact unit with the pole center line during installation and insure the contact unit cannot twist under high wind conditions. Round support arms are not acceptable. The camera-lowering device shall withstand wind forces of 100mph with a 30 percent gust factor using a 1.65 safety factor. The lowering device manufacturer, upon request, shall furnish independent laboratory testing documents certifying adherence to the stated wind force criteria utilizing, as a minimum effective projected area, the actual EPA or an EPA greater than that of the camera system to be attached. The camera-lowering device to be furnished shall be the product of manufacturers with a minimum of 3 years of experience in the successful manufacturing of camera lowering systems. The lowering device provider shall be able to identify a minimum of 3 previous projects where the purposed system has been installed successfully for over a one-year period of time each. The camera lowering device shall be the [MG]² Model CLDMG2-HYP-045-ST-D or equivalent.

The lowering device manufacturer shall furnish a factory representative to assist the electrical contractor with the assembly and testing of the lowering system onto the pole assembly. The manufacturer shall furnish documentation certifying that the electrical contractor has been instructed on the installation, operation and safety features of the lowering device. The Contractor shall be responsible for providing applicable maintenance personnel "on site" operational instructions and 3 copies of operations and maintenance manual.

Suspension Unit Contact

The suspension contact unit shall have a load capacity 200 lbs. with a 4 to 1 safety factor. There shall be a locking mechanism between the fixed and moveable components of the lowering device. The movable assembly shall have a minimum of 2 latches. This latching mechanism shall securely hold the device and its mounted equipment. The latching mechanism shall operate by alternately raising and lowering the assembly using the winch and lowering cable. When latched, all weight shall be removed from the lowering cable. The fixed unit shall have a heavy duty cast tracking guide and means to allow latching in the same position each time. The contact unit housing shall be weatherproof with a gasket provided to seal the interior from dust and moisture.

The prefabricated components of the lift unit support system shall be designed to preclude the lifting cable from contacting the power or video cabling. The Contractor shall supply internal conduit in the pole for the power and video cabling if required by the Engineer. The only cable permitted to move within the pole or lowering device during lowering or raising shall be the stainless steel lowering cable. All other cables must remain stable and secure during lowering and raising operations.

The female and male socket contact halves of the connector block shall be made of thermosetting synthetic rubber known as Hypalon. The female brass socket contacts and the male high conductivity brass pin contacts shall be permanently molded into the Hypalon body.

The current carrying male contacts shall be 1/8 inches in diameter. There shall be two male contacts that are longer than the rest which will make first and break last providing optimum grounding performance. The number of contacts shall be 14 and the camera mounted thereto, shall be capable of performing all of its necessary functions on 14 contacts or less.

The current carrying female contacts shall be 1/8 inches I.D. All of the contacts shall be recessed 0.125" from the face of the connector. Cored holes in the rubber measuring 0.25" in diameter and 0.125" deep molded into the connector body are centered on each contact on the face of the connector to create rain-tight seals when mated with the male connector.

The wire leads from both the male and female contacts shall be permanently and integrally molded in the Hypalon body. The current carrying and signal wires shall be constructed of #18/1 AWG Hypalon jacketed wire.

The contacts shall be self-wiping with a shoulder at the base of each male contact so that it will recess into the female block, thereby giving a rain-tight seal when mated. The electrical contact connector must meet Mil Spec Q-9858 and Mil Spec I-45208.

Lowering Tool

The camera-lowering device shall be operated by use of a portable lowering tool. The tool shall consist of a lightweight metal frame and winch assembly with cable as described herein, a quick release cable connector, an adjustable safety clutch and a variable speed industrial duty electric drill motor. This tool shall be compatible with accessing the support cable through the hand hole of the pole. The lowering tool shall attach to the pole with one single bolt. The tool will support itself and the load assuring lowering operations and provide a means to prevent freewheeling when loaded. The lowering tool shall be delivered to the Department upon project completion. The lowering tool shall have a reduction gear to reduce the manual effort required to operate the lifting handle to raise and lower a capacity load. The lowering tool shall be provided with an adapter for operating the lowering device by a portable drill using a clutch mechanism. The lowering tool shall be equipped with a positive breaking mechanism to secure the cable reel during raising and lowering operations and prevent freewheeling. The manufacturer shall provide a variable speed, heavy-duty reversible drill motor and a minimum of one lowering tool plus any additional tools required by plan notes. The lowering tool shall be made of durable and corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment. The lowering tool shall be [MG]² Model LWR3-90 or equivalent.

Materials

All pulleys for the camera lowering device and portable lowering tool shall have sealed, self lubricated bearings, oil tight bronze bearings, or sintered bronze bushings. The lowering cable shall be a minimum 1/8-inch diameter stainless steel aircraft cable with a minimum breaking strength of 1740 pounds with (7) strands of 19 wire each.

All electrical and video coaxial connections between the fixed and lowerable portion of the contact block shall be protected from exposure to the weather by a waterproof seal to prevent degradation of the electrical contacts. The electrical connections between the fixed and movable lowering device components shall be designed to conduct high frequency data bits and one (1) volt peak-to-peak video signals as well as the power requirements for operation of dome environmental controls.

The interface and locking components shall be made of stainless steel and or aluminum. All external components of the lowering device shall be made of corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

The camera junction box shall be cast ZA-12 (12% aluminum and 88% zinc) and weigh a minimum of 50 LBS to insure stability of camera during the raising and lowering operation. The camera junction box shall have 2 fully gasketed doors to prevent water intrusion. The bottom of the camera junction box shall be equipped with a condensation/moisture exit system.

The Closed Circuit Television Camera System manufacturer shall provide weights and /or counterweights as necessary to assure that the alignment of pins and connectors are proper for the camera support to be raised into position without binding. The lowering unit will have sufficient weight to disengage the camera and its control components in order that it can be lowered properly.

The Closed Circuit Television Camera System manufacturer shall provide the power and signal connectors for attachment to the bare leads in the pole top and/or camera junction boxes.

The Closed Circuit Television Camera System manufacturer shall provide a mounting flange sufficient for mounting their respective camera assembly to the bottom of the Camera connection box.

Camera Lowering System Steel Pole

Design

Design shall be in accordance with the 1994 AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals." Minimum Loading requirements shall be based on an isotach wind velocity for the area of installation according to 1994 AASHTO isotach wind chart with a 1.3 gust factor. Calculations and detailed drawings shall be submitted demonstrating compliance with the AASHTO specification.

Fabricator

The Fabricator shall be certified under Category I, "Conventional Steel Structures" as set forth by the American Institute of Steel Construction Quality Certification Program. Proof of this certification will be required prior to bid opening to ensure that the fabricator has the personnel, organization, experience, procedures, knowledge, equipment, capability and commitment to fabricate quality pole structures.

The Contractor shall submit shop drawings of the pole/lowering device for approval per Article 105.04 of the Standard Specifications and provide an affidavit from the pole manufacturer assuring that pole will accommodate the installation and operational requirements of the lowering device.

Welding

All welding shall be in accordance with Sections 1 through 8 of the American Welding Society (AWS) D1.1 Structural Welding Code. Tackers and welders shall be qualified in accordance with the code. Tube longitudinal seam welds shall be free of cracks and excessive undercut, performed with automatic processes, and be visually inspected. Longitudinal welds suspected to contain defects shall be magnetic particle inspected. All circumferential butt-welded pole and arm splices shall be ultrasonically or radiographically inspected.

Material Certification

All materials and products shall be manufactured in the United States of America, and comply with ASTM or AASHTO specifications. Mill certifications shall be supplied as proof of compliance with the specifications.

Performance Calculations

The pole shall be designed to support the specified camera and accessories. Close consideration must be given to the effective projected area of the complete lowering system and camera equipment to be mounted on the pole along with the weight when designing the pole to meet the specified deflection performance criteria. The pole top deflection shall not exceed one inch in a 30-mph (non-gust) wind. The calculations shall include a pole, base plate, and anchor bolt analysis. The pole calculations shall be analyzed at the pole base, at 5-ft. pole intervals/segments and at any other critical pole section. At each of these locations, the following information shall be given:

- The pole's diameter, thickness, section modulus, moment of inertia, and cross sectional area.
- The centroid, weight, projected area, drag coefficient, velocity pressure, and wind force of each pole segment.
- The axial force, shear force, primary moment, total moment, axial stress, bending stress, allowable axial stress, allowable bending stress, and combined stress ratio (CSR).
- The pole's angular and linear deflection.

The pole shaft shall conform to ASTM A595 Grade A with minimum yield strength of 55 ksi or ASTM A572 with minimum yield strength of 65 ksi. The shaft shall be round or 16 sided with a four inch corner radius, have a constant linear taper of 0.14 in/ft, and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Longitudinal seam welds within 6 inches of complete penetration pole to base plate welds shall be complete penetration welds. The shaft shall be hot dip galvanized per the requirements of the contract documents.

Handholes

The handhole opening shall be reinforced with a minimum 2-inch wide hot rolled steel rim. The nominal outside dimension is 6 inches x 27 inches. The handhole shall have a tapped hole for mounting the portable winch thereto as shown on the drawings.

Pole Top Tenon

The pole shall have a custom plate mounted tenon that allows the field modification of the arm/camera orientation up to 360 degrees. With this design the DOT Engineer can make slight orientation modifications to the camera mount to allow optimum viewing in case of future road development, change in terrain or a change in the viewing needs priority. The tenon shall have mounting holes and slot as required for the mounting of the camera-lowering system. The tenon shall be of dimensions necessary to facilitate camera lowering device component installation. Each slot shall be parallel to the pole centerline for mounting the lowering device. For details, see applicable drawings.

Cable Supports – Electrical Cable Guides and Parking Stand (Eyebolts)

Top and bottom electrical cable guides shall be located within the pole aligned with each other as referenced in the drawings. One cable guide shall be positioned 2 inches below the handhole and the other shall be positioned 1 inch directly below the top of tenon. A parking stand shall be positioned 2.75 inches below the top of the handhole.

Base Plates

Base plates shall conform to ASTM A36 or A572 Grade 50. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration butt weld with backup bar. Plates shall be hot dip galvanized per the requirements of the contract documents. Base plates shall be Transformer base with breakaway coupling as shown in the detail sheets.

Anchor Bolts

Anchor bolts shall conform to the requirements of ASTM F1554 Grade 55. The upper 12 inches of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts.

Basis of Payment

This work shall be paid for at the contract unit price each for LIGHT POLE, STEEL, 45FT. WITH CAMERA LOWERING SYSTEM, which price shall be payment in full for furnishing and installing the complete system as described above to the satisfaction of the Engineer.

LOWERING WENCH CABLE FOR CCTV LOWERING ASSEMBLY (NOT INSTALLED)

This work shall consist of furnishing and testing one (1) LOWERING WINCH CABLE. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

This work will be paid for at the contract unit price lump sum for LIGHT POLE, STEEL, 45 FT. WITH CAMERA LOWERING SYSTEM, which price shall be payment in full for furnishing, testing and delivering all equipment.

FIBER OPTIC CABLE SPLICING, TESTING AND ACCEPTANCE STANDARDS, AND PROCEDURES

- A. During construction, an Optical Domain Reflectometer (OTDR) shall be used to test splices and shall use an OTDR and a 1-km launch reel (for single mode fiber) or a 300 km launch reel (for multi-mode fiber) to test pigtail connectors. Such construction tests shall be uni-directional and performed at both 1310 nm and 1550 nm for single mode fiber and at 850 nm for multi-mode fiber.
- B. If the loss value of two connectors and the associated pigtail splice exceeds 1dB for single mode fiber or 2 dB for multi-mode fiber, then splice and re-splice until the loss value is 1.0 dB or less, or 2 dB or less, respectively.

