

**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 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 124) and the ORIGINAL "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. This does not apply to Small Business Set-Asides.

**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. This does not apply to Small Business Set-Asides.

**WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?:** When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) 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 an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** 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 bidders check IDOT's website at <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

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***IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.***

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

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Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or [Timothy.Garman@illinois.gov](mailto:Timothy.Garman@illinois.gov).

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**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?**

<b>Questions Regarding</b>	<b>Call</b>
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

**ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS**

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

# 156

RETURN WITH BID

Proposal Submitted By
Name
Address
City

## Letting April 29, 2011

**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. This does not apply to Small Business Set-Asides.  
(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. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

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

Plans Included  
Herein

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

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## 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. In addition, this proposal contains new statutory requirements applicable to the use of subcontractors and, in particular, includes the State Required Ethical Standards Governing Subcontractors to be signed and incorporated into all subcontracts.

**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) and submit an original Affidavit of Availability (BC 57). This does not apply to Small Business Set-Asides.

**WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?:** When a prospective prime bidder submits a "**Authorization to Bid or Not for Bid**" form, 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 **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Authorization to Bid or Not for Bid Report**, 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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### 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

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of \_\_\_\_\_

\_\_\_\_\_

Taxpayer Identification Number (Mandatory) \_\_\_\_\_ a

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

**Contract No. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 Construction Funds**

**This project consists of installing conduit, communication vaults, fiber optic cable, CC TV cameras, microwave traffic counters and equipment cabinets along IL Route 29 from the intersection of Main Street and Washington Street in East Peoria to the intersection of Margaret Street and Second Street in the city of Pekin and along Interstate 474 from the Cole Street overpass to the Interstate 74 interchange.**

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**

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, addenda, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.
4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to	\$10,000	\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to	\$50,000	\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to	\$100,000	\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to	\$150,000	\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to	\$250,000	\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to	\$500,000	\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to	\$1,000,000	\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to	\$1,500,000	\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to	\$2,000,000	over		\$35,000,000	\$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is \_\_\_\_\_ \$(\_\_\_\_\_). If this proposal is accepted and the undersigned shall fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

**Attach Cashier's Check or Certified Check Here**

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for:

Item \_\_\_\_\_

Section No. \_\_\_\_\_

County \_\_\_\_\_

**Mark the proposal cover sheet as to the type of proposal guaranty submitted.**

**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. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.

9. **The services of a subcontractor will or may be used.**

Check box Yes   
 Check box No

For known subcontractors with subcontracts with an annual value of more than \$25,000, the contract shall include their name, address, and the dollar allocation for each subcontractor.

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10. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer or the State Purchasing Officer is for approval of the procurement process and execution of the contract by the Department. Neither the Chief Procurement Officer nor the State Purchasing Officer shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Illinois Procurement Code.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER - 68A18

State Job # - C-94-022-11  
 PPS NBR - 0-01300-4001  
 County Name - TAZEWELL - -  
 Code - 179 - -  
 District - 4 - -  
 Section Number - D4 TRAFFIC SIGNALS 2011

Project Number

Route  
 VARIOUS

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0323388	TRAFFIC COUNTER	EACH	1.000				
X0323900	CONC FDN TY 1	FOOT	3.500				
X0323917	CABINET MODEL 334	EACH	1.000				
X0323920	POLE MT EQUIP CAB TB	EACH	1.000				
X0326252	COMPUTER WORKSTATION	EACH	4.000				
X0326253	LCD MONITOR	EACH	8.000				
X0326812	CAT 5 ETHERNET CABLE	FOOT	1,300.000				
X0326905	CCTV DOME CAM IP BASE	EACH	7.000				
X0326906	CCTV DM CAM IP BAS MO	EACH	3.000				
X0327121	CAMERA POLE 55 FT	EACH	1.000				
X0327238	MAST ARM EXTENSION	EACH	4.000				
X0327239	CON T SPL	FOOT	44,680.000				
X0327240	CON P SPL	FOOT	12,570.000				
X8050095	SERV INSTALL SPL	EACH	1.000				
X8710030	FIB OPT CBL 48F SM	FOOT	68,492.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

68A18

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Project Number

Route  
 VARIOUS

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X8710050	FO ETN DROP REPEAT SW	EACH	14.000				
Z0033052	COMMUNICATIONS VAULT	EACH	68.000				
42400100	PC CONC SIDEWALK 4	SQ FT	860.000				
44000600	SIDEWALK REM	SQ FT	860.000				
67100100	MOBILIZATION	L SUM	1.000				
70102622	TR CONT & PROT 701502	L SUM	1.000				
70102625	TR CONT & PROT 701606	L SUM	1.000				
70102630	TR CONT & PROT 701601	L SUM	1.000				
70102632	TR CONT & PROT 701602	L SUM	1.000				
70102635	TR CONT & PROT 701701	L SUM	1.000				
70102640	TR CONT & PROT 701801	L SUM	1.000				
81012600	CON T 2 PVC	FOOT	250.000				
81021330	CON P 2 PVC	FOOT	905.000				
81100600	CON AT ST 2 GALVS	FOOT	468.000				
81300550	JUN BX SS AS 12X12X6	EACH	3.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER - 68A18

State Job # - C-94-022-11  
 PPS NBR - 0-01300-4001  
 County Name - TAZEWELL - -  
 Code - 179 - -  
 District - 4 - -  
 Section Number - D4 TRAFFIC SIGNALS 2011

Project Number

Route  
 VARIOUS

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81300948	JUN BX SS AS 24X24X10	EACH	4.000				
81702130	EC C XLP USE 1C 6	FOOT	546.000				
81900200	TR & BKFIL F ELECT WK	FOOT	44,910.000				
87800415	CONC FDN TY E 36D	FOOT	20.000				
87900200	DRILL EX HANDHOLE	EACH	10.000				

**CONTRACT NUMBER**

**68A18**

**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. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances have 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 the chief procurement officer to void the contract, or subcontract, and may result in the suspension or debarment of the bidder or subcontractor.

#### II. ASSURANCES

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.

##### **A. 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 \$177,412.00. Sixty percent of the salary is \$106,447.20.

## 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.

### **B. 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.

### **C. 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.

### **D. Revolving Door Prohibition**

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, State purchasing officers, procurement compliance monitors, 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.

### **E. 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.

### **F. 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

### **G. 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**

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. Section 50-2 of the Illinois Procurement Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible chief procurement officer whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

#### **A. 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, or subcontracting under such a contract, 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, or which is signatory to the contract which the subcontract relates, 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, and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

#### **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, or enter into a subcontract, 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. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

## RETURN WITH BID

### **C. Debt Delinquency**

1. The Illinois Procurement Code provides:

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Procurement Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the chief procurement officer may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

### **D. Prohibited Bidders, Contractors and Subcontractors**

1. The Illinois Procurement Code provides:

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, 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 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

### **E. Section 42 of the Environmental Protection Act**

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-12 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Procurement Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the chief procurement officer may declare the contract void if this certification is false.

### **F. 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.

### **G. 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.

- (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.

## RETURN WITH BID

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.

### **H. 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.

### **I. 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.

RETURN WITH BID

J. Disclosure of Business Operations in Iran

Section 50-36 of the Illinois Procurement Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
(2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Code.

Failure to make the disclosure required by the Code shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

- /\_\_\_/ Company has no business operations in Iran to disclose.
/\_\_\_/ Company has business operations in Iran as disclosed the attached document.

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.

Three horizontal lines for listing program sponsors.

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**

**L. Political Contributions and Registration with the State Board of Elections**

Sections 20-160 and 50-37 of the Illinois Procurement Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, but whose aggregate pending bids and proposals on state contracts exceed \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Illinois Procurement Code, and that it makes the following certification:

**The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.**

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Illinois Procurement Code. This provision does not apply to Federal-aid contracts.

**M. Lobbyist Disclosure**

Section 50-38 of the Illinois Procurement Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The chief procurement officer shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Procurement Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: \_\_\_\_\_  
All costs, fees, compensation, reimbursements and other remuneration paid to said person: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## RETURN 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 bidder further certifies that the Department has received the disclosure forms for each bid.

The chief procurement officer may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Procurement Code. Furthermore, the chief procurement officer may void the contract 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 \$25,000 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, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Procurement Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

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.

**The current annual salary of the Governor is \$177,412.00**

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.**

### C. Disclosure Form Instructions

#### Form A Instructions for Financial Information & Potential Conflicts of Interest

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 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 60% of the annual salary of the Governor? YES \_\_\_ NO \_\_\_
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES \_\_\_ NO \_\_\_

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

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 60% of the annual salary of the Governor? 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 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

## RETURN WITH BID

### **Form B: Instructions for Identifying Other Contracts & Procurement Related Information**

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, 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 check 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.

**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 \$25,000, 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.**

*The current annual salary of the Governor is \$177,412.00.*

**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 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

<b>FOR INDIVIDUAL (type or print information)</b>	
<b>NAME:</b>	_____
<b>ADDRESS</b>	_____
<b>Type of ownership/distributable income share:</b>	
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 State 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 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. \_\_\_\_\_

**RETURN WITH BID**

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, 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 two times the salary of the Governor?  
Yes \_\_\_ No \_\_\_

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(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 State 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 60% of the annual salary of the Governor, 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 60% of the annual salary of the Governor, as of 7/1/07 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 100% of the annual 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 60% of the annual salary of the Governor, 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 \_\_\_

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(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 \_\_\_

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(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 \_\_\_

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(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.  
Yes \_\_\_ No \_\_\_

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(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.  
Yes \_\_\_ No \_\_\_

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**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 \_\_\_

**2. Communication Disclosure.**

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RETURN WITH BID**

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): \_\_\_\_\_

Nature of disclosure: \_\_\_\_\_

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

**APPLICABLE STATEMENT**

**This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.**

Completed by:  \_\_\_\_\_ Date \_\_\_\_\_  
Signature of Individual or Authorized Representative

**NOT APPLICABLE STATEMENT**

**Under penalty of perjury, 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.**

\_\_\_\_\_ Date \_\_\_\_\_  
Signature of Authorized Representative

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Procurement Code.

RETURN WITH BID

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 \$25,000, 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 CHECKED**

<input type="checkbox"/>	_____	_____
	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. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 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 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. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 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.

(IF AN INDIVIDUAL)

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

Signature of Owner \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_

(IF A CO-PARTNERSHIP)

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

By \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_

Name and Address of All Members of the Firm:

\_\_\_\_\_

\_\_\_\_\_

(IF A CORPORATION)

Corporate Name \_\_\_\_\_

By \_\_\_\_\_

Signature of Authorized Representative \_\_\_\_\_

Typed or printed name and title of Authorized Representative \_\_\_\_\_

Attest \_\_\_\_\_

Signature \_\_\_\_\_

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)

Business Address \_\_\_\_\_

\_\_\_\_\_

(IF A JOINT VENTURE)

Corporate Name \_\_\_\_\_

By \_\_\_\_\_

Signature of Authorized Representative \_\_\_\_\_

Typed or printed name and title of Authorized Representative \_\_\_\_\_

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

as SURETY, are 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 the proposal and marking the check box next to the Signature and Title line 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

**(1) Policy**

It is public policy that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

**(2) Obligation**

The contractor agrees to ensure that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

**(3) Project and Bid Identification**

Complete the following information concerning the project and bid:

Route _____	Total Bid _____
Section _____	Contract DBE Goal _____
Project _____	(Percent)                      (Dollar Amount)
County _____	
Letting Date _____	
Contract No. _____	
Letting Item No. _____	

**(4) Assurance**

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

Meets or exceeds contract award goals and has provided documented participation as follows:  
Disadvantaged Business Participation \_\_\_\_\_ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation \_\_\_\_\_ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

\_\_\_\_\_  
Company

By \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises                      **Local Let Projects**  
2300 South Dirksen Parkway                                      Submit forms to the  
Springfield, Illinois 62764    Local Agency



# 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

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## 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. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 Construction Funds**



**Illinois Department of Transportation**

## **SUBCONTRACTOR DOCUMENTATION**

Public Acts 96-0795 and 96-0920, enacted substantial changes to the provisions of the Illinois Procurement Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Chief Procurement Officer within 20 calendar days after execution of the subcontract.

The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Illinois Procurement Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

## RETURN WITH SUBCONTRACT

### STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The chief procurement officer may terminate or void the subcontract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification.

Section 50-2 of the Illinois Procurement Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible chief procurement officer whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

#### **A. 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, or subcontracting under such a contract, 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, or which is signatory to the contract to which the subcontract relates, 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, and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

#### **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, or enter into a subcontract, 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. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

**RETURN WITH SUBCONTRACT**

**C. Debt Delinquency**

1. The Illinois Procurement Code provides:

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Procurement Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the chief procurement officer may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

**D. Prohibited Bidders, Contractors and Subcontractors**

1. The Illinois Procurement Code provides:

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, 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 or if in violation of Subsection (c) for a period of five years from the date of conviction.. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

**E. Section 42 of the Environmental Protection Act**

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-12 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Procurement Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the chief procurement officer may declare the contract void if this certification is false.

**The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.**

_____ Name of Subcontracting Company		
_____ Authorized Officer	_____ Date	

**RETURN WITH SUBCONTRACT**  
**SUBCONTRACTOR DISCLOSURES**

**I. DISCLOSURES**

- A. The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The chief procurement officer may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Procurement Code. Furthermore, the chief procurement officer may void the contract or subcontract.

**B. Financial Interests and Conflicts of Interest**

1. Section 50-35 of the Illinois Procurement Code provides that all subcontracts with a total value of \$25,000 or more from subcontractors identified in Section 20-120 of the Illinois Procurement Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

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 subcontracting entity or its parent entity, whichever is less, unless the subcontractor 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 subcontractor 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.

**The current annual salary of the Governor is \$177,412.00.**

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

**C. Disclosure Form Instructions**

**Form A Instructions for Financial Information & Potential Conflicts of Interest**

If the subcontractor 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 subcontractor 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 subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor 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 subcontracting 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 60% of the annual salary of the Governor? YES \_\_\_ NO \_\_\_
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES \_\_\_ NO \_\_\_

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES \_\_\_ NO \_\_\_

(Note: Only one set of forms needs to be completed per person per subcontract 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 subcontractor must determine each individual in the subcontracting entity or the subcontracting 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 subcontractor 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.

## RETURN WITH SUBCONTRACT

### **Form B: Instructions for Identifying Other Contracts & Procurement Related Information**

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.*

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

**ILLINOIS DEPARTMENT  
OF TRANSPORTATION**

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

Subcontractor 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). Subcontractors desiring to enter into a subcontract of a State of Illinois contract 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 subcontracts with a total value of \$25,000 or more, from subcontractors identified in Section 20-120 of the Illinois Procurement Code, 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.**

*The current annual salary of the Governor is \$177,412.00.*

**DISCLOSURE OF FINANCIAL INFORMATION**

**1. Disclosure of Financial Information.** The individual named below has an interest in the SUBCONTRACTOR (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 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

<b>FOR INDIVIDUAL (type or print information)</b>	
<b>NAME:</b>	_____
<b>ADDRESS</b>	_____
<b>Type of ownership/distributable income share:</b>	
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.

- Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes \_\_\_ No \_\_\_
- 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 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. \_\_\_\_\_

**RETURN WITH SUBCONTRACT**

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, 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 two 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 60% of the annual salary of the Governor, 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. \_\_\_\_\_

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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 60% of the annual salary of the Governor, as of 7/1/07 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 100% of the annual 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 60% of the annual salary of the Governor, 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 two times the annual 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 SUBCONTRACT**

(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 \_\_\_

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(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 \_\_\_

---

**3. Communication Disclosure.**

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RETURN WITH SUBCONTRACT**

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): \_\_\_\_\_

Nature of disclosure: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**APPLICABLE STATEMENT**

**This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.**

Completed by:  \_\_\_\_\_ Date \_\_\_\_\_  
Signature of Individual or Authorized Officer

**NOT APPLICABLE STATEMENT**

**Under penalty of perjury, 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 SUBCONTRACTOR listed on the previous page.**

\_\_\_\_\_ Date \_\_\_\_\_  
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT  
OF TRANSPORTATION

Form B  
Subcontractor: Other Contracts &  
Procurement Related Information  
Disclosure

Subcontractor 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 subcontracts with a total value of \$25,000 or more, from subcontractors identified in Section 20-120 of the Illinois Procurement Code, and for all open-ended contracts.

**DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION**

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

If "No" is checked, the subcontractor 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 CHECKED**

<input type="checkbox"/>	_____	_____
	Signature of Authorized Officer	Date



- 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., April 29, 2011. 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. 68A18  
TAZEWELL County  
Section D4 TRAFFIC SIGNALS 2011  
Various Routes  
District 4 Construction Funds**

**This project consists of installing conduit, communication vaults, fiber optic cable, CC TV cameras, microwave traffic counters and equipment cabinets along IL Route 29 from the intersection of Main Street and Washington Street in East Peoria to the intersection of Margaret Street and Second Street in the city of Pekin and along Interstate 474 from the Cole Street overpass to the Interstate 74 interchange.**

- 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

Gary Hannig,  
Secretary

INDEX  
FOR  
SUPPLEMENTAL SPECIFICATIONS  
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2011

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

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**STATE OF ILLINOIS**

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**SPECIAL PROVISIONS**

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, 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 Various Routes, Section D4 Traffic Signals 2011 in Tazewell County, Contract No. 68A18 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

**LOCATION OF PROJECT**

This project is located in Tazewell County along Illinois Route 29 from the intersection of Main and Washington Street in East Peoria to the intersection of Margaret Street and Second Street in the city of Pekin and along Interstate 474 from the Cole Street overpass to the Interstate 74 interchange.

**DESCRIPTION OF PROJECT**

This project consists of installing conduit, communication vaults, fiber optic cable, CCTV cameras, camera poles, concrete foundations, microwave traffic counters, equipment cabinets, and all collateral work required to complete the improvements.

**TRAFFIC CONTROL PLAN**

Effective: February 23, 2011

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 "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways," these Special Provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Section 701 and 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	701006	701011	701101	701106	701502
701601	701602	701606	701701	701801	701901

**STANDARDS**

Traffic shall be maintained on the associated roadways at all times during construction. All lane closures shall be made during off-peak traffic hours, defined as time periods from 8:30 a.m. to 3:30 p.m. and 5:30 p.m. to 7:00 a.m. Monday through Friday. The Contractor shall notify the Engineer forty-eight (48) hours before the time of a planned closure.

The exact time and duration of all lane closures, however, shall be as determined by the Engineer.

All traffic control devices shall be furnished, erected, maintained, and removed by the Contractor in accordance with the Standard Specifications. Where possible, all post-mounted signs shall be placed a minimum of two (2') feet beyond the curb or edge of shoulder. Proposed sign spacing may be modified as approved by the Engineer in order to meet existing field conditions or to prevent obstruction of the motorist's view of permanent signing.

## **SYSTEM IMPLEMENTATION, EQUIPMENT INTEGRATION AND SUPPORT**

The Contractor shall install the CCTV cameras and microwave traffic counters at the locations indicated on the plans.

All furnished components shall be subject to a 30-day burn-in period. During the "burn-in" period, all components shall perform continuously, without any interruption of operation, for a period of thirty days. In the event that there are operational problems during the burn-in period, the burn-in period shall reset back to day one.

After the successful completion of the burn-in period, the system will have completed final acceptance.

The Department will program the cameras and microwave traffic counters and integrate them into the existing ITS system.

The Contractor shall be responsible for installing the proposed CCTV cameras and microwave traffic counters in accordance with the plans, specifications, and manufacturers recommended practices.

This work will not be paid for separately, but shall be included in the contract bid price.

## **LOCATION OF UNDERGROUND STATE MAINTAINED FACILITIES**

The Contractor shall be responsible for locating all existing IDOT electrical facilities prior to performing any work at his/her own expense if required. The Contractor shall also be liable for any damage to facilities resulting from inaccurate locating. The Contractor may obtain, on request, plans of existing electrical facilities from the Department.

The Contractor shall also be responsible for locating and providing protection for facilities during all phases of construction. If at any time, the facilities are damaged, the Contractor shall immediately notify the Department and make all necessary arrangements for repair to the satisfaction of the Engineer. This work shall be included in the contract bid price and no additional compensation will be allowed.

## **CONTRACT GUARANTEE**

The Contractor shall guarantee all electrical equipment, apparatus, materials, and workmanship provided under the contract for a period of six (6) months after the date of final inspection according to Article 801.14.

All instruction sheets required to be furnished by the manufacturer for materials and supplies and for operations shall be delivered to the Engineer prior to the acceptance of the project, with the following warranties and guarantees:

1. The manufacturer's standard written warranty for each piece of electrical equipment or apparatus furnished under the contract.
2. The Contractor's written guarantee that, for a period of six (6) months after the date of final inspection of the project, all necessary repairs to or replacement of said warranted equipment, or apparatus shall be made by the Contractor at no cost to the Department.
3. The Contractor's written guarantee for satisfactory operation of all electrical systems furnished and constructed under the contract for a period of 6 months after final inspection of the project.

### **POT-HOLING FOR LOCATION OF EXISTING UNDERGROUND UTILITIES**

Potholing to locate existing underground utilities shall be included in the contract bid price for the conduit pay items (pushed or trenched).

Removal and replacement of existing sidewalk, pavement, and islands only for utility locating purposes will not be paid for separately, but shall be included in the contract bid price for the conduit pay items.

### **SEEDING, MINOR AREAS**

Effective July 1, 1990

Revised January 1, 2007

Seeding, fertilizing, and mulching shall be done in accordance with Article 250 of the Standard Specifications except for the following revisions:

All areas disturbed by the work performed shall be seeded, fertilized, and mulched in accordance with Article 251.03(a). The materials may be purchased locally and placed as directed by the engineer.

The estimated area is approximately 1.50 acre. The seed mixture shall be applied at 100 pounds/acre (110 kg/ha). The mixture shall be one that contains a high percentage of Kentucky Blue Grass. All seeds shall meet the purity and noxious weed requirements of Article 1081.04 of the Standard Specifications, and be approved by the engineer.

The fertilizer nutrients shall be applied at a rate of 270 lbs. (300 kg) of actual nutrients per acre (hectare). The fertilizer furnished shall be ready mixed material having a ratio of (1-1-1).

The Contractor shall provide the engineer with the test results from the seed container and the chemical analysis of the fertilizer nutrients.

The seed, fertilizer, and mulch will not be measured for payment but shall be included in the contract bid price for the pay item TRENCH AND BACKFILL FOR ELECTRICAL WORK.

## **CONDUIT, PUSHED OR TRENCHED**

This work shall consist of furnishing and installing conduit under an existing roadway, driveway, or sidewalk, or trenched into the ground. The Contractor may substitute coilable polyethylene conduit of equal size.

Non-metallic cable marking tape shall be installed in all conduit trenches in accordance with Article 819.05. This item will not be paid for separately, but shall be included in the price of the conduit.

The Contractor may elect to push a conduit that is shown to be trenched on the plans. This work will be measured for payment and paid for as CONDUIT IN TRENCH of the type and size specified and TRENCH AND BACKFILL FOR ELECTRICAL WORK.

Basis of Payment: This work will be paid for at the contract unit price per foot for CONDUIT of the size and type specified which price shall be payment in full for furnishing and installing the conduit and fittings complete.

## **FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE**

This work shall be in accordance with Sections 801, 864, 871, and 1076 of the Standard Specifications except as modified herein.

Each cable shall be clearly labeled in each cabinet utilizing a durable computer generated label. The label shall contain information in regards to the location where the cable is going to or coming from.

The fibers shall be spliced and terminated as shown on the fiber termination diagram on the plan sheets. All terminated fibers shall be clearly labeled.

Fibers not being used shall be labeled "spare", and fibers not attached to a distribution enclosure shall be capped and sealed.

All ancillary components, required to complete the fiber optic cable plant, including but not limited to, moisture and water sealants, cable caps, fan-out kits, weather-proof splice kits, boots, cable trays, splice enclosures, etc., shall be supplied under this pay item and will not be paid for separately. These items shall be submitted to the Department for approval.

Fiber enclosures are included in the cabinet pay items.

The fiber optic cable shall be clearly marked in each handhole and cabinet with a brightly colored (orange or yellow) weather resistant label securely attached to the cable.

The Contractor shall provide and install a 12 Ga., stranded (THHN), insulated tracer cable in all conduits that contain fiber optic cable. This work shall be done at the same time the fiber optic cable is pulled. There will be no additional compensation for this work.

Materials. The single-mode, fiber optic cable shall incorporate a loose, buffer-tube design. The cable shall conform to the requirements of RUS 7 CFR1755.900 (PE-90) for a single sheathed, non-armored cable, and shall be new, unused and of current design and manufacture. The number of fibers in each cable shall be as specified on the plans.

## CONSTRUCTION REQUIREMENTS

### Experience Requirements.

Personnel involved in the installation, splicing and testing of the fiber optic cables shall meet the following requirements:

A minimum of three (3) years experience in the installation of fiber optic cables, including splicing, terminating and testing single mode fibers.

Install two systems where fiber optic cables are outdoors in conduit and where the systems have been in continuous satisfactory operation for at least two years. 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 installed fiber optic systems.

One fiber optic cable system (which may be one of the two in the preceding paragraph), which the Contractor can arrange for demonstration to the Department representatives and the Engineer.

Installers shall be familiar with the cable manufacturer's recommended procedures for installing the cable. This shall include knowledge of splicing procedures for and equipment being used on this project and knowledge of all hardware such as breakout (furcation) kits and splice closures. The Contractor shall submit documented procedures to the Engineer for approval and to be used by Construction inspectors.

Personnel involved in testing shall have been trained by the manufacturer of the fiber optic cable test equipment to be used, in fiber optic cable testing procedures. Proof of this training shall be submitted to the Engineer for approval. In addition, the Contractor shall submit documentation of the testing procedures for approval by the Engineer.

### Installation in Conduit.

During cable pulling operations, the Contractor shall ensure that the minimum bending of the cable is maintained during the unreeling and pulling operations. Entry guide chutes shall be used to guide the cable into the handhole conduit ports. Lubricating compound shall be used to minimize friction. Corner rollers (wheels), if used, shall not have radii less than the minimum installation-bending radius of the cable. A series array of smaller wheels can be used for accomplishing the bend if the cable manufacturers specifically approve the array.

The pulling tension shall be continuously measured and shall not be allowed to exceed the maximum tension specified by the manufacturer of the cable. Fuse links and breaks can be used to ensure that the cable tensile strength is not exceeded. The pulling system shall have an audible alarm that sounds whenever a pre-selected tension level is reached. Tension levels shall be recorded continuously and shall be given to the Engineer upon request.

The cable shall be pulled into the conduit as a single component, absorbing the pulling force in all tension elements. The central strength member and Aramid yarn shall be attached directly to the pulling eye during cable pulling. "Basket grip" or "Chinese-finger type" attachments, which only attach to the cable's outer jacket, shall not be permitted. A breakaway swivel, rated at 95% of the cable manufacturer's approved maximum tensile loading, shall be used on all pulls. When simultaneously pulling fiber optic cable with other cables, separate grooved rollers shall be used for each cable.

Splicing Requirements:

Splices shall be made at locations shown on the Plans. Any other splices shall be permitted only with the approval of the Engineer. The Contractor shall submit a splicing plan to the Department for approval.

Operation and Maintenance Documentation:

After the fiber optic cable plant has been installed, two (2) complete sets of Operation and Maintenance Documentation shall be provided. The documentation shall, as a minimum, include the following:

- Complete and accurate as-built diagrams showing the entire fiber optic cable plant including locations of all splices.
- Final copies of all approved test procedures.
- Complete performance data of the cable plant showing the losses at each terminal connector.
- Complete parts list including names of vendors.

Testing Requirements:

Testing shall be in accordance with Article 801.13.

The Contractor shall submit detailed test procedures for approval by the Engineer. All continuous fiber runs shall be tested bi-directionally at both 1310 nm and 1550 nm with a power meter and optical source. For testing, intermediate breakout fibers may be concatenated and tested end-to-end. Any discrepancies between the measured results and these specifications will be resolved to the satisfaction of the Engineer.

The Contractor shall provide the date, time and location of any tests required by this specification to the Engineer at least 5 days before performing the test. Upon completion of the cable installation, splicing, and termination, the Contractor shall test all fibers in each link for continuity and attenuation. The test procedure shall be as follows:

A Certified Technician utilizing an Optical Source/Power Meter shall conduct the testing. The Technician is directed to conduct the test using the standard operating procedures defined by the manufacturer of the test equipment. All fibers installed shall be tested in both directions.

At the completion of the test, the Contractor shall provide two copies of documentation of the test results to the Engineer. The test documentation shall be bound and shall include the following:

Cable & Fiber Identification:

Cable ID  
Cable Location - beginning and end point  
Fiber ID, including tube and fiber color  
Operator Name  
Date & Time  
Setup Parameters  
Wavelength  
Pulse width (OTDR)

Refractory index (OTDR)  
Range (OTDR)  
Scale (OTDR)  
Setup Option chosen to pass OTDR "dead zone"

Test Results:

Optical Source/Power Meter

Total Attenuation  
Attenuation (dB/km)

These results shall be provided in tabular form. The following shall be the criteria for the acceptance of the cable:

The test results shall show that the dB/km loss does not exceed +3% of the factory test or 1% of the cable's published production loss. However, no event shall exceed 0.10 dB. If any event is detected above 0.10 dB, the Contractor shall replace or repair the proposed fiber and/or fusion splice and connector including that event point.

The total dB loss of the cable, less events, shall not exceed the manufacturer's production specifications as follows: 0.5 dB/km at both 1310 and 1550 nm.

If the total loss exceeds these specifications, the Contractor shall replace or repair that cable run at the Contractor's expense, both labor and materials. Elevated attenuation due to exceeding the pulling tension during installation shall require the replacement of the cable run at the Contractor's expense, including labor and materials.

The Contractor shall label the destination of each trunk cable onto the cable in each handhole and termination panel.

Slack Storage of Fiber Optic Cables.

A part of this pay item, slack fiber shall be supplied as necessary to allow splicing the fiber optic cables in a controlled environment, such as a splicing van or tent. After splicing has been completed, the slack fiber shall be stored underground in handholes and in the traffic controller cabinets.

The amount of slack cable listed in Article 873.03 shall be revised as follows:

<u>Location</u>	<u>Length of Slack Cable (Ft.)</u>
Communications Vault	30.0
Double Handhole	30.0
Handhole	10.0
CCTV or Signal Cabinet	10.0
Junction Box	10.0
Equipment Cabinet	3.0

Basis of Payment: This work will be paid for at the contract unit price per foot for FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE and shall be payment in full for all labor, equipment, and materials required to provide, install, terminate, splice, and test the fiber optic cable described above, complete.

## **FUSION SPLICING OF FIBER OPTIC CABLES**

Description. The Contractor will splice optical fibers from different cable sheaths and protect them with a splice closure at the locations shown on the Plans. Fiber splicing consists of in-line fusion splices for all fibers described in the cable plan at the particular location.