- C. If the loss value for a splice, when measured in one direction with an OTDR, exceeds 0.15 dB, break the splice and re-splice until the loss value is 0.15 dB or less, provided that, not able to achieve a loss value of 0.15 dB after three total splicing attempts, then the maximum loss value shall be 0.3 dB.
- D. After end-to-end connectivity has been established on the fibers during construction the following shall be completed:
 - a. bi-directional end-to-end tests
 - b. test continuity to confirm that no fibers have crossed at any splice points
 - c. record loss measurements using a light source and a power meter
 - d. take OTDR traces and record splice loss measurements
- E. Bi-directional end-to-end tests and OTDR traces shall be performed at both 1310 nm and 1550 nm for single mode fiber and at 850 nm for multi-mode fiber. All losses for each splice point shall be measured, verified, and averaged in both directions.

F. OTDR Equipment and Settings

The Contractor shall use OTDR equipment and setting that are in the Engineer's opinion, suitable for performing accurate measurements of the fiber.

G. Acceptance Test Deliverables

The Contractor shall provide data sheets or computer media, in format that is readily accessible to the Department, containing the following information for the relevant fibers and cable segments for approval prior to connecting any fiber optic hardware:

- a. Verification of end-to-end fiber continuity with power level readings for each fiber taken with a light source and power meter.
- b. Verification that the loss at each splice point is below 0.3 dB.
- c. The final bi-directional OTDR test data, with distances.
- d. Cable manufacturer, cable type (buffer/ribbon), fiber type, cable reel number, number and distance of each section of cable between splice points.

The cost of performing the appropriate tests and providing the documentation shall be included in the cost of the FIBER OPTIC CABLE IN CONDUIT, 72 COND. S.M. F.O. and FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 4F.

JUNCTION BOX, ALUMINUM, ATTACHED TO STRUCTURE

This work shall consist of work that is described in Section 813 of the Standard Specifications for an aluminum junction box.

This junction box shall meet NEMA Type 4X standards.

This work shall be paid at the contract unit price each for JUNCTION BOX, ALUMINUM, ATTACHED TO STRUCTURE, of the size specified, which price shall include all the work described in Article 813.04 of the Standard Specifications. The Contractor may, with the approval of the Engineer, use box size larger than indicated at no additional cost to the Department.

MODIFY EXISTING CONTROLLER CABINET TYPE A

This work shall consist of modifying an existing communications cabinet to provide for the **communications equipment, the field controller and the loop detectors for the vehicle detection systems**. The Contractor shall install all equipment as specified in the communications design and per the manufacturers' recommendations. Cabinet equipment shall be deactivated, removed from the cabinet, and reinstalled as necessary for all required equipment to fit into the existing controller cabinet or as directed by the Engineer. The Contractor is responsible for protecting all equipment in the cabinet during installation and shall repair or replace any damaged equipment during the course of the cabinet modification. The Contractor shall use careful planning and preparation to ensure that existing equipment functionality down time is minimized. The Contractor shall submit a "Modify Existing Controller Cabinet plan" to the Engineer one week prior to turning off existing equipment for modification that details what work has been completed and is ready to be connected and what work remains to be completed prior to new system turn-on. This plan shall be approved by the Engineer prior to turning off any existing equipment.

The existing equipment may include the following:

- Cornet digital video encoder
- Ifs fiber modems
- Telephony modems
- Power supplies
- Power distribution / surge suppression equipment

Any existing equipment that will not be used in the final configuration shall be deactivated and removed from the cabinet as necessary or as directed by the Engineer, and delivered to the Engineer.

The Contractor shall install, wire, and program as necessary the following new equipment:

- 2070 (controller),
- the vehicle detector rack (loop amplifiers),
- Cisco 2955 (Ethernet switch),
- 24 VDC power supply,
- fiber termination panel,

and shall reinstall, wire and program the following existing equipment as necessary to ensure the equipment is completely operational under the new system environment and requirements:

- Ifs VR1910 (fiber modem),
- MPEG2 encoder (DVE),
- Power supplies (if required), and
- Power distribution / surge suppression (if required).

The cabinet layout is shown on plan sheet 25. This should be used as a guideline. The circuit breaker/surge suppression assembly shall be moved and/or upgraded in order to accommodate the installation of the other components. This assembly may remain in place (unchanged) if sufficient space and capacity is provided to the other components.

Each cabinet in the system shall be as identical as practical.

Basis of Payment: This work shall be paid for at the contract unit price each for MODIFY EXISTING CONTROLLER CABINET TYPE A providing and installing new circuit breakers (if needed), all necessary mounting hardware and power cable and all labor and incidental work necessary to complete this work.

MODIFY EXISTING CONTROLLER CABINET TYPE B

This work shall consist of modifying an existing controller cabinet to provide for the **communications equipment**. The Contractor shall install all equipment as specified in the communications design and per the manufacturers' recommendations. Cabinet equipment shall be deactivated, removed from the cabinet, and reinstalled as necessary for all required equipment to fit into the existing controller cabinet or as directed by the Engineer. The Contractor is responsible for protecting all equipment in the cabinet during installation and shall repair or replace any damaged equipment during the course of the cabinet modification. The Contractor shall use careful planning and preparation to ensure that existing equipment functionality down time is minimized. The Contractor shall submit a "Modify Existing Controller Cabinet plan" to the Engineer one week prior to turning off existing equipment for modification that details what work has been completed and is ready to be connected and what work remains to be completed prior to new system turn-on. This plan shall be approved by the Engineer prior to turning off any existing equipment.

The existing equipment may include the following:

- Coretec digital video encoder
- Adtran TSU LT Channel Service Unit/Data Service Unit
- Ifs fiber modems
- Telephony modems
- Power supplies
- Power distribution / surge suppression equipment

Any existing equipment that will not be used in the final configuration shall be deactivated and removed from the cabinet as necessary or as directed by the Engineer, and delivered to the Engineer.

The Contractor shall install and wire the new equipment:

- Cisco 2955 (Ethernet switch),
- 24 VDC power supply,
- fiber termination panel,

and shall reinstall, wire and program the following existing equipment as necessary to ensure the equipment is completely operational under the new communications system environment and requirements:

- Ifs VR1910 (fiber modem),
- MPEG2 encoder (DVE)
- Power supplies (if required), and
- Power distribution / surge suppression (if required).

The cabinet layout is shown on plan sheet 25. This should be used as a guideline. The circuit breaker/surge suppression assembly shall be moved and/or upgraded in order to accommodate the installation of the other components. This assembly may remain in place (unchanged) if sufficient space and capacity is provided to the other components.

Each cabinet in the system shall be as identical as practical.

Basis of Payment: This work shall be paid for at the contract unit price each for MODIFY EXISTING CONTROLLER CABINET TYPE B providing and installing new circuit breakers (if needed), all necessary mounting hardware and power cable and all labor and incidental work necessary to complete this work.

FIBER OPTIC UTILITY MARKER

Marking of the Fiber Optic In-ground conduit runs will be done to prevent future damage to the fiber backbone. The markers will be placed every 300 feet along the fiber run and at other important junctions, turns, or other areas as specified by the field engineer.

The markers shall adhere to the following minimum specifications:

The marker shall be a cylindrical marker mounted on a 3.5" O.D. post. The marker shall be comprised of polymer materials which are resistant to impact, ultraviolet light, ozone, or hydrocarbon damage. The post and marker shall remain impact resistant in temperatures of -20 degrees to 140 degrees F.

The marker shall incorporate a cylindrical tube construction. It shall be capable of permanent or temporary installation on a 3.5" O.D. tube and shall utilize an anchor barb below ground level to prevent rotation and removal. The marker shall have an outside diameter of 3.82 inches. The nominal wall thickness shall be 0.13 inches and the overall length shall be 18 inches.

The marker shall be colored red on top of orange. Red shall be from the top to halfway down the marker (9 inches) and then orange the remaining 9 inches. The marker shall be pigmented throughout its entire cross section and shall incorporate UV resistant materials to prevent fading or cracking in outdoor environments.

The marker graphics shall include the following: On the red portion of the marker in the vertical direction it shall say "Buried Cables" above the symbol for no digging. It shall have the same verbiage on the opposite side (180 degrees away). Ninety degrees from this, on both sides, shall be the verbiage "Danger", also in the vertical direction.

On the Orange portion of the marker in the horizontal direction and on two sides of the marker it shall incorporate the IDOT logo and the words, "Illinois Department of Transportation". Directly below this it shall say, "Intelligent Transportation System". Below this it shall say, "Before digging, trenching, or pushing pipe in this vicinity, call 618-346-3233. Failure to comply will result in Legal Action." Directly below this, a horizontal line and then "MARKER ID NUMBER" with a blank space for the marker id number to be inserted in the field. The Contractor shall be responsible for adding the MARKER ID NUMBER based on the following template:

557007.84.01F

Where:

5570 = Interstate Designation
07.74 = Milepost number to nearest hundredth of mile
01 = Marker number
F = Fiber Marker

Directly below this again include the symbol for no digging and the words "Buried Cable". All graphics shall consist of a solvent-based ink that is abrasive and UV resistant.

The marker shall exhibit good workmanship and shall be free of burns, discoloration, and other objectionable marks or defects, which affect appearance or serviceability.

The marker shall have a minimum tensile strength of 2700 pounds per square inch, as measured by ASTM D638 (specimen type I with separation rate of two inches per minute.) The marker tensile strength shall not deviate more than 10 percent from the standard room temperature result when tested at both 140 degrees and -20 degrees F after a minimum of two hours conditioning at the respective temperature.

The marker shall be a six foot post with an 18" marker attached and installed to a two foot burial depth. It shall be capable of withstanding at least one vehicle impact at 35 mph. The marker shall return upright within 15 degrees of vertical position within a maximum of 30 seconds from the time of impact. The warning legend shall be retained on the marker after each impact.

GPS Coordinates for every line marker placed will be measured. The coordinates shall be measured in geographic decimal degrees and recorded in a table provided to IDOT. GPS coordinate data collection shall continue to fiber termination points at controller cabinets and to the TMC so all conduit and fiber runs are clearly identified.

This work shall be paid for at the contract unit price each for FIBER OPTIC UTILITY MARKER as describe above.

FIBER OPTIC UTILITY MARKERS (NOT INSTALLED)

This work shall consist of furnishing and delivering ten (10) FIBER OPTIC UTILITY MARKERS. Units shall be provided as described in FIBER OPTIC UTILITY MARKER above. These components shall be delivered and stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

The cost of this work will be included in the cost of FIBER OPTIC UTILITY MARKER as describe above.

FIBER OPTIC TRACER CABLE

In order to trace the fiber optic cable after installation, a black insulated copper tracer cable No. 14 shall be installed with the fiber optic cable where there is no other electric cable per the applicable portions of Section 873 of the Standard Specifications. The tracer cable splices are allowed in handhole, only. All tracer splices shall be kept to a minimum and shall incorporate maximum lengths of cable supplied by the manufacturer. The tracer cable splice shall be per Section 870 of the Standard Specifications. Conductors shall be spliced in a rigid mold. Rosin-core solder shall be used.

Basis of Payment: The tracer cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C per meter (foot), which price shall include all associated labor and material for installation.

ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 2 3/C COPPER

All electric cable for the run from the service installation at Sand Prairie Lane to the device location number 557008.0A.39C shall be NO. 2 3/C copper per Article 1076.04(d) of the Standard Specification.