Two types of splices are identified. A mainline splice includes selected fibers from each cable run as shown in the plan sheets. In a lateral splice, the buffer tubes in the mainline cable are dressed out and those fibers identified on the plans are accessed in and spliced to lateral cables.

### Materials.

#### Splice Closures:

Splice closures shall be designed for use under the most severe conditions such as moisture, vibration, impact, cable stress and flex temperature extremes as demonstrated by successfully passing the factory test procedures and minimum specifications listed below:

#### Physical Requirements:

The closures shall provide ingress for up to four cables in a butt configuration.

The closure shall prevent the intrusion of water without the use of encapsulates.

The closure shall be capable of accommodating splice organizer trays that accept mechanical, or fusion splices. The splice closure shall have provisions for storing fiber splices in an orderly manner, mountings for splice organizer assemblies, and space for excess or un-spliced fiber. Splice organizers shall be re-enterable. The splice case shall be UL rated.

Closure re-entry and subsequent reassembly shall not require specialized tools or equipment. Further, these operations shall not require the use of additional parts.

The splice closure shall have provisions for controlling the bend radius of individual fibers to a minimum of 1.5 in (38 mm).

#### Factory Testing of Splice Closures:

Compression Test: The closure shall not deform more than 10% in its largest cross-sectional dimension when subjected to a uniformly distributed load of 1335 N at a temperature of 0°F and 100°F (-18°C and 38°C). The test shall be performed after stabilizing at the required temperature for a minimum of two hours. It shall consist of placing an assembled closure between two flat parallel surfaces, with the longest closure dimension parallel to the surfaces. The weight shall be placed on the upper surface for a minimum of 15 minutes. The measurement shall then be taken with weight in place.

**Impact Test:** The assembled closure shall be capable of withstanding an impact of 28 N-M at temperatures of 0°F and 100°F (-18°C and 38°C). The test shall be performed after stabilizing the closure at the required temperature for a minimum of 2 hours. The test fixture shall consist of 20 lb (9 kg) cylindrical steel impacting head with a 2 in (5 cm) spherical radius at the point where it contacts the closure. It shall be dropped from a height of 12 in (30 cm). The closure shall not exhibit any cracks or fractures to the housing that would preclude it from passing the water immersion test. There shall be no permanent deformation to the original diameter or characteristic vertical dimension by more than 5%.

**Cable Gripping and Sealing Testing:** The cable gripping and sealing hardware shall not cause an increase in fiber attenuation in excess of 0.05 dB/fiber @ 1550 nm when attached to the cables and the closure assembly. The test shall consist of measurements from six fibers, one from each buffer tube or channel, or randomly selected in the case of a single fiber bundle. The measurements shall be taken from the test fibers before and after assembly to determine the effects of the cable gripping and sealing hardware on the optical transmission of the fibers.

**Vibration Test:** The splice organizers shall securely hold the fiber splices and store the excess fiber. The fiber splice organizers and splice retaining hardware shall be tested per EIA Standard FOTP-II, Test Condition I. The individual fibers shall not show an increase in attenuation in excess of 0.1 dB/fiber.

**Water Immersion Test:** The closure shall be capable of preventing a 10 ft (3 m) water head from intruding into the splice compartment for a period of 7 days. Testing of the splice closure is to be accomplished by the placing of the closure into a pressure vessel and filling the vessel with tap water to cover the closure. Apply continuous pressure to the vessel to maintain a hydrostatic head equivalent to 10 ft (3 m) on the closure and cable. This process shall be continued for 30 days. Remove the closure and open to check for the presence of water. Any intrusion of water in the compartment containing the splices constitutes a failure.

**Certification:** It is the responsibility of the Contractor to insure that either the manufacturer, or an independent testing laboratory has performed all of the above tests, and the appropriate documentation has been submitted to the Department. Manufacturer certification is required for the model(s) of closure supplied. It is not necessary to subject each supplied closure to the actual tests described herein.

#### Construction Requirements.

The closure shall be installed according to the manufacturer's recommended guidelines. For all splices, the cables shall be fusion spliced.

The Contractor shall prepare the cables and fibers in accordance with the closure and cable manufacturers' installation practices. A copy of these practices shall be provided to the Engineer 21 days prior to splicing operations.

Using a fusion splicer, the Contractor shall optimize the alignment of the fibers and fuse them together. The Contractor shall recoat the fused fibers and install mechanical protection over them.

Upon completing all splicing operations for a cable span, the Contractor shall measure the mean bi-directional loss at each splice using an Optical Time Domain Reflectometer. This loss shall not exceed 0.1 dB.

The Contractor shall measure the end-to-end attenuation of each fiber optic link, from connector to connector, using an optical power meter and source. This loss shall be measured from both directions and shall not exceed 0.5 dB per installed kilometer of single mode cable. Measurements shall be made at both 1300 and 1550 nm for single mode cable. For multimode cable, power meter measurements shall be made at 850 and 1300 nm. The end-to-end attenuation shall not exceed 3.8 dB/installed kilometers at 850nm or 1.8 dB per installed kilometer at 1300nm for multimode fibers.

As directed by the Engineer, the Contractor at no additional cost to the Department shall replace any cable splice not satisfying the required objectives.

The Contractor shall secure the Splice Closure to the side of the splice facility using cable support brackets. All cables shall be properly dressed and secured to rails or racks within the handhole or traffic signal cabinet. No cables or enclosures will be permitted to lie on the floor of the splice facility. Cables that are spliced inside a building will be secured to the equipment racks or walls as appropriate and indicated on the Plans.

Basis of Payment. This work will not be paid for separately, but shall be included in the bid price for the fiber optic cable pay items.

## **TERMINATION OF FIBER OPTIC CABLES WITH FUSION SPLICED ST CONNECTORS**

Description. The Contractor shall terminate a single mode fiber by fusion splicing a factory-formed ST connector (from a pre-formed fiber optic patch cable) onto a field fiber at the locations shown on the Plans.

Materials. The Contractor shall be responsible for ensuring that the pre-formed ST connector fiber is compatible with the field fiber that it will be fusion splice to.

The splice shall be protected with a protection sleeve/enclosure that will secure both cables and prevent cable movement.

The fiber optic patch cords shall meet or exceed the following specifications:

- High-quality 125um fiber optics
- 900um tight buffer construction
- Aramid yarn individually protected
- Duplex construction
- Stress relief boots color coded (Tx/Rx)
- ST connectors with high-grade zirconia ferrule
- Insertion Loss < 0.2 dB @ 1310 / 1550 nm
- Return Loss < -58 dB @ 1310 / 1550 nm
- Compliant with ANSI/TIA/EIA 568-B.3
- TIA/EIA-604, FOCIS-2

The Contractor shall submit a shop drawing of all proposed components to the Engineer for approval prior to commencing construction.

### CONSTRUCTION REQUIREMENTS

The Contractor shall prepare the cables and fibers in accordance with the cable manufacturers' installation practices. A copy of these practices shall be provided to the Engineer 21 days prior to splicing operations.

Using a fusion splicer, the Contractor shall optimize the alignment of the fibers and fuse them together. The Contractor shall recoat the fused fibers and install mechanical protection over them.

Upon completing all splicing operations for a cable span, the Contractor shall measure the mean bi-directional loss at each connector using an Optical Time Domain Reflectometer. This loss shall not exceed the loss of the fusion splice (0.1 dB) plus the loss of the connector (typically 0.75 dB).

As directed by the Engineer, the Contractor at no additional cost to the Department shall replace any cable splice and/or connector not satisfying the required objectives.

Basis of Payment: This work will not be paid for separately, but shall be included in the bid price for the fiber optic cable pay items.

### **GROUNDING OF ITS STRUCTURES**

This work shall be in accordance with the applicable articles of Sections 807, 817 and 1066 of the Standard Specifications with the following modifications:

This work shall consist of furnishing and installing a grounding wire to connect all proposed ITS cabinets and camera poles in accordance with NEC requirements.

The proposed ground wire shall be an insulated #6 XLP green copper conductor. This wire shall be bonded to all items and their associated ground rods utilizing mechanical lugs and bolts. This wire may be made continuous by splicing in the adjacent handholes with compression lugs. Split bolts will not be allowed.

The grounding wire shall be bonded to the grounded conductor at the service disconnect per the NEC.

All clamps, hardware, and other materials required shall be included.

Basis of Payment: This work will not be paid for separately, but shall be included in the unit bid prices for their associated items.

### **CAMERA POLE, 55' FT.**

The camera pole shall be galvanized steel and designed in accordance with the plan sheet detail.

Valmont Drawing Number IL122179P1 (Revision A) is approved for use.

Basis of Payment: This item shall be paid at the contract unit price each for CAMERA POLE, 55 FT. which price shall include all equipment, labor, and materials required to furnish and install the camera pole described above and as shown in the plan detail.

### **CLOSED-CIRCUIT TELEVISION DOME CAMERA, IP BASED**

Description. This work shall consist of furnishing and installing an integrated Closed-Circuit Television (CCTV) Dome Camera Assembly, camera brackets, and all other items required for installation and operation. This assembly shall contain all components identified in the Materials Section and shall be configured as indicated on the plan sheets.

#### Materials.

The CCTV camera shall be an Axis Model Q6032-E Dome Camera Assembly for integration into the existing ITS system.

The Contractor shall provide all materials required to install the proposed camera on the proposed combination mast arm assembly as shown on the plan sheets.

The Contractor shall submit catalog cut sheets to the Department for all items (mounting brackets, hardware, etc.) that will be utilized for review prior to commencing work.

The Department will program the cameras.

The camera shall meet or exceed the following specifications:

#### CAMERA

VIDEO:	60 Hz (NTSC), 50 Hz (PAL)
IMAGE SENSOR:	¼" ExView HAD Progressive Scan CCD
LENS:	3.4 – 119 mm, F1.4 – 4.2, autofocus, automatic day/night, horizontal angle of view: 1.7° - 55.8°
MINIMUM ILLUMINATION:	Color: 0.5 lux at 30 IRE, B/W: 0.008 lux at 30 IRE
SHUTTER TIME: NTSC:	1/30 000 s – 0.5 s, PAL: 1/30 000 s – 1.5 s
PAN/TILT/ZOOM:	E-flip, 100 preset positions Pan: 360° endless, 0.05 – 450°/s Tilt: 220°, 0.05 – 450°/s Zoom: 35x optical zoom and 12x digital zoom, total 420x zoom Guard tour Control queue

#### VIDEO

VIDEO COMPRESSION:	H.264 (MPEG-4 Part 10/AVC), Motion JPEG
RESOLUTIONS:	NTSC: 704x480 to 176x120, PAL: 704x576 to 176x144

FRAME RATE (H.264): Up to 30/25 (NTSC/PAL) fps in all resolutions

FRAME RATE (M-JPEG): Up to 30/25 (NTSC/PAL) fps in all resolutions

VIDEO STREAMING: Multi-stream H.264 and Motion JPEG: 3 simultaneous, individually configured streams in max. resolution at 30/25 (NTSC/PAL) fps; more streams if identical or limited in frame rate/resolution; Controllable frame rate and bandwidth; VBR/CBR H.264

IMAGE SETTING: Wide Dynamic Range (WDR), Electronic Image Stabilization (EIS), manual shutter time, compression, color, brightness, contrast, sharpness, rotation, aspect ratio correction, Text and image overlay, privacy mask, image freeze on PTZ

## NETWORK

SECURITY: Password protection, IP address filtering, HTTPS\* encryption, IEEE 802.1X\* network access control, digest authentication, user access log

PROTOCOLS: IPv4/v6, HTTP, HTTPS\*, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS

## SYSTEM INTEGRATION

APPLICATION PROG INTERFACE: Open API for software integration, including VAPIX® from Axis Communications available at [www.axis.com](http://www.axis.com)

INTELLIGENT VIDEO: Video motion detection, auto-tracking

ALARM TRIGGERS: Intelligent video, PTZ position

ALARM EVENTS: File upload via FTP, HTTP and email, Notification via email, HTTP and TCP PTZ position, Local storage

VIDEO BUFFER: 56 MB pre- and post-alarm

## GENERAL

CASING: IP66-rated, metal casing (aluminum), acrylic (PMMA) clear dome cover pre-mounted to casing, sunshield (polycarbonate)

PROCESSORS: ARTPEC-3, 128 MB RAM, 128 MB Flash

AND MEMORY

POWER CAMERA: High Power over Ethernet, max. 50 W, Midspan (included): AXIS T8124 High Power over Ethernet, Midspan 1-port 100-240 V AC, max. 60 W

CONNECTORS:	RJ-45 for 10BASE-T/100BASE-TX, IP66-rated RJ-45 connector kit included
LOCAL STORAGE:	SD/SDHC memory card slot (Card is not included)
OPERATING CONDITIONS :	Camera unit: -40 °C to 50 °C (-40 °F to 122 °F), Arctic Temperature Control enables camera start-up at temperatures as low as -40 °C (-40 °F)
APPROVALS:	EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3, EN61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class B, VCCI Class B, C-tick AS/NZS CISPR22, ICES-003 Class B, EN 60950-1, Midspan: EN 60950-1, GS, UL, cUL, CE
WEIGHT	3.5 kg (7.7 lb.)
INCLUDED ACCESSORIES:	AXIS T8124 High PoE Midspan 1-port, IP66-rated RJ-45 connector kit, clear and smoked dome cover, sunshield, Installation Guide, CD with User's Manual, recording software, installation and management tools, Windows decoder 1-user license

#### Environmental Enclosure/Housing

The environmental enclosure shall be designed to physically protect the integrated camera from the outdoor environment and moisture via a sealed enclosure. If the option exists in the standard product line of the manufacturer, the assembly shall be supplied with an integral sun shield. The enclosure shall be fully water and weather resistant with a NEMA 4 rating or better.

The camera dome shall be constructed of distortion free acrylic or equivalent material that must not degrade from environmental conditions. The environmental housing shall include a camera-mounting bracket. In addition, the environmental housing shall include a heater, blower, and power surge protector. An integral fitting compatible with a standard 1½" inches (38.1 mm) NPT pipe, suitable for outdoor pendant mounting shall also be provided.

The enclosure shall be equipped with a heater controlled by a thermostat. The heater shall turn on when the temperature within the enclosure falls below 40°F (4.4°C). The heater shall turn off when the temperature exceeds 60°F (15.6°C). The heater will minimize internal fogging of the dome faceplate when the assembly is operated in cold weather.

In addition, a fan shall be provided as part of the enclosure. The fan will provide airflow to ensure effective heating and to minimize condensation.

The enclosure shall be equipped with a hermetically sealed, weatherproof connector, located near the top for external interface with power, video, and control feeds.

#### CCTV Dome Camera Mounting Supports

The Contractor shall furnish and install an Axis Pole Mount Bracket T91A67 (Part Number 5017-671) for camera installation on traffic signal mast arms and CCTV camera poles and stainless steel banding as required.

Mounting supports shall be configured as shown on the camera support detail plans and as approved by the Engineer. Mount shall be of aluminum construction with enamel or polyester powder coat finish. Braces, supports, and hardware shall be stainless steel. Wind load rating shall be designed for sustained gusts up to 90 mph (145 km/hr), with a 30% gust factor. Load rating shall be designed to support up to 75 lb. (334 N). For roof or structural post/light pole mounting, mount shall have the ability to swivel inward for servicing. The mounting flange shall use standard 1½" inches (38.1 mm) NPT pipe thread.

#### Connecting Cables

The Contractor shall provide outdoor rated, gel-filled CAT 5E cable. The cable shall be terminated using the IP66 rated RJ-45 connector on the camera end and a standard RJ-45 connector in the cabinet. The Contractor shall test the cable prior after termination.

### CONSTRUCTION REQUIREMENTS

#### General

The Contractor shall prepare a shop drawing detailing the complete CCTV Dome Camera Assembly and installation of all components to be supplied for approval of the Engineer. Particular emphasis shall be given to the cabling and the interconnection of all of the components.

The Contractor shall install the CCTV dome camera assembly at the locations indicated in the Plans. The CCTV Dome Camera Assembly shall be mounted on a pole, wall, or other structure.

#### Testing

The Contractor shall test each installed CCTV Dome Camera Assembly. The test shall be conducted from the field cabinet using the standard communication protocol and a laptop computer. The Contractor shall verify that the camera can be fully exercised and moved through the entire limits of Pan, Tilt, Zoom, Focus and Iris adjustments, using both the manual control and presets. The Contractor shall maintain a log of all testing and the results. A representative of the Contractor and a representative of the Engineer shall sign the log as witnessing the results. Records of all tests shall be submitted to the Engineer prior to accepting the installation.

Method of Measurement. The closed circuit television dome camera bid item will be measured for payment by the actual number of CCTV dome camera assemblies furnished, installed, tested, and accepted.

Basis of Payment. Payment will be made at the contract unit price for each CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED including all equipment, material, testing, documentation, and labor detailed in the contract documents for this bid item.

### **CLOSED CIRCUIT TELEVISION DOME CAMERA (MATERIAL ONLY)**

The Contractor shall furnish one complete CCTV camera assembly with housing, mounting bracket kit, and accessories (power supplies, etc) and deliver it to the Department.

The camera shall conform to the specifications listed under the pay item for CLOSED CIRCUIT TELEVISION DOME CAMERA.

**Basis of Payment:** This work will be paid for at the contract unit price per each for CLOSED CIRCUIT TELEVISION DOME CAMERA (MATERIAL ONLY) which price shall be payment in full for all labor, materials, and equipment required to provide the equipment specified above and deliver it to the Department.

## **FIBER OPTIC DROP AND REPEAT SWITCH**

The Contractor shall furnish a fiber optic drop and repeat switch (material only) complete with the accessories specified below and deliver it to the Department.

The fiber optic drop and repeat switch shall meet or exceed the following minimum specifications:

Approved Models: Aaxeon Technologies Model LNX-1802G-SFP-T (18-Port (16-port 10/100T + 2 10/100/1000T SFP ports Industrial Ethernet Switch, Wide Operating Temperature) or approved equal.

- Features:
- 16-Port 10/100TX + 2-Port 10/100/1000T/Mini-GBIC Combo
  - Store-and-Forward Switching Architecture
  - 7.2Gbps Back-Plane (Switching Fabric)
  - 1 Mbits Memory Buffer
  - 8K MAC Address Table
  - Wide-Range Redundant Power Design
  - Power Polarity Reserve Protect
  - Provides EFT Protection 3000 VDC for Power Line
  - Supports 6000 VDC Ethernet ESD Protection
  - IP30 Rugged Aluminum Case Design
  - 5-Year Warranty
- Standard:
- IEEE 802.3 10BaseT Ethernet
  - IEEE 802.3u 100BaseTX Fast Ethernet
  - IEEE 802.ab 1000BaseT
  - IEEE 802.z Gigabit Fiber
  - IEEE 802.3x Flow Control and Back-Pressure
- Protocol:
- CSMA/CD
- Switch Architecture:
- Back-Plane (Switching Fabric): 7.2G bps
  - Packet Throughput Ability (Full-Duplex): 10.7Mpps @ 64 bytes
- Transfer Rate:
- 14,880pps for Ethernet Port
  - 148,800pps for Fast Ethernet Port
  - 1,488,000pps for Gigabit Fiber Ethernet Port
- MAC Address:
- 8K MAC Address Table
- Jumbo Frame:
- 9 Kbytes

- Memory Buffer:
- 136 Kbits
- LED:
- Unit: Power 1, Power 2, Fault
  - 10/100 TX: Link/Activity, Full Duplex/Collision
  - Gigabit Copper: Link/Activity, Speed
  - SFP: Link/Activity
- Connector:
- 10/100T: 16 x RJ-45
  - 10/100/1000T Mini-GBIC Combo: 2 x RJ-45 + 2 x 100/1000 SFP Sockets
- Network Cable:
- 10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m)
  - 100BaseTX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)
- Power Supply:
- DC 12 ~ 48V, Redundant Power with Polarity Reverse Protect Function and Removable Terminal Block
- Power Consumption:
- 9 Watts
- Reverse Polarity Protection:
- Present
- Overload Current Protection:
- Present
- Mechanical:
- Casing: IP30 Metal Case
  - Dimension (W x H x D): 72 x 152 x 105 mm (2.83" x 4.13" x 5.98" in.)
  - Installation: DIN-Rail/Wall Mountable
- Weight:
- Unit Weight: 2.2 lbs.
  - Shipping Weight: 3.3 lbs.
- Operation Temperature:
- Wide Operating Temperature: -40°C to 80°C (-40°F to 176°F)
- Operation Humidity:
- 5% to 95% (Non-condensing)
- Storage Temperature:
- -40° C to 85° C
- EMI:
- FCC Class A
  - CE EN6100-4-2/EN6100-4-3/EN6100-4-4/EN6100-4-5/EN6100-4-6
  - EN6100-4-8/EN6100-4-11/EN6100-4-12/EN6100-6-2/EN6100-6-4
- Safety:
- UL, cUL, CE EN60950-1

- Stability Testing:
- Shock: IEC60068-2-27
  - Free Fall: IEC60068-2-32
  - Vibration: IEC60068-2-6
- Warranty:
- 5-Year Warranty

The following items shall also be included with each switch:

- Power Supply – Qty. 1 (Aaxeon Model DR-45, 45-Watt, 12-Volt DC, Industrial Din-Rail Power Supply or Approved Equal)
- SFP Fiber Optic Module – Qty. 2 (Aaxeon SFP-S10-T, 1.25Gbps Ethernet SFP Transceiver, Single Mode 10KM/LC/1310nm, -40°C~85°C)
- Fiber Optic Patch Cables – Qty. 1 (single mode fiber, 2 meter length, duplex, LC/ST connectors)

Basis of Payment: This work will be paid for at the contract unit price per each for FIBER OPTIC ETHERNET DROP AND REPEAT SWITCH which price shall be payment in full for all labor, materials, and equipment required to provide the fiber optic Ethernet drop and repeat switch and associated equipment and deliver it to the Department.

## **CAT 5 ETHERNET CABLE**

This work shall be in accordance with Sections 873, 1076, and 1088 of the Standard Specifications except as modified herein.

This work shall consist of furnishing and installing an outdoor rated CAT5E cable in conduits, handholes, and poles.

The cable shall be rated for outdoor use and conform to the following specifications:

- Outdoor CMX Rated Jacket (climate/oil resistant jacket)
- UV Resistant Outer Jacket Material (PVC-UV, UV Stabilized)
- Outer Jacket Ripcord
- Designed For Outdoor Above- Ground or Conduit Duct applications
- Cat5E rated to 350MHz (great for 10/100 or even 1000mbps Gigabit Ethernet)
- Meets TIA/EIA 568b.2 Standard
- Unshielded Twist Pair
- 4 Pairs, 8 Conductors
- 24AWG, Solid Core Copper
- UL 444 ANSI TIA/EIA-568.2 ISO/IEC 11801
- RoHS Compliant
- Gel filled

Basis of Payment: This work will be paid for at the contract unit price per foot for CAT 5 ETHERNET CABLE, which shall be payment in full for all labor, equipment, and materials required to provide and install the cable described above, complete.

## **COMMUNICATIONS VAULT**

This work shall be in accordance with Sections 814 and 1088 of the Standard Specifications except as modified herein.

This work shall consist of furnishing and installing a communications vault constructed of polymer concrete.

The following items are approved for use in District Four: Hubbel, Quazite, Part Numbers: PG2436HA00 (Cover) and PG2436BA30 (Box).

The communications vault and lid shall conform to the following specifications:

### Cover:

Material: Polymer Concrete  
Nominal Dimensions: 24" W x 36" L  
Gasketed, Heavy Duty Lid with 2 Bolts  
Design/Test Load: 15,000/22,500 lb  
ANSI Tier: 15  
UL Listed  
Gasketed

### Box:

Material: Polymer Concrete  
Nominal Dimensions: 24" W x 36" L x 30" D  
Open Bottom  
Design/Test Load: 22,500/33,750 lbs.  
ANSI Tier: 22  
UL Listed

The location of the handhole shall be excavated so that the top of the handhole is set flush with the sidewalk or paved surface. When installed in earth shoulder away from the pavement edge, the top surface of the handhole shall be 1" in. (25 mm) above the finished grade. The excavation shall be deep enough to accommodate the depth of the box and french drain.

The french drain shall be constructed underneath the proposed handhole according to Article 601.06.

The conduits shall enter the vault at 24" and the Contractor shall install six inches of CA 5 or CA 7" inches the bottom of the vault.

Basis of Payment: This work will be paid for at the contract unit price of each for COMMUNICATIONS VAULT, which shall be payment in full for all labor, equipment, and materials required to provide and install the equipment described above, complete.

## **SERVICE INSTALLATION (SPECIAL)**

This work shall be in accordance with Section 805 and 1086 of the Standard Specifications except as modified herein.

The Contractor shall perform the following items:

- Remove the existing sign lighting electrical service installation (wood pole, disconnect, conduits, wire, etc.) and existing lighting controller from the service pole.
- Install a new service installation (pole, disconnect, wires, conduits, etc.).
- Install the existing lighting controller on the proposed wood pole (including conduits, brackets, wires, circuit extensions, etc.) and restore the sign lighting.
- Dispose of the existing service components.

The service installation shall include furnishing and installing a 30' ft. treated wood pole (Class 5 or better), disconnect switch, and all associated appurtenances including a meter base if required by the utility company. The service disconnect shall be mounted on the wood post.

Galvanized steel conduit shall be used for the service riser. The use of PVC conduit will not be allowed.

A rain tight hub assembly (Myers type) shall be used when conduit enters the switch from the top of the disconnect.

The service disconnect switch shall be a stainless steel, weatherproof NEMA 4X enclosure that meets the following specifications:

60-Ampere (250 V) Minimum Fused Disconnect Switch: Unless indicated otherwise on the plan sheets, the fused disconnect switch shall be single-throw, three-wire (two poles, two fuses, and solid neutral). The switch shall provide for locking the blades in either the "On" or "Off" position with one or two padlocks and for locking the cover in the closed position. The disconnect switch and fuse rating shall be rated at the voltage and amperage required to comply with utility company and equipment requirements. All fuses shall be provided with the disconnect installation.

The service disconnect shall be installed at a maximum height of 42".

The Department will furnish all padlocks.

Basis of Payment: This work shall be paid for at the contract unit price each for SERVICE INSTALLATION (SPECIAL) which price shall be payment in full for all labor, equipment, and materials required to provide and install the electrical service installation described above, complete.

## **POLE MOUNTED EQUIPMENT CABINET TYPE B**

Description. This work consists of furnishing and installing a pole mounted equipment cabinet and peripheral equipment at locations indicated in the Plans. These cabinets will be utilized to house critical electrical, optical, and communications equipment as defined in other contract pay items.

Materials. Materials shall be in accordance to the following specifications.

General. The equipment cabinet shall conform to the details shown on the plan sheet. Equipment cabinets shall be mounted and anchored on the poles and structures at locations indicated in the Plans. In addition, all mounting hardware and brackets required to install the equipment cabinet on the pole shall be stainless steel and provided. The mounting heights and pole diameters shall be as specified by the Engineer.

The Type B cabinet shall be a NEMA 3R Single Door Enclosure, constructed from .125" thick aluminum, with minimum outside dimensions of 34" (H) x 20" (W) x 14" (D). The cabinet shall have a natural finish.

The cabinet shall be furnished with one adjustable height shelf, a three point latching mechanism, three position door stop (90°, 120°, 180° degrees), neoprene door gasket, door louvers, overhang vent slots, continuous stainless steel door hinge, interior stiffeners for pole mounting, and all stainless steel hardware. The cabinet shall also have a Corbin #2 dead bolt lock or equal. The key shall be removable in the lock position only. Two keys shall be supplied for each lock, and all equipment cabinet locks shall be keyed the same. The cabinet shall be equipped with a thermostatically controlled ventilation fan.

The cabinet shall be equipped with one 24 fiber enclosure equipped with 24 multimode ST ferrules. The cost of the fiber optic cable enclosures shall be paid for separately under the pay item for the fiber optic cable.

All cables shall be labeled utilizing marking tags.

The cabinet shall be equipped with a main power panel as shown on the cabinet plan detail sheet. The power panel shall include one 30A main breaker, one 15A equipment breaker, neutral bus bar, ground bus bar, 15A GFI receptacle, two terminal blocks, one surge protector, and one six outlet power strip with integral surge protection. The power panel shall include a plexi-glass safety shield that covers the power panel.

#### Surge Protectors

The cabinet equipment surge protector shall be an ECO SHA-1210IRS or approved equal.

A surge protector shall protect each leg of the primary power feed. This surge protector shall be installed as a precautionary measure against possible damage resulting from voltage surges on all incoming power lines. The 120V AC single-phase surge protector shall incorporate a series choke and shall have a maximum clamp voltage of 340 V at 20 kA with a 5 ns response.

In addition, the surge protector shall have the capability of removing high-energy surges and shall block high-speed transients. The surge protector shall comply with the following specifications:

Peak Current:	20,000 amps (8 X 20 us wave shape)
Occurrences:	20 times at peak current
Minimum Series Inductance:	200 microHenrys
Continuous Series Current:	50A
Temperature Range:	-40°F to 185°F (-40°C to +85°C)

#### Power Strip

The cabinet power strip shall have a minimum of six outlets and integral surge suppression that meets or exceeds the following minimum specifications:

- Let Through Voltage: <85 Volts
- Operating Voltage: 120VAC, 50/60H
- UL Suppressed Voltage Rating: 330V
- Energy Rating: 320J
- Peak Current NM/CM: 13k Amps NM, 13k Amps CM
- EMI/RFI Noise Filtration: >25-60dB

The power strip shall be wired directly to the protected power terminals on the cabinet surge arrester.

### CONSTRUCTION REQUIREMENTS

The Contractor shall prepare and submit shop drawings that detail all of the components to be supplied, along with associated mounting hardware for the pole mounted equipment cabinet. The shop drawings must be approved by the Engineer prior installation of the completed cabinet in the field.

The Engineer reserves the right to inspect and/or factory test any completed cabinet assemblies prior to shipment of the material to the project site. Any deviations from these specifications that are identified during such testing shall be corrected prior to delivery of the assembly to the project site.

The AC power service to be run to the equipment cabinet shall be terminated. In addition, the cabinet shall be connected to an adequate ground following the Standard Specifications.

The Contractor shall terminate any inbound and outbound fiber optic, telephone, or wireless antenna leads in the equipment cabinet as shown in the Plans. The Contractor shall terminate any twisted pair communication cable on the termination panel in the equipment cabinet as shown in the Plans. Lugs shall be installed at the end of each conductor suitable for connection to the barrier terminal blocks.

The Contractor shall install DIN rail and associated equipment inside the cabinet to the satisfaction of the Engineer.

Method of Measurement. This item shall be measured for payment by each pole mounted equipment cabinet type B in-place.

Basis of Payment. This work shall be paid for at the contract unit price each for POLE MOUNTED EQUIPMENT CABINET TYPE B, and shall include all equipment, material and labor detailed in the specifications and as shown on the Plans.

### **TRAFFIC COUNTER**

This work shall consist of furnishing and installing a microwave traffic counter on a proposed galvanized steel pole at the locations shown on the plan sheets.

The traffic counter shall be either a Wavetronix Smartsensor or an Image Sensing Solutions RTMS G4 for integration into the IDOT District 4 ITS and Advanced Traffic Management Software.

The Contractor shall perform the following:

- Furnish and install the power supply and lightning arrestor in the proposed Type 334 equipment cabinet.
- Furnish and install the traffic counter on the proposed camera pole in accordance with the manufacturer's recommendations.
- Adjust the rotation, elevation, and azimuth of sensor as directed by the Engineer (IDOT will be on-site during sensor installation to program sensor and verify sensor operation).
- Furnish and install power and data cables.
- Furnish and install all items required for installation and operation including, but not limited to, communication cables, brackets, banding, hardware, etc.

The Department will program the traffic counters and integrate them into the IDOT District 4 ITS and Advanced Traffic Management Software and will be responsible for all labor and materials required for integration.

Description. This work shall consist of furnishing and installing a complete and operational microwave detector with all necessary hardware and software components. The microwave detector shall be a true presence detector that senses vehicles in several lanes and collects location-specific traffic flow data including lane volumes, occupancy, and speed. The detector shall be mounted in a side-fire configuration, at the side of and well above the traveled way.

The microwave detector includes the following components: a detector assembly, power to the unit, and appurtenant mounting hardware, conduits, and cables. These items shall be installed as shown on the Plans and in accordance with the applicable requirements identified in these Special Provisions.

Materials:

General. All required components including tools, equipment, cables, materials, supplies, and manufactured articles required to successfully install the components of the microwave detector as shown on the Plans and as specified herein.

All equipment and component parts furnished shall be new, be of the latest design and manufacture, and be in an operable condition at the time of delivery and installation. All parts shall be of high quality workmanship, and no part or attachment shall be substituted or applied contrary to the manufacturer's recommendations and standard practices.

The design shall be such as to prevent reversed assembly or improper installation of connectors, fasteners, etc. Each item of equipment shall be designed to protect personnel from exposure to high voltage during equipment operation, adjustments, and maintenance.

Microwave Detector Assembly

Microwave detector assembly includes a microwave detector, mounting brackets or plates, cabling, wiring harnesses, and manufacturer specific setup software connected through a communications cable to a terminal block and a power supply placed in the proposed Type 334 cabinet, to provide a fully functioning vehicle detector installation. All mounting hardware, conduit bushings, conduit straps, cables, wires, connectors, weather heads, etc. necessary to complete the microwave detector special as shown on the Plans and specified herein shall be supplied and installed as recommended by the manufacturer and as approved by the Engineer.

The Contractor shall provide each microwave detector consisting of primarily a detector, mounting bracket, sufficient power and communication cables to go from the detector assembly to a local equipment cabinet that provides power and communications services, and a power supply and terminal block inside the equipment cabinet.

Microwave Detector

The microwave vehicle detector shall meet or exceed the following requirements:

- Above-pavement installation. The subsystem shall not be embedded in or beneath the traveled way.
- Easy to install, adjust and remove.
- Fully programmable to support a variety of applications.
- Designed for roadside installation in a “side-fire” configuration, with each detector capable of detecting vehicles in several lanes of traffic.
- Resistant to degradation by weather or normal changes in other environmental conditions.
- Outputs processed data including speed, volume, occupancy and detector errors for up to 8 detection zones from each field device. This information shall be available via a serial communications port in the cabinet.
- Transmitter power, if required, shall not exceed 10 milliwatts.
- The microwave detector’s vehicle detection range shall be from  $\leq 5'$  ft. (1.5 m) to  $\geq 197'$  ft. (60 m) with an elevation beam width of 45° degrees and an azimuth beam width of 15° degrees.
- The maximum number of detection zones defined shall be no fewer than eight (8). The range limits of each zone shall be user defined in steps of 7' ft.
- The detector shall identify vehicle presence within each detection zone with a 95% accuracy or greater, independent of the vehicle’s direction of travel through the detection zone.
- Measurement error percentage shall be less than or equal to values in the following table:

<u>Measurement</u>	<u>% Error</u>	<u>Range</u>
Per lane Occupancy (Side-fire)	<5%	0-100%
Per lane Volume (Side-fire)	<5%	0-255
Per lane Average Speed (Side-fire)	<10%	0-100mph

- The maximum permissible error shall be 10% in the case of side-fire speed measurement.
- The designed Mean Time Between Failures (MTBF) of the microwave detector, operating continuously in this application, shall be 10 years or longer.
- The detector shall be enclosed in a rugged watertight NEMA Type 3R enclosure or 4X polycarbonate box.
- The overall dimensions of the detector unit, including fittings, shall not exceed 8" inches (21 cm) X 10" inches (27 cm) X 6" inches (16 cm).
- The total weight of the detector shall not exceed 15 lbs.
- The detector unit shall be operable from either 12-24 VAC/DC @ 6W, or from 95-135 VAC @ 60 Hz.
- Power supply shall be obtained from the power distribution assembly within the equipment cabinet.

Communication Cable Requirements

Provide a weatherproof, UV-resistant cable of six or more twisted pairs of insulated, stranded AWG #20 or #22 wires with a common shield rated at 300 volts with a temperature rating of > 222°F degrees (105°C degrees) between each detector and the equipment and terminal block in the equipment cabinet for data communications and power.

Each conducting pair shall be separately shielded, and all shields shall have a common drain connection. The Contractor shall submit a catalog cut sheet to the Department for approval.

#### Environmental Requirements

Equipment shall be enclosed in a rugged weatherproof box and sealed to protect the equipment inside from wind, dust and airborne particles, and exposure to moisture.

Equipment within the box shall meet all its specified requirements during and after being subjected to any combination of the following:

- Ambient temperature range of -35°F to +165°F (-31°C to 74°C)
- Relative humidity from 5% to 95% percent, non-condensing
- Sustained wind speed of  $\leq$  90 mph (145.4 kph), with a 30% gust factor

The design shall be inherently temperature compensated to prevent abnormal operation. Circuit design shall include such compensation as is necessary to overcome adverse effects in the specified environmental range.

No item, component, or subassembly shall emit a noise level exceeding the peak level of 55 dBA when measured at a distance 3.3' feet (1 meter) away from its surface.

If the microwave detector emits radio frequency (RF), each detector shall transmit on a frequency band of 10.525 GHz  $\pm$ 25 MHz or another approved spectral band. The detector shall comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules or the appropriate Spectrum Management Authority.

The microwave detector shall be resistant to vibration in accordance with IEC 68-2-30 (test Fc), NEMA TS-1 (Section 2.1.12), or approved equivalent.

The microwave detector shall be resistant to shock in accordance with IEC 68-2-27 (test Ea), NEMA TS-1 (Section 2.1.13), or approved equivalent.

#### Power Supply

Provide a power supply in the local equipment cabinet that shall provide appropriate electrical power to the microwave detector. No modular DC power supplies with integral AC plugs shall be used. The device shall protect the microwave detector against damage from power line transients and surges. The device shall include surge protection in accordance with IEC 1000-4-5/EN 61000-4-5.

#### System Interface

The microwave detector system interface shall consist of a single MS connector, which provides:

- Power to the microwave detector unit.
- A minimum 12-conductor terminal block in the cabinet that terminates the communications cable from the microwave detector.
- Output contact closure wire pairs for each of the required detection zones rated at 200V AC/DC 100 mA.
- A serial communications port for programming, testing or modem interface to the microwave detector at 9.6 Kbps or faster.

### Mounting Bracket

- A mounting bracket for each detector shall be provided.
- Provide painted steel, stainless steel or all aluminum construction brackets capable of supporting a load of 22 lb. (10 kg) for approval by the Engineer.
- Incorporate a ball joint or other approved mechanism that can be tilted in both axes and locked into place in order to provide the optimum area of coverage.
- Bands fastening the detector-mounting bracket to the support pole shall be made of minimum ¾" inch (19 mm) wide, 0.025" inch (0.635 mm) thick stainless steel.
- Bolts that are to fasten the detector-mounting bracket to a concrete wall/bridge shall be stainless steel expansion bolts of sufficient length and diameter to support 100 lb. (45 kg).

### Software

The microwave detector shall include manufacturer specific software that provides capabilities satisfying the functional detector requirements listed above. In addition, the software shall:

- Allow a maintenance person to set up to eight (8) detection lanes of varying width.
- Allow parameters to be set manually and/or automatically when calibrating speeds in individual lanes.

## CONSTRUCTION REQUIREMENTS

### Microwave Detector Assembly

The microwave detector shall be mounted in a side-fire configuration on poles or sign structures at the specified locations, using the manufactured supplied mounting brackets as shown in the Plans and specified herein. The Contractor shall install the microwave detector unit on a pole at the height specified above the road surface as shown in the Plans so that the masking of vehicles is minimized and that all detection zones are contained within the specified elevation angle as suggested by the manufacturer and approved by the Engineer.

Where the Plans show one microwave detector unit at one site, it shall be configured to obtain traffic data from all the lanes Northbound or Southbound or all the lanes Eastbound or Westbound.

Prepare the power and communications cable according to the detector manufacturer's instructions and as approved by the Engineer. Inside the equipment cabinet, terminate cable pairs used for detector power on the communications interface terminal block, and make the appropriate connections to a power supply or power distribution assembly.

### Power and Communications System Interface

Install all necessary electrical and interface cables in the equipment cabinet, as shown in the Plans and in accordance with the details as indicated. The MS connector pins must be crimped to the cable conductors and assembled and tested prior to the installation and pulling of cable on site. The Department will test the cable and microwave detector prior to installation.

On the back of the microwave detector unit, terminate the power and communication cable to provide power and serial communications. Inside the cabinet, terminate cable pairs used for power on interface panel terminal blocks, and make the necessary connections to the power supply and/or the power distribution assembly.

### Miscellaneous

The microwave detector special includes installation of the following components: a detector assembly, power to the unit, and appurtenant mounting hardware, conduits, and power and communications cables. All the earthwork preparation and grading necessary for the installation of the side-fire microwave detector station shall be included in the bid price of this item, including repairing disturbed portions of the construction area.

Install cable tags for all controller and internal wiring harnesses, jumper cables, and microwave detector cables. Include the cable function, origin, destination, equipment location, and other information to facilitate testing, operation, and maintenance as required and approved by the Engineer.

Comply with the requirements of associations, societies, codes, and regulations as applicable. Provide certifications as required by law.

### 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, 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 facility.

Method of Measurement. The microwave detector special will be measured for payment by the actual number of sites furnished, installed, tested, and accepted including all necessary hardware and software components.

Basis of Payment. This work will be paid for at the contract unit price of each for TRAFFIC COUNTER, which shall be payment in full for all labor, equipment, and materials required to provide and install the traffic counter described above, complete.

## **MAST ARM EXTENSION**

Description. This work shall consist of furnishing and installing an aluminum pole on an existing mast arm strain pole that will be used to mount a CCTV camera on, brackets, and all miscellaneous hardware required to complete the installation in accordance with the Standard Specifications, as shown on the Plans, and as hereinafter provided.

Materials. The mast arm extension shall consist of a Schedule 80, 4½" diameter aluminum pole, two attachment brackets, hardware, and pole top cap.

The extension shall provide a nominal 35' ft. camera mounting height.

The Contractor shall furnish and install all required items, such as bolts, screws, wire nuts, nipples, grommets, seal-tite, tape connectors, electrical nuts, etc., in order to make the proposed mast arm extension pole complete.

Rust, corrosion, and anti-seize protection shall be provided at all threaded assemblies by coating the mating surfaces with an approved compound.

Basis of Payment. This work will be paid for at the contract unit price of each for MAST ARM EXTENSION, which shall be payment in full for furnishing and installing each mast arm extension described above, including poles, brackets, hardware, and all other items needed to completely install the mast arm extension, and for all labor, tools, equipment, transportation, and required items necessary to complete this work.

## COMPUTER WORKSTATION

The Contractor shall furnish a computer workstation (material only) and deliver it to the Department.

The workstation shall be a HP Z400 Series Workstation or approved equal that meets or exceeds the following minimum specifications:

- Operating System: Windows 7 Professional (with latest service pack)
- Hard disk: 250 GB Serial ATA, 3 Gb/s, (7200 rpm) or better.
- Motherboard: 1066 MHz FSB clock speed with minimum of 4 dedicated PCI –E slots. All slots shall support bus mastering.
  - A single Intel Zeon W3550 processor (3.06 GHz CPU with 8 MB L2 cache and 1066 MHz FSB shall be provided.
  - Serial ATA II/300 controller (four channel)
  - The following ports shall be provided:
    - One 9-pin serial connector; 16550-compatible
    - 25-pin parallel connector (bi-directional)
    - PS/2 keyboard connector
    - PS/2 mouse connector
    - RJ-45 10/100/1000 NIC connector
    - Six USB 2.0 ports
    - 1/8"-inch Audio line-in miniature audio jack
    - 1/8"-inch Audio line-out miniature audio jack
    - 1.8"-inch Audio microphone-in miniature audio jack
    - 1/8"-inch Audio headphone-out miniature audio jack
  - One PCI Express x16 Graphics Slot
  - Three 32-bit PCI slots, one PCI Express x 1, one PCI Express x16
  - IEEE 1394 (Firewire) Controller Card with two Ports
  - Drive bays: two externally accessible 5.25" peripheral bays, two internal 3.5" hard drive bays (2" x 1")

- Memory: Minimum of 4 GB (2x2GB DIMM) of 800 MHz dual channel ECC DDR2 SDRAM memory (expandable to 8 GB min). At least one memory bank shall remain open for future expansion. A total of two slots shall be provided.
- Optical Drive: 16X double-layer multi-format DVD±/R±/RW/CD-R/RW (Super-multi Drive), SATA, with software
- Video Card: PCIe 512MB SDRAM RAM Video card with dual DVI & TV out and Dual Monitor Support (NVIDIA Quadro FX580 or equivalent)
- Pointing Device: A 3-button, optical wheel mouse shall be supplied.
- Network Interface: The workstation shall be supplied with an Integrated Network Interface Card (NIC) supporting 10/100/1000 MB/s and using 32-bit PCI bus-mastering technology. The card shall have a UTP (RJ-45) connector. The card shall be compliant with PCI local bus specification 2.0 and IEEE 802.3 for Ethernet. The card shall also support Netflex-3 technology.
- Warranty Three-year on-site parts and labor including 24/7 telephone technical support.
- Recovery Media Driver, Application Software, and Operating System Installation and/or recovery media (CD or DVD) shall be included
- Software One licensed copy of Microsoft Office 2007 Professional shall be included.

Basis of Payment: This work will be paid for at the contract unit price per each for COMPUTER WORKSTATION which price shall be payment in full for all labor, materials, and equipment required to provide the computer workstation and accessories described above and deliver it to the Department.

## **LCD MONITOR**

The Contractor shall furnish an LCD Monitor (material only) and deliver it to the Department.

The monitor shall be a HP LP2065 or approved equal that meets or exceeds the following minimum specifications:

- Monitor: A 20" (diagonal viewable area) flat screen, analog, TFT Active Matrix Color LCD monitor shall be supplied. The monitor shall support resolution of 1600 x 1200 DPI at a vertical refresh rate of minimum 75 Hz and horizontal refresh rate of 94 KHz. The following shall be provided:

Input Connectors: one 15-pin mini d-sub analog VGA, two 24-pin DVI-I  
Aspect ratio: 5:4  
Brightness (minimum): 300 cd/m<sup>2</sup>  
Contrast ratio: 800:1  
Lamp life (minimum): 45,000 hrs  
Pixel pitch (minimum): 0.255 mm  
Energy 2000/Energy Star/TCO '99 Compliant  
Anti-glare coating  
On-screen display and controls  
Adjustable Height: 4" minimum range  
Tilt Angle: -5° degrees to 25° degrees  
Swivel Angle: ± 45° degrees

**Basis of Payment:** This work will be paid for at the contract unit price per each for LCD MONITOR which price shall be payment in full for all labor, materials, and equipment required to provide the LCD Monitor and accessories described above and deliver it to the Department.

### **CONDUIT IN TRENCH, SPECIAL; CONDUIT PUSHED, SPECIAL**

**Description:** This work shall consist of providing a fiber optic conduit (duct) system at the project location specified in the plans. The Contractor shall provide all labor, material, and equipment necessary to furnish and install the complete and fully functional conduit system. All work shall be performed in accordance with the plans, Standard Specifications, and as modified herein.

**Materials:** The conduit and fittings shall meet the requirements of Article 1088.01(c) of the Standard Specifications, except as modified herein. The conduit system shall consist of 3 individual 1½" inches in diameter polyethylene conduits grouped together in the trench. Each of the 3 conduits shall be a different color. One conduit shall have an internal pull rope.

Conduit shall be supplied on 5,000' ft. reels (or larger as equipment and installation techniques permit) in order to minimize the number of conduit splices. Fittings shall be mechanical or glue splices that preserve the smooth, seamless surface on the inside of the conduit. Fittings shall be capable of developing a minimum of 75% of the rated tensile (pull) strength of the conduit.

The pull rope (mule tape) shall be resistant to oil, water, and chemicals and shall not be abrasive to the conduit. It shall be suitable for location detection and produce a clear signal at a minimum distance of 2,500' ft. from the access point. The minimum rated breaking strength for the pull rope shall be 1,500 pounds.

**Installation:** Conduit shall be installed according to Sections 811 and 871 of the Standard Specifications.

Conduit shall be installed continuous for the complete length of the project with no breaks or openings in the conduit system.

Conduit shall be buried 36" inches (±3" inches) below final grade throughout its entire length. Conduit shall be installed in straight runs as much as possible with a minimum number of bends according to Section 816 of the Standard Specifications. Any bend in the conduit shall be limited to a bend radius of not less than 20 times the inside diameter of the conduit.

The conduit shall be sealed at all times during construction to eliminate the ingress of dirt and moisture.

A cable marking tape shall be installed above the conduit system according to Article 819.05 of the Standard Specifications. The color of the tape shall be red with large black lettering which reads "WARNING – FIBER OPTIC CABLE BELOW" or similar.

The Contractor shall locate the conduit, create the spreadsheet and/or other documents, and communicate the data to the Engineer and no additional compensation will be allowed for this work.

Method of Measurement: Conduit will be measured for payment according to Article 810.04.

Basis of Payment: This work will be paid for at the contract unit price per foot for CONDUIT IN TRENCH, SPECIAL or CONDUIT PUSHED, SPECIAL which price shall be payment in full for all labor, materials, and equipment required to furnish and install the conduits described above.

## **CONCRETE FOUNDATION, TYPE 1**

Description: Concrete foundations shall be constructed to support ITS equipment cabinets (Type 1 foundations) at locations as indicated on the Plans. This work shall include installing any necessary hardware (entering conduits, bolts, anchor rods, grounding, etc.) as shown on the Plans. This work shall also include any topsoil, fertilizing, seeding, and mulching of the distributed areas in accordance with Sections 211, 250, and 251 of the Standard Specifications.

Materials: Type 1 concrete foundations shall be according to materials defined in Article 836.02 of Section 836 of the Standard Specifications. All anchor bolts shall be in accordance with Section 1006.09 of the Standard Specifications except that all anchor bolts shall be hot dipped galvanized the full length of the anchor bolt including the hooks. Anchor bolts shall provide bolt spacing as shown in the Plans and as required by the cabinet manufacturer.

The Type 1 concrete foundations shall also be fabricated in accordance with Section 1070 of the Standard Specifications. These concrete foundations shall be fabricated from material new and unused in any previous application. The manufacturer shall provide a Certificate of Compliance that the materials are new and meet the specified requirements in accordance with the Standard Specifications and as shown on the Plans.

## CONSTRUCTION REQUIREMENTS

The Engineer will determine the final placement of the Type 1 concrete foundations. Type 1 concrete foundation dimensions shall be in accordance with those dimensions shown in the Plans on the detail sheet. The foundation shall be located as required in order to avoid existing and relocated utilities. The top of the foundation shall be finished level. Shimming of the appurtenance to be attached will not be permitted.

Prior to pouring the foundation, the Contractor shall check the Plans for the specific number, size, and direction of conduit entrances required at the given location. All conduit in the foundation shall be installed rigidly in place before concrete is deposited in the form. Bushings shall be provided at the ends of the conduit. Anchor rods and ground rod shall be set in place before the concrete is deposited by means of a template constructed to space the anchor rods according to the pattern of the bolt holes in the base of the appurtenance to be attached.

The appurtenance shall not be erected on the foundation until the bases have cured for at least seven (7) days. The Concrete shall cure according to Article 1020.13 of the Standard Specifications.

Method of Measurement: Concrete foundations shall be measured for payment in feet of the concrete foundation in-place installed in accordance with the total length of concrete foundation required for Type 1 foundations as indicated on the Plans and as directed by the Engineer. Extra foundation depth, beyond the directive of the Engineer, will not be measured for payment.

Basis of Payment: Payment will be paid for at the contract unit price per feet of CONCRETE FOUNDATION, TYPE 1, of the diameter and length indicated. The price shall include payment in full for furnishing, installing, and testing all materials (entering conduits, bolts, anchor rods, grounding, etc.) within the limits of the foundation and any topsoil, fertilizing, seeding, and mulching of the distributed areas as well as all associated labor is to be included in this price.

### **CABINET, MODEL 334**

Description: Work under this item shall consist of furnishing and installing a Model 334 cabinet for field equipment including fiber optic communications, inductive loop detector stations, changeable message signs, and CCTV dome camera, as shown on the Plans and as hereinafter provided.

#### Materials.

General: Cabinet, Model 334 shall be an aluminum durable, weatherproof enclosure, with nominal outside dimensions of 66" in. (1.7 m) high X 24" in. (600 mm) wide X 30" in. (762 mm) deep. Cabinet, Model 334 shall consist of the following components: double door each equipped with a lock for front and rear cabinet entry, housing, mounting cage, service panel, thermostatically controlled fan, and all necessary mounting hardware and wiring, and other equipment, as shown on the Plans and specified in these special provisions.

All bolts, nuts, washers, screws, hinges, and hinge pins that are subject to corrosion shall be stainless steel unless otherwise specified. All equipment under this item shall be in accordance with Section 1074.03 of the Standard Specifications except as modified herein.

#### Cabinet Components.

The housing and the mounting cage assembly shall conform to those of the Model 334 cabinet provisions of the "Traffic Signal Control Equipment Specifications" (TSCES) issued by the State of California, Department of Transportation, and to all addenda thereto current at the time of project advertising. The housing shall be rainproof with the top of the enclosure crowned to prevent standing water. All exterior seams for the enclosure and doors shall be continuously welded and shall be smooth. The housing shall have no provisions for a police panel or door.

The cabinet shall have single front and rear doors, each equipped with a lock. The enclosure door frames shall be double flanged out on all four (4) sides and shall have strikers to hold tension on and form a firm seal between the door gasketing and the frame. The front and rear doors shall be provided with catches to hold the door open at both 90° and 180° ±10°. Gasketing shall be provided on all door openings and shall be dust-tight. For horizontal support and bolt attachment, cage bottom support mounting angles shall be provided on either side, level with the bottom edge of the door.

The latching handles on the doors shall have provisions for padlocking in the closed position. When the door is closed and latched, the door shall be locked. The locks and handles shall be on the right side of the front door and the left side of the rear door. The lock and lock support shall be rigidly mounted to the door. The locks shall be Corbin #2 and two keys shall be supplied to the Department with each lock. The keys shall be removable in the locked position only.

The front and rear doors shall be provided with louvered vents. A removable and reusable air filter shall be housed behind the door vents. The filter filtration area shall cover the vent opening area, and the filter shell shall be provided that fits over the filter providing mechanical support for the filter. The shell shall be louvered to direct the incoming air downward.

The intake (including filter with shell) and exhaust areas shall pass a minimum of 60 cubic feet of air per minute for housing #1 and 26<sup>3</sup> cubic feet of air per minute for housing #2. The thermostatically controlled fan with ball or roller bearings shall be mounted within the housing and vented. The fan shall provide a capacity of at least 150<sup>3</sup> cubic feet of free air delivery per minute of ventilation. The fan shall be thermostatically controlled and activated when the temperature inside the cabinet exceeds 75°F (24°C) and shut off when the temperature is less than 64°F (18°C). In addition, the fan shall be manually adjustable for automatic turn on and off. The fan circuit shall be protected at 125% of the fan motor ampacity.

The housing shall also be equipped with a heating element installed in the bottom front of the cabinet and mounted along the side of the rack. The heating element shall draw 500 watts and have an output of at least 1,700 BTU/hr. The heater shall have a built-in quick response thermostat with sealed contacts that has a temperature control range of 40°F to 100°F, and have a built-in thermal cut-off to automatically shut-off the heater in the event of overheating.

All subassemblies shall be mounted in removable 19" in. (482 mm) EIA self-standing rack assemblies. The EIA rack portion of the cage shall consist of 2 pairs of continuous, adjustable equipment mounting angles that comply with Standard EIA RS-310-B. The cage shall be centered within the cabinet and bolted to the cabinet at four (4) points.

Each cabinet shall be equipped with two (2) shelves and one slide out keyboard tray. Shelves shall be the full width of the rack and 12" in. (300 mm) deep. The shelves shall be designed to support a minimum of 50 pounds.

The cabinet shall be equipped with two rack mounted 96 fiber enclosure equipped with 96 single mode ST ferrules. The cost of the fiber optic cable enclosures shall be paid for separately under the pay item for the fiber optic cable.

Each cabinet shall be equipped with one fluorescent lighting fixture mounted to the inside top front portion of the cabinet. The fixture shall have an F-15-T-8 cool white lamp; operated from a normal power factor, UL listed cold weather ballast. A door-activated switch shall be installed to turn the cabinet light on when the front door is opened. The door switch shall be on a separate circuit by itself and used only to turn on the cabinet light.

Each cabinet shall be supplied with a heavy-duty plastic envelope to store plans, wiring diagrams, schematics, etc. This envelope shall have metal grommets so that it hangs from the door hooks. The envelope shall have minimum dimensions of 10" in. (250 mm) x 15" in. (381 mm).

Foundations shall conform to those shown on the plan sheets. The foundation is paid for separately.

### CONSTRUCTION REQUIREMENTS

The Contractor shall deliver the Cabinet Model 334 mounted on a plyboard-shipping pallet that is bolted to the cabinet base. The cabinet shall be enclosed in a slipcover cardboard packaging shell. The housing doors shall be blocked to prevent movement during transportation to the site.

The Contractor shall securely fasten the Cabinet Model 334 on the new concrete foundation at the locations shown on the Plans. The Contractor shall confirm the orientation of the Cabinet Model 334 installation and its front door side with the Engineer prior to installation. Stainless steel bolted connections shall be provided with lock-washers, locking nuts, or other approved means to prevent the connection nuts from backing off. Dissimilar materials shall be isolated from one another by stainless steel fittings.

The Contractor shall make all power connections to the cabinet in accordance with the Plans and as required. The neutral bus shall be isolated from the cabinet and equipment ground. It shall terminate at the neutral lug ultimately attached to the meter pedestal. All conductors used in cabinet wiring shall terminate with properly sized non-insulated (if used, for DC logic only) or clear insulated spring-spade type terminals except when soldered to a through-panel solder lug on the rear side of the terminal block or as specified otherwise. All conductors, except those, which can be readily traced, shall be labeled. Labels attached to each end of the conductor shall identify the destination of the other end of the conductor. Cabling shall be routed to prevent conductors from being in contact with metal edges. Cabling shall be arranged so that any removable assembly may be removed without disturbing conductors not associated with that assembly.

Tests. Cabinet Acceptance Test - In addition to the environmental and design approval tests specified in the FHWA Type 170 Traffic Signal Control System Hardware Specification, the following water spray test shall be performed for each type of cabinet:

Spray water from a point directly overhead at an angle of 60° from the vertical axis of the cabinet. Repeat for each of eight equally spaced positions around the cabinet for a period of five minutes in each position. The water shall be sprayed using a domestic type-sprinkling nozzle at a rate of not less than 10 gal./min. minute per square foot (ft.<sup>2</sup>) of surface area. The cabinet shall then be inspected for leakage. Evidence of water leakage shall be cause for rejection.

Documentation. Shop drawings and wiring showing the proposed layout of each type of cabinet shall be submitted to the Engineer for approval prior to the start of fabrication. Wiring lists for the internal manufacturer cut sheets for all electrical equipment included in each type of cabinet shall be included in the submission.

Four copies of drawings showing the wiring for each cabinet shall be provided. One copy shall be placed in the clear plastic envelope furnished as part of the cabinet. The other three copies shall be delivered to the Engineer.

Method of Measurement. Cabinet, model 334 will be measured as a unit, completely installed and operational.

**Basis of Payment.** CABINET, MODEL 334, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing and installing the cabinet and all connections; testing, and for all labor, tools, equipment, transportation, and incidentals necessary to complete this item of work.

**ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)**

Effective: August 1, 2007

Revised: January 1, 2009

**Description.** This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to precast products or precast prestressed products.

**Aggregate Expansion Values.** Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ( $Na_2O + 0.658K_2O$ ) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

**Aggregate Groups.** Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤ 0.16%	> 0.16% - 0.27%	> 0.27%
≤ 0.16%	Group I	Group II	Group III
> 0.16% - 0.27%	Group II	Group II	Group III
> 0.27%	Group III	Group III	Group IV

**Mixture Options.** Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

- Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
- Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.
- Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.
- Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

For Class PP-3 concrete the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

- a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

$$\text{Weighted Expansion Value} = (a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$$

Where: a, b, c... = percentage of aggregate in the blend;  
A, B, C...= expansion value for that aggregate.

- b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".

1) Class F Fly Ash. For Class PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

2) Class C Fly Ash. For Class PV, MS, SC, and SI Concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 percent of the portland cement at a minimum replacement ratio of 1:1.

4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.

- c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.

- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.
- e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is  $\leq 0.16$  percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. For latex concrete, the ASTM C 1567 test shall be performed without the latex. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value  $> 0.16$  percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement Concrete or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

#### **APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS (BDE)**

Effective: November 1, 2008

Revised: November 1, 2010

Replace the first paragraph of Article 107.22 of the Standard Specifications with the following:

"All proposed borrow areas, including commercial borrow areas; use areas, including, but not limited to temporary access roads, detours, runarounds, plant sites, and staging and storage areas; and/or waste areas are to be designated by the Contractor to the Engineer and approved prior to their use. Such areas outside the State of Illinois shall be evaluated, at no additional cost to the Department, according to the requirements of the state in which the area lies; and approval by the authority within that state having jurisdiction for such areas shall be forwarded to the Engineer. Such areas within Illinois shall be evaluated as described herein.

A location map delineating the proposed borrow area, use area, and/or waste area shall be submitted to the Engineer for approval along with an agreement from the property owner granting the Department permission to enter the property and conduct cultural and biological resource reconnaissance surveys of the site for archaeological resources, threatened or endangered species or their designated essential habitat, wetlands, prairies, and savannahs. The type of location map submitted shall be a topographic map, a plat map, or a 7.5 minute quadrangle map. Submittals shall include the intended use of the site and provide sufficient detail for the Engineer to determine the extent of impacts to the site. The Engineer will initiate cultural and biological resource reconnaissance surveys of the site, as necessary, at no cost to the Contractor. The Engineer will advise the Contractor of the expected time required to complete all surveys. If the proposed area is within 150 ft (45 m) of the highway right-of-way, a topographic map of the proposed site will be required as specified in Article 204.02.”