Basis of Payment: The electric cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, No. 2 3/C, Copper per meter (foot), which price shall include all associated labor and material for installation.

ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED SHIELDED

All lead-in cable for the conduit based detection systems shall be 3M 30003 Home Run Cable or Equivalent.

Basis of Payment: The lead-in cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, Lead-in, No. 18 4/C, Twisted shielded per meter (foot), which price shall include all associated labor and material for installation.

CONDUIT PUSHED, GALVANIZED STEEL

Effective: September 1, 1997

Revised: January 1, 1998

This item consists of furnishing and installing galvanized steel conduit under an existing roadway, driveway, or sidewalk.

Galvanized steel conduit shall meet the requirements specified in Section 810 of the Standard Specifications.

The Contractor will have the option of substituting PVC conduit utilizing the following method of installation, as an equal alternate.

The method used to install PVC conduit shall be as follows:

- (1) A 32 mm (1-1/4") diameter or larger, solid steel rod shall be pushed under the existing roadway, driveway or sidewalk.
- (2) The specified size of PVC conduit shall be attached to the rod via an expander/adaptor.
- (3) The PVC conduit shall be pulled into place.

In the event that a conduit run cannot be installed with three sincere attempts, as determined by the Engineer, compensation for the proposed conduit run shall be as follows:

- (1) The Department will delete the contract specified method of payment for the subject conduit run.

- (2) The Department will pay for the installation of the conduit run and the three unsuccessful attempts to install the conduit run, under Article 109.04 of the Standard Specifications on the force account basis.
- (3) The Engineer will determine the method to be utilized to install the conduit run.

This item will be paid for at the contract unit price per meter (foot) for CONDUIT PUSHED, GALVANIZED STEEL of the size specified, which price shall be payment in full for furnishing and installing the conduit and fittings complete.

CONDUIT IN TRENCH 4" DIA., PVC TYPE C

This work shall consist of work that is described in Section 810 of the Standard Specifications.

All in ground 4" conduit used in the installation for the fiber backbone will be Opti-com Type C PVC with Opti-com 44R Ribbed Polyethylene Inner duct with four (4) 1.263" inside diameter ducts or equivalent. Each innerduct shall be of a different color. The color shall be consistent throughout the system so that the white inner duct is always matched with white, blue with blue, etc. A pull tape shall be installed in each inner duct.

This work shall consist of furnishing and installing 4" conduit attached to structure shall be Opti-com Standard Type C with Opti-com 44R Ribbed Polyethylene Inner duct with 4 1.263" inside diameter ducts or equivalent, including all fittings and accessories at the locations specified on the plans.

The conduit shall comply with NEMA TC10 with the exception of 3" bell (6" bell is acceptable). "NEMA TC10" shall be stamped on all conduit.

This work shall be paid at the contract unit price per foot for CONDUIT IN TRENCH 4" DIA., PVC TYPE C.

CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC TYPE C

This work shall consist of furnishing and installing 4" conduit attached to structure shall be Opti-com PVC Conduit TYPE C with Opti-com 44R Ribbed Polyethylene Inner duct with four (4) 1.263" inside diameter ducts or equivalent, including all fittings and accessories attached to supports at the locations specified on the plans.

Each innerduct shall be of a different color. The color shall be consistent throughout the system so that the white inner duct is always matched with white, blue with blue, etc. A pull tape shall be installed in each inner duct.

The conduit shall comply with NEMA TC10 with the exception of 3" bell (6" bell is acceptable). "NEMA TC10" shall be stamped on all conduit.

This work shall be paid at the contract unit price per foot for CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC TYPE C.

CONDUIT PUSHED, 4" DIA., PVC SCHEDULE 80

This work shall consist of furnishing and installing 4" conduit pushed and shall be Opti-com PVC Conduit Schedule 80 with Opti-com 44R Ribbed Polyethylene Inner duct with four (4) 1.263" inside diameter ducts or equivalent, including all fittings and accessories attached to supports at the locations specified on the plans. The method used to install this conduit shall be the method used in the CONDUIT PUSHED, GALVANIZED STEEL special provision.

Each innerduct shall be of a different color. The color shall be consistent throughout the system so that the white inner duct is always matched with white, blue with blue, etc. A pull tape shall be installed in each inner duct.

This work shall be paid at the contract unit price per foot for CONDUIT PUSHED, 4" DIA., PVC SCHEDULE 80.

CONDUIT ATTACHED TO STRUCTURE, 4" DIA., FIBERGLASS BULLET RESISTANT

This work shall consist of furnishing and installing 4" Opti-com Bullet Resistant Tubular with Opti-com 44R Ribbed Polyethylene Inner duct with four (4) 1.263" inside diameter ducts or equivalent, including all fittings and accessories attached to supports at the locations specified in the plans.

Each innerduct shall be of a different color. The color shall be consistent throughout the system so that the white inner duct is always matched with white, blue with blue, etc. A pull tape shall be installed in each inner duct.

This work shall be paid at the contract unit price per foot for CONDUIT ATTACHED TO STRUCTURE, 4" DIA., FIBERGLASS BULLET RESISTANT.

HANDHOLES

Add the following to Section 814 of the Standard Specifications:

All handholes shall be cast-in-place concrete, with a minimum inside dimension of 21-1/2 inches. Frames and lid openings shall match this dimension. The minimum wall thickness for heavy-duty hand holes shall be 12 inches. The handhole cover shall be labeled "ITS" with legible raised letters.

All conduits shall enter the handhole at a minimum depth of thirty (30) inches. However, the depth of conduit from detector locations located less than five (5) feet from the handhole may be less than thirty (30) inches.

All cable hooks shall be hot-dipped galvanized in accordance with AASHTO Specification M111. Hooks shall be a minimum of 3/8-inch diameter and extend into the handhole at least 6 inches. Hooks shall be placed a minimum of 12 inches below the lid, or lower if additional space is required. All cable hooks shall be secured with a retaining nut tightened against the handhole concrete.

This work shall be paid for at the contract unit price each for the type and size as shown on the plans.

CONCRETE FOUNDATION, TYPE D (SPECIAL)

This work shall consist of furnishing and installing a concrete foundation for the installation of a controller base per Standard 878001 and applicable portions of Section 878 of the Standard Specifications, except an additional apron for the rear controller cabinet door shall be required. The ground rod shall conform to the applicable portions of Article 1087.02 with the following additions:

1. The ground rod shall be $\frac{3}{4}$ " X 12' long.
2. Four (4) ground rods shall be installed vertically in the concrete foundation and shall protrude 4" from the concrete foundation. Each of the four (4) ground rods shall be located inside of the controller cabinet and 3" diagonally from the cabinet corner.
3. A #6 AWG bare copper conductor shall be bonded to each rod with molded, sleeved, exothermic, N.E.C. approved field weld (Cadweld). One (1) of the rods and #6 AWG bare copper conductor shall be attached to the controller cabinet ground bus. The other unused ground conductors shall remain coiled along the bottom of the cabinet enclosure. The ground conductors shall be enough to reach ground bus. **PRESSURE CONNECTORS OR CLAMPS ARE NOT ACCEPTABLE.**

Anchor bolts, nuts, and washers are required this foundation.

This work shall be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, TYPE D (SPECIAL), which price shall include all the work described in Article 878.05 of the Standard Specification.

CONTROLLER CABINET TYPE III, SPECIAL

The cabinet shall be in accordance with the applicable portions of Section 863 of the Standard Specifications.

The TYPE III CABINET shall be (46"H X 24"W X 20.25"L) NEMA Type 3R with (i) front and rear door and (ii) four shelves including one for future use.

The cabinet shall have:

- Two (2) Power panel surge protection (EDCO SHA-1250 or approved equal) (one per phase)
- Two (2) GFCI receptacles
- Four (4) circuit breakers (2-15Amp single pole, 1 15Amp double pole and 1-20Amp double pole main)
- Single point ground
- Thermostatically controlled air conditioner (240 VAC @ approximately 400 Watts)
- Heater lamp(s)
- Fluorescent lamp(s)
- Door lock & keys in accordance with the Article 1085.47(3)c

Modifications to the panel and terminal facilities shall be made to the cabinet to meet the operating requirements of (i) the manufacturer of surveillance camera equipment, (ii) the field hardened controller equipment, and (iii) utility companies.

The cost of equipment housed inside the cabinet shall be included in the pay item for CLOSED CIRCUIT TELEVISION CAMERA SYSTEM and the pay items for the communications equipment (2070, vehicle detectors, layer 3 switch, MPEG encoders, and fiber termination panel).

The cabinet shall be configured as similar to the existing modified cabinets as practical.

The cabinet shall be a fully integrated weatherproof enclosure complete with exterior air conditioner, Kooltronic model K2XRP47 or equivalent, pre-fabricated and attached to the enclosure to ensure watertight seal. Cutting in or attaching an air conditioner to the outside of a separate standard traffic controller cabinet on site is not acceptable. The Contractor shall submit plan drawings for the overall cabinet design with the air conditioner, detailing how the interior of the cabinet will be protected from environmental elements. The Contractor must receive approval from the Engineer prior to procuring the cabinet / air conditioner assembly.

This work shall be paid for at the contract unit price each for CONTROLLER CABINET TYPE III, SPECIAL (AIR CONDITIONED).

CONDUIT-BASED VEHICLE DETECTION

This work shall consist of furnishing, installing, and placing into operation a conduit-based vehicle detection system. This system shall consist of the following components and adhere to the following installation procedures

Conduit Type

The conduit to be used for the conduit-based vehicle detection locations shall be 3" Schedule 80 seamless Polyethylene (PE). The Polyethylene conduit must be free from welds or joints to allow free passage of the carrier sections along the length of the conduit. It will be bored into place. It shall comply with the following dimensions: Inside Diameter 2.9 inches and Outside Diameter 3.5 inches.

Handholes

The handholes for the conduit-based detection sites will use a double handhole oriented lengthwise to the conduit for the probes to allow space to install the conduit coupler and cradle to the conduit in the handhole.

Conduit Installation Specification

The Contractor is responsible for obtaining and complying with the manufacturer's installation procedures. The Contractor shall review all manufacturer installation diagrams prior to installing conduit and equipment.

The conduit shall be placed just under the concrete layer and shall follow the contour of the roadway including the roadway crown.

Two to 3.5 inches of conduit shall extend into the handhole to allow for connection of the coupler and the cradle.

As it follows the surface contour, the conduit must consistently maintain its depth from the road surface to avoid vertical dips and horizontal deviations. **The conduit shall not deviate from a straight line direction by more than 0.25 inches per foot either horizontally or vertically.**

The Contractor shall check, and record, the depth of the conduit every two feet during the process of installing the conduit to ensure that the specified depth is maintained.

Cap the end of the conduit opposite the handhole to prevent water flow that could introduce soil into the conduit. Large deposits of soil in the conduit will make system removal difficult or impossible without cleaning the soil out of the conduit. Drill a 3/16 inch diameter weep hole in the end cap. Position the weep hole at the bottom of the end cap to drain water from the conduit.

As the conduit extends beneath the surface from the roadway edge to the handhole, it shall taper slightly downward to help drain any moisture that has seeped in. To allow for service flexibility, the end cap shall be pressfit, not glued, on the conduit.

Detector Sensors/Probes

The detector sensors shall be 3M 702 micro-loop probes or equivalent with lead-in cables and carrier assemblies. They shall be installed per the plans and the manufacturer's recommendations.

The installation of the probes shall be for a single probe per lane with a speed trap design.