## **CEMENT (BDE)**

Effective: January 1, 2007

Revised: April 1, 2011

Revise Section 1001 of the Standard Specifications to read:

### **“SECTION 1001. CEMENT**

**1001.01 Cement Types.** Cement shall be according to the following.

- (a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research’s Policy Memorandum, “Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants”.

Portland cement shall be according to AASHTO M 85, and shall meet the standard physical and chemical requirements. The Contractor has the option to use any type of portland cement listed in AASHTO M 85 unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

- (b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research’s Policy Memorandum, “Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants”.

Portland-pozzolan cement shall be according to AASHTO M 240 and shall meet the standard physical and chemical requirements. The Contractor has the option to use portland-pozzolan cement unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust. The pozzolan constituent for Type IP using Class F fly ash shall be a maximum of 25 percent of the weight (mass) of the portland-pozzolan cement. The pozzolan constituent for Type IP using Class C fly ash shall be a maximum of 30 percent of the weight (mass) of the portland-pozzolan cement. The pozzolan constituent for Type IP using microsilica or high-reactivity metakaolin shall be a maximum of ten percent. The pozzolan constituent for Type IP using other materials shall have the approval of the Engineer.

Portland-pozzolan cement may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.

- (c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to AASHTO M 240 and shall meet the standard physical and chemical requirements. The Contractor has the option to use portland blast-furnace slag cement unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust. The blast-furnace slag constituent for Type IS shall be a maximum of 35 percent of the weight (mass) of the portland blast-furnace slag cement.

Portland blast-furnace slag cement may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.

- (d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.

- (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified AASHTO T 131.
- (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified AASHTO T 106.
- (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.
- (4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.
- (5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to Illinois Modified AASHTO T 161, Procedure B.

- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to AASHTO M 85, except the time of setting shall not apply. The chemical requirements shall be determined according to AASHTO T 105 and shall be as follows: minimum 38 percent aluminum oxide ( $Al_2O_3$ ), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide ( $SO_3$ ), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

**1001.02 Uniformity of Color.** Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.

**1001.03 Mixing Brands and Types.** Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.

**1001.04 Storage.** Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate.”

## **CONCRETE ADMIXTURES (BDE)**

Effective: January 1, 2003

Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

“(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays.”

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 shall 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 as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's Approved List of Concrete Admixtures.

For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. 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. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from and independent lab. All other information in ASTM C 1582 shall be from and independent lab.

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 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, 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 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

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 AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

**1021.02 Air-Entraining Admixtures.** Air-entraining admixtures shall be according to AASHTO M 154.

**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall be according to the following.

- (a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall be according to AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

**1021.04 Accelerating Admixtures.** The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

**1021.05 Self-Consolidating Admixtures.** The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

**1021.06 Rheology-Controlling Admixture.** The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

**1021.07 Corrosion Inhibitor.** The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).
- (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582.”

## **CONCRETE MIX DESIGNS (BDE)**

Effective: April 1, 2009

Add the following to Article 1020.05(c) of the Standard Specifications:

- “(5) Performance Based Finely Divided Mineral Combination. For Class PV and SI concrete a performance based finely divided mineral combination may be used.

The minimum cement factor, maximum cement factor, and water cement ratio of Article 1020.04 shall be replaced with the values below, and the performance based finely divided mineral combination herein is an alternative to Articles 1020.05(c)(1), (c)(2), (c)(3), and (c)(4). The mix design shall meet the following requirements and the Engineer may request a trial batch.

- a. The mixture shall contain a minimum of 375 lbs/cu yd (222 kg/cu m) of portland cement. For a blended cement, a sufficient amount shall be used to obtain the required 375 lbs/cu yd (222 kg/cu m) of portland cement in the mixture. For example, a blended cement stated to have 20 percent finely divided mineral, ignoring any ASTM C 595 tolerance on the 20 percent, would require a minimum of 469 lbs/cu yd (278 kg/cu m) of material in the mixture. When the mixture is designed for cement content from 375 lbs/cu yd (222 kg/cu m) to 400 lbs/cu yd (237 kg/cu m), the total of organic processing additions, inorganic processing additions, and limestone addition in the cement shall not exceed 5.0 percent.
- b. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in a blended cement shall count toward the total number of finely divided minerals allowed. The finely divided mineral(s) shall constitute a maximum of 35.0 percent of the total cement plus finely divided mineral(s). The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent. The finely divided mineral in the blended cement shall apply to the maximum 35.0 percent, and shall be determined as discussed in a. above for determining portland cement in blended cement.
- c. For central mixed Class PV and SI concrete, the mixture shall contain a minimum of 535 lbs/cu yd (320 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 565 lbs/cu yd (335 kg/cu m) without a water-reducing admixture.

For truck mixed or shrink mixed Class PV and SI concrete, the mixture shall contain a minimum of 575 lbs/cu yd (345 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 605 lbs/cu yd (360 kg/cu m) without a water-reducing admixture.

- d. The mixture shall contain a maximum of 705 lbs/cu yd (418 kg/cu m) of cement and finely divided mineral(s) summed together.

- e. The mixture shall have a water/cement ratio of 0.32 – 0.44.
- f. The mixture shall not be used for placement underwater.
- g. The combination of cement and finely divided mineral(s) shall have an ASTM C 1567 expansion value  $\leq 0.16$  percent, and shall be performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly.

If during the two year time period the Contractor needs to replace the portland cement, and the replacement portland cement has an equal or lower total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ), a new ASTM C 1567 test will not be required. However, replacement of a blended cement with another cement will require a new ASTM C 1567 test.”

### **CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)**

Effective: April 1, 2009

Revised: July 1, 2009

Diesel Vehicle Emissions Control. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term “equipment” refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any “rental” equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall also not be grounds for a claim.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period. The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency.

The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

If a Contractor or subcontractor accumulates three environmental deficiency deductions in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of contract time, waiver of penalties, or be grounds for any claim.

### **CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)**

Effective: April 1, 2009

Idling Restrictions. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

- 1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
- 2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
- 3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
- 4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
- 5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.
- 6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
- 7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.

- 8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
- 9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be \$1,000.00 for each deficiency identified.

#### **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000

Revised: January 1, 2011

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 Illinois Unified Certification Program (IL UCP) DBE Directory.

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 percent 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 percent 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 companies 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 **1.00%** 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 only 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 enough 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 IL UCP DBE Directory as a reference source for DBE-certified companies. 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.il.gov](http://www.dot.il.gov).

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (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.

For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

- (1) The names and addresses of DBE firms that will participate in the contract;
- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state 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) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort 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, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine 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 apparent successful 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 the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of 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 determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. 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 documentation and 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 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.

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 percent 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 does not count toward the DBE goals.

- (b) DBE as a joint venture Contractor: 100 percent 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 percent 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 does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent 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 following:
  - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
  - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
  - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
  - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
  - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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 Utilization 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) The Contractor must notify and obtain written approval from the Department's Bureau of Small Business Enterprises prior to replacing a DBE or making any change in the participation of a DBE. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original 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 original DBE, to the extent needed to meet the contract goal.
- (c) Any deviation from the DBE condition-of-award or contract specifications must be approved, in writing, by the Department. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract.
- (d) In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
  - (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
  - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
  - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted.
- (f) If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (g) 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.

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 of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises 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.

- (h) 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 therefore to the DBE by the Contractor, but not later than thirty 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 Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement 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 Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (j) of this part.
- (i) 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.
- (j) 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.

#### **EQUIPMENT RENTAL RATES (BDE)**

Effective: August 2, 2007

Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

"Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4)."

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

“(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

- a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the “Equipment Watch Rental Rate Blue Book” (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

$$\text{FHWA hourly rate} = (\text{monthly rate}/176) \times (\text{model year adj.}) \times (\text{Illinois adj.}) + \text{EOC}$$

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate:  $0.5 \times (\text{FHWA hourly rate} - \text{EOC})$ .

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

- b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used.”

**LIQUIDATED DAMAGES (BDE)**

Effective: April 1, 2009

Revised: April 1, 2011

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time"			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
\$ 0	\$ 100,000	\$ 475	\$ 675
100,000	500,000	750	1,050
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,275	1,725
3,000,000	6,000,000	1,425	2,000
6,000,000	12,000,000	2,300	3,450
12,000,000	And over	5,800	8,125"

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)**

Effective: April 1, 2007

Revised: November 1, 2009

Revise Article 105.03(a) of the Standard Specifications to read:

“(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor’s activities represents a violation of the Department’s NPDES permits, the Engineer 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 1 week based on the urgency of the situation and the nature of the work effort required. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the Department’s NPDES permits. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or portion of a calendar day until the deficiency is corrected to the satisfaction of the Engineer. The calendar day(s) will begin with notification to the Contractor and end with the Engineer’s acceptance of the correction. The base value of the daily monetary deduction is \$1000.00 and will be applied to each location for which a deficiency exists. The value of the deficiency deduction assessed for each infraction will be determined by multiplying the base value by a Gravity Adjustment Factor provided in Table A. Except for failure to participate in a required jobsite inspection of the project prior to initiating earthmoving operations which will be based on the total acreage of planned disturbance at the following multipliers: <5 Acres: 1; 5-10 Acres: 2; >10-25 Acres: 3; >25 Acres: 5. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day multiplied by a Gravity Adjustment Factor.

Table A Deficiency Deduction Gravity Adjustment Factors				
Types of Violations	Soil Disturbed and Not Permanently Stabilized At Time of Violation			
	< 5 Acres	5 - 10 Acres	>10 - 25 Acres	> 25 Acres
Failure to Install or Properly Maintain BMP	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
Careless Destruction of BMP	0.2 - 1	0.5 - 2.5	1.0 - 5.	1.0 - 5
Intrusion into Protected Resource	1.0 - 5	1.0 - 5	2.0 - 10	2.0 - 10
Failure to properly manage Chemicals, Concrete Washouts or Residuals, Litter or other Wastes	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Improper Vehicle and Equipment Maintenance, Fueling or Cleaning	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Failure to Provide or Update Written or Graphic Plans Required by SWPPP	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Failure to comply with Other Provisions of the NPDES Permit	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"

**PAYMENTS TO SUBCONTRACTORS (BDE)**

Effective: June 1, 2000

Revised: January 1, 2006

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 and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier 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 and material suppliers throughout the contracting chain.

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

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain 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 and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section 7(b) of the State Prompt Payment Act. State law creates other and additional 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 according to the Public Construction Bond Act, 30 ILCS 550.

**POST MOUNTING OF SIGNS (BDE)**

Effective: January 1, 2011

Revise the second paragraph of Article 701.14 of the Standard Specifications to read:

“Post mounted signs shall be a breakaway design. The sign shall be within five degrees of vertical. Two posts shall be used for signs greater than 16 sq ft (1.5 sq m) in area or where the height between the sign and the ground exceeds 7 ft (2.1 m).”

**SEEDING (BDE)**

Effective: July 1, 2004

Revised: July 1, 2010

Revise the following seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

"Table 1 - SEEDING MIXTURES		
Class – Type	Seeds	lb/acre (kg/hectare)
1A Salt Tolerant Lawn Mixture 7/	Bluegrass	60 (70)
	Perennial Ryegrass	20 (20)
	Red Fescue (Audubon, Sea Link, or Epic)	20 (20)
	Hard Fescue (Rescue 911, Spartan II, or Reliant IV)	20 (20)
	Fults Salt Grass 1/ or Salty Alkaligrass	60 (70)
2 Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV)	100 (110)
	Perennial Ryegrass	50 (55)
	Creeping Red Fescue	40 (50)
	Red Top	10 (10)

2A	Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)
3	Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) Perennial Ryegrass Alsike Cover 2/ Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/ Andropogon Scoparius (Little Bluestem) 5/ Bouteloua Curtipendula (Side-Oats Grama) Fults Salt Grass 1/ or Salty Alkaligrass Oats, Spring Slender Wheat Grass 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5) 20 (20) 5 (5) 2 (2) 12 (12) 10 (10) 30 (35) 50 (55) 15 (15) 5 (5)
6A	Salt Tolerant Conservation Mixture	Andropogon Scoparius (Little Bluestem) 5/ Elymus Canadensis (Canada Wild Rye) 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/ Vernal Alfalfa 2/ Oats, Spring Fults Salt Grass 1/ or Salty Alkaligrass	5 (5) 2 (2) 5 (5) 15 (15) 48 (55) 20 (20)"

Revise Note 7 of Table 1 – Seeding Mixtures of Article 250.07 of the Standard Specifications to read:

“7/ In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after April 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.”

Revise the first paragraph of Article 1081.04(a) of the Standard Specifications to read:

“(a) Sampling and Testing. Each lot of seed furnished shall be tested by a State Agriculture Department (including other States) or by land grant college or university agricultural sections or by a Registered Seed Technologist. Germination testing of seed shall be accomplished within the 12 months prior to the seed being installed on the project.”

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
Variety of Seeds	Hard Seed %	Purity %	Pure Live Seed %	Weed %	Secondary * Noxious Weeds No. per oz (kg)	Notes
	Max.	Min.	Min.	Max.	Max. Permitted	
Alfalfa	20	92	89	0.50	6 (211)	1/
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Red Fescue, Audubon	0	97	82	0.10	3 (105)	-
Red Fescue, Creeping	-	97	82	1.00	6 (211)	-
Red Fescue, Epic	-	98	83	0.05	1 (35)	-
Red Fescue, Sea Link	-	98	83	0.10	3 (105)	-
Tall Fescue, Blade Runner	-	98	83	0.10	2 (70)	-
Tall Fescue, Falcon IV	-	98	83	0.05	1 (35)	-
Tall Fescue, Inferno	0	98	83	0.10	2 (70)	-
Tall Fescue, Tarheel II	-	97	82	1.00	6 (211)	-
Tall Fescue, Quest	0	98	83	0.10	2 (70)	-
Fults Salt Grass	0	98	85	0.10	2 (70)	-
Salty Alkaligrass	0	98	85	0.10	2 (70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 (70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 (70)	3/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 (70)	3/”

Revise the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

“The seed quantities indicated per acre (hectare) for Prairie Grass Seed in Classes 3, 3A, 4, 4A, 6, and 6A in Article 250.07 shall be the amounts of pure, live seed per acre (hectare) for each species listed.”

**SELECTION OF LABOR (BDE)**

Effective: July 2, 2010

Revise Section I of Check Sheet #5 of the Recurring Special Provisions to read:

**“I. SELECTION OF LABOR**

The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

## EMPLOYMENT OF ILLINOIS WORKERS DURING PERIODS OF EXCESSIVE UNEMPLOYMENT

Whenever there is a period of excessive unemployment in Illinois, which is defined herein as any month immediately following two consecutive calendar months during which the level of unemployment in the State of Illinois has exceeded five percent as measured by the United States Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ at least 90 percent Illinois laborers. "Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident.

Other laborers may be used when Illinois laborers as defined herein are not available, or are incapable of performing the particular type of work involved, if so certified by the Contractor and approved by the Engineer. The Contractor may place no more than three of his/her regularly employed non-resident executive and technical experts, who do not qualify as Illinois laborers, to do work encompassed by this contract during period of excessive unemployment.

This provision applies to all labor, whether skilled, semi-skilled, or unskilled, whether manual or non-manual."

### **SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)**

Effective: April 2, 2005

Revised: April 1, 2011

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 according to 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.

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

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

### **UTILITY COORDINATION AND CONFLICTS (BDE)**

Effective: April 1, 2011

Revise Article 105.07 of the Standard Specifications to read:

**"105.07 Cooperation with Utilities.** The Department reserves the right at any time to allow work by utilities on or near the work covered by the contract. The Contractor shall conduct his/her work so as not to interfere with or hinder the progress or completion of the work being performed by utilities. The Contractor shall also arrange the work and shall place and dispose of the materials being used so as not to interfere with the operations of utility work in the area.

The Contractor shall cooperate with the owners of utilities in their removal and rearrangement operations so work may progress in a reasonable manner, duplication or rearrangement of work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer.”

Revise the first sentence of the last paragraph of Article 107.19 of the Standard Specifications to read:

“When the Contractor encounters unexpected regulated substances due to the presence of utilities in unanticipated locations, the provisions of Article 107.40 shall apply; otherwise, if the Engineer does not direct a resumption of operations, the provisions of Article 108.07 shall apply.”

Revise Article 107.31 of the Standard Specification to read:

**“107.31 Reserved.”**

Add the following four Articles to Section 107 of the Standard Specifications:

**“107.37 Locations of Utilities within the Project Limits.** All known utilities existing within the limits of construction are either indicated on the plans or visible above ground. For the purpose of this Article, the limits of proposed construction are defined as follows:

(a) Limits of Proposed Construction for Utilities Paralleling the Roadway.

- (1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 2 ft (600 mm) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 4 ft (1.2 m) outside the edges of structure footings or the structure where no footings are required.

- (2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
- (3) The lower vertical limits shall be either the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.

(b) Limits of Proposed Construction for Utilities Crossing the Roadway in a Generally Transverse Direction.

- (1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction, unless otherwise required by the regulations governing the specific utility involved.
- (2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions as indicated in the contract. It is further understood the actual location of the utilities may be located anywhere within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c), and the proximity of some utilities to construction may require extraordinary measures by the Contractor to protect those utilities.

No additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from known utility facilities or any adjustment of them, except as specifically provided in the contract.

**107.38 Adjustments of Utilities within the Project Limits.** The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation, or altering of an existing utility facility in any manner.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting known utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits as described in Article 107.37. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be indicated in the contract.

The Contractor may make arrangements for adjustment of utilities indicated in the contract, but not scheduled by the Department for adjustment, provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any such adjustments shall be the responsibility of the Contractor.

**107.39 Contractor's Responsibility for Locating and Protecting Utility Property and Services.** At points where the Contractor's operations are adjacent to properties or facilities of utility companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

Within the State of Illinois, a State-Wide One Call Notice System has been established for notifying utilities. Outside the city limits of the City of Chicago, the system is known as the Joint Utility Locating Information for Excavators (JULIE) System. Within the city limits of the City of Chicago the system is known as DIGGER. All utility companies and municipalities which have buried utility facilities in the State of Illinois are a part of this system.

The Contractor shall call JULIE (800-892-0123) or DIGGER (312-744-7000), a minimum of 48 hours in advance of work being done in the area, and they will notify all member utility companies involved their respective utility should be located.

For utilities which are not members of JULIE or DIGGER, the Contractor shall contact the owners directly. The plan general notes will indicate which utilities are not members of JULIE or DIGGER.

The following table indicates the color of markings required of the State-Wide One Call Notification System.

<b>Utility Service</b>	<b>Color</b>
Electric Power, Distribution and Transmission	Safety Red
Municipal Electric Systems	Safety Red
Gas Distribution and Transmission	High Visibility Safety Yellow
Oil Distribution and Transmission	High Visibility Safety Yellow
Telephone and Telegraph System	Safety Alert Orange
Community Antenna Television Systems	Safety Alert Orange
Water Systems	Safety Precaution Blue
Sewer Systems	Safety Green
Non-Potable Water and Slurry Lines	Safety Purple
Temporary Survey	Safety Pink
Proposed Excavation	Safety White (Black when snow is on the ground)

The State-Wide One Call Notification System will provide for horizontal locations of utilities. When it is determined that the vertical location of the utility is necessary to facilitate construction, the Engineer may make the request for location from the utility after receipt of notice from the Contractor. If the utility owner does not field locate their facilities to the satisfaction of the Engineer, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

In the event of interruption of utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water service is interrupted, repair work shall be continuous until the service is restored.

No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

**107.40 Conflicts with Utilities.** Except as provided hereinafter, the discovery of a utility in an unanticipated location will be evaluated according to Article 104.03. It is understood and agreed that the Contractor has considered in the bid all facilities not meeting the definition of a utility in an unanticipated location and no additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from such facilities.

When the Contractor discovers a utility in an unanticipated location, the Contractor shall not interfere with said utility, shall take proper precautions to prevent damage or interruption of the utility, and shall promptly notify the Engineer of the nature and location of said utility.

(a) Definition. A utility in an unanticipated location is defined as an active or inactive utility, which is either:

- (1) Located underground and (a) not shown in any way in any location on the contract documents; (b) not identified in writing by the Department to the Contractor prior to the letting; or (c) not located relative to the location shown in the contract within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c); or
- (2) Located above ground or underground and not relocated as provided in the contract.

Service connections shall not be considered to be utilities in unanticipated locations.

(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work applicable to the utility or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows:

- (1) Minor Delay. A minor delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than two hours, but not to exceed three weeks.
- (2) Major Delay. A major delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than three weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the contractor's rate of production decreases by more than 25 percent and lasts longer than seven days.

(c) Payment. Payment for Minor, Major and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work will be paid for according to Article 109.04(b)(4). The length of time paid for will be the time between start of delay and eight hours working time from start of shift being worked.

For delays exceeding the initial shift, excluding Saturdays, Sundays, and holidays, Contractor-owned equipment idled by the delay which cannot be used on other work and remaining at the work site, will be paid at one-half the rate permitted in Article 109.04(b)(4) using a maximum eight hours per day for computation purposes. Equipment rented from an independent source will be paid at rates being paid by the Contractor plus move-in move-out costs, but the total amount paid will not exceed three weeks rental.

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to three weeks plus the cost of move-out to either the Contractor's yard or another job, whichever is less. Rental equipment may be paid for longer than three weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Whether covered by (1), (2) or (3) above, additional traffic control required as a result of the operation(s) delayed will be paid for according to Article 109.04 for the total length of the delay.

If the delay is clearly shown to have caused work, which would have otherwise been completed, to be done after material or labor costs have increased, such increases may be paid. Payment for materials will be limited to increased cost substantiated by documentation furnished by the Contractor. Payment for increased labor rates will include those items in Article 109.04(b)(1) and (2), except the 35 percent and ten percent additives will not be permitted. On a working day contract, a delay occurring between November 30 and May 1, when work has not started, will not be considered as eligible for payment of measured labor and material costs.

Project overhead (not including interest) will be allowed when all progress on the contract has been delayed, and will be calculated as 15 percent of the delay claim.

(d) Other Obligations of Contractor. Upon payment of a claim under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this Provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this Provision."

**WORKING DAYS (BDE)**

Effective: January 1, 2002

The Contractor shall complete the work within 150 working days.



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
VARIOUS ROUTES  
TAZEWELL COUNTY  
SECTION D4 TRAFFIC SIGNALS 2011  
C-94-022-11**

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- 25-43. IL 29 (NORTH PEKIN TO PEKIN) FIBER INSTALLATION
- 44-57. I-474 FIBER INSTALLATION
- 58-59. FIBER TERMINATION DETAILS
- 60. FIBER ARM EXTENSION DETAIL
- 61. TYPE B CABINET DETAILS
- 62-63. CAMERA POLE DETAILS
- 64. TRAFFIC COUNTER DETAIL
- 65. CONDUIT BRACKET DETAIL
- 66-67. TYPE 334 CABINET DETAILS

IL 29 (FROM EAST PEORIA TO PEKIN)

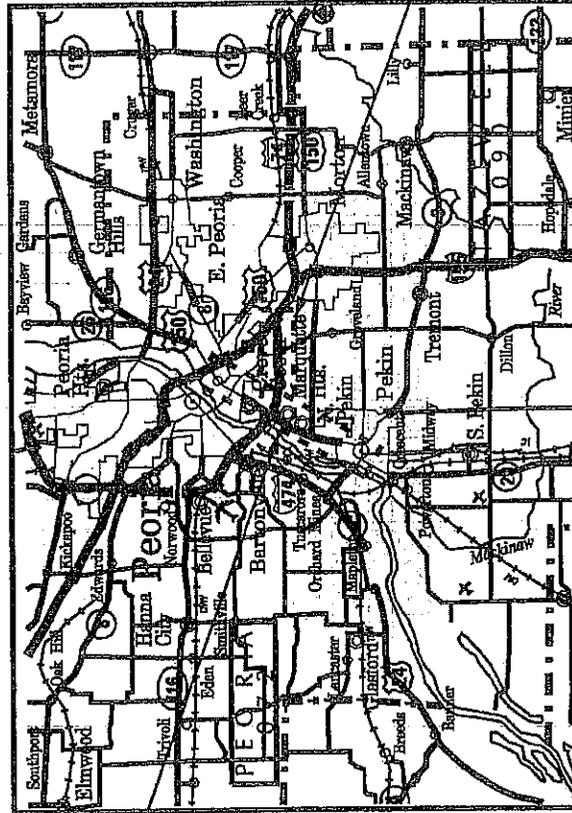
**STANDARDS**

- 701001-02
- 701006-03
- 701011-02
- 701106-02
- 701502-04
- 701601-07
- 701602-05
- 701606-07
- 701701-07
- 701801-04
- 701901-01
- 805001-01
- 878001-08

**LOCATION OF IMPROVEMENT**

ALONG IL 29 FROM WASHINGTON STREET IN EAST PEORIA TO MARGARET STREET IN PEKIN (APPROXIMATELY 9.0 MILES); ALONG I-474 FROM COLE STREET OVERPASS TO I-74 INTERCHANGE (APPROXIMATELY 2.75 MILES)

CONTRACT NO. 68A18  
CATALOG NO. 034536-00D



I-474 (FROM COLE ST. OVERPASS TO I-74 INTERCHANGE)

JULI.E. 1-800-892-9123  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

SUBMITTED Feb 25, 2011  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS REGION ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**DESCRIPTION OF WORK**  
THIS PROJECT CONSISTS OF INSTALLING CONDUIT, COMMUNICATION VAULTS, FIBER OPTIC CABLE, CCTV CAMERAS, CAMERA POLES, MICROWAVE TRAFFIC COUNTERS, EQUIPMENT CABINETS, AND PERFORMING ALL COLLATERAL WORK REQUIRED TO COMPLETE THE IMPROVEMENTS.

CONSTRUCTION NOTES

1. EXISTING UTILITY LOCATION INFORMATION IS NOT SHOWN ON THE PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES PRIOR TO THE INSTALLATION OF ANY COMPONENTS. THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS PRIOR TO COMMENCING WORK ON THE PROJECT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
3. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
4. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03 UNLESS SPECIFIED OTHERWISE.
5. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 873.04.
6. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATION.
7. THE LOCATIONS FOR CAMERA POLES AND CONCRETE FOUNDATIONS ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
8. THE COMMUNICATION VAULT SHALL BE CONSTRUCTED SO THAT THE TOP OF THE FRAME WILL BE FLUSH WITH THE SURFACE OF THE MEDIAN, SIDEWALK, OR GROUND LINE. COMMUNICATION VAULTS SHALL BE INSTALLED AT 1200 FOOT INTERVALS.
9. COLLABLE POLYETHYLENE DUCT MAY BE SUBSTITUTED FOR PVC PUSHED OR TRENCHED.
10. THE CONTRACTOR MAY ELECT TO PUSH A CONDUIT THAT IS SHOWN TO BE TRENCHED ON THE PLANS. HOWEVER, THIS WORK WILL BE MEASURED FOR PAYMENT AND PAID FOR AS CONDUIT IN TRENCH OF THE TYPE AND SIZE SPECIFIED AND TRENCH AND BACKFILL FOR ELECTRICAL WORK.
11. POTHOLES TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE CONDUIT PAY ITEMS (PUSHED OR TRENCHED).
12. REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, AND ISLANDS FOR UTILITY LOCATING PURPOSES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE CONDUIT PAY ITEMS.
13. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FT. MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THIS COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR THE CONDUITS.
15. THE CONTRACTOR SHALL INSTALL A #12 (XLP-TYPE USE) TRACER WIRE ALONG WITH THE FIBER OPTIC FOR LOCATING PURPOSES. THE TRACER WIRE SHALL BE CONTINUOUS AND BE ACCESSIBLE FROM THE HANDHOLES. THE COST OF FURNISHING AND INSTALLING THE TRACER WIRE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE FIBER OPTIC CABLE IN CONDUIT PAY ITEM.
16. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED TO ATTACH THE CONDUITS AND JUNCTION BOXES TO THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO UNI-STRUT, BRACKETS, SEAL-TITE, LBS, FITTINGS, HARDWARE, AND OTHER MISCELLANEOUS ITEMS. THESE ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID PRICE FOR THE CONDUIT ATTACHED TO STRUCTURE PAY ITEM.
17. CONDUIT ATTACHMENT BRACKETS SHALL BE INSTALLED AT 8 FT. SPACINGS (MAXIMUM)
18. THE CONTRACTOR SHALL FURNISH AND INSTALL EXPANSION/DEFLECTION COUPLINGS (OR OTHER EQUIPMENT AND METHODS AS APPROVED BY THE ENGINEER) FOR ALL BRIDGE JOINTS AS REQUIRED AND DIRECTED BY THE ENGINEER.
19. ALL SEAL-TITE CONDUIT SHALL BE NON-METALLIC AND SHALL INCLUDE CONNECTORS WITH INTEGRAL STAINLESS STEEL KELLUM GRIPS AT THE ENDS FOR INCREASED STRENGTH AND DURABILITY.
20. THE CONTRACTOR SHALL GROUND ALL EXPOSED STEEL CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE GROUND SYSTEM WHEN USING NON-METALLIC SEAL-TITE CONDUIT BY INSTALLING A #6 GROUNDING CONDUCTOR INSIDE THE SEAL-TITE AND BONDING THIS WIRE TO THE GALVANIZED STEEL CONDUITS AT EACH END. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE GALVANIZED STEEL CONDUIT PAY ITEMS.
21. ALL CONDUIT ATTACHMENT BRACKETS SHALL BE FULLY GALVANIZED AND ALL HARDWARE SHALL BE EITHER GALVANIZED OR STAINLESS STEEL.
22. THE CONTRACTOR SHALL INSTALL THREAD LOCKER ON ALL ATTACHED CONDUIT THREADED CONNECTIONS TO PREVENT LOOSENING THROUGH VIBRATION.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING FIELD TILE AND UNDERDRAIN LOCATIONS. THE CONTRACTOR SHALL MAKE AN EFFORT TO MINIMIZE DAMAGE TO THESE FACILITIES DURING THE INSTALLATION OF CONDUIT AND COMMUNICATION VAULTS. IN THE EVENT THAT THESE FACILITIES ARE DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING REPAIRS TO THESE ITEMS TO RESTORE FUNCTIONALITY TO THE SATISFACTION OF THE ENGINEER.
24. COMMUNICATION VAULTS SHALL NOT BE INSTALLED MONOLITHIC WITH THE SIDEWALK.

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

CONSTRUCTION NOTES

SCALE: NONE

STA. ----- TO STA. -----

ROUTES	SECTION	COUNTY	TOTAL SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67 2
			CONTRACT NO. 68A1B

FIBER OPTIC CABLE SLACK  
 DOUBLE HANDHOLE: 30.0 FT.  
 COMMUNICATIONS VAULT: 30.0 FT  
 JUNCTION BOX: 10.0 FT.  
 HANDHOLE: 10.0 FT.  
 ITS OR SIGNAL CABINET: 10.0 FT.  
 EQUIPMENT CABINET: 3.0 FT.