To prevent sediment from entering and accumulating inside the conduit:

Make sure that the carrier assembly is securely fastened in the carrier lock. Make sure that the cables and pull rope are positioned in the carrier. Check the continuity of the probe cables with an ohmmeter. Wrap the landscape fabric material (provided in the installation kit) around the conduit coupler and cradle assembly. Make sure the probe set identification tags are outside of the landscape fabric material. Use the re-enterable tie wraps provided to secure one end of the landscape fabric material around the cradle connector, and the other end around the probe cables and pullrope. Drill a 3/16 inch weep hole in the end cap to let trapped water drain out. Position the weep hole downward and pressfit the end cap over the far end of the conduit. Do not glue on the end cap.

Splicing Lead-in Cables

All splices shall be completed per the manufacturer's installation procedures and as described below.

All splices shall be soldered, insulated and waterproofed. The cable jacket ends shall be sealed against moisture entry at the points the cables were cut to perform the splicing.

Underground rated splice kits shall be used to provide the required protection.

Prepare splice end cap ports to fit snugly over cable jackets, slide end caps over cables and down out of the way. Move cable ID markers, as required, to ensure that they will be visible after the splicing operation is complete.

Prepare the lead-in and home-run cables and wires for splicing. Remove 2 to 3.75 inches of cable jacket from each cable taking care not to damage the insulation on interior conductors. If necessary, heat the jacket with a heat gun or other safe heat source to slide the jacket off the interior shield and conductors.

Remove about 0.5 inches of insulation on each conductor that will be used. As instructed by the splicing kit instructions, scuff and clean surfaces that will come in contact with the encapsulating compound.

If shrink tubing is being used to insulate the splice, slide a piece of shrink tubing at least 1.5 inches long over the wires to be spliced. Twist the wires to be spliced as shown in the figure below. Solder the twisted wires together. Insulate the soldered connection by shrinking the tubing or by wrapping with at least two layers of electrical tape.

Carefully dress all wires and cable jacket ends into the splice kit encapsulation area to prepare the splice kit for adding the encapsulation compound.

Complete the splice by adding encapsulation compound if required.

Detector Loop Amplifiers

All detector loop amplifiers shall be Canoga 800 or equivalent with four channels. They shall be capable of detecting changes in inductance from the detector probes to adequately count and classify traffic, to determine occupancy values, and to determine vehicles speeds when placed in a speed trap design.

Training and Installation Conduit Based Detection System

The suppliers of the CONDUIT-BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION shall supervise the installation and testing of the equipment. A factory certified representative shall be present for the turn-on. In addition to the turn-on, the representative from the supplier shall be on-site for a minimum of two days. The representative shall work with the other suppliers and representatives.

This representative shall be available for troubleshooting and if need be to meet with Department personnel and other suppliers for troubleshooting the project.

The cost of providing the factory certified representative and training of Department of Transportation personnel shall be included in the cost of the contract.

This work shall be paid for at the contract unit price each for CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION which price shall be payment in full for furnishing and installing 3" PE Schedule 80 conduit bored and pulled compatible with installation procedures as described above, vehicle detector probes, vehicle detectors (amplifiers), all ancillary hardware and materials, and all labor and incidental work necessary to complete this work.

CONDUIT-BASED DETECTION PROBES (NOT INSTALLED)

This work shall consist of furnishing and testing five (5) conduit detection probes 3M model 702 or equivalent. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

This work will be included in the unit price each for CONDUIT-BASED VEHICLE DETECTION, THREE-FOUR LANE CONFIGURATION.

CONDUIT-BASED DETECTION DETECTORS (NOT INSTALLED)

This work shall consist of furnishing and testing two (2) vehicle detector Canoga Model 800 or equivalent 3M. All components shall be tested and certified that they operate. These components shall be stored at the Illinois Department of Transportation Regional Complex at 1102 Eastport Plaza Drive, Collinsville, Illinois.

This work will be included in the unit price each for CONDUIT-BASED VEHICLE DETECTION, THREE-FOUR LANE CONFIGURATION.

TRAINING AND INSTALLATION

The suppliers of the hardware and software included, paid for, and provided for in the following pay items shall supervise the installation and testing of such items:

2070 CONTROLLER
CLOSED CIRCUIT CAMERA SYSTEM
FIBER OPTIC TERMINATION IN CABINET
WIDE AREA NETWORK
VIDEO TRANSMISSION SYSTEM
TRAFFIC DATA COLLECTION SYSTEM
LIGHT POLE, STEEL, 45 FT. WITH CAMERA LOWERING SYSTEM
CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION

A factory certified representative shall be present for the turn-on. In addition to the turn-on, the representative from the supplier shall be on-site for a minimum of one day unless otherwise stated in this contract. The representative shall work with the other suppliers and representatives.

This representative shall be available for troubleshooting and if need be to meet with Department personnel and other suppliers for troubleshooting the project.

In addition to the installation, each representative shall provide training for a period of no less than 2 hours to maintenance, communications and engineering personnel in the operation, setup, and maintenance of their company's equipment.

The cost of providing the factory certified representative and training of Department of Transportation personnel shall be included in the cost of the particular pay item's contract unit price.

WARRANTY

The Contractor shall warranty all materials and workmanship including labor for a period of two years after the completion and acceptance of the installation of the items included in the following pay items:

2070 CONTROLLER
CLOSED CIRCUIT CAMERA SYSTEM
FIBER OPTIC TERMINATION IN CABINET
WIDE AREA NETWORK
VIDEO TRANSMISSION SYSTEM
TRAFFIC DATA COLLECTION SYSTEM
LIGHT POLE, STEEL, 45 FT. WITH CAMERA LOWERING SYSTEM
2955 LAYER 2 SWITCH
3550-12G LAYER 3 SWITCH
5483 GBIC SWITCH
5486 GBIC SWITCH
CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION
CONTROLLER CABINET TYPE III, SPECIAL (AIR CONDITIONED) (AIR CONDITIONER ONLY)

unless other warranty requirements prevail.

The warranty period shall begin when the Contractor completes all construction obligations related to this item and when the components for this item have been accepted, which shall be documented as the final completion date in the construction status report. This warranty shall include repair and/or replacement of all failed components via a factory authorized depot repair service. All items sent to the depot for repair shall be returned within two weeks of the date of receipt at the facility. The depot location shall be in the United States. Repairs shall not require more than two weeks from date of receipt and the provider of the warranty shall be responsible for all return shipping costs. The depot maintainer designated for each component shall be authorized by the original manufacturer to supply this service.

A warranty certificate shall be supplied for each component from the designated depot repair site indicating the start and end dates of the warranty. The certificate shall be supplied at the conclusion of the system acceptance test and shall be for a minimum of two years after that point. The certificate shall name the Department as the recipient of the service. The Department shall have the right to transfer this service to other private parties who may be contracted to perform overall maintenance of the system.

FINAL INSPECTION AND SYSTEM ACCEPTANCE

The Contractor shall request a turn-on of the CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, WIDE AREA NETWORK, VIDEO TRANSMISSION SYSTEM, TRAFFIC DATA COLLECTION SYSTEM, and CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION after all of the equipment has been completely installed, fully operable, fully documented, IDOT staff training completed, and when the roadway is open to traffic. The CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, WIDE AREA NETWORK, VIDEO TRANSMISSION SYSTEM, TRAFFIC DATA COLLECTION SYSTEM, and CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION must be inspected at the same time. Inspecting one system without the others will not be permitted. All required system hardware and software shall be completely installed and fully operable prior to the systems inspection request. The inspection request must be made to the Engineer a minimum of three working days prior to the time of the requested inspection. During the inspection all items will be tested for proper operation according to the contract and to the satisfaction of the Engineer and the Bureau of Operations. The Contractor shall be provided with a punchlist indicating which equipment failed the inspection and require corrective measures. Upon the turn-on inspection, the Engineer may allow the systems to operate in continuous operation but this shall not relieve the Contractor from correcting the failed items. The Contractor shall notify the Engineer when all the failed items on the punchlist have been corrected and shall request an inspection. A turn-on inspection shall not be considered successful until each item on the punchlist has been corrected by the Contractor to operate according to the contract and to the satisfaction of the Engineer.

After a successful turn-on inspection CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, WIDE AREA NETWORK, VIDEO TRANSMISSION SYSTEM, TRAFFIC DATA COLLECTION SYSTEM, and CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION shall enter a 30-calendar day minimum on site monitoring phase. During this phase the Contractor shall monitor the operation of the systems. Failure of any component during the monitoring period, with the exception of expendable items such as fuses, shall be reported to the Engineer and corrective measures shall be taken by the Contractor to the satisfaction of the Engineer. A failed item in any system shall necessitate restarting the 30-calendar day monitoring period for all systems for the full 30-day duration beginning at the time when the failed item was corrected by the contractor to the satisfaction of the Engineer.

At the end of a 30-calendar day monitoring period the Contractor shall provide the Engineer with a monitoring log for the items covering the thirty-calendar day period. The Contractor shall utilize the system software capabilities to store and generate monitoring logs. Upon review of the logs and further equipment performance testing to the satisfaction of the Engineer, he/she will issue a CLOSED CIRCUIT TELEVISION CAMERA SYSTEM, WIDE AREA NETWORK, VIDEO TRANSMISSION SYSTEM, TRAFFIC DATA COLLECTION SYSTEM, and CONDUIT BASED VEHICLE DETECTION, (TYPE) LANE CONFIGURATION Acceptance Notice or notify the Contractor in writing of the deficiencies.

This is not a pay item and cost shall be included in the cost of the particular pay item's contract unit price.

COMPLETION DATE

All work necessary to complete this project shall be completed by and in operation by August 4, 2006. A successful turn-on inspection of all surveillance camera locations and vehicle detection stations with monitoring capability at the TMC shall be completed. Contractor's liability for failure to meet this date shall be as specified in Section 108 of the Standard Specification.

AUTHORITY OF RAILROAD ENGINEER (BDE)

Effective: July 1, 2004

Revise Article 105.02 of the Standard Specifications to read:

"105.02 Authority of Railroad Engineer. Whenever the safety of railroad traffic is concerned, the Railroad Engineer will have jurisdiction over safety measures to be taken and his/her decision as to the methods, procedures, and measures used shall be final, and any and all Contractors performing work near or about the railroad shall be governed by such decision. Instructions to the Contractor by the Railroad Engineer will be given through the Engineer. Work ordered as specified herein will be classified and paid for according to Article 104.02. Work performed for the Contractor's convenience will not be paid for separately but shall be considered as included in the contract."

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CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003

Revised: July 1, 2004

Revise Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. Except as specified, the use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted only when approved in writing by the Engineer. The Department will maintain an Approved List of Concrete Admixtures. When the Department permits the use of a calcium chloride accelerator, it shall be according to Article 442.02, Note 5.

When the atmosphere or concrete temperature is 18 °C (65 °F) or higher, a retarding admixture meeting the requirements of Article 1021.03 shall be used in the Class BD Concrete and portland cement concrete bridge deck overlays. The amount of retarding admixture to be used will be determined by the Engineer. The proportions of the ingredients of the concrete shall be the same as without the retarding admixture except that the amount of mixing water shall be reduced, as may be necessary, in order to maintain the consistency of the concrete as required. In addition, a high range water-reducing admixture shall be used in Class BD Concrete. The amount of high range water-reducing admixture will be determined by the Engineer. At the option of the Contractor, a water-reducing admixture may be used. Type I cement shall be used.

For Class PC and PS Concrete, a retarding admixture may be added to the concrete mixture when the concrete temperature is 18 °C (65 °F) or higher. Other admixtures may be used when approved by the Engineer, or if specified by the contract. If an accelerating admixture is permitted by the Engineer, it shall be the non-chloride type.