LEGEND	
	PROP. SERVICE INSTALLATION
	PROP. CCTV CABINET
	PROP. TYPE IV CABINET
	PROP. CCTV DOME CAMERA
	PROP. CAMERA POLE
	PROP. CONDUIT, TRENCHED
	PROP. CONDUIT, PUSHED
	PROP. CONDUIT, ATTACHED TO STRUCTURE
	PROP. JUNCTION BOX, SS, ATS
	PROP. COMMUNICATIONS VAULT
	PROP. TRAFFIC COUNTER

COMMITMENTS: THERE ARE NO COMMITMENTS FOR THIS PROJECT.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROJECT COMMITMENTS		TOTAL SHEET NO. 67	SHEET NO. 3
	SCALE: NONE	STA. ----- TO STA. -----		
			COUNTY TAEWELL	CONTRACT NO. 68A1B

# SUMMARY OF QUANTITIES

TAEZEWELL COUNTY		CONST. TYPE CODE 0021 (100% STATE PROGRAM FUNDS) URBAN	CONST. TYPE CODE 0021 (100% STATE ITS PROGRAM FUNDS) URBAN
CODE	ITEM DESCRIPTION	UNIT	TOTAL QTY.
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	860.0
44000600	SIDEWALK REMOVAL	SQ FT	860.0
67100100	MOBILIZATION	L SUM	1.0
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1.0
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1.0
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1.0
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1.0
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1.0
81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	250.0
81021330	CONDUIT PUSHED, 2" DIA., PVC	FOOT	905.0
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	468.0
81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	3.0
81300948	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	4.0
81702130	ELECTRIC CABLE IN CONDUIT, 600V (ALP-TYPE USE) 1/2" NO. 6	FOOT	546.0
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	44910.0
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	20.0
87900200	DRILL EXISTING HANDHOLE	EACH	10.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	COUNTY TAEZEWELL	SECTION D4 TRAFFIC SIGNALS 2011	TOTAL SHEETS 67	SHEET NO. 4
SCALE: NONE	STA. _____ TO STA. _____	ROUTES VARIOUS		CONTRACT NO. 68A1B	



# SCHEDULE OF QUANTITIES

TAZEWELL COUNTY

ITEM DESCRIPTION	UNIT	TOTAL QTY.	TAZEWELL COUNTY		
			IL 29 CONDUIT, FIBER, AND HANDHOLES	IL 29 ITS COMPONENTS	I-474 CONDUIT, FIBER, AND HANDHOLES
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	860.0	860.0		
SIDEWALK REMOVAL	SQ FT	860.0	860.0		
MOBILIZATION	L SUM	1.0	0.7		0.3
TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1.0	1.0		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1.0	1.0		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1.0	1.0		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1.0	1.0		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0	1.0		
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1.0	1.0		
CONDUIT IN TRENCH, 2" DIA, PVC	FOOT	250.0	250.0		
CONDUIT PUSHED, 2" DIA, PVC	FOOT	905.0	905.0		
CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALVANIZED STEEL	FOOT	468.0	468.0		
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	3.0		3.0	
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	4.0	4.0		
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	546.0		183.0	363.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	44910.0	30210.0		14700.0
CONCRETE FOUNDATION, TYPE E 36 INCH DIAMETER	FOOT	20.0			20.0
DRILL EXISTING HANDHOLE	EACH	10.0	9.0		1.0

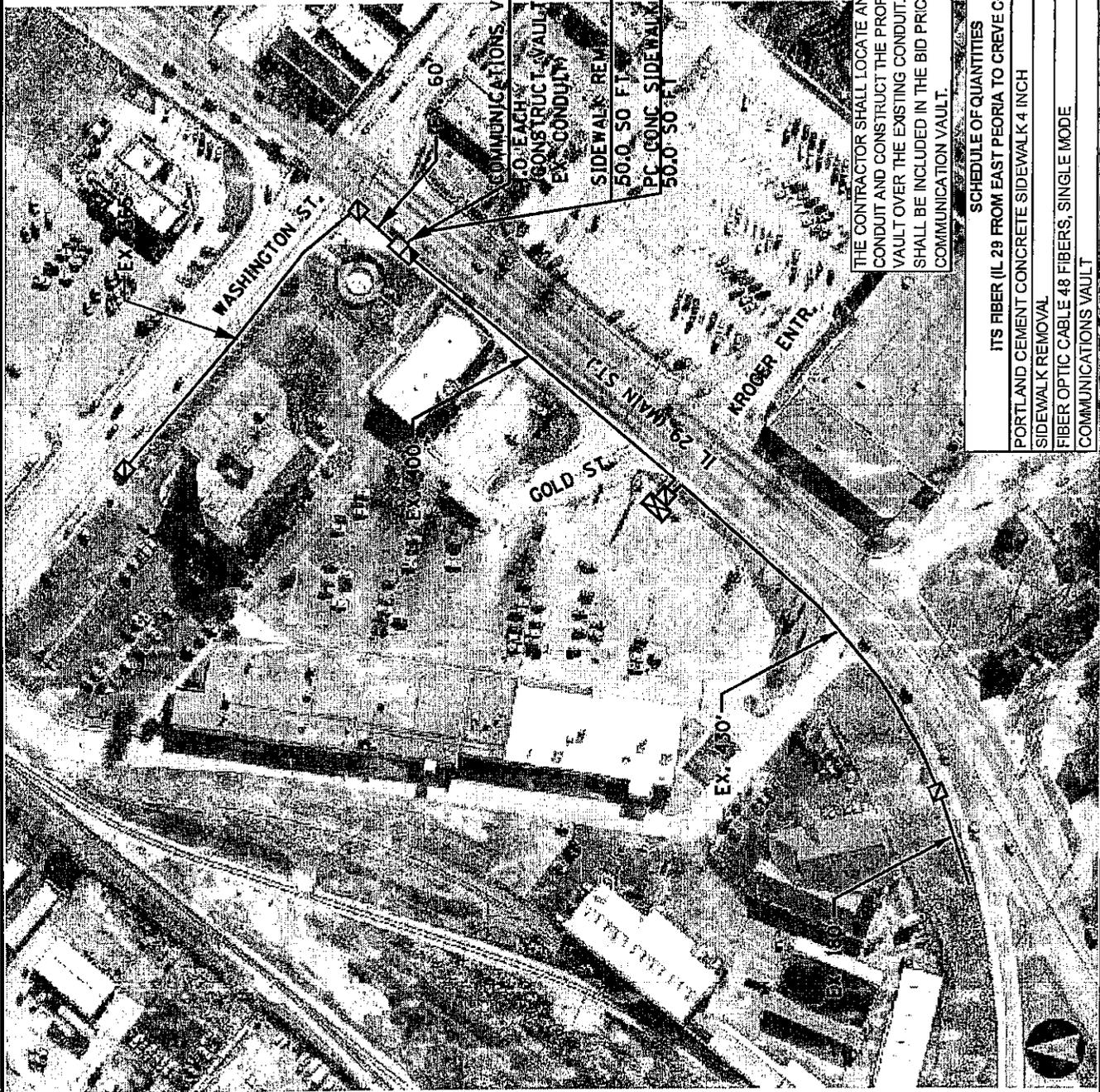
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES		COUNTY	SECTION	TOTAL SHEETS	SHEET NO.
	SCALE: NONE	STA. ----- TO STA. -----	TAZEWELL	D4 TRAFFIC SIGNALS 2011	67	6
			VARIOUS ROUTES	CONTRACT NO. 68A1B		

# SCHEDULE OF QUANTITIES

TAZEWELL COUNTY

ITEM DESCRIPTION	UNIT	TOTAL QTY.	IL 29 CONDUIT, FIBER, AND HANDHOLES	IL 29 ITS COMPONENTS	1474 CONDUIT, FIBER, AND HANDHOLES	1474 ITS COMPONENTS
TRAFFIC COUNTER	EACH	1.0				1.0
CONCRETE FOUNDATION, TYPE 1	FOOT	3.5		3.5		
CABINET, MODEL 334	EACH	1.0		1.0		
POLE MOUNTED EQUIPMENT CABINET, TYPE B	EACH	1.0				1.0
COMPUTER WORKSTATION	EACH	4.0		2.0		2.0
LCD MONITOR	EACH	8.0		4.0		4.0
CAT 5 ETHERNET CABLE	FOOT	1300.0		1250.0		50.0
CLOSED-CIRCUIT TELEVISION DOME CAMERA, IP BASED	EACH	7.0		6.0		1.0
CLOSED-CIRCUIT TELEVISION DOME CAMERA, IP BASED (MATERIAL ONLY)	EACH	3.0		2.0		1.0
CAMERA POLE, 55 FT.	EACH	1.0				1.0
SERVICE INSTALLATION (SPECIAL)	EACH	1.0				1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	EACH	68492.0	52448.0		16044.0	
FIBER OPTIC ETHERNET DROP AND REPEAT SWITCH	EACH	14.0		12.0		2.0
COMMUNICATIONS VAULT	EACH	68.0	54.0			14.0
MAST ARM EXTENSION	EACH	4.0		4.0		
CONDUIT IN TRENCH, SPECIAL	FOOT	44680.0	30080.0			
CONDUIT PUSHED, SPECIAL	FOOT	12570.0	12240.0			

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		SCHEDULE OF QUANTITIES (CONTINUED)		COUNTY TAZEWELL		TOTAL SHEET SHEETS NO. 67	
SCALE: NONE		SCALE: NONE		SECTION D4 TRAFFIC SIGNALS 2011		CONTRACT NO. 68A18	
STA. _____		TO STA. _____		ROUTES VARIOUS		TOTAL SHEET SHEETS NO. 67	



THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE EXISTING CONDUIT AND CONSTRUCT THE PROPOSED COMMUNICATION VAULT OVER THE EXISTING CONDUIT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE PAY ITEM COMMUNICATION VAULT.

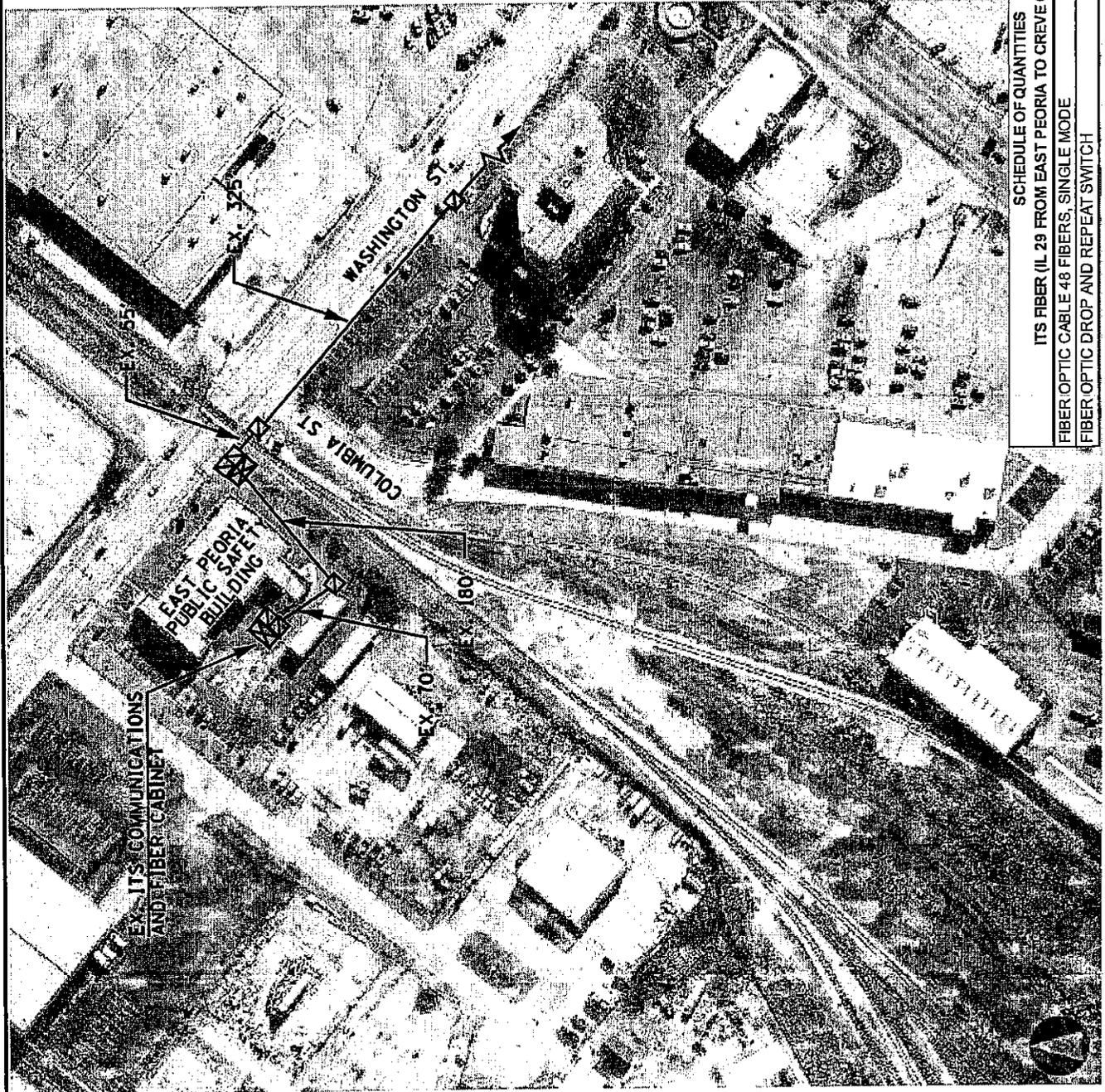
**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	QUANTITY	COUNTY	TOTAL SHEETS
ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 1	SQ FT	50.0	TAZEWELL	67
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	50.0		8
SIDEWALK REMOVAL	FOOT	1541.0		
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	EACH	1.0		
COMMUNICATIONS VAULT				

**PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION**  
 IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

SCALE: NONE IL 29 FIBER SHEET 1 OF 36 STA. ----- TO STA. ----- CONTRACT NO. 68A1B



**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 2		TOTAL SHEETS	NO.
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	67	9
FIBER OPTIC DROP AND REPEAT SWITCH	EACH	1.0	

ROUTES	SECTION	COUNTY	TOTAL SHEETS
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
CONTRACT NO. 68A18			

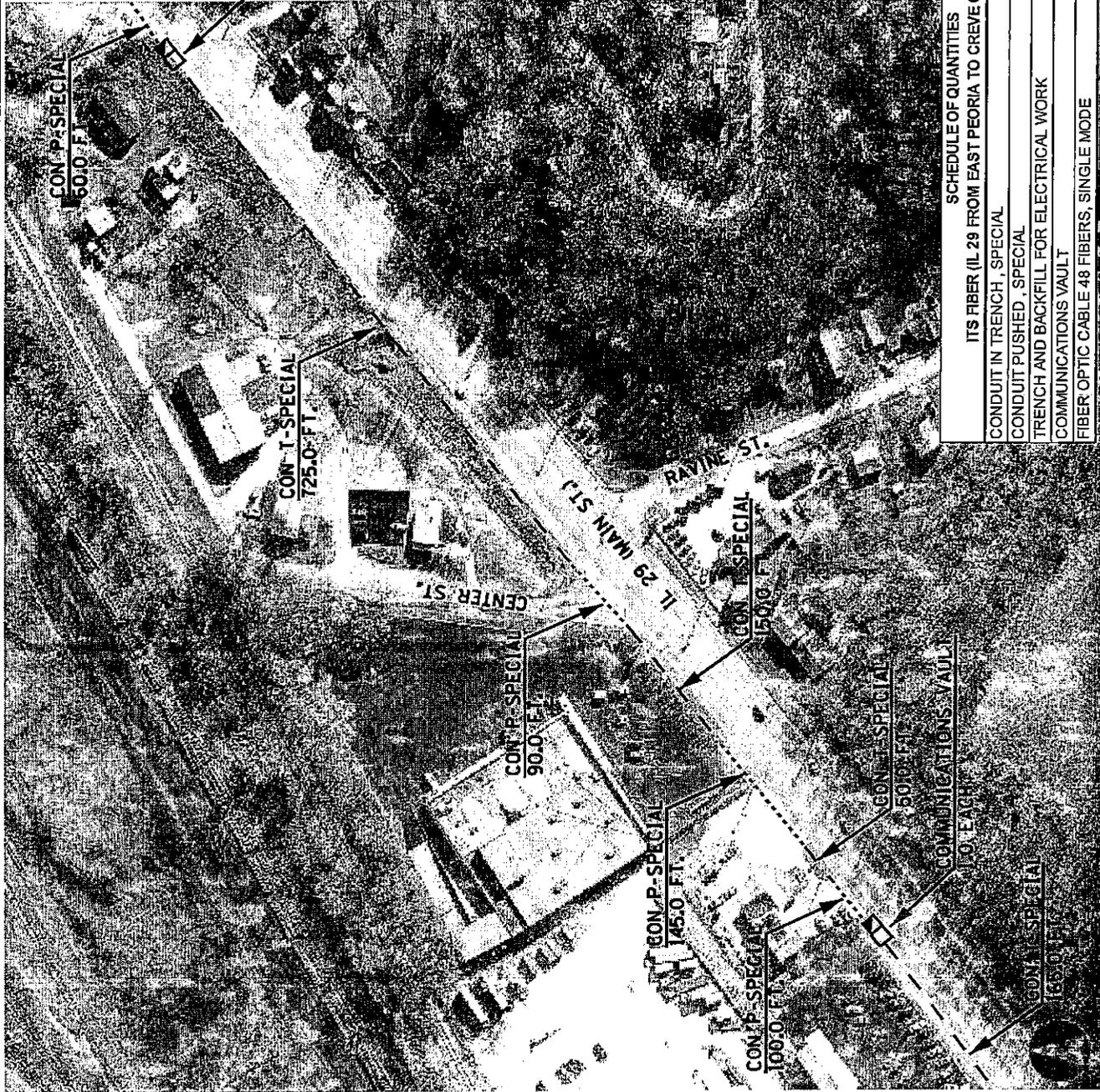
**PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)**

SCALE: NONE | IL 29 FIBER SHEET 2 OF 36 | STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION



COMMUNICATIONS VAULT  
1.0 EACH



SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 4	
CONDUIT IN TRENCH, SPECIAL	FOOT 1090.0
CONDUIT PUSHED, SPECIAL	FOOT 395.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 1090.0
COMMUNICATIONS VAULT	EACH 2.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT 1545.0

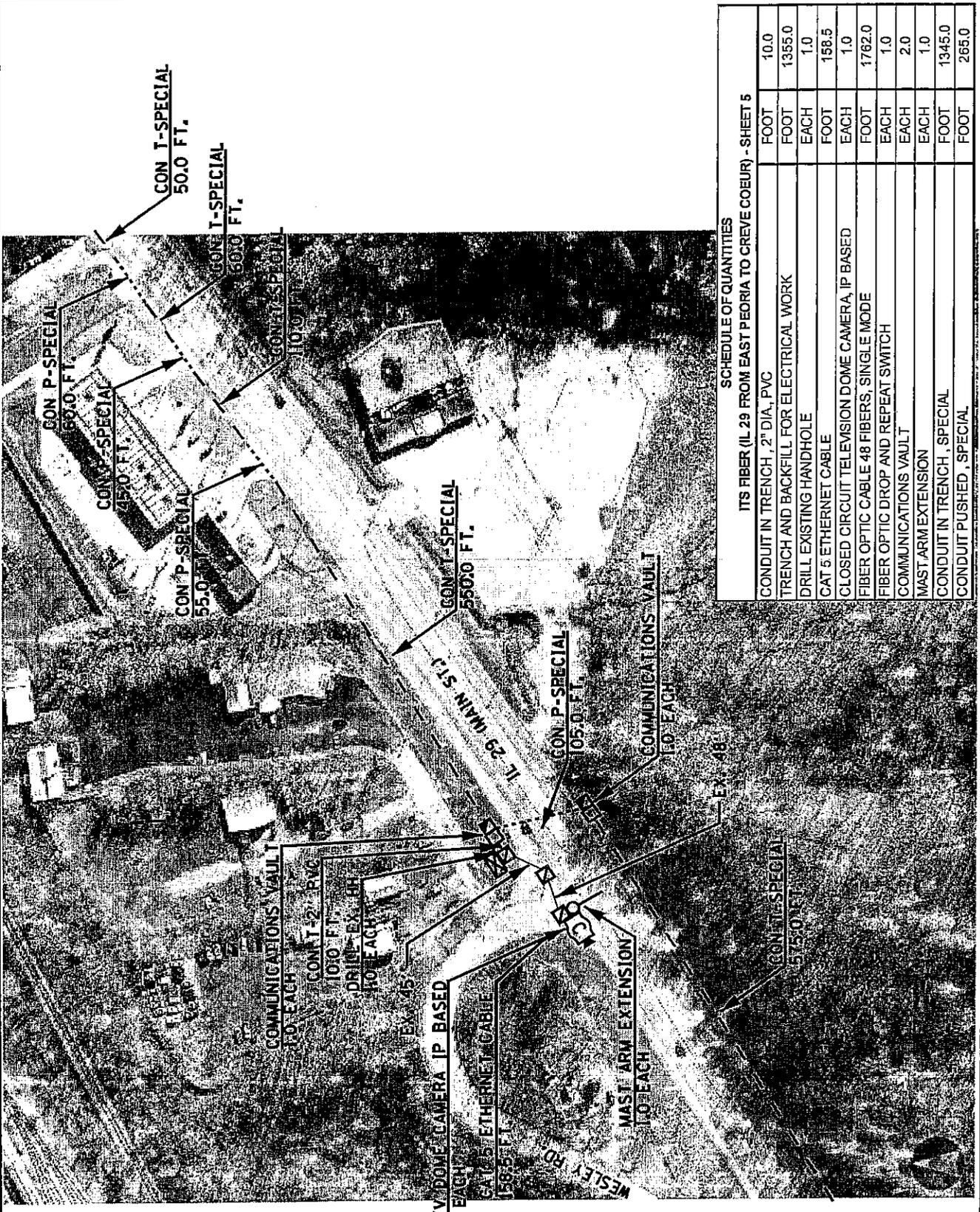
PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	11

SCALE: NONE IL 29 FIBER SHEET 4 OF 36 STA. TO STA.

CONTRACT NO. 68A18



SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 5

CONDUIT IN TRENCH, 2" DIA, PVC	FOOT	10.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1355.0
DRILL EXISTING HANDHOLE	EACH	1.0
CAT 5 ETHERNET CABLE	FOOT	158.5
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1762.0
FIBER OPTIC DROP AND REPEAT SWITCH	EACH	1.0
COMMUNICATIONS VAULT	EACH	2.0
MAST ARM EXTENSION	EACH	1.0
CONDUIT IN TRENCH, SPECIAL	FOOT	1345.0
CONDUIT PUSHED, SPECIAL	FOOT	265.0

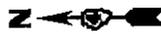
STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 20(I)	TAZEWELL	67	12
SCALE: NONE			CONTRACT NO. 68A18	

IL 29 FIBER SHEET 5 OF 36 STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

PLOT SCALE: # SCALES  
PLOT DATE: # DATES  
USER NAME: # USERS



**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 6	
CONDUIT IN TRENCH, SPECIAL	FOOT 1175.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 1175.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT 1205.0
COMMUNICATIONS VAULT	EACH 1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)		ROUTES VARIOUS	SECTION P4 TRAFFIC SIGNALS 2011	COUNTY TAZEWELL	TOTAL SHEETS 67	SHEET NO. 13
	SCALE: NONE	IL 29 FIBER SHEET 6 OF 36	STA. _____ TO STA. _____	CONTRACT NO. 68A18			



**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 7		TOTAL SHEETS	SHEET NO.
CONDUIT IN TRENCH, SPECIAL	FOOT	1245.0	14
CONDUIT PUSHED, SPECIAL	FOOT	130.0	67
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1245.0	
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1435.0	
COMMUNICATIONS VAULT	EACH	2.0	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)		ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	IL 29 FIBER SHEET 7 OF 36	STA. -----	TO STA. -----	VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	14
							CONTRACT NO. 68A18	



**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 8

CONDUIT IN TRENCH, SPECIAL	FOOT	1280.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1280.0
COMMUNICATIONS VAULT	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1310.0

ROUTES	SECTION	COUNTY	TOTAL SHEETS
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
			SHEET NO. 15
			CONTRACT NO. 68A18

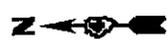
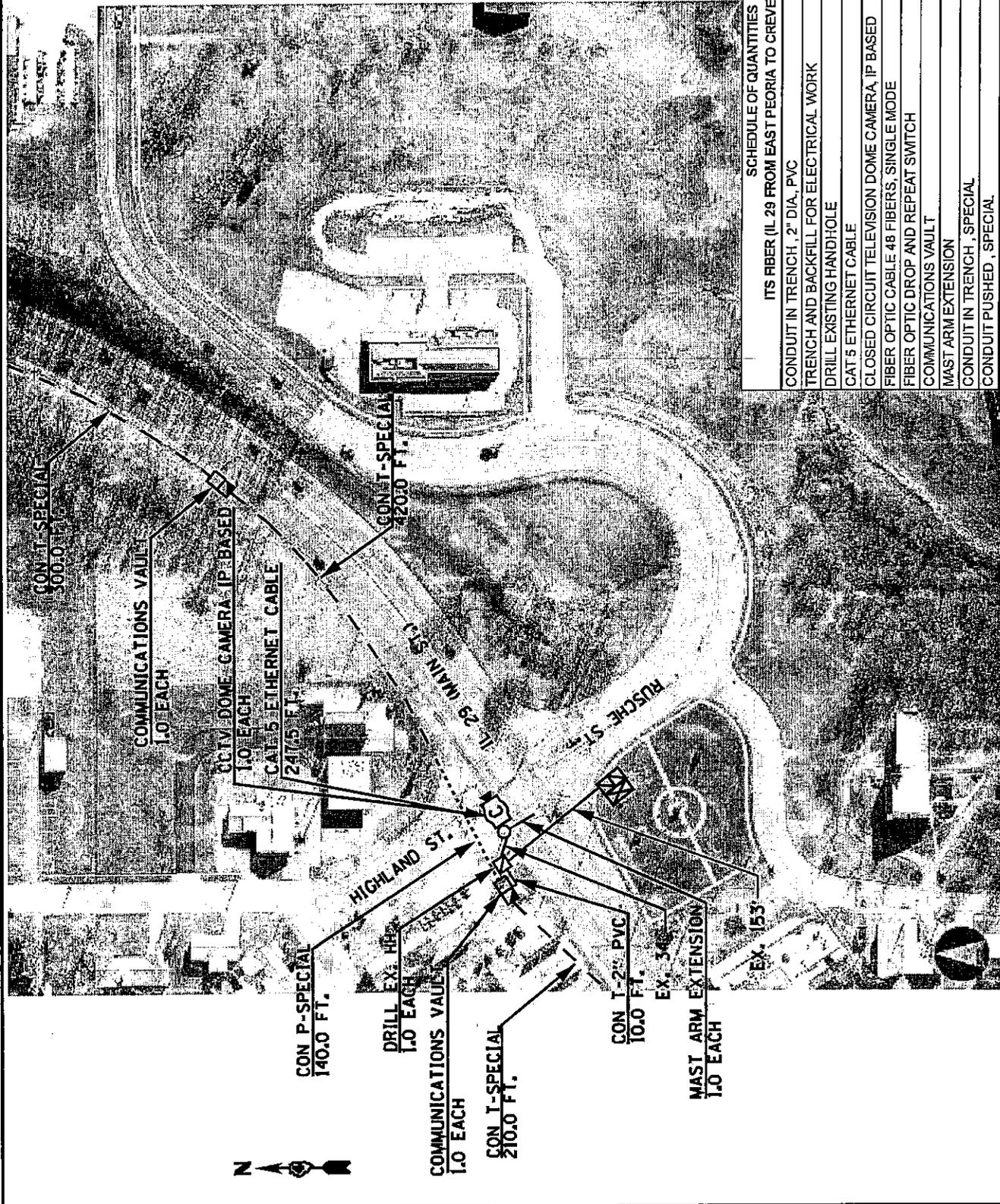
**PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION**

**IL 29 (MAIN ST.) FROM EAST PEORIA TO CREVE COEUR (CONTINUED)**

SCALE: NONE    IL 29 FIBER SHEET 8 OF 36    STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

**STATE OF ILLINOIS**  
**DEPARTMENT**  
**OF TRANSPORTATION**

PLOT SCALE \* \$SCALE\*  
PLOT DATE \* \$DATE\*    USER NAME \* \$USER\*



SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM EAST PEORIA TO CREVE COEUR) - SHEET 9		FOOT	10.0
CONDUIT IN TRENCH, 2" DIA, PVC		FOOT	940.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK		EACH	1.0
DRILL EXISTING HANDHOLE		FOOT	247.5
CAT 5 ETHERNET CABLE		EACH	1.0
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED		FOOT	1598.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE		EACH	1.0
FIBER OPTIC DROP AND REPEAT SWITCH		EACH	2.0
COMMUNICATIONS VAULT		EACH	1.0
MAST ARM EXTENSION		FOOT	930.0
CONDUIT IN TRENCH, SPECIAL		FOOT	140.0
CONDUIT PUSHED, SPECIAL		FOOT	140.0

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
 IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 20(I)	TAZEWELL	67	16