At the Contractor's option, admixtures in addition to an air-entraining admixture may be used for Class PP-1 concrete. The accelerator shall be the non-chloride type. If a water-reducing or retarding admixture is used, the cement factor may be reduced a maximum 18 kg/cu m (0.30 hundredweight/cu yd). If a high range water-reducing admixture is used, the cement factor may be reduced a maximum 36 kg/cu m (0.60 hundredweight/cu yd). Cement factor reductions shall not be cumulative when using multiple admixtures. An accelerator shall always be added prior to a high range water-reducing admixture, if both are used.

If Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 concrete, a water-reducing or high range water-reducing admixture shall be used. However, the cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used. In addition, an accelerator shall not be used.

For Class PP-2 or PP-3 concrete, a non-chloride accelerator followed by a high range water-reducing admixture shall be used, in addition to the air-entraining admixture. For Class PP-3 concrete, the non-chloride accelerator shall be calcium nitrite.

For Class PP-2 or PP-3 concrete, the Contractor has the option to use a water-reducing admixture. A retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

When the air temperature is less than 13 °C (55 °F) for Class PP-1 or PP-2 concrete, the non-chloride accelerator shall be calcium nitrite.

For Class PP-4 concrete, a high range water-reducing admixture shall be used in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture. An accelerator shall not be used. For stationary or truck mixed concrete, a retarding admixture shall be used to allow for haul time. The Contractor has the option to use a mobile portland cement concrete plant according to Article 1103.04, but a retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

If the Department specifies a calcium chloride accelerator for Class PP-1 concrete, the maximum chloride dosage shall be 1.0 L (1.0 quart) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.0 L (2.0 quarts) per 45 kg (100 lb) of cement if approved by the Engineer. If the Department specifies a calcium chloride accelerator for Class PP-2 concrete, the maximum chloride dosage shall be 1.3 L (1.3 quarts) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.6 L (2.6 quarts) per 45 kg (100 lb) of cement if approved by the Engineer.

For Class PV, MS, SI, RR, SC and SH concrete, at the option of the Contractor, or when specified by the Engineer, a water-reducing admixture or a retarding admixture may be used. The amount of water-reducing admixture or retarding admixture permitted will be determined by the Engineer. The air-entraining admixture and other admixtures shall be added to the concrete separately, and shall be permitted to intermingle only after they have separately entered the concrete batch. The sequence, method and equipment for adding the admixtures shall be approved by the Engineer. The water-reducing admixture shall not delay the initial set of the concrete by more than one hour. Type I cement shall be used.

When a water-reducing admixture is added, a cement factor reduction of up to 18 kg/cu m (0.30 hundredweight/cu yd), from the concrete designed for a specific slump without the admixture, will be permitted for Class PV, MS, SI, RR, SC and SH concrete. When an approved high range water-reducing admixture is used, a cement factor reduction of up to 36 kg/cu m (0.60 hundredweight/cu yd), from a specific water cement/ratio without the admixture, will be permitted based on a 14 percent minimum water reduction. This is applicable to Class PV, MS, SI, RR, SC and SH concrete. A cement factor below 320 kg/cu m (5.35 hundredweight/cu yd) will not be permitted for Class PV, MS, SI, RR, SC and SH concrete. A cement factor reduction will not be allowed for concrete placed underwater. Cement factor reductions shall not be cumulative when using multiple admixtures.

For use of admixtures to control concrete temperature, refer to Articles 1020.14(a) and 1020.14(b).

The maximum slumps given in Table 1 may be increased to 175 mm (7 in.) when a high range water-reducing admixture is used for all classes of concrete except Class PV and PP.”

Revise Section 1021 of the Standard Specifications to read:

“SECTION 1021. CONCRETE ADMIXTURES”

1021.01 General. Admixtures shall be furnished in liquid form ready for use. The admixtures may be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable to the satisfaction of the Engineer as to manufacturer and trade name of the material they contain.

Prior to inclusion of a product on the Department's Approved List of Concrete Admixtures, the manufacturer shall submit a report prepared by an independent laboratory accredited by the AASHTO Accreditation Program. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 335 kg/cu m (5.65 cwt/cu yd). Compressive strength test results for six months and one year will not be required.

In addition to the report, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by the AASHTO Accreditation Program.

Prior to the approval of an admixture, the Engineer may conduct all or part of the applicable tests on a sample that is representative of the material to be furnished. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161, Procedure B.

The manufacturer shall include in the submittal the following information according to ASTM C 494; the average and manufacturing range of specific gravity, the average and manufacturing range of solids in the solution, and the average and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by the AASHTO Accreditation Program.

All admixtures, except chloride-based accelerators, shall contain no more than 0.3 percent chloride by mass (weight).

1021.02 Air-Entraining Admixtures. Air-entraining admixtures shall conform to the requirements of AASHTO M 154.

If the manufacturer certifies that the air-entraining admixture is an aqueous solution of Vinsol resin that has been neutralized with sodium hydroxide (caustic soda), testing for compliance with the requirements may be waived by the Engineer. In the certification, the manufacturer shall show complete information with respect to the formulation of the solution, including the number of parts of Vinsol resin to each part of sodium hydroxide. Before the approval of its use is granted, the Engineer will test the solution for its air-entraining quality in comparison with a solution prepared and kept for that purpose.

1021.03 Retarding and Water-Reducing Admixtures. The admixture shall comply with the following requirements:

- (a) The retarding admixture shall comply with the requirements of AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall comply with the requirements of AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

When a Type F or Type G high range water-reducing admixture is used, water-cement ratios shall be a minimum of 0.32.

Type F or Type G admixtures may be used, subject to the following restrictions:

For Class MS, SI, RR, SC and SH concrete, the water-cement ratio shall be a maximum of 0.44.

The Type F or Type G admixture shall be added at the jobsite unless otherwise directed by the Engineer. The initial slump shall be a minimum of 40 mm (1 1/2 in.) prior to addition of the Type F or Type G admixture, except as approved by the Engineer.

When a Type F or Type G admixture is used, retempering with water or with a Type G admixture will not be allowed. An additional dosage of a Type F admixture, not to exceed 40 percent of the original dosage, may be used to retemper concrete once, provided set time is not unduly affected. A second retempering with a Type F admixture may be used for all classes of concrete except Class PP and SC, provided that the dosage does not exceed the dosage used for the first retempering, and provided that the set time is not unduly affected. No further retempering will be allowed.

Air tests shall be performed after the addition of the Type F or Type G admixture.

1021.04 Set Accelerating Admixtures. The admixture shall comply with the requirements of AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating)" 80094

CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)

Effective: January 1, 2004

Revise the second and third sentences of the eleventh paragraph of Article 503.06 of the Standard Specifications to read:

"Forms on substructure units shall remain in place at least 24 hours. The method of form removal shall not result in damage to the concrete."

Delete the twentieth paragraph of Article 503.22 of the Standard Specifications.

Revise the “Unit Price Adjustments” table of Article 503.22 of the Standard Specifications to read:

“UNIT PRICE ADJUSTMENTS	
Type of Construction	Percent Adjustment in Unit Price
For concrete in substructures, culverts (having a waterway opening of more than 1 sq m (10 sq ft)), pump houses, and retaining walls (except concrete pilings, footings and foundation seals):	
When protected by:	
Protection Method II	115%
Protection Method I	110%
For concrete in superstructures:	
When protected by:	
Protection Method II	123%
Protection Method I	115%
For concrete in footings:	
When protected by:	
Protection Method I, II or III	107%
For concrete in slope walls:	
When protected by:	
Protection Method I	107%”

Delete the fourth paragraph of Article 504.05(a) of the Standard Specifications.

Revise the second and third sentences of the fifth paragraph of Article 504.05(a) of the Standard Specifications to read:

“All test specimens shall be cured with the units according to Article 1020.13.”

Revise the first paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“Curing and Low Air Temperature Protection. The curing and protection for precast, prestressed concrete members shall be according to Article 1020.13 and this Article.”

Revise the first sentence of the second paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“For curing, air vents shall be in place, and shall be so arranged that no water can enter the void tubes during the curing of the members.”

Revise the first sentence of the third paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“As soon as each member is finished, the concrete shall be covered with curing material according to Article 1020.13.”

Revise the eighth paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

“The prestressing force shall not be transferred to any member before the concrete has attained the compressive strength of 28,000 kPa (4000 psi) or other higher compressive release strength specified on the plans, as determined from tests of 150 mm (6 in.) by 300 mm (12 in.) cylinders cured with the member according to Article 1020.13. Members shall not be shipped until 28-day strengths have been attained and members have a yard age of at least 4 days.”

Delete the third paragraph of Article 512.03(a) of the Standard Specifications.

Delete the last sentence of the second paragraph of Article 512.04(d) of the Standard Specifications.

Revise the “Index Table of Curing and Protection of Concrete Construction” table of Article 1020.13 of the Standard Specifications to read:

“INDEX TABLE OF CURING AND PROTECTION OF CONCRETE CONSTRUCTION”			
TYPE OF CONSTRUCTION	CURING METHODS	CURING PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete: ^{11/}			
Pavement			
Shoulder	1020.13(a)(1)(2)(3)(4)(5) ^{3/ 5/}	3	1020.13(c)
Base Course			
Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 2/}	3	1020.13(c)
Driveway			
Median			
Curb			
Gutter	1020.13(a)(1)(2)(3)(4)(5) ^{4/ 5/}	3	1020.13(c) ^{16/}
Curb and Gutter			
Sidewalk			
Slope Wall			
Paved Ditch			
Catch Basin			
Manhole	1020.13(a)(1)(2)(3)(4)(5) ^{4/}	3	1020.13(c)
Inlet			
Valve Vault			
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) ^{2/}	3 ^{12/}	1020.13(c)
Pavement Replacement	1020.13(a)(1)(2)(3)(4)(5) ^{1/ 2/}	3	442.06(h) and 1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles	1020.13(a)(3)(5)	7	1020.13(e)(1)(2)(3)
Footings			
Foundation Seals	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2)(3)
Substructure	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)(3)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5) ^{8/}	7	1020.13(e)(1)(2)
Deck	1020.13(a)(5)	7	1020.13(e)(1)(2) ^{17/}
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) ^{1/}	7	1020.13(e)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2) ^{18/}
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete: ^{11/}			
Bridge Beams			
Piles			
Bridge Slabs	1020.13(a)(3)(5) ^{9/10/}	As required.	^{13/} 504.06(c)(6), 1020.13(e)(2) ^{19/}
Nelson Type Structural Member			
All Other Precast Items	1020.13(a)(3)(4)(5) ^{2/9/10/}	As required.	^{14/} 504.06(c)(6), 1020.13(e)(2) ^{19/}
Precast, Prestressed Concrete: ^{11/}			
All Items	1020.13(a)(3)(5) ^{9/10/}	Until strand	504.06(c)(6), 1020.13(e)(2) ^{19/}
		tensioning	is
		released. ^{15/}	

Notes-General:

- 1/ Type I, membrane curing only
- 2/ Type II, membrane curing only
- 3/ Type III, membrane curing only
- 4/ Type I, II and III membrane curing
- 5/ Membrane curing will not be permitted between November 1 and April 15.
- 6/ The use of water to inundate footings, foundation seals or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 7 °C (45 °F) or higher.
- 7/ Asphalt Emulsion for Waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18.
- 8/ On non-traffic surfaces which receive protective coat according to Article 503.19, a linseed oil emulsion curing compound may be used as a substitute for protective coat and other curing methods. The linseed emulsion curing compound will be permitted between April 16 and October 31 of the same year, provided it is applied with a mechanical sprayer according to Article 1101.09 (b), and meets the material requirements of Article 1022.07.
- 9/ Steam curing (heat and moisture) is acceptable and shall be accomplished by the method specified in Article 504.06(c)(6).
- 10/ A moist room according to AASHTO M 201 is acceptable for curing.
- 11/ If curing is required and interrupted because of form removal for cast-in-place concrete items, precast concrete products, or precast prestressed concrete products, the curing shall be resumed within two hours from the start of the form removal.
- 12/ Curing maintained only until opening strength is attained, with a maximum curing period of three days.
- 13/ The curing period shall end when the concrete has attained the mix design strength. The producer has the option to discontinue curing when the concrete has attained 80 percent of the mix design strength or after seven days. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 14/ The producer shall determine the curing period or may elect to not cure the product. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 15/ The producer has the option to continue curing after strand release.
- 16/ When structural steel or structural concrete is in place above slope wall, Article 1020.13(c) shall not apply. The protection method shall be according to Article 1020.13(e)(1).
- 17/ When Article 1020.13(e)(2) is used to protect the deck, the housing may enclose only the bottom and sides. The top surface shall be protected according to Article 1020.13(e)(1).
- 18/ For culverts having a waterway opening of 1 sq m (10 sq ft) or less, the culverts may be protected according to Article 1020.13(e)(3).
- 19/ The seven day protection period in the first paragraph of Article 1020.13(e)(2) shall not apply. The protection period shall end when curing is finished. For the third paragraph of Article 1020.13(e)(2), the decrease in temperature shall be according to Article 504.06(c)(6)."

Add the following to Article 1020.13(a) of the Standard Specifications:

“(5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry cotton mats. The cotton mats shall be placed in a manner which will not mar the concrete surface. A texture resulting from the cotton mat material is acceptable. The cotton mats shall then be wetted immediately and thoroughly soaked with a gentle spray of water. For bridge decks, a foot bridge shall be used to place and wet the cotton mats.

The cotton mats shall be maintained in a wetted condition until the concrete has hardened sufficiently to place soaker hoses without marring the concrete surface. The soaker hoses shall be placed on top of the cotton mats at a maximum 1.2 m (4 ft) spacing. The cotton mats shall be kept wet with a continuous supply of water for the remainder of the curing period. Other continuous wetting systems may be used if approved by the Engineer.

After placement of the soaker hoses, the cotton mats shall be covered with white polyethylene sheeting or burlap-polyethylene blankets.

For construction items other than bridge decks, soaker hoses or a continuous wetting system will not be required if the alternative method keeps the cotton mats wet. Periodic wetting of the cotton mats is acceptable.

For areas inaccessible to the cotton mats on bridge decks, curing shall be according to Article 1020.13(a)(3).”

Revise the first paragraph of Article 1020.13(c) of the Standard Specifications to read:

“Protection of Portland Cement Concrete, Other Than Structures, From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low of 0 °C (32 °F), or lower, or if the actual temperature drops to 0 °C (32 °F), or lower, concrete less than 72 hours old shall be provided at least the following protection:”

Delete Article 1020.13(d) and Articles 1020.13(d)(1),(2),(3),(4) of the Standard Specifications.

Revise the first five paragraphs of Article 1020.13(e) of the Standard Specifications to read:

“Protection of Portland Cement Concrete Structures From Low Air Temperatures. When the official National Weather Service Forecast for the construction area predicts a low below 7 °C (45 °F), or if the actual temperature drops below 7 °C (45 °F), concrete less than 72 hours old shall be provided protection. Concrete shall also be provided protection when placed during the winter period of December 1 through March 15. Concrete shall not be placed until the materials, facilities and equipment for protection are approved by the Engineer.

When directed by the Engineer, the Contractor may be required to place concrete during the winter period. If winter construction is specified, the Contractor shall proceed with the construction, including concrete, excavation, pile driving, steel erection and all appurtenant work required for the complete construction of the item, except at times when weather conditions make such operations impracticable.

Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced by the Contractor at his/her own expense.”

Add the following at the end of the third paragraph of Article 1020.13(e)(1) of the Standard Specifications:

“The Contractor shall provide means for checking the temperature of the surface of the concrete during the protection period.”

Revise the second sentence of the first paragraph of Article 1020.13(e)(2) of the Standard Specifications to read:

“The Contractor shall provide means for checking the temperature of the surface of the concrete or air temperature within the housing during the protection period.”

Delete the last sentence of the first paragraph of Article 1020.13(e)(3) of the Standard Specifications.

Add the following Article to Section 1022 of the Standard Specifications:

“1022.06 Cotton Mats. Cotton mats shall consist of a cotton fill material, minimum 400 g/sq m (11.8 oz/sq yd), covered with unsized cloth or burlap, minimum 200 g/sq m (5.9 oz/sq yd), and be tufted or stitched to maintain stability.

Cotton mats shall be in a condition satisfactory to the Engineer. Any tears or holes in the mats shall be repaired.

Add the following Article to Section 1022 of the Standard Specifications:

“1022.07 Linseed Oil Emulsion Curing Compound. Linseed oil emulsion curing compound shall be composed of a blend of boiled linseed oil and high viscosity, heavy bodied linseed oil emulsified in a water solution. The curing compound shall meet the requirements of a Type I, II, or III according to Article 1022.01, except the drying time requirement will be waived. The oil phase shall be 50 ± 4 percent by volume. The oil phase shall consist of 80 percent by mass (weight) boiled linseed oil and 20 percent by mass (weight) Z-8 viscosity linseed oil. The water phase shall be 50 ± 4 percent by volume.”

Revise Article 1020.14 of the Standard Specifications to read:

“1020.14 Temperature Control for Placement. Temperature control for concrete placement shall conform to the following requirements:

- (a) Temperature Control other than Structures. The temperature of concrete immediately before placing, shall be not less than 10 °C (50 °F) nor more than 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

Plastic concrete temperatures up to 35 °C (96 °F), as placed, may be permitted provided job site conditions permit placement and finishing without excessive use of water on and/or overworking of the surface. The occurrence within 24 hours of unusual surface distress shall be cause to revert to a maximum 32 °C (90 °F) plastic concrete temperature.

Concrete shall not be placed when the air temperature is below 5 °C (40 °F) and falling or below 2 °C (35 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to not less than 20 °C (70 °F) nor more than 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

For pavement patching, refer to Article 442.06(e) for additional information on temperature control for placement.

- (b) Temperature Control for Structures. The temperature of concrete as placed in the forms shall be not less than 10 °C (50 °F) nor more than 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits. When insulated forms are used, the temperature of the concrete mixture shall not exceed 25 °C (80 °F). If the Engineer determines that heat of hydration might cause excessive temperatures in the concrete, the concrete shall be placed at a temperature between 10 °C (50 °F) and 15 °C (60 °F), per the Engineer's instructions. When concrete is placed in contact with previously placed concrete, the temperature of the concrete may be increased as required to offset anticipated heat loss.

Concrete shall not be placed when the air temperature is below 7 °C (45 °F) and falling or below 4 °C (40 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to not less than 20 °C (70 °F) nor more than 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

- (c) Temperature. The concrete temperature shall be determined according to ASTM C 1064."

80114

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

Effective: September 1, 2000

Revised: June 22, 2005

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the DBE Directory or most recent addendum.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100% state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100% state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE firms performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 8.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that firmly committed DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders may consult the DBE Directory as a reference source for DBE companies certified by the Department. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.state.il.us.

BIDDING PROCEDURES. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid not responsive.

- (a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven (7) working days after the date of letting. To meet the seven (7) day requirement, the bidder may send the Plan by certified mail or delivery service within the seven (7) working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven (7) working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven (7) day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
- (1) The name and address of each DBE to be used;
 - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
 - (3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
 - (5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five (5) working day period in order to cure the deficiency.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100% goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100% goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100% goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE firm does not count toward the DBE goal.
- (d) DBE as a trucker: 100% goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (e) DBE as a material supplier:
 - (1) 60% goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100% goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100% credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five (5) working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five (5) working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten (10) working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal.

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.
- (c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty (30) calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

- (d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

80029

FLAGGER VESTS (BDE)

Effective: April 1, 2003

Revised: August 1, 2005

Revise the first sentence of Article 701.04(c)(1) of the Standard Specifications to read:

"The flagger shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments and approved flagger traffic control signs conforming to Standard 702001 and Article 702.05(e)."

Revise Article 701.04(c)(6) of the Standard Specifications to read:

"(6) Nighttime Flagging. Flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 108 lux (10 fc) measured 300 mm (1 ft) out from the flagger's chest. The bottom of any luminaire shall be a minimum of 3 m (10 ft) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties.

The flagger vest shall be a fluorescent orange or fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 3 garments."

80101

MINIMUM LANE WIDTH WITH LANE CLOSURE (BDE)

Effective: January 1, 2005

Add the following paragraph after the eighth paragraph of Article 701.04(a) of the Standard Specifications.

"The minimum lane width adjacent to a closed lane during paving, patching, and other moving operations on freeways and expressways shall be a minimum of 3 m (10 ft). The 3 m (10 ft) shall be clear, unobstructed, and free of channelizing devices or other obstacles."

80137

PARTIAL PAYMENTS (BDE)

Effective: September 1, 2003

Revise Article 109.07 of the Standard Specifications to read:

“109.07 Partial Payments. Partial payments will be made as follows:

- (a) **Progress Payments.** At least once each month, the Engineer will make a written estimate of the amount of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved. Furthermore, progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

- (b) **Material Allowances.** At the discretion of the Department, payment may be made for materials, prior to their use in the work, when satisfactory evidence is presented by the Contractor. Satisfactory evidence includes justification for the allowance (to expedite the work, meet project schedules, regional or national material shortages, etc.), documentation of material and transportation costs, and evidence that such material is properly stored on the project or at a secure location acceptable and accessible to the Department.

Material allowances will be considered only for nonperishable materials when the cost, including transportation, exceeds \$10,000 and such materials are not expected to be utilized within 60 days of the request for the allowance. For contracts valued under \$500,000, the minimum \$10,000 requirement may be met by combining the principal (material) product of no more than two contract items. An exception to this two item limitation may be considered for any contract regardless of value for items in which material (products) are similar except for type and/or size.

Material allowances shall not exceed the value of the contract items in which used and shall not include the cost of installation or related markups. Amounts paid by the Department for material allowances will be deducted from estimates due the Contractor as the material is used. Two-sided copies of the Contractor's cancelled checks for materials and transportation must be furnished to the Department within 60 days of payment of the allowances or the amounts will be reclaimed by the Department.”

80116

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: September 1, 2003

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts no later than 30 days from the receipt of each payment made to the Contractor.

State law addresses the timing of payments to be made to subcontractors. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, generally requires that when a Contractor receives any payment from the Department, the Contractor is required to make corresponding, proportional payments to each subcontractor performing work within 15 calendar days after receipt of the state payment. Section 7 of the State Prompt Payment Act further provides that interest in the amount of 2% per month, in addition to the payment due, shall be paid to any subcontractor by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

As progress payments are made to the Contractor in accordance with Article 109.07 of the Standard Specifications for Road and Bridge Construction, the Contractor shall make a corresponding partial payment within 15 calendar days to each subcontractor in proportion to the work satisfactorily completed by each subcontractor. The proportionate amount of partial payment due to each subcontractor shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors shall be paid in full within 15 calendar days after the subcontractor's work has been satisfactorily completed. The Contractor shall hold no retainage from the subcontractors.