SCALE: NONE IL 29 FIBER SHEET 9 OF 36 STA. TO STA. CONTRACT NO. 68A18

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

PLOT SCALE \* \$SCALES\*  
 PLOT DATE \* \$DATE\* USER NAME \* \$USER\*





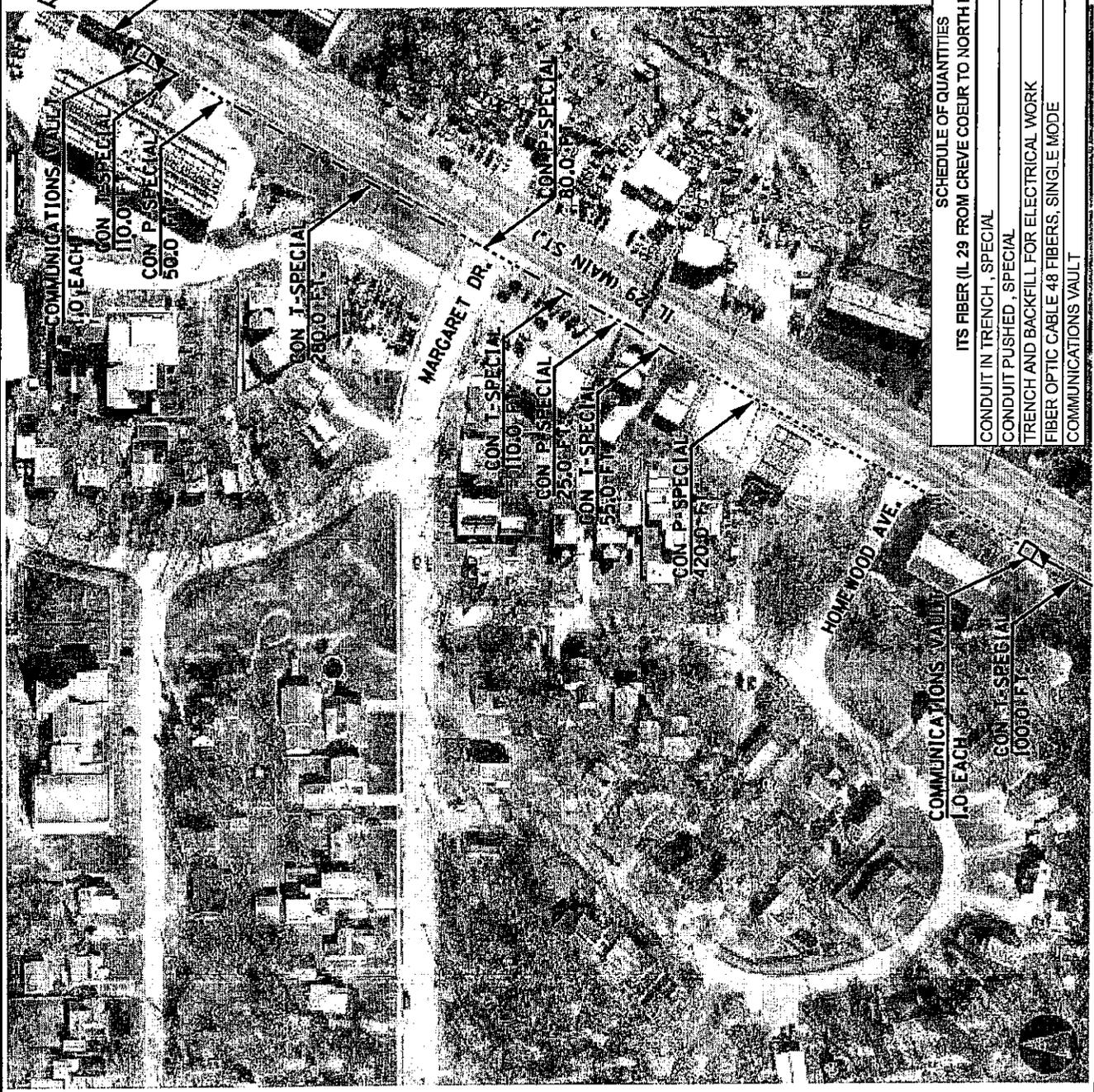
**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 11

CONDUIT IN TRENCH, SPECIAL	FOOT	1180.0
CONDUIT PUSHED, SPECIAL	FOOT	360.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1180.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1570.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)		SECTION	COUNTY	TOTAL SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 11 OF 36	VARIOUS	TAZEWELL	67
PLOT SCALE * SCALES * PLOT DATE * ROUTE		SCALE: NONE	IL 29 FIBER SHEET 11 OF 36	SCALE: NONE	CONTRACT NO. 68A1B
		SCALE: NONE	IL 29 FIBER SHEET 11 OF 36	SCALE: NONE	CONTRACT NO. 68A1B

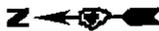
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
USER NAME \* USER



SCHEDULE OF QUANTITIES  
ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 12

CONDUIT IN TRENCH, SPECIAL	FOOT	715.0
CONDUIT PUSHED, SPECIAL	FOOT	625.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	715.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1400.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)		ROUTE	SECTION	COUNTY	TOTAL SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 12 OF 36	VARIOUS	DA TRAFFIC SIGNALS 2011	TAZEWELL	67
PLOT SCALE * SCALES * PLOT DATE * DATES *		TO STA. -----			CONTRACT NO. 68A18	
					USER NAME * USER *	



SCHEDULE OF QUANTITIES

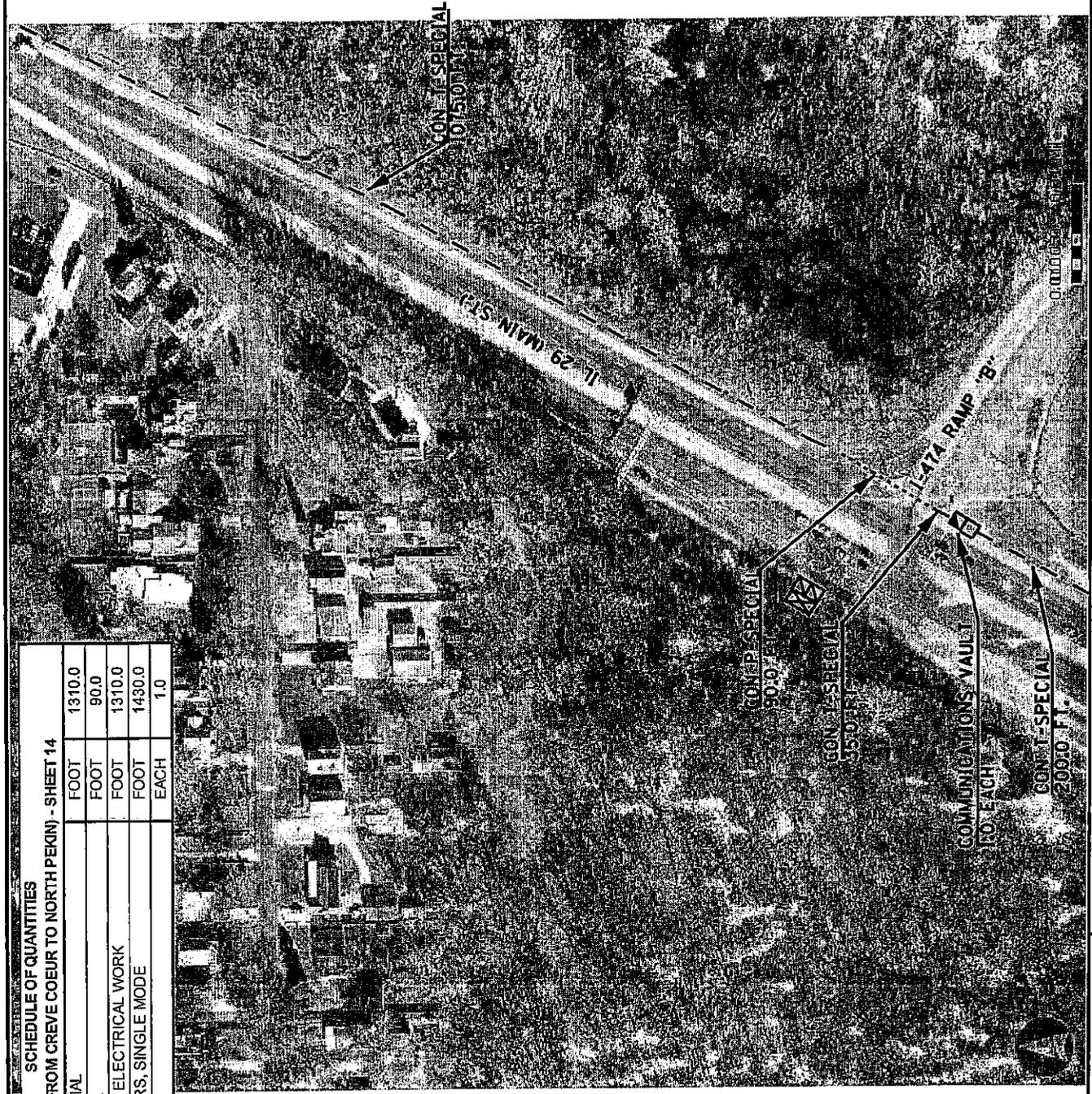
ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 13		FOOT	420.0
CONDUIT IN TRENCH, SPECIAL		FOOT	815.0
CONDUIT PUSHED, SPECIAL		FOOT	420.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK		FOOT	1295.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE		EACH	2.0
COMMUNICATIONS VAULT			

ROUTES	SECTION	COUNTY	TOTAL SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)			20
SCALE: NONE	IL 29 FIBER SHEET 13 OF 36	STA. _____ TO STA. _____	CONTRACT NO. 68A18

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

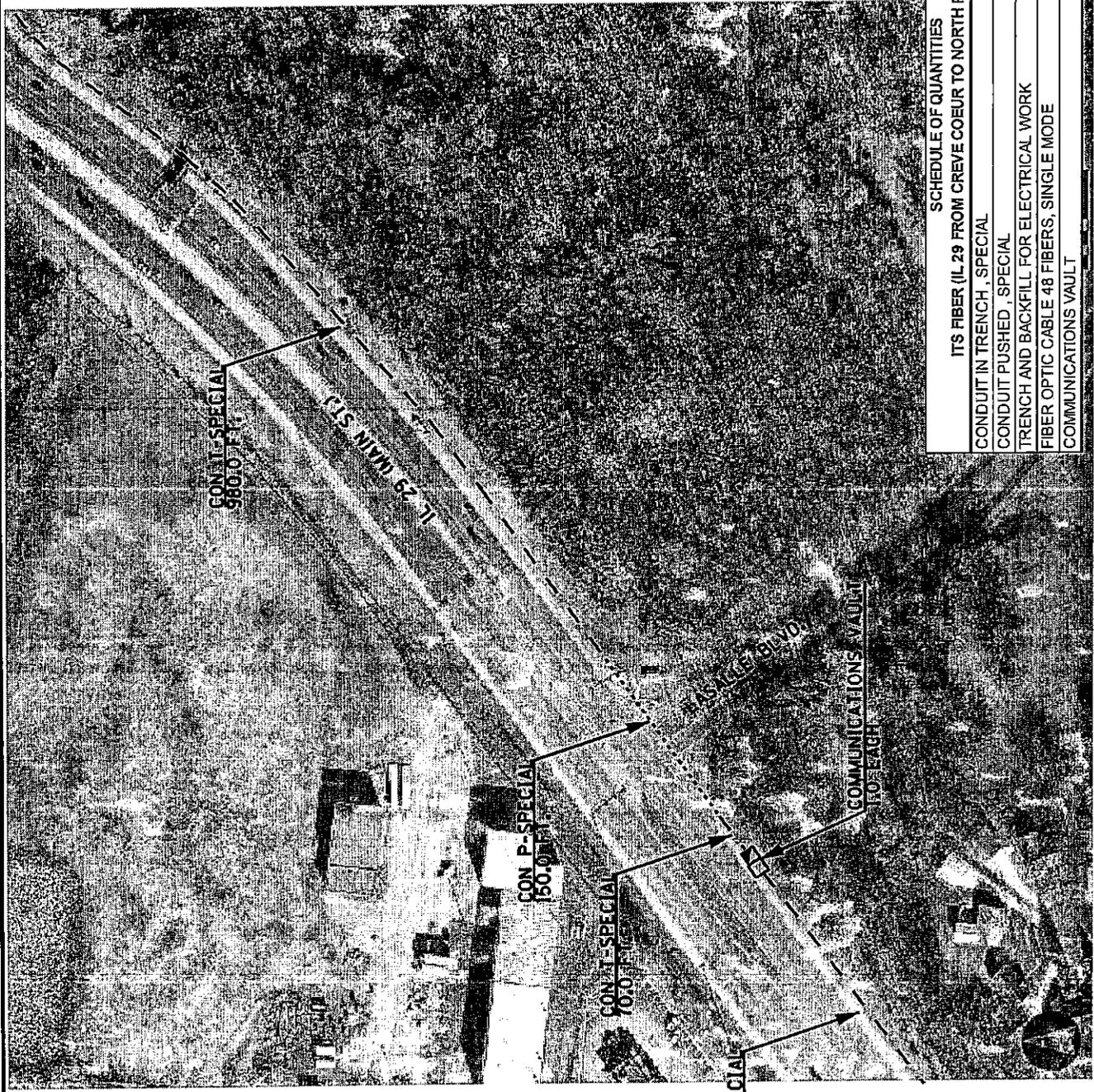
**SCHEDULE OF QUANTITIES**  
**ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 14**

CONDUIT IN TRENCH, SPECIAL	FOOT	1310.0
CONDUIT PUSHED, SPECIAL	FOOT	90.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1310.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1430.0
COMMUNICATIONS VAULT	EACH	1.0



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)		COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 14 OF 36	TAZEWELL	67	21
		STA. ----- TO STA. -----	VARIOUS	D4 TRAFFIC SIGNALS 2011	CONTRACT NO. 68A18



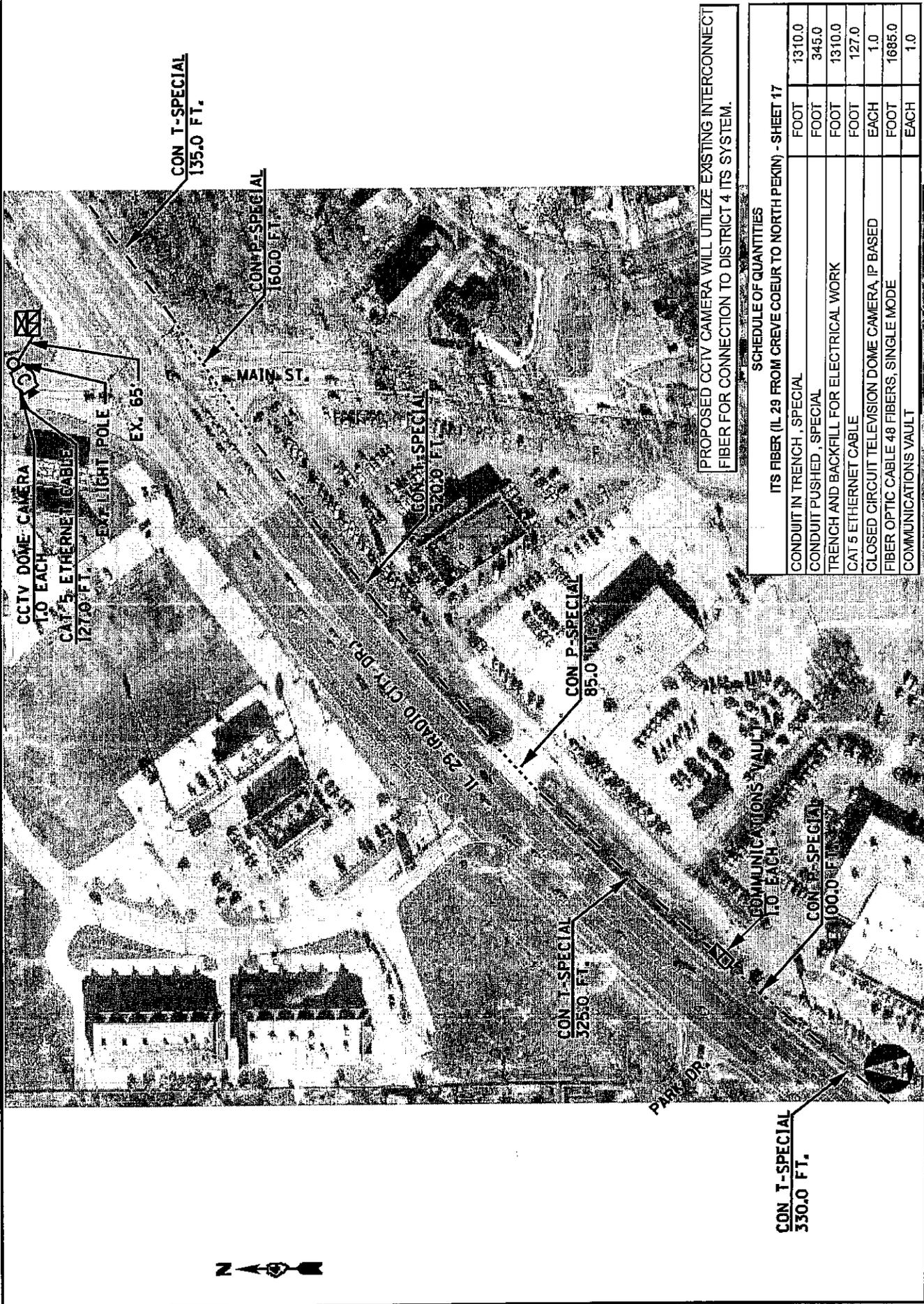


**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 16		FOOT	1405.0
CONDUIT IN TRENCH, SPECIAL		FOOT	1405.0
CONDUIT PUSHED, SPECIAL		FOOT	150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK		FOOT	1405.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE		FOOT	1585.0
COMMUNICATIONS VAULT		EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)		COUNTY	TOTAL SHEETS
	SCALE: NONE	IL 29 FIBER SHEET 16 OF 36	TAZEWELL	67
			VARIOUS	SHEETS NO.
			DA TRAFFIC SIGNALS 2011	23
				CONTRACT NO. 68A18

PLOT SCALE \* SCALES \*  
PLOT DATE \* DATE \* USER NAME \* USER \*



SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM CREVE COEUR TO NORTH PEKIN) - SHEET 17

CONDUIT IN TRENCH, SPECIAL	FOOT	1310.0
CONDUIT PUSHED, SPECIAL	FOOT	345.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1310.0
CAT 5 ETHERNET CABLE	FOOT	127.0
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1685.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

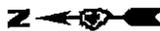
PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
IL 29 (MAIN ST.) FROM CREVE COEUR TO NORTH PEKIN (CONTINUED)

SCALE: NONE IL 29 FIBER SHEET 17 OF 36 STA. ----- TO STA. -----

ROUTES	SECTION	COUNTY	TOTAL SHEET NO.
VARIOUS	DA TRAFFIC SIGNALS 2011	TAZEWELL	67
			24

CONTRACT NO. 68A18

PLOT SCALE \* \$SCALE\* USER NAME \* \$USER\*  
PLOT DATE \* \$DATE\*



**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 18	
CONDUIT IN TRENCH, SPECIAL	FOOT 1375.0
CONDUIT PUSHED, SPECIAL	FOOT 65.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 1375.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT 1470.0
COMMUNICATIONS VAULT	EACH 1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN		ROUTES	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	SCALE: NONE	IL 29 FIBER SHEET 18 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67 25
PLOT SCALE * SCALES * PLOT DATE * DATES *		IL 29 FIBER SHEET 18 OF 36		TO STA. -----		CONTRACT NO. 68A18
USER NAME * USERS *						



**SCHEDULE OF QUANTITIES**  
ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 19

CONDUIT IN TRENCH, SPECIAL	FOOT	1085.0
CONDUIT PUSHED, SPECIAL	FOOT	285.0
CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALV STEEL	FOOT	180.0
JUNCTION BOX, SS, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	2.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1085.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1480.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 19 OF 36	STA. -----	TO STA. -----	TAZEWELL	67	26
					VARIOUS	CONTRACT NO. 68A18	
					D4 TRAFFIC SIGNALS 2011		



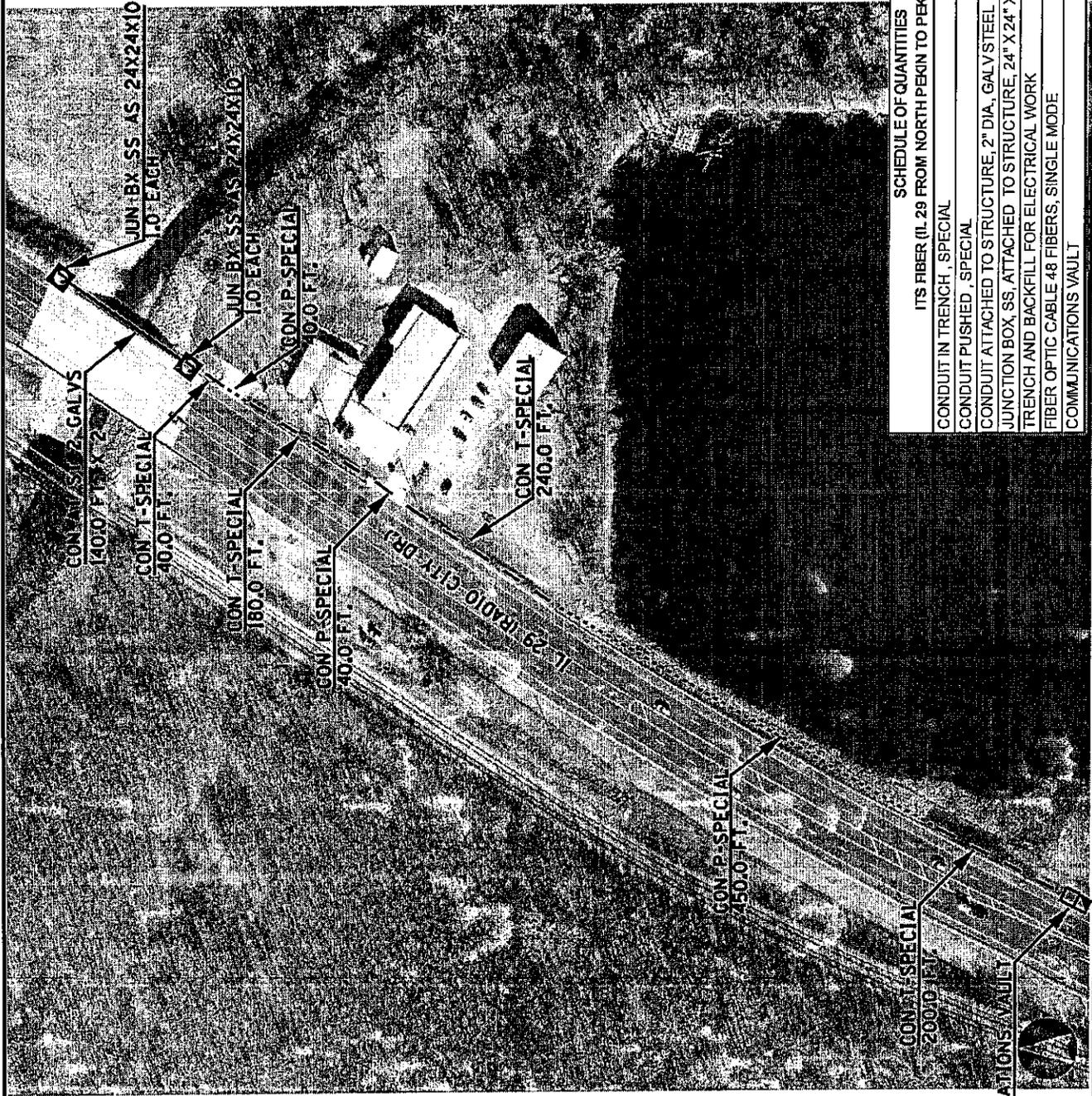
**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 20

CONDUIT IN TRENCH, SPECIAL	FOOT	1465.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1465.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1495.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)	ROUTES	SECTION	COUNTY	TOTAL SHEET NO.
		VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
SCALE: NONE	IL 29 FIBER SHEET 20 OF 36	STA. -----	TO STA. -----	CONTRACT NO. 68A18	

PLOT SCALE \* \* SCALE \* \* USER NAME \* \* USER \*  
 PLOT DATE \* \* DATE \* \*



**SCHEDULE OF QUANTITIES**  
 ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 21

CONDUIT IN TRENCH, SPECIAL	FOOT	660.0
CONDUIT PUSHED, SPECIAL	FOOT	530.0
CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALV STEEL	FOOT	280.0
JUNCTION BOX, SS, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	2.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	660.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1380.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	TOTAL SHEET SHEETS NO.
	SCALE: NONE	IL 29 FIBER SHEET 21 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	67
PLOT SCALE * * SCALE * * * * * PLOT DATE * * DATE * * * * *		STA. ----- TO STA. -----	CONTRACT NO. 68A18		28

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

SCALE: NONE  
DATE: -----

IL 29 FIBER SHEET 21 OF 36

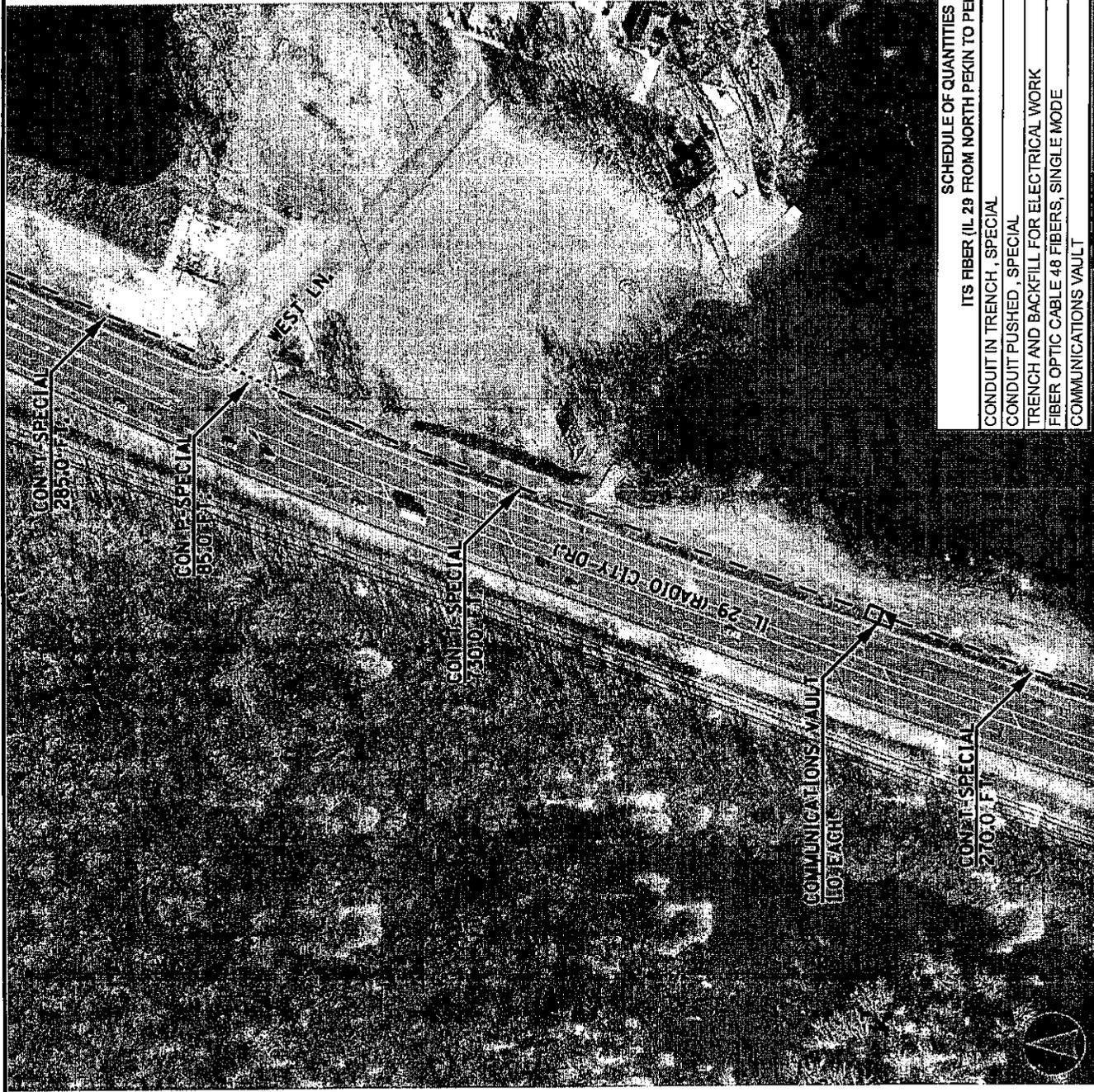
VARIOUS

D4 TRAFFIC SIGNALS 2011

TOTAL SHEET SHEETS NO. 67

CONTRACT NO. 68A18

28



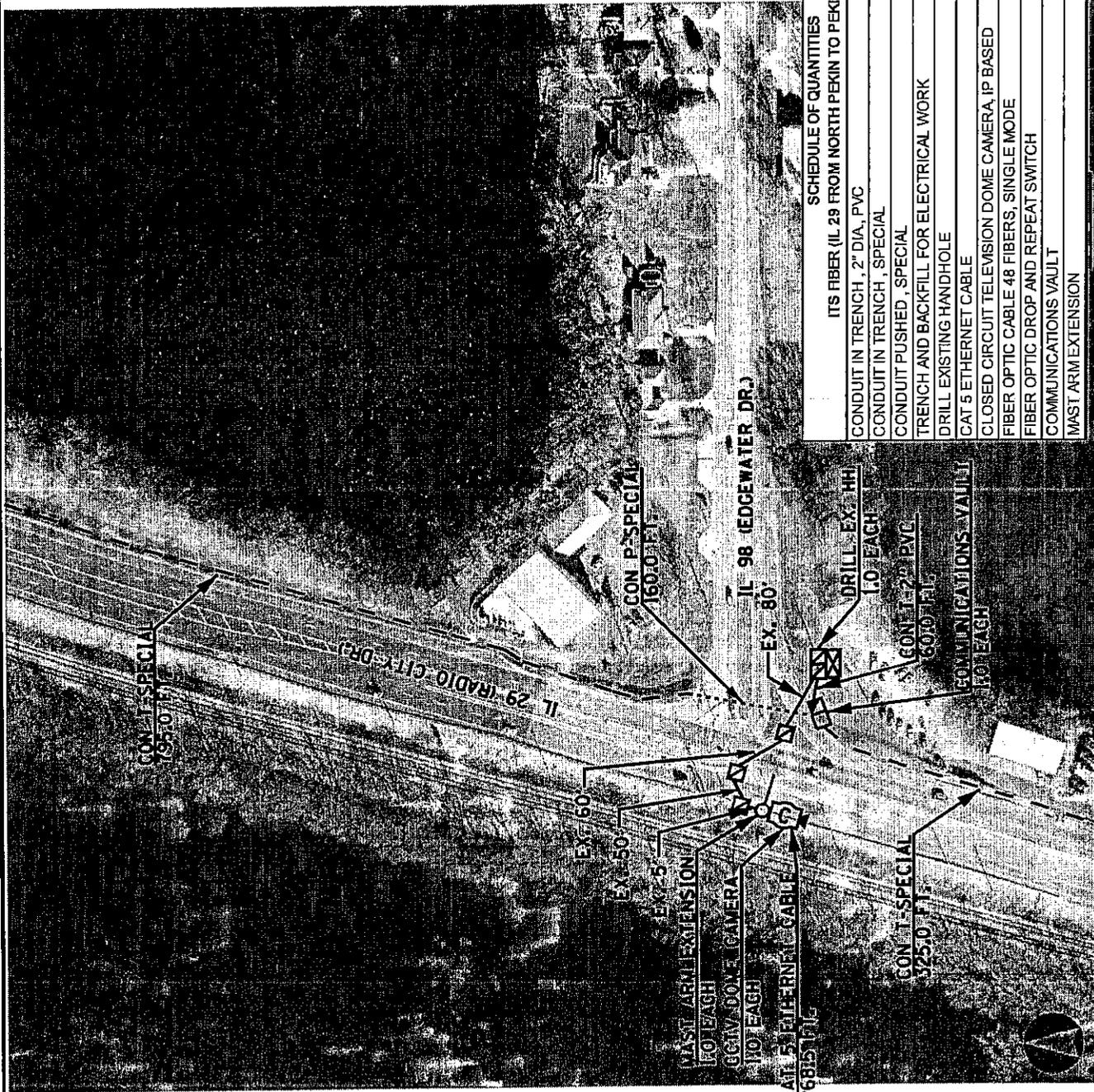
**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 22