This Special Provision does not create any rights in favor of any subcontractor against the State of Illinois or authorize any cause of action against the State of Illinois on account of any payment, nonpayment, delayed payment or interest claimed by application of the State Prompt Payment Act. The Department will neither determine the reasonableness of any cause for delay of payment nor enforce any claim to payment, including interest. Moreover, the Department will not approve any delay or postponement of the 15 day requirement. State law creates remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond in accordance with the Public Construction Bond Act, 30 ILCS 550.

80022

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: July 1, 2004

All personnel, excluding flaggers, working outside of a vehicle (car or truck) within 7.6 m (25 ft) of pavement open to traffic shall wear a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have manufacturers tags identifying them as meeting the ANSI Class 2 requirement.
80130

PORTLAND CEMENT (BDE)

Effective: January 1, 2005

Replace the first sentence of the second paragraph of Article 1001.01 of the Standard Specifications with the following:

“For portland cement according to ASTM C 150, the addition of up to 5.0 percent limestone by mass (weight) to the cement will not be permitted. Also, the total of all organic processing additions shall not exceed 1.0 percent by mass (weight) of the cement and the total of all inorganic processing additions shall not exceed 4.0 percent by mass (weight) of the cement.”
80139

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2002

Add the following paragraph after the fourth paragraph of Article 1103.01(b) of the Standard Specifications:

“The truck mixer shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Add the following paragraph after the first paragraph of Article 1103.01(c) of the Standard Specifications:

“The truck agitator shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Add the following paragraph after the first paragraph of Article 1103.01(d) of the Standard Specifications:

“The nonagitator truck shall be approved before use according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.”

Revise the first sentence of the first paragraph of Article 1103.02 of the Standard Specifications to read:

“The plant shall be approved before production begins according to the Bureau of Materials and Physical Research’s Policy Memorandum, “Approval of Concrete Plants and Delivery Trucks”.
80083

PUBLIC CONVENIENCE AND SAFETY (BDE)

Effective: January 1, 2000

Add the following paragraph after the fourth paragraph of Article 107.09 of the Standard Specifications.

“On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical.”

80015

RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)

The contractor will be required to carry Railroad Protective Liability and Property Damage Liability Insurance in accordance with Article 107.11 of the Standard Specifications. The limits of liability shall be in accordance with Article 107.11 of the Standard Specifications unless otherwise noted. A separate policy is required for each railroad indicated below unless otherwise noted.

<u>NAMED INSURED & ADDRESS</u>	<u>NUMBER & SPEED OF PASSENGER TRAINS</u>	<u>NUMBER & SPEED OF FREIGHT TRAINS</u>
Alton & Southern Railroad 1000 South 22 nd St. East St. Louis, IL 62207	0	20Trns/day @30 MPH

FOR FREIGHT/PASSENGER INFORMATION CONTACT: David Smith PHONE: (618)482-7733

FOR INSURANCE INFORMATION CONTACT: Jim Pinkerton, Manager of Track

PHONE: (618)482-7752

Basis of Payment: The costs for providing insurance, as noted above, will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

APPROVAL OF INSURANCE: The ORIGINAL and one CERTIFIED copy of each required policy shall be submitted to ENGINEER OF DESIGN, ILLINOIS DEPARTMENT OF TRANSPORTATION, 2300 SOUTH DIRKSEN PARKWAY, SPRINGFIELD, ILLINOIS 62764 for approval. The contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Resident Engineer evidence that the required railroad protective liability insurance has been approved by the railroad(s). The Contractor shall also provide the Resident Engineer with expiration date of each required policy.

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 1992

Revised: January 1, 2005

To ensure a prompt response to incidents involving the integrity of work zone traffic control, the Contractor shall provide a telephone number where a responsible individual can be contacted 24 hours-a-day.

When the Engineer is notified, or determines a traffic control deficiency exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 12 hours based upon the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge.

A deficiency may be any lack of repair, maintenance, or non-compliance with the traffic control plan. A deficiency may also be applied to situations where corrective action is not an option such as the use of non-certified flaggers for short term operations; working with lane closures beyond the time allowed in the contract; or failure to perform required contract obligations such as traffic control surveillance.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option this monetary deduction will be immediate.

In addition, if the Contractor fails to respond, the Engineer may correct the deficiency and the cost thereof will be deducted from monies due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his/her contractual requirements or responsibilities.

5729I

WORK ZONE PUBLIC INFORMATION SIGNS (BDE)

Effective: September 1, 2002

Revised: January 1, 2005

Description. This work shall consist of furnishing, erecting, maintaining, and removing work zone public information signs.

Camera-ready artwork for the signs will be provided to sign manufacturing companies upon request by contacting the Central Bureau of Operations at 217-782-2076. The sign number is W21-1116-6048.

Freeways/Expressways. These signs are required on freeways and expressways. The signs shall be erected as shown on Highway Standard 701400 and according to Article 702.05(a) of the Standard Specifications.

All Other Routes. These signs shall be used on other routes when specified on the plans. They shall be erected in pairs midway between the first and second warning signs.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the cost of the Standard.
80090

WORK ZONE SPEED LIMIT SIGNS (BDE)

Effective: April 2, 2004

Revised: April 15, 2004

Delete Article 702.05(c).

Revise Article 702.05(d) to read:

“(d) Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 150 m (500 ft) beyond the last entrance ramp for each interchange. The individual signs that make up an assembly may be combined on a single panel. The sheeting for the signs shall be reflective and conform to the requirements of Article 1084.02.

All permanent “SPEED LIMIT” signs located within the work zone shall be removed or covered. This work shall be coordinated with the lane closure(s) by promptly establishing a reduced posted speed zone when the lane closure(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closure(s).

The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic; at all other times, the signs shall be promptly removed or covered. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall.

80125

76966SP

WORK ZONE TRAFFIC CONTROL (BDE)

Effective: April 2, 2004

Revised: January 2, 2005

Revise the first paragraph of Article 701.07(b) to read:

“(b) Standards 701401, 701422, and 701446 will be measured for payment on an each basis only when the traffic control and protection applies to isolated stationary work areas and does not involve or is not a part of other protected areas.”

Revise the Article 701.07(c) to read:

“(c) Measured As Lump Sum. Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701400, 701406, 701421, 701501, 701502, 701601, 701602, 701606, 701701 and 701801 will be measured for payment on a lump sum basis. Traffic control protection required under Standards 701401, 701422, and 701446 will be measured for payment on a lump sum basis, except as specified under Article 701.07(b). Where the Contractor's operations result in daily changing, or two or more work areas each of which requires traffic control according to one of the above Standards, each work area installation will not be paid for separately, but shall be included in the lump sum price for the type of protection furnished.”

Revise the first paragraph of Article 701.08(a) to read:

“(a) Traffic control and protection will be paid for at the contract unit price each for TRAFFIC CONTROL AND PROTECTION STANDARD 701316; TRAFFIC CONTROL AND PROTECTION STANDARD 701321; TRAFFIC CONTROL AND PROTECTION STANDARD 701331; TRAFFIC CONTROL AND PROTECTION STANDARD 701401; TRAFFIC CONTROL AND PROTECTION STANDARD 701402; TRAFFIC CONTROL AND PROTECTION STANDARD 701411; TRAFFIC CONTROL AND PROTECTION STANDARD 701416; TRAFFIC CONTROL AND PROTECTION STANDARD 701422; TRAFFIC CONTROL AND PROTECTION STANDARD 701423; TRAFFIC CONTROL AND PROTECTION STANDARD 701431; or TRAFFIC CONTROL AND PROTECTION STANDARD 701446 at the location specified.”

Revise the first paragraph of Article 701.08(b) to read:

“(b) Traffic control and protection indicated in Article 701.07(c) will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION STANDARD 701201; TRAFFIC CONTROL AND PROTECTION STANDARD 701206; TRAFFIC CONTROL AND PROTECTION STANDARD 701306; TRAFFIC CONTROL AND PROTECTION STANDARD 701326; TRAFFIC CONTROL AND PROTECTION STANDARD 701336; TRAFFIC CONTROL AND PROTECTION STANDARD 701400; TRAFFIC CONTROL AND PROTECTION STANDARD 701401; TRAFFIC CONTROL AND PROTECTION STANDARD 701406; TRAFFIC CONTROL AND PROTECTION STANDARD 701421; TRAFFIC CONTROL AND PROTECTION STANDARD 701422; TRAFFIC CONTROL AND PROTECTION STANDARD 701446; TRAFFIC CONTROL AND PROTECTION STANDARD 701501; TRAFFIC CONTROL AND PROTECTION STANDARD 701502; TRAFFIC CONTROL AND PROTECTION STANDARD 701601; TRAFFIC CONTROL AND PROTECTION STANDARD 701602; TRAFFIC CONTROL AND PROTECTION STANDARD 701606; TRAFFIC CONTROL AND PROTECTION STANDARD 701701; or TRAFFIC CONTROL AND PROTECTION STANDARD 701801.”

80126

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: January 1, 2003

Revised: November 1, 2004

Add the following to Article 702.01 of the Standard Specifications:

“All devices and combinations of devices shall meet the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350 for their respective categories. The categories are as follows:

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, flexible delineators and plastic drums with no attachments. Category 1 devices shall be crash tested and accepted or may be self-certified by the manufacturer.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include drums and vertical panels with lights, barricades and portable sign supports. Category 2 devices shall be crash tested and accepted for Test Level 3.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions, truck mounted attenuators and other devices not meeting the definitions of Category 1 or 2. Category 3 devices shall be crash tested and accepted for either Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals and area lighting supports. Currently, there is no implementation date set for this category and it is exempt from the NCHRP 350 compliance requirement.

The Contractor shall provide a manufacturer's self-certification letter for each Category 1 device and an FHWA acceptance letter for each Category 2 and Category 3 device used on the contract. The letters shall state the device meets the NCHRP 350 requirements for its respective category and test level, and shall include a detail drawing of the device.”

Delete the third, fourth and fifth paragraphs of Article 702.03(b) of the Standard Specifications.

Delete the third sentence of the first paragraph of Article 702.03(c) of the Standard Specifications.

Revise the first sentence of the first paragraph of Article 702.03(e) of the Standard Specifications to read:

“Drums shall be nonmetallic and have alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes.”

Add the following to Article 702.03 of the Standard Specifications:

“(h) Vertical Barricades. Vertical barricades may be used in lieu of cones, drums or Type II barricades to channelize traffic.”

Delete the fourth paragraph of Article 702.05(a) of the Standard Specifications.

Revise the sixth paragraph of Article 702.05(a) of the Standard Specifications to read:

“When the work operations exceed four days, all signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, a temporary sign stand may be used to support a sign at 1.2 m (5 ft) minimum where posts are impractical. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 30 m (100 ft) to avoid obstacles, hazards or to improve sight distance, when approved by the Engineer. “ROAD CONSTRUCTION AHEAD” signs will also be required on side roads located within the limits of the mainline “ROAD CONSTRUCTION AHEAD” signs.”

Delete all references to “Type 1A barricades” and “wing barricades” throughout Section 702 of the Standard Specifications.

80097

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR MADISON COUNTY EFFECTIVE JULY 2005

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <http://www.state.il.us/agency/idol/> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Madison County Prevailing Wage for July 2005

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN	NW	ALL		22.250	22.750	1.5	1.5	2.0	4.600	6.300	0.000	0.500
ASBESTOS ABT-GEN	SE	ALL		22.400	22.900	1.5	1.5	2.0	4.750	6.000	0.000	0.500
ASBESTOS ABT-MEC		BLD		24.010	25.010	1.5	1.5	2.0	2.920	4.320	0.000	0.000
BOILERMAKER		BLD		27.000	29.500	1.5	1.5	2.0	7.020	10.21	0.000	0.210
BRICK MASON		BLD		24.970	26.590	1.5	1.5	2.0	4.100	7.400	2.000	0.370
CARPENTER		ALL		29.030	30.530	1.5	1.5	2.0	4.450	3.250	0.000	0.350
CEMENT MASON		ALL		25.450	26.200	1.5	1.5	2.0	4.850	7.250	0.000	0.100
CERAMIC TILE FNSHER		BLD		22.040	0.000	1.5	1.5	2.0	4.800	4.100	0.000	0.250
ELECTRIC PWR EQMT OP	NW	ALL		27.580	33.960	1.5	2.0	2.0	5.150	6.070	0.000	0.140
ELECTRIC PWR EQMT OP	SE	ALL		29.820	35.940	1.5	2.0	2.0	4.120	7.450	0.000	0.150
ELECTRIC PWR GRNDMAN	NW	ALL		18.810	33.960	1.5	2.0	2.0	5.150	4.140	0.000	0.090
ELECTRIC PWR GRNDMAN	SE	ALL		22.260	35.940	1.5	2.0	2.0	3.080	5.570	0.000	0.110
ELECTRIC PWR LINEMAN	NW	ALL		32.020	33.960	1.5	2.0	2.0	5.150	7.040	0.000	0.160
ELECTRIC PWR LINEMAN	SE	ALL		34.280	35.940	1.5	2.0	2.0	4.740	8.570	0.000	0.170
ELECTRIC PWR TRK DRV	NW	ALL		20.520	33.960	1.5	2.0	2.0	5.150	4.520	0.000	0.100
ELECTRIC PWR TRK DRV	SE	ALL		24.340	35.940	1.5	2.0	2.0	3.370	6.080	0.000	0.120
ELECTRICIAN	NW	ALL		29.040	31.040	1.5	1.5	2.0	5.150	6.520	0.000	0.200
ELECTRICIAN	SE	ALL		30.570	32.400	1.5	1.5	2.0	4.740	5.800	0.000	0.460
ELECTRONIC SYS TECH	NW	BLD		22.990	24.490	1.5	1.5	2.0	5.150	3.640	0.000	0.460
ELECTRONIC SYS TECH	SE	BLD		22.610	24.110	1.5	1.5	2.0	2.800	3.180	1.750	0.450
ELEVATOR CONSTRUCTOR		BLD		32.700	36.790	2.0	2.0	2.0	7.275	3.420	1.960	0.000
FLOOR LAYER		BLD		26.030	26.780	1.5	1.5	2.0	4.750	3.500	0.000	0.350
GLAZIER		BLD		28.730	0.000	2.0	2.0	2.0	7.150	5.920	2.300	0.160
HT/FROST INSULATOR		BLD		28.790	29.790	1.5	1.5	2.0	4.250	7.360	0.000	0.000
IRON WORKER		ALL		24.540	26.040	1.5	1.5	2.0	5.710	7.750	0.000	0.420
LABORER	NW	ALL		21.750	22.250	1.5	1.5	2.0	4.600	6.300	0.000	0.500
LABORER	SE	ALL		21.900	22.400	1.5	1.5	2.0	4.750	6.000	0.000	0.500
MACHINIST		BLD		35.630	37.630	2.0	2.0	2.0	3.880	4.750	2.460	0.000
MARBLE FINISHERS		BLD		22.040	0.000	1.5	1.5	2.0	4.800	4.100	0.000	0.250
MARBLE MASON		BLD		24.970	26.590	1.5	1.5	2.0	4.100	7.400	2.000	0.370
MILLWRIGHT		ALL		29.030	30.530	1.5	1.5	2.0	4.450	3.250	0.000	0.350
OPERATING ENGINEER		ALL	1	24.650	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	2	23.520	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	3	19.040	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	4	19.100	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	5	18.770	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	6	25.200	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	7	25.500	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
OPERATING ENGINEER		ALL	8	25.780	25.780	1.5	1.5	2.0	5.600	9.900	0.000	1.000
PAINTER		BLD		23.800	24.800	1.5	1.5	2.0	3.900	5.150	0.000	0.350
PAINTER		HWY		25.000	26.000	1.5	1.5	2.0	3.900	5.150	0.000	0.350
PAINTER OVER 30FT		BLD		24.800	25.800	1.5	1.5	2.0	3.900	5.150	0.000	0.350
PAINTER PWR EQMT		BLD		24.800	25.800	1.5	1.5	2.0	3.900	5.150	0.000	0.350
PAINTER PWR EQMT		HWY		26.000	27.000	1.5	1.5	2.0	3.900	5.150	0.000	0.350
PILEDRIVER		ALL		29.030	30.530	1.5	1.5	2.0	4.450	3.250	0.000	0.350
PIPEFITTER	N	BLD		29.000	30.250	2.0	2.0	2.0	5.350	4.950	0.000	0.000
PIPEFITTER	S	BLD		28.000	30.000	1.5	1.5	2.0	5.200	6.840	0.000	0.400
PLASTERER		BLD		25.300	26.300	1.5	1.5	2.0	4.850	6.750	0.000	0.250
PLUMBER	N	BLD		29.000	30.250	2.0	2.0	2.0	5.350	4.950	0.000	0.000
PLUMBER	S	BLD		29.200	31.700	1.5	1.5	2.0	4.550	4.700	0.000	0.300
ROOFER		BLD		25.250	27.250	1.5	1.5	2.0	5.200	5.300	0.000	0.200
SHEETMETAL WORKER		ALL		26.470	27.720	1.5	1.5	2.0	5.750	4.310	1.580	0.120
SPRINKLER FITTER		BLD		31.080	33.080	2.0	2.0	2.0	5.900	5.850	0.000	0.400
TERRAZZO FINISHER		BLD		30.050	0.000	1.5	1.5	2.0	0.000	0.000	0.000	0.000
TERRAZZO MASON		BLD		29.550	29.850	1.5	1.5	2.0	0.000	3.750	0.000	0.000
TRUCK DRIVER		ALL	1	24.905	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER		ALL	2	25.305	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER		ALL	3	25.505	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000

TRUCK DRIVER	ALL	4	25.755	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	ALL	5	26.505	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	O&C	1	19.924	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	O&C	2	20.244	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	O&C	3	20.404	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	O&C	4	20.604	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000
TRUCK DRIVER	O&C	5	21.204	0.000	1.5	1.5	2.0	7.000	3.200	0.000	0.000

Legend :

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

MADISON COUNTY

ELECTRICIANS AND ELECTRIC SYSTEMS TECHNICIAN (NORTHWEST) - Townships of Godfrey, Foster and Wood River, and the western one mile of Moro, Ft. Russell and Edwardsville, south to the north side of Hwy. 66 and west to the Mississippi River. This includes SIU-Edwardsville Dental Facility and Alton Mental Health Hospital.

ELECTRICIANS AND ELECTRIC SYSTEMS TECHNICIAN (SOUTHEAST) - Remainder of county not covered by ELECTRICIANS AND ELECTRIC SYSTEMS TECHNICIAN (NW) including SIU-Edwardsville Main Campus.

LABORERS (NORTHWEST) - That area northwest of a diagonal line running from the Mississippi River at the intersection of the waterway known as Wood River at Maple Island, northeast through the highway intersection of Illinois Routes 3 and 143 and following the boundary of Alton/East Alton, then preceding northeast to the county line at a point approximately one mile west of Illinois Route 159.

PLUMBERS AND PIPEFITTERS (SOUTH) - That part of the county South of a line between Mitchell and Highland including the town of Glen Carbon.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and liquid asphalt to coat an existing road surface, followed by application of aggregate chips or gravel to coated surface, and subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER AND MARBLE FINISHER

The handling, at the building site, of all sand, cement, tile, marble or stone and all other materials that may be used and installed by [a] tile layer or marble mason. In addition, the grouting, cleaning, sealing, and mixing on the job site, and all other work as required in assisting the setter. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

ELECTRONIC SYSTEMS TECHNICIAN

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

Excluded from this classification are energy management systems, life safety systems, supervisory controls and data acquisition systems not intrinsic with the above listed systems, fire alarm systems, nurse call systems and raceways exceeding fifteen feet in length.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vector trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while employed on hazardous waste work.

TRUCK DRIVER - OIL AND CHIP RESEALING ONLY.

This shall encompass laborers, workers and mechanics who drive contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. The work includes transporting materials and equipment (including but not limited to, oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material when in connection with the actual oil and chip contract. The Truck Driver (Oil & Chip Resealing) wage classification does not include supplier delivered materials.

OPERATING ENGINEERS

GROUP I. Cranes, Dragline, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, All Locomotives, Cable Ways, or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines or Backfiller, Cherrypickers, Overhead Cranes, Roller, Steam or Gas, Concrete Pavers, Excavators, Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than Derrick Type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (Two), Air Compressors (Two), Water Pumps regardless of size (Two), Welding Machines (Two), Siphons or Jets (Two), Winch Heads or Apparatuses (Two), Light Plants (Two), Waterblasters (two), All Tractors regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (One), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, all Operators (except those listed below).

GROUP II. Assistant Operators.

GROUP III. Air Compressors (One), Water Pumps, regardless of Size (One), Waterblasters (one), Welding Machine (One), Mixers (One Bag), Conveyor (One), Siphon or Jet (One), Light Plant (One), Heater (One), Immobile Track Air (One), and Self Propelled Walk-Behind Rollers.

GROUP IV. Asphalt Spreader Oilers, Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes - (Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant Oiler, and Creter Crane Oiler (when required).

GROUP V. Oiler.

GROUP VI. Master Mechanics, Operators on equipment with Booms, including jibs, 100 feet and over, and less than 150 feet long.

GROUP VII. Operators on equipment with Booms, including jibs, 150 feet and over, and less than 200 feet long.

GROUP VIII. Operators on Equipment with Booms, including jibs, 200

feet and over; Tower Cranes; Whirlie Cranes; and Operator Foreman.

TERRAZZO FINISHER

The handling of all materials used for Mosaic and Terrazzo work including preparing, mixing by hand, by mixing machine or transporting of pre-mixed materials and distributing with shovel, rake, hoe, or pail, all kinds of concrete foundations necessary for Mosaic and Terrazzo work, all cement terrazzo, magnesite terrazzo, Do-O-Text terrazzo, epoxy matrix terrazzo, exposed aggregate, rustic or rough washed for exterior or interior of buildings placed either by machine or by hand, and any other kind of mixture of plastics composed of chips or granules when mixed with cement, rubber, neoprene, vinyl, magnesium chloride or any other resinous or chemical substances used for seamless flooring systems, and all other building materials, all similar materials and all precast terrazzo work on jobs, all scratch coat used for Mosaic and Terrazzo work and sub-bed, tar paper and wire mesh (2x2 etc.) or lath. The rubbing, grinding, cleaning and finishing of same either by hand or by machine or by terrazzo resurfacing equipment on new or existing floors. When necessary finishers shall be allowed to assist the mechanics to spread sand bed, lay tarpaper and wire mesh (2x2 etc.) or lath. The finishing of cement floors where additional aggregate of stone is added by spreading or sprinkling on top of the finished base, and troweled or rolled into the finish and then the surface is ground by grinding machines.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 618/993-7271 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.