CONDUIT IN TRENCH, SPECIAL	FOOT	1285.0
CONDUIT PUSHED, SPECIAL	FOOT	85.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1285.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1400.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		COUNTY	TOTAL SHEET SHEETS	NO.
	VARIOUS	SECTION	TAZEWELL	67	29
SCALE NONE		IL 29 FIBER SHEET 22 OF 36	STA. _____	TO STA. _____	CONTRACT NO. 68A18

PLOT SCALE \* \$SCALE\*  
 PLOT DATE \* \$DATE\*  
 USER NAME \* \$USER\*



**SCHEDULE OF QUANTITIES**  
 ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 23

CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	60.0
CONDUIT IN TRENCH, SPECIAL	FOOT	1120.0
CONDUIT PUSHED, SPECIAL	FOOT	160.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1180.0
DRILL EXISTING HANDHOLE	EACH	1.0
CAT 5 ETHERNET CABLE	FOOT	268.5
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1552.0
FIBER OPTIC DROP AND REPEAT SWITCH	EACH	1.0
COMMUNICATIONS VAULT	EACH	1.0
MAST ARM EXTENSION	EACH	1.0

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
 IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)

SCALE: NONE IL 29 FIBER SHEET 23 OF 36 STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

ROUTES	SECTION	COUNTY	TOTAL SHEETS
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
			30

CONTRACT NO. 68A1B

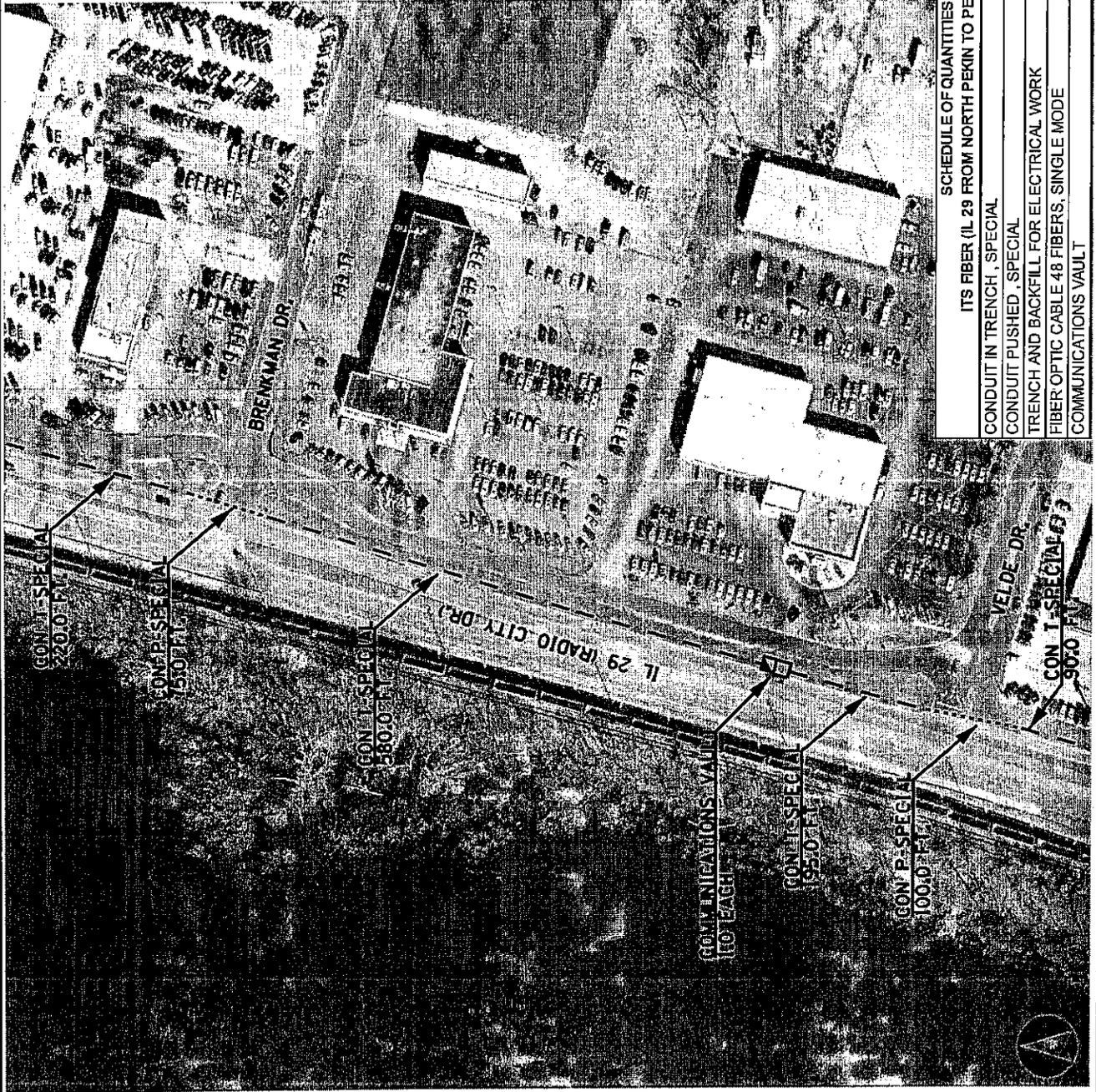


**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 24

CONDUIT IN TRENCH - SPECIAL	FOOT	1200.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1200.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1230.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)	ROUTES	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
		VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67 31
SCALE: NONE		IL 29 FIBER SHEET 24 OF 36		STA. ----- TO STA. -----	CONTRACT NO. 68A1B

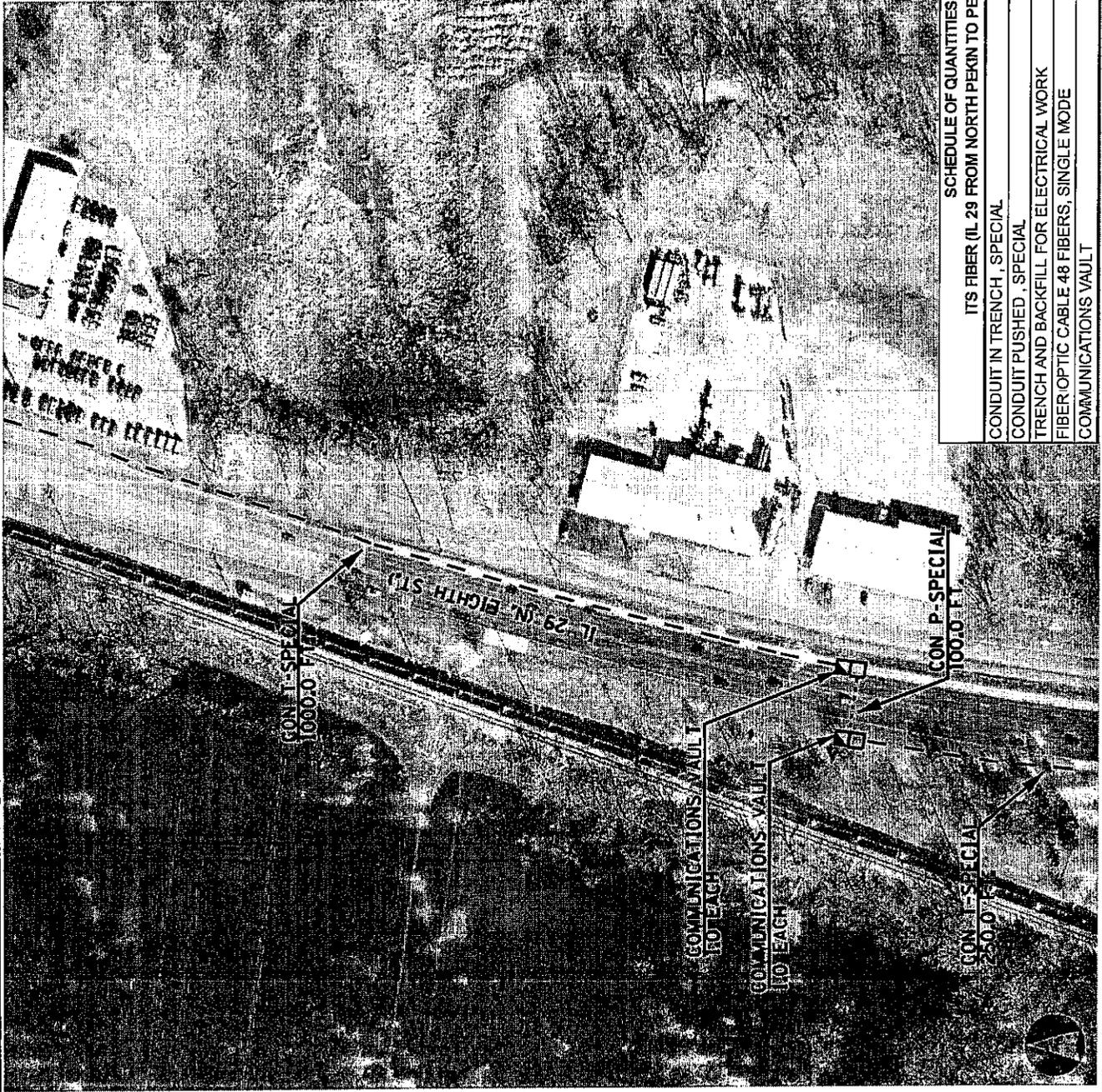


**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 25

CONDUIT IN TRENCH, SPECIAL	FOOT	1085.0
CONDUIT PUSHED, SPECIAL	FOOT	175.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1085.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1280.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 25 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	32
SCALE: NONE		IL 29 FIBER SHEET 25 OF 36	STA. -----	TO STA. -----	CONTRACT NO. 68A18		

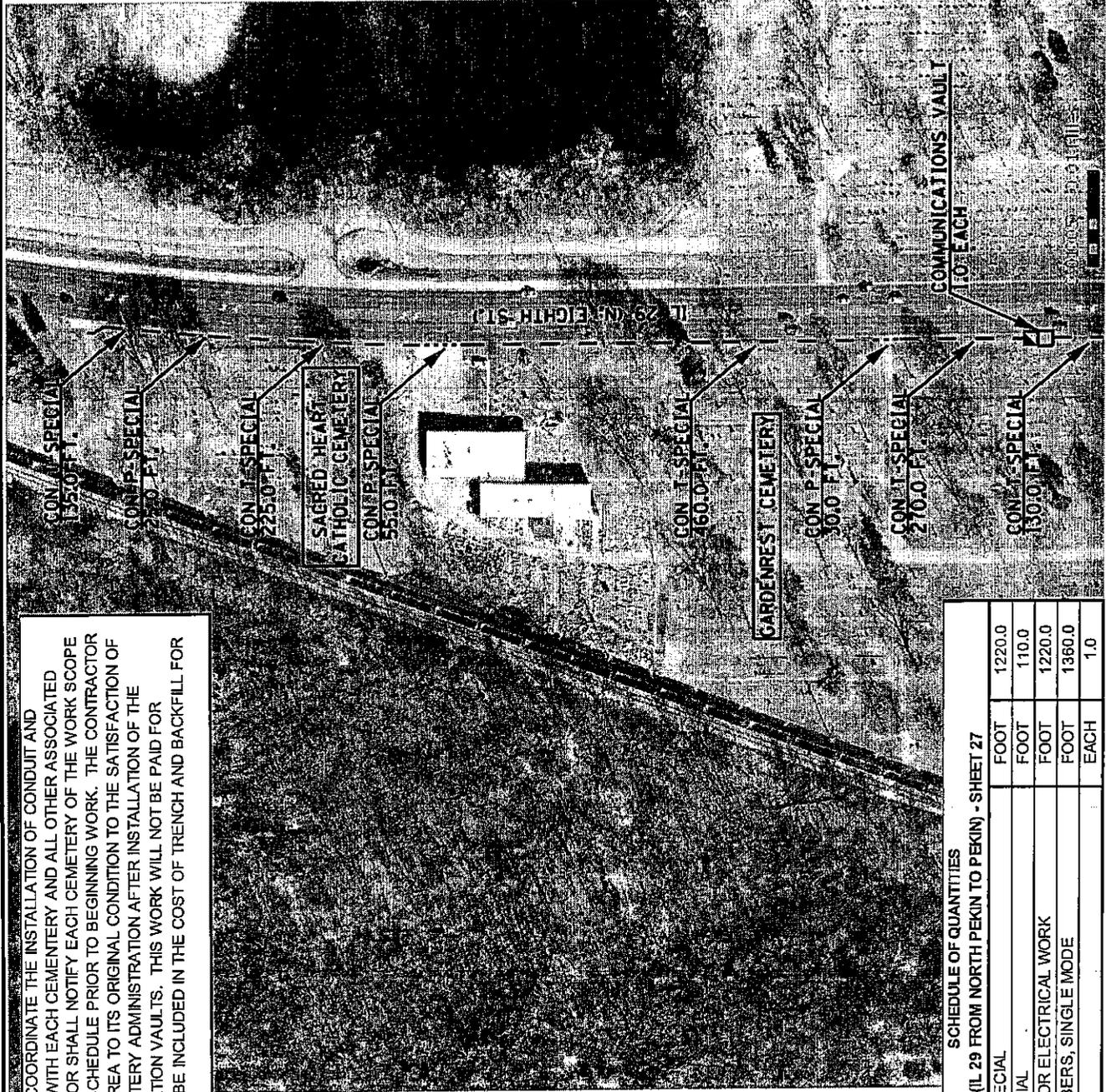


**SCHEDULE OF QUANTITIES**  
**ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 26**

CONDUIT IN TRENCH, SPECIAL	FOOT	1250.0
CONDUIT PUSHED, SPECIAL	FOOT	100.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1250.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1380.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	SCALE: NONE	IL 29 FIBER SHEET 26 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
PLOT SCALE * *SCALE* PLOT DATE * *DATE*		STA. ----- TO STA. -----	CONTRACT NO. 68A1B		33	

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONDUIT AND COMMUNICATION VAULTS WITH EACH CEMETERY AND ALL OTHER ASSOCIATED PARTIES. THE CONTRACTOR SHALL NOTIFY EACH CEMETERY OF THE WORK SCOPE AND ANTICIPATED WORK SCHEDULE PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL RESTORE EACH AREA TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER AND CEMETERY ADMINISTRATION AFTER INSTALLATION OF THE CONDUIT AND COMMUNICATION VAULTS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF TRENCH AND BACKFILL FOR ELECTRICAL WORK.



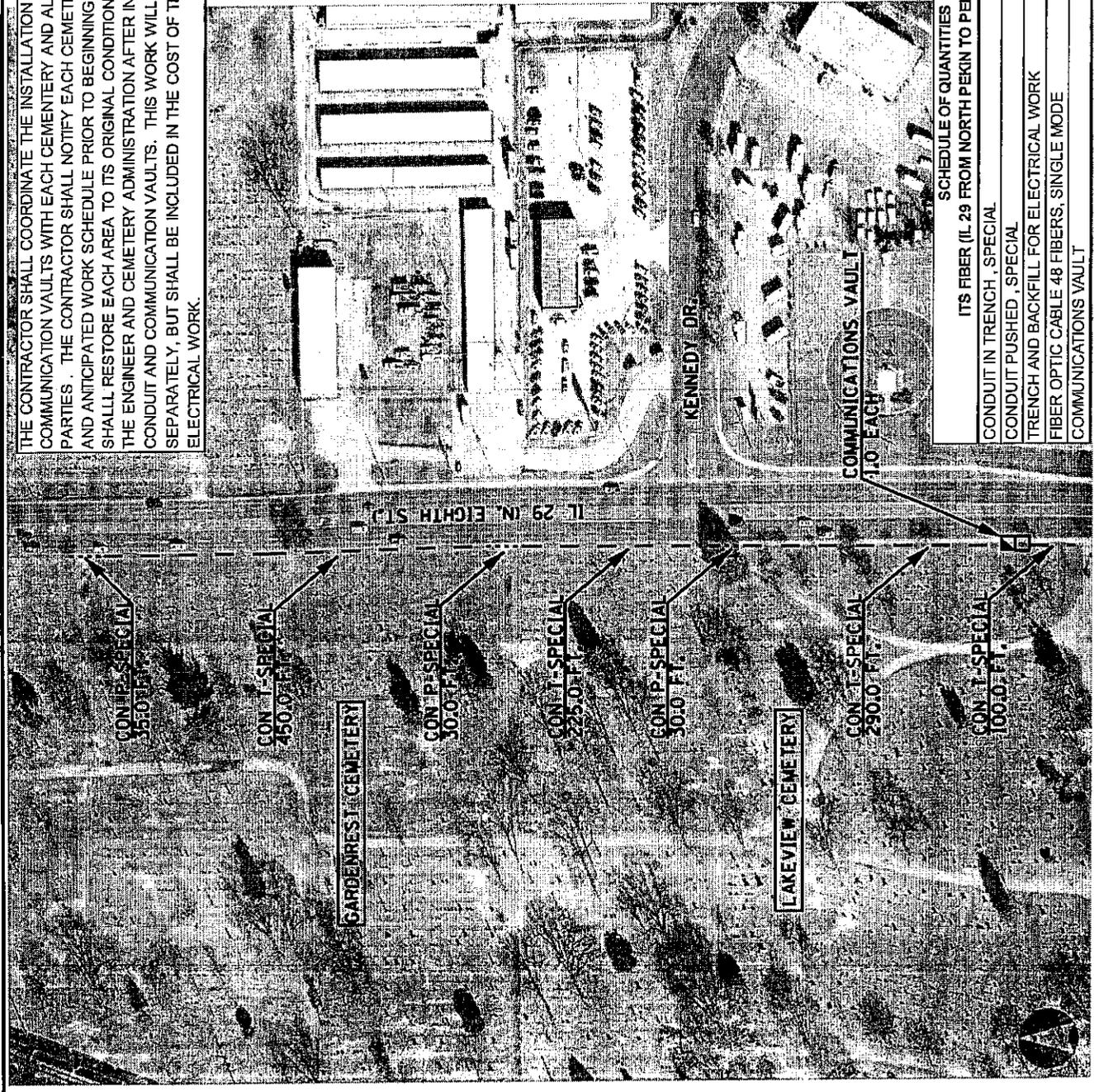
**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 27

CONDUIT IN TRENCH, SPECIAL	FOOT	1220.0
CONDUIT PUSHED, SPECIAL	FOOT	110.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1220.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1360.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 27 OF 36	VARIOUS			
			ROUTES	CONTRACT NO. 68A1B		

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONDUIT AND COMMUNICATION VAULTS WITH EACH CEMETERY AND ALL OTHER ASSOCIATED PARTIES. THE CONTRACTOR SHALL NOTIFY EACH CEMETERY OF THE WORK SCOPE AND ANTICIPATED WORK SCHEDULE PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL RESTORE EACH AREA TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER AND CEMETERY ADMINISTRATION AFTER INSTALLATION OF THE CONDUIT AND COMMUNICATION VAULTS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF TRENCH AND BACKFILL FOR ELECTRICAL WORK.



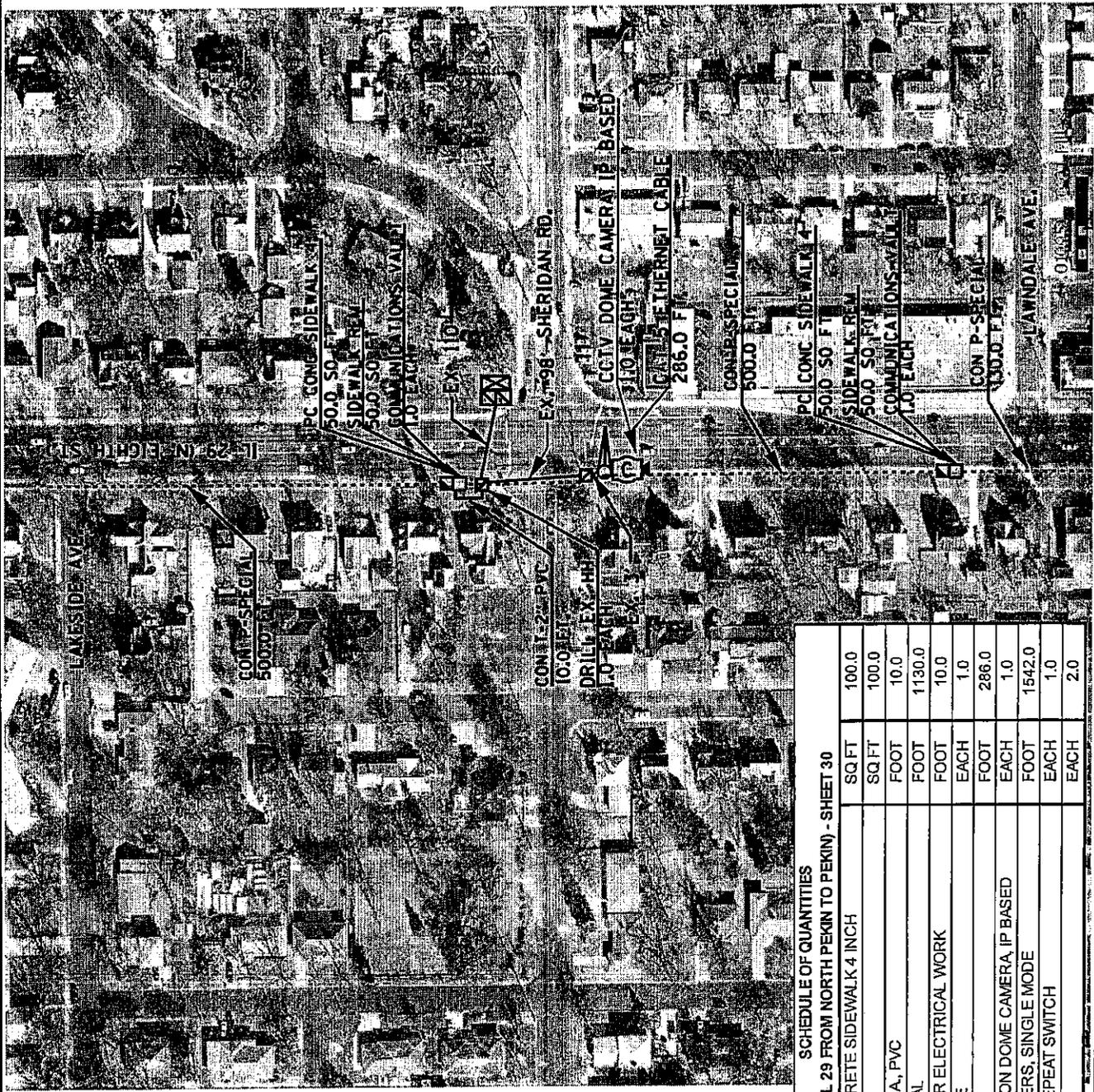
SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 28

CONDUIT IN TRENCH, SPECIAL	FOOT	1065.0
CONDUIT PUSHED, SPECIAL	FOOT	95.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1065.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1190.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	TOTAL SHEET SHEETS NO.
	SCALE: NONE	IL 29 FIBER SHEET 28 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	67
					CONTRACT NO. 68A18



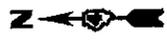


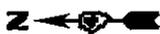
**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 30

PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	100.0
SIDEWALK REMOVAL	SQ FT	100.0
CONDUIT IN TRENCH, 2" DIA, PVC	FOOT	10.0
CONDUIT PUSHED, SPECIAL	FOOT	1130.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	10.0
DRILL EXISTING HANDHOLE	EACH	1.0
CAT 5 ETHERNET CABLE	FOOT	286.0
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1542.0
FIBER OPTIC DROP AND REPEAT SWITCH	EACH	1.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		COUNTY TAZEWELL	TOTAL SHEETS 67	SHEET NO. 37
	SCALE: NONE	IL 29 FIBER SHEET 30 OF 36			
	VARIOUS	SECTION D4 TRAFFIC SIGNALS 2011			





**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 31

PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	100.0
SIDEWALK REMOVAL	SQ FT	100.0
CONDUIT PUSHED, SPECIAL	FOOT	1210.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1270.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 31 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	38
						CONTRACT NO. 68A1B	



**SCHEDULE OF QUANTITIES**

**ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 32**

PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	100.0
SIDEWALK REMOVAL	SQ FT	100.0
CONDUIT PUSHED, SPECIAL	FOOT	1450.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1510.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)		COUNTY	TATAZEWELL	TOTAL SHEET SHEETS	67	SHEET NO.	39
	SCALE: NONE	IL 29 FIBER SHEET 32 OF 36	STATION	TO STA.	CONTRACT NO. 68A1B			







SEE SHEET 41

THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE EXISTING CONDUIT AND CONSTRUCT THE PROPOSED COMMUNICATION VAULT OVER THE EXISTING CONDUIT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE PAY ITEM COMMUNICATION VAULT.

SCHEDULE OF QUANTITIES

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 35		COUNTY	TOTAL SHEETS	SHEET NO.
PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH SIDEWALK REMOVAL	SQ.FT	TAZEWELL	67	42
CONDUIT IN TRENCH, 2" DIA, PVC	FOOT			
CONDUIT PUSHED, 2" DIA, PVC	FOOT			
JUNCTION BOX, SS, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH			
DRILL EXISTING HANDHOLE	EACH			
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT			
FIBER OPTIC DROP AND REPEAT SWITCH	EACH			
COMMUNICATIONS VAULT	EACH			

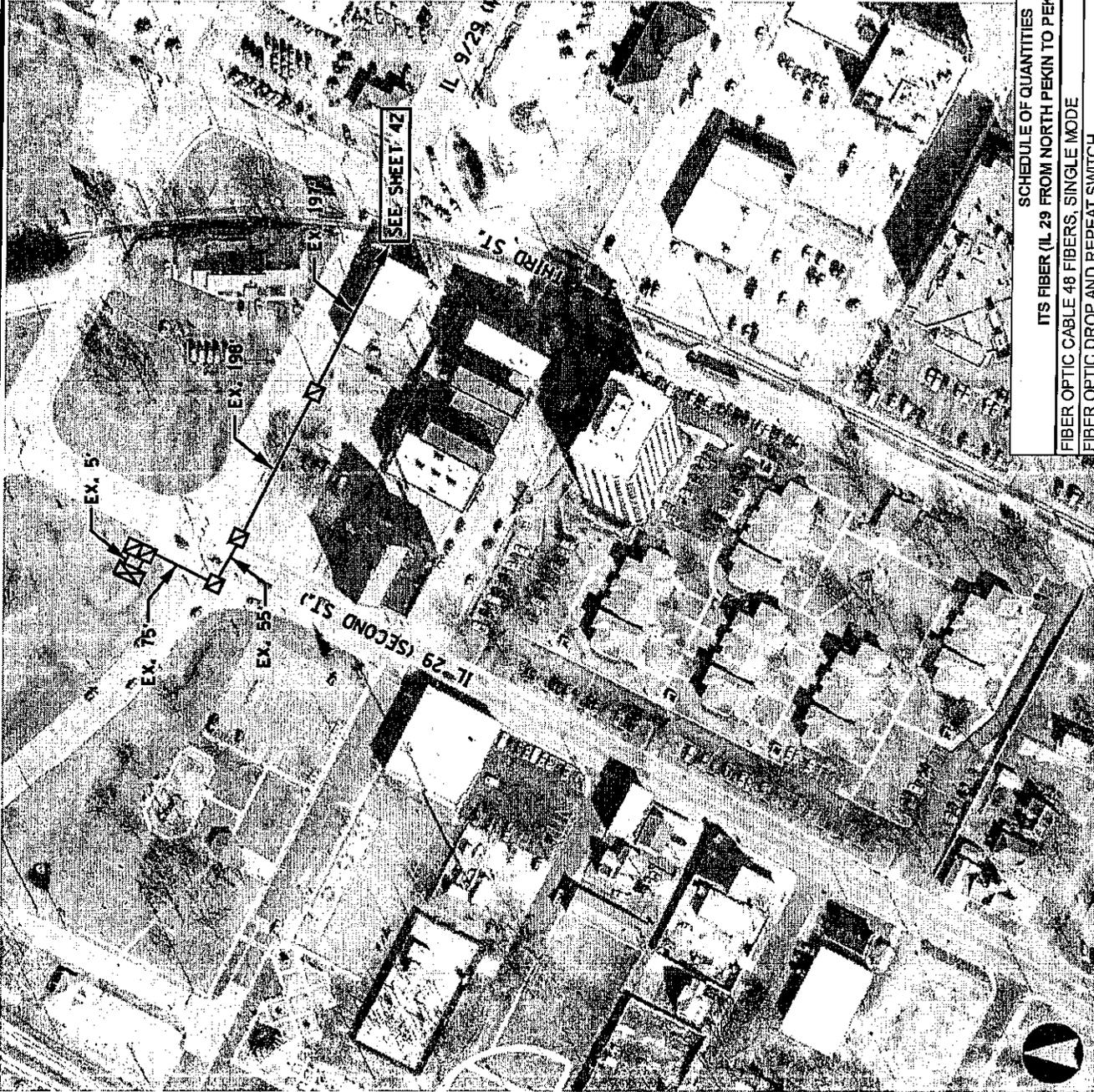
ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	42

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
 IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)

SCALE: NONE IL 29 FIBER SHEET 35 OF 36 STA. ----- TO STA. ----- CONTRACT NO. 68A18

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

PLLOT SCALE: \$ SCALES \$  
 PLOT DATE: \$ DATES \$  
 USER NAME: \$ USER \$

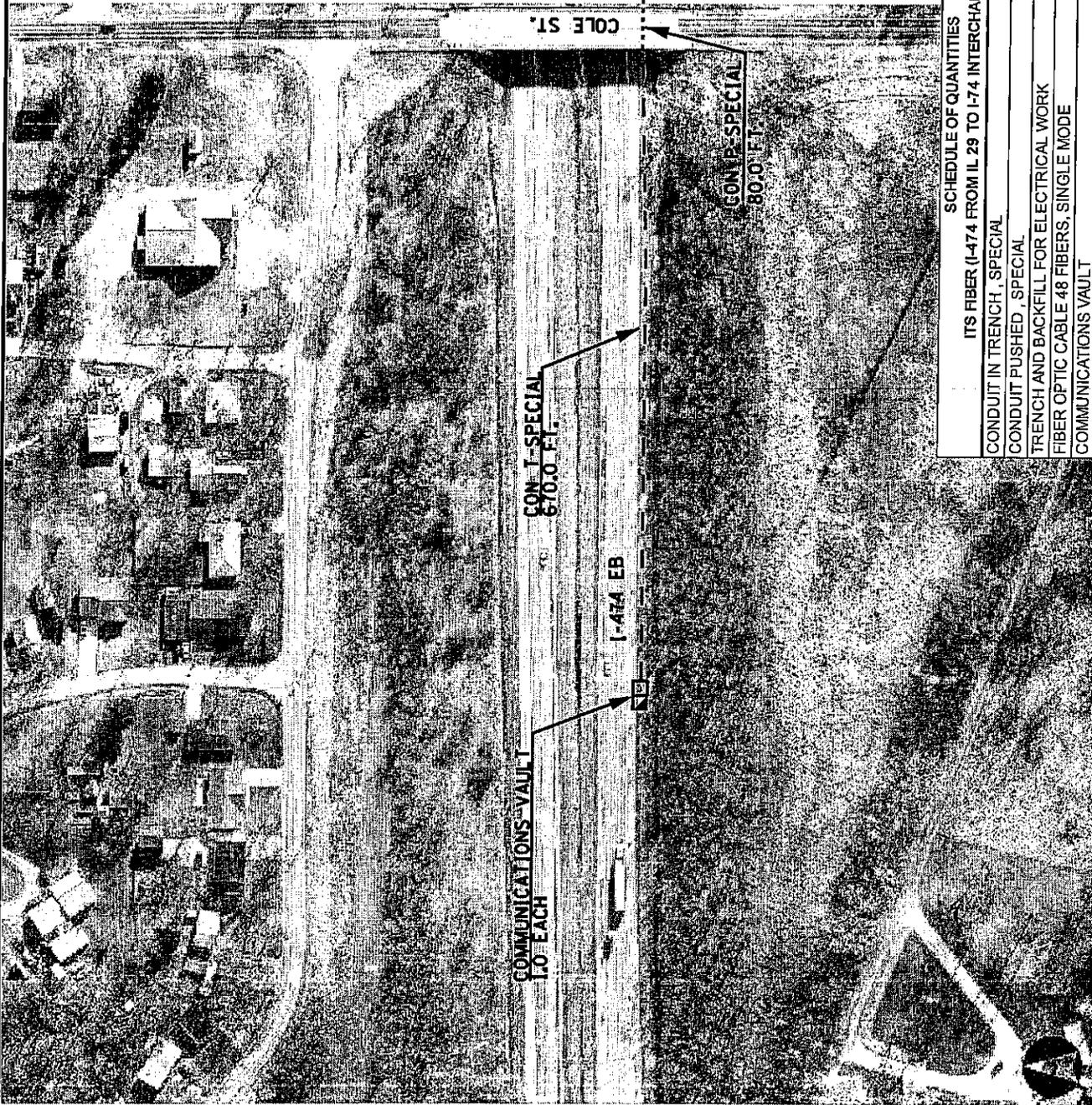


**SCHEDULE OF QUANTITIES**

ITS FIBER (IL 29 FROM NORTH PEKIN TO PEKIN) - SHEET 36		COUNTY	TOTAL SHEET NO.
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE		TAZEWELL	67
FIBER OPTIC DROP AND REPEAT SWITCH		TAZEWELL	67
		EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION IL 29 (MAIN ST.) FROM NORTH PEKIN TO PEKIN (CONTINUED)	ROUTES	SECTION	COUNTY	TOTAL SHEET NO.
		VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
SCALE: NONE		IL 29 FIBER SHEET 36 OF 36		STA. ----- TO STA. -----	CONTRACT NO. 68A18

PLOT SCALE: \*\$SCALE\*  
 PLOT DATE: \*\$DATE\*  
 USER NAME: \*\$USER\*



**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 1

CONDUIT IN TRENCH, SPECIAL	FOOT	670.0
CONDUIT PUSHED, SPECIAL	FOOT	80.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	670.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	780.0
COMMUNICATIONS VAULT	EACH	1.0

COUNTY TAZEWELL	TOTAL SHEETS	67	SHEET NO.	44
	CONTRACT NO. 68A18			

ROUTES	SECTION
VARIOUS	D4 TRAFFIC SIGNALS 2011

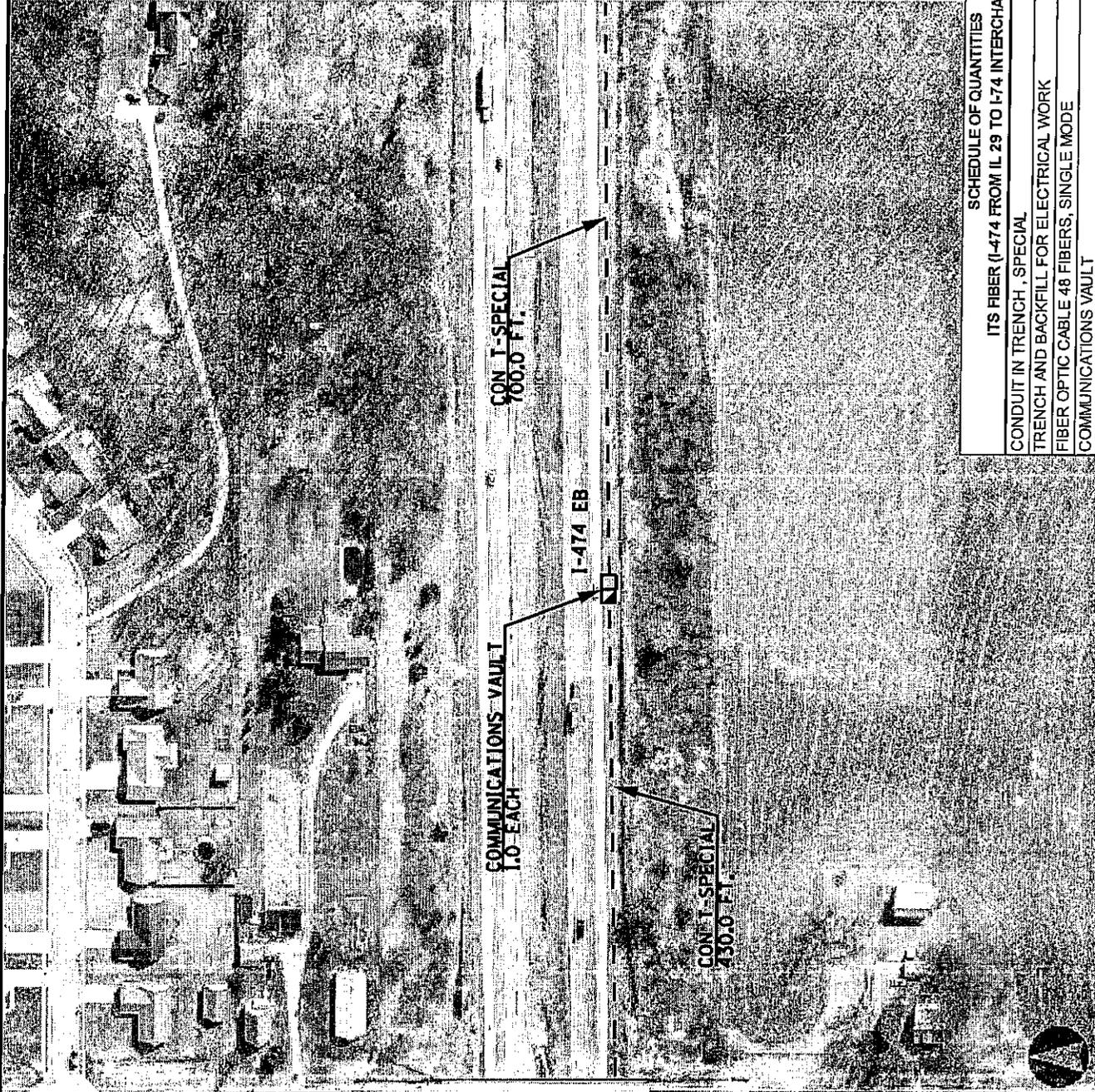
PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
 I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE

SCALE: NONE I-474 FIBER SHEET 1 OF 14 STA. ----- TO STA. -----

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

PLOT SCALE \* \* SCALES \* \*  
 PLOT DATE \* \* DATES \* \*

USER NAME \* \* USER \* \*



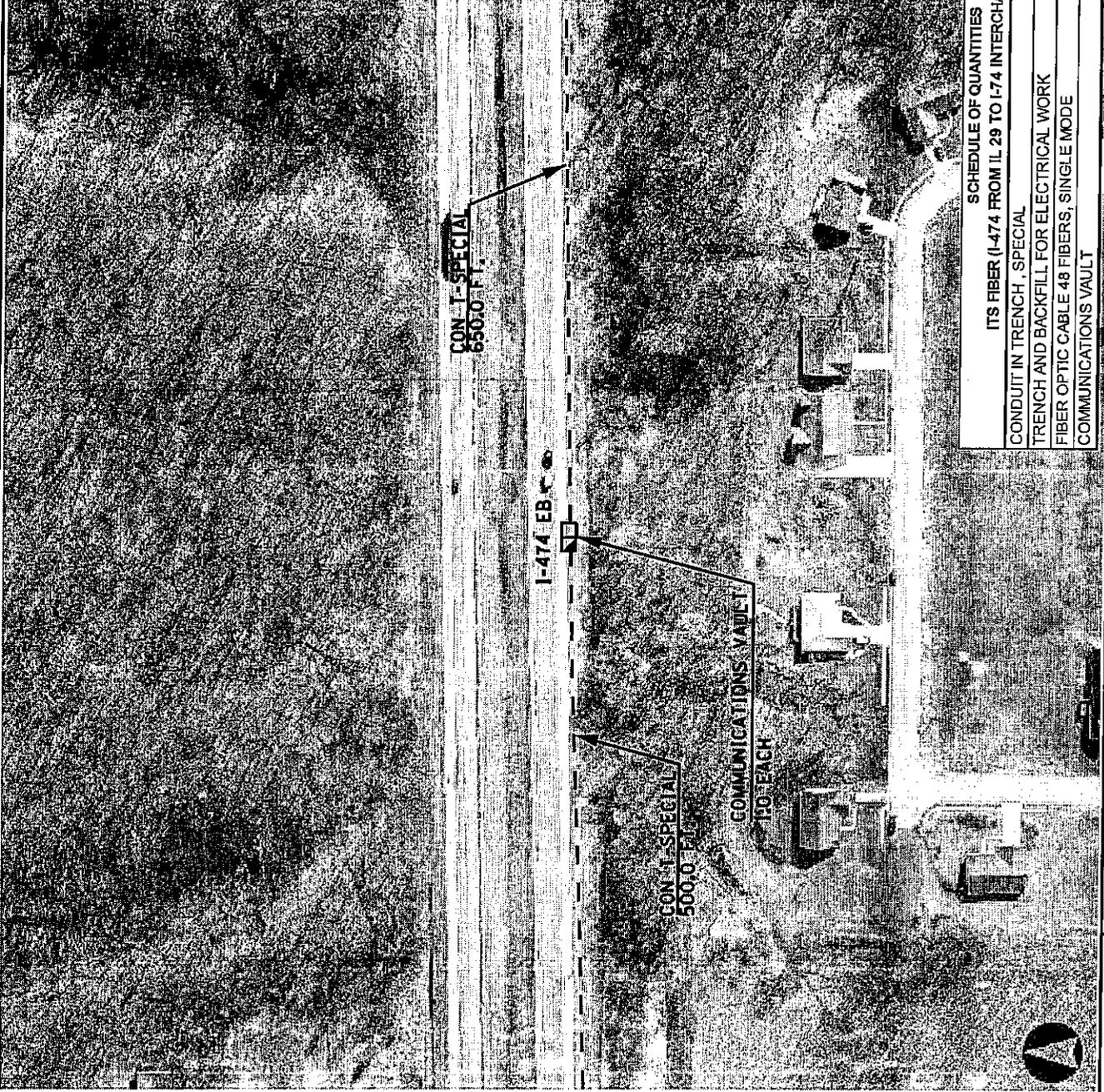
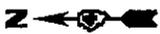
**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 2

CONDUIT IN TRENCH, SPECIAL	FOOT	1130.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1130.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1160.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)		COUNTY TAZEWELL	TOTAL SHEETS 67	SHEET NO. 45
	SCALE: NONE	I-474 FIBER SHEET 2 OF 14	VARIOUS	CONTRACT NO. 68A1B	
PLOT SCALE: * SCALES * PLOT DATE: * DATES *		ROUTES		SECTION	
		D4 TRAFFIC SIGNALS 2011			
		TO STA. -----		FROM STA. -----	
		I-474 EB			

USER NAME: \* \* \* \* \*  
DATE: \* \* \* \* \*

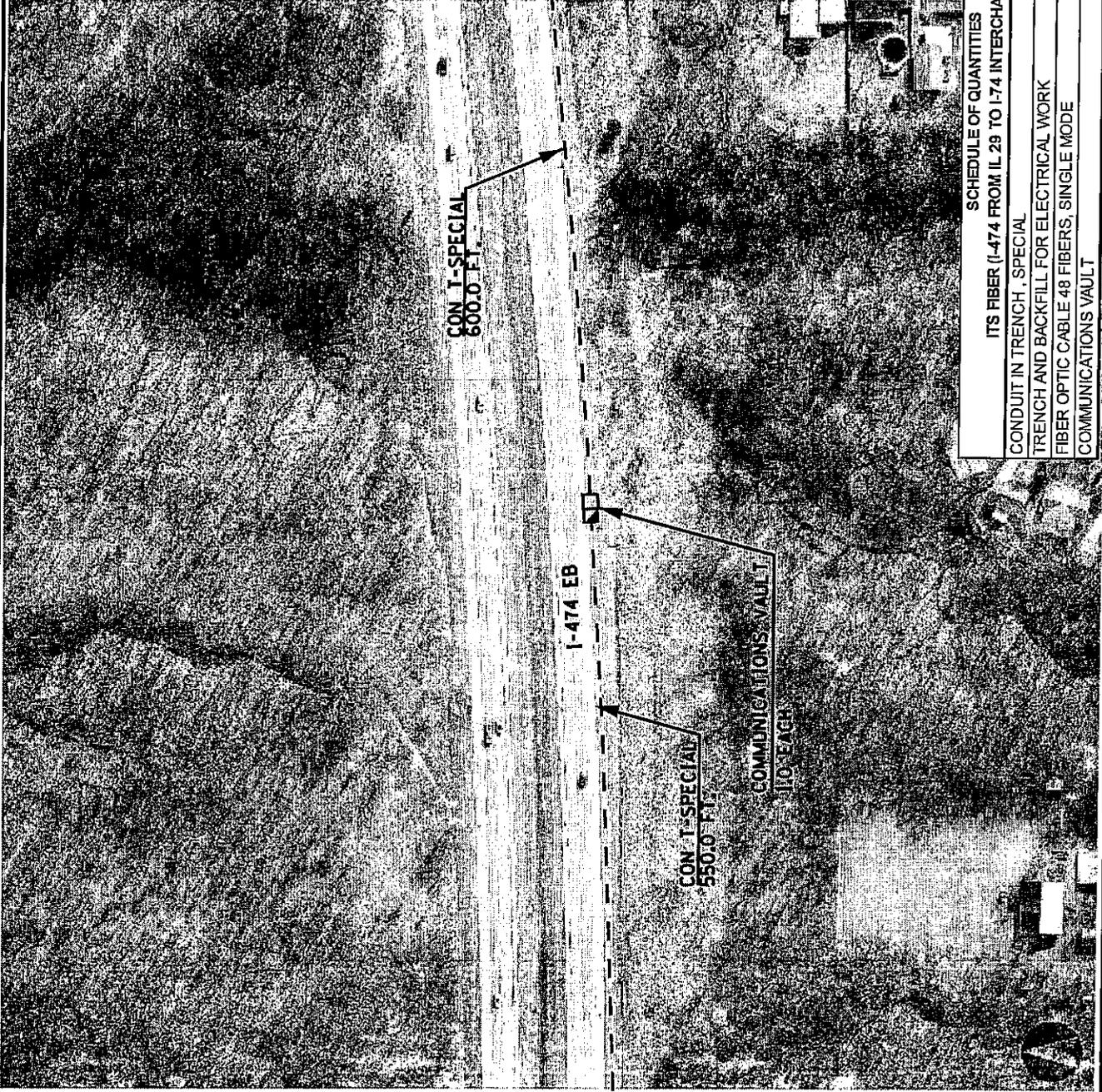


**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 3

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

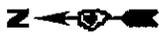
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)	ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		VARIOUS	DA TRAFFIC SIGNALS 2011	TAZEWELL	67	46
SCALE: NONE		I-474 FIBER SHEET 3 OF 14		STA. ----- TO STA. -----	CONTRACT NO. 68A18	



**SCHEDULE OF QUANTITIES**  
ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 4

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

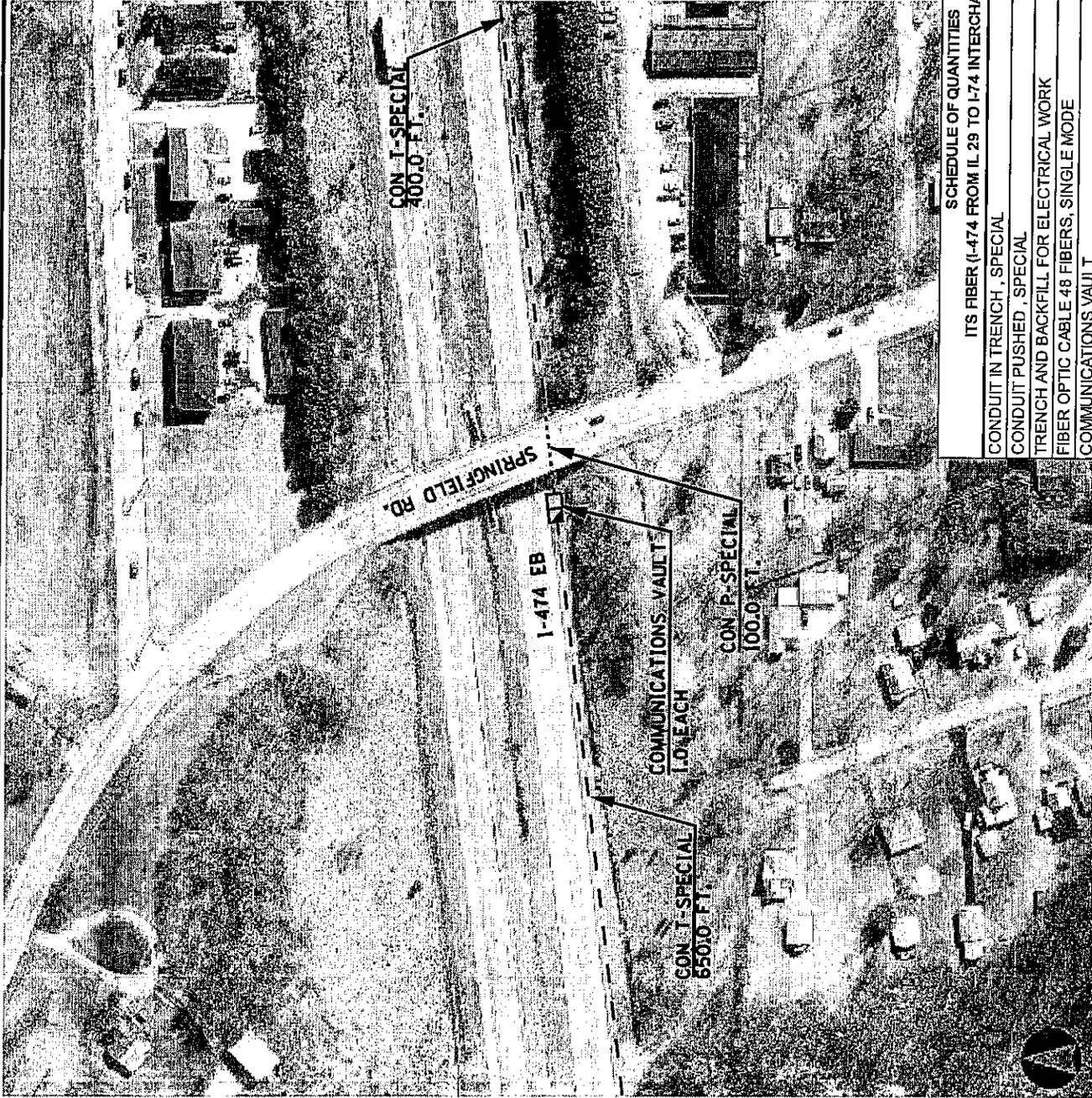
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)		COUNTY TAZEWELL	TOTAL SHEET NO. 47
	SCALE: NONE	I-474 FIBER SHEET 4 OF 14	VARIOUS	67
SCALE: NONE		I-474 FIBER SHEET 4 OF 14	D4 TRAFFIC SIGNALS 2011	CONTRACT NO. 68A1B
SCALE: NONE		I-474 FIBER SHEET 4 OF 14	VARIOUS	CONTRACT NO. 68A1B



**SCHEDULE OF QUANTITIES**  
ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 5

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)</b>		<b>ROUTES</b>	<b>SECTION</b>	<b>COUNTY</b>	<b>TOTAL SHEET SHEETS</b>
	SCALE: NONE	I-474 FIBER SHEET 5 OF 14	VARIOUS	D4 TRAFFIC SIGNALS 20(I)	TAZEWELL	67
PLOT SCALE: * SCALES * PLOT DATE: * DATES *		I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)			<b>CONTRACT NO. 68A18</b>	48



**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 6

CONDUIT IN TRENCH, SPECIAL	FOOT	1050.0
CONDUIT PUSHED, SPECIAL	FOOT	100.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1050.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

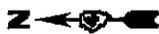
PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)

SCALE: NONE | I-474 FIBER SHEET 6 OF 14 | STA. ----- TO STA. -----

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

ROUTES	SECTION	COUNTY	TOTAL SHEETS
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
			49

CONTRACT NO. 68A1B



THE CAMERA POLE AND CONCRETE FOUNDATION SHALL BE INSTALLED BEHIND EXISTING GUARD RAIL.

**SCHEDULE OF QUANTITIES**

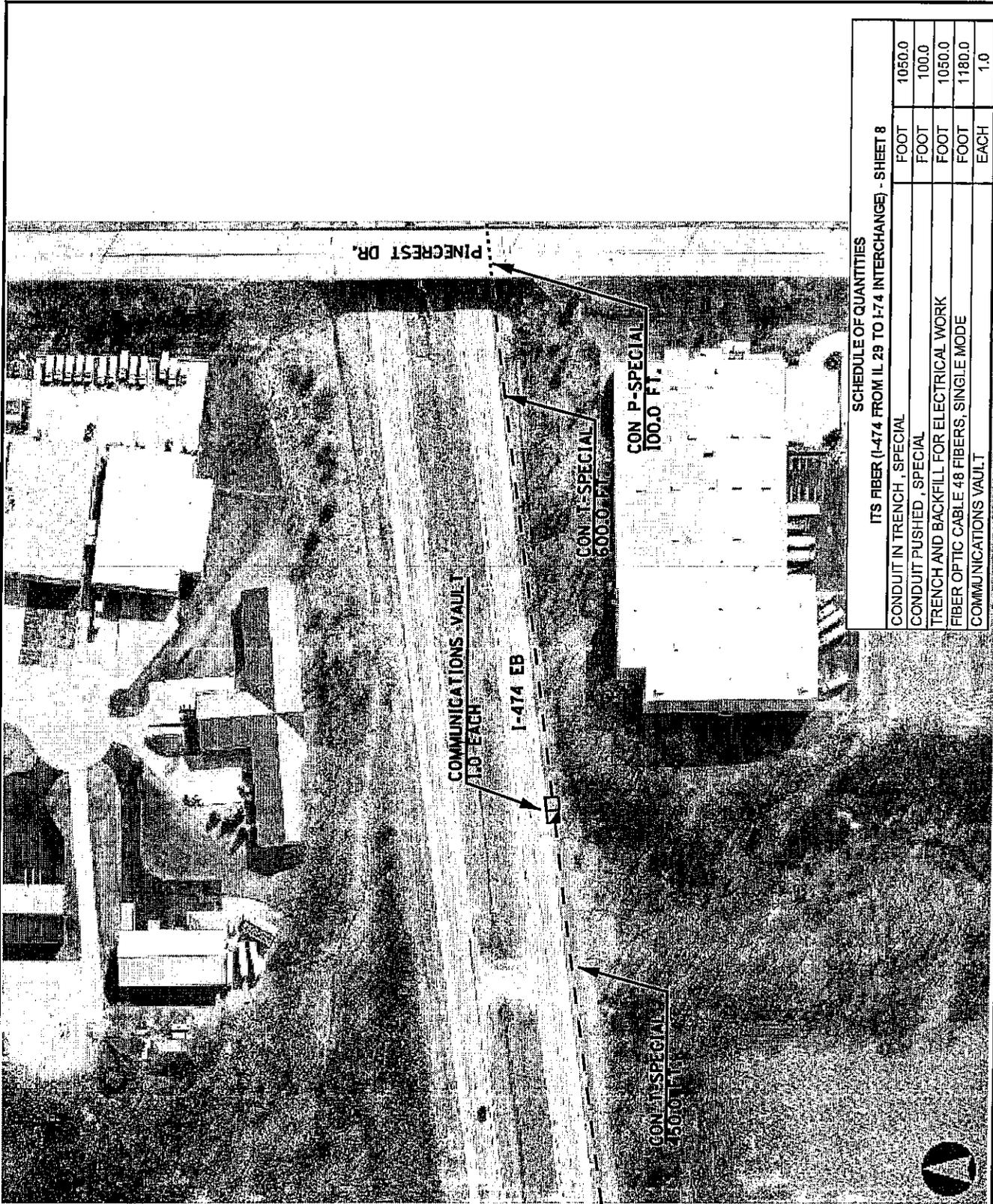
DESCRIPTION	QUANTITY	UNIT
ITS FIBER (1-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 7		
CONDUIT IN TRENCH, 2" DIA, PVC	100.0	FOOT
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 6	363.0	FOOT
TRENCH AND BACKFILL FOR ELECTRICAL WORK	1250.0	FOOT
CONCRETE FOUNDATION, TYPE E, 36 INCH DIAMETER	20.0	FOOT
TRAFFIC COUNTER	1.0	EACH
POLE MOUNTED EQUIPMENT CABINET, TYPE B	1.0	EACH
CAT 5 ETHERNET CABLE	50.0	FOOT
CLOSED-CIRCUIT TELEVISION DOME CAMERA, IP BASED	1.0	EACH
CAMERA POLE, 55 FT.	1.0	EACH
SERVICE INSTALLATION (SPECIAL)	1.0	EACH
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	1266.0	EACH
FIBER OPTIC ETHERNET DROP AND REPEAT SWITCH	1.0	EACH
COMMUNICATIONS VAULT	1.0	EACH
CONDUIT IN TRENCH, SPECIAL	1150.0	FOOT

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	50

SCALE: NONE I-474 FIBER SHEET 7 OF 14 STA. ----- TO STA. ----- CONTRACT NO. 68A1B

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION



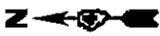
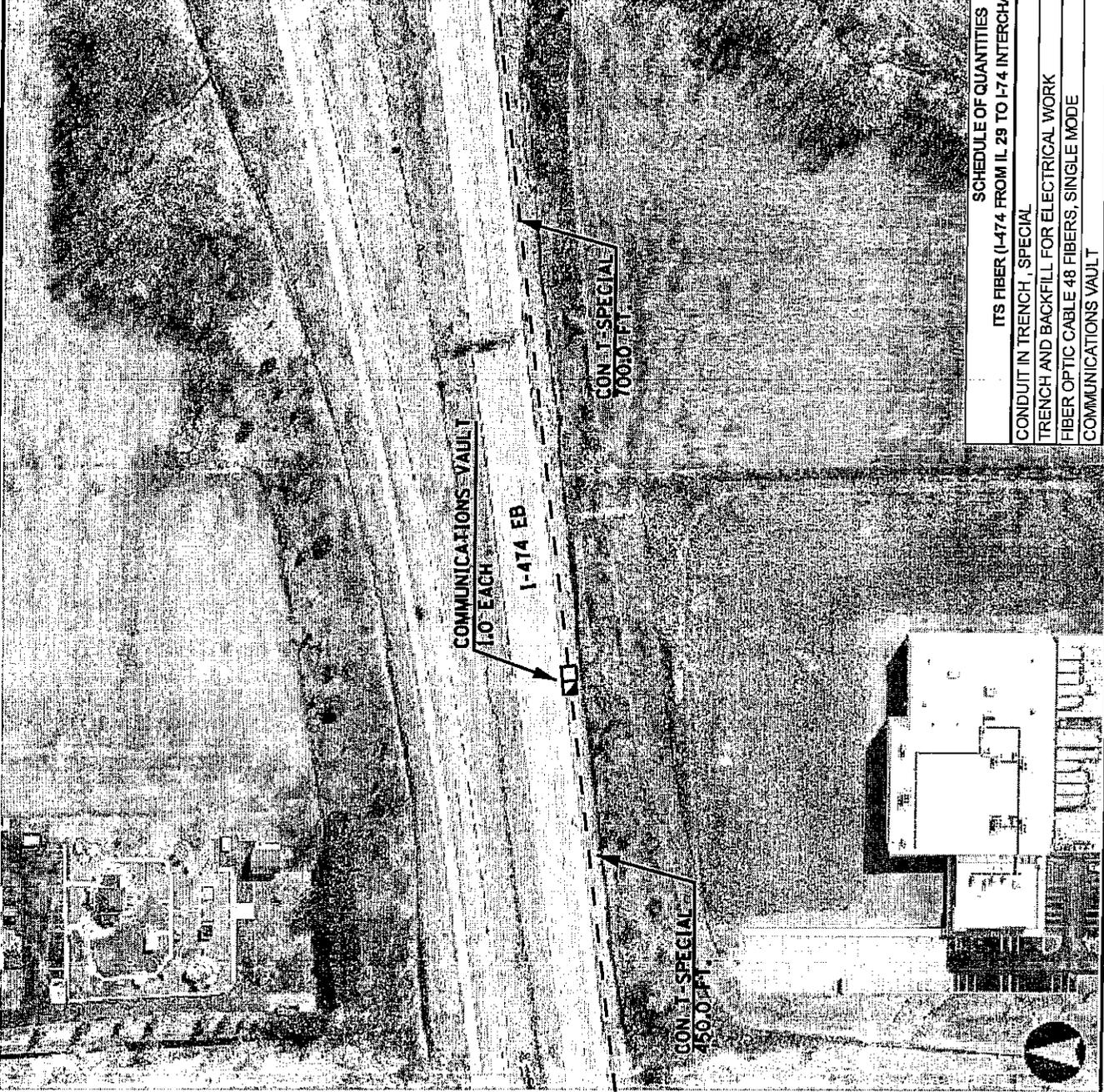
**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 8

CONDUIT IN TRENCH, SPECIAL	FOOT	1050.0
CONDUIT PUSHED, SPECIAL	FOOT	100.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1050.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)</b>		<b>SECTION</b>	<b>COUNTY</b>	<b>TOTAL SHEET NO.</b>
	SCALE: NONE	I-474 FIBER SHEET 8 OF 14	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67
				<b>CONTRACT NO.</b>	<b>51</b>
				<b>CONTRACT NO.</b>	<b>68A1B</b>

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION  
USER NAME \* USER#



**SCHEDULE OF QUANTITIES**  
ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 9

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

COUNTY	TOTAL SHEETS	67
	SHEET NO.	52
VARIOUS	SECTION	D4 TRAFFIC SIGNALS 2011
CONTRACT NO.		68A1B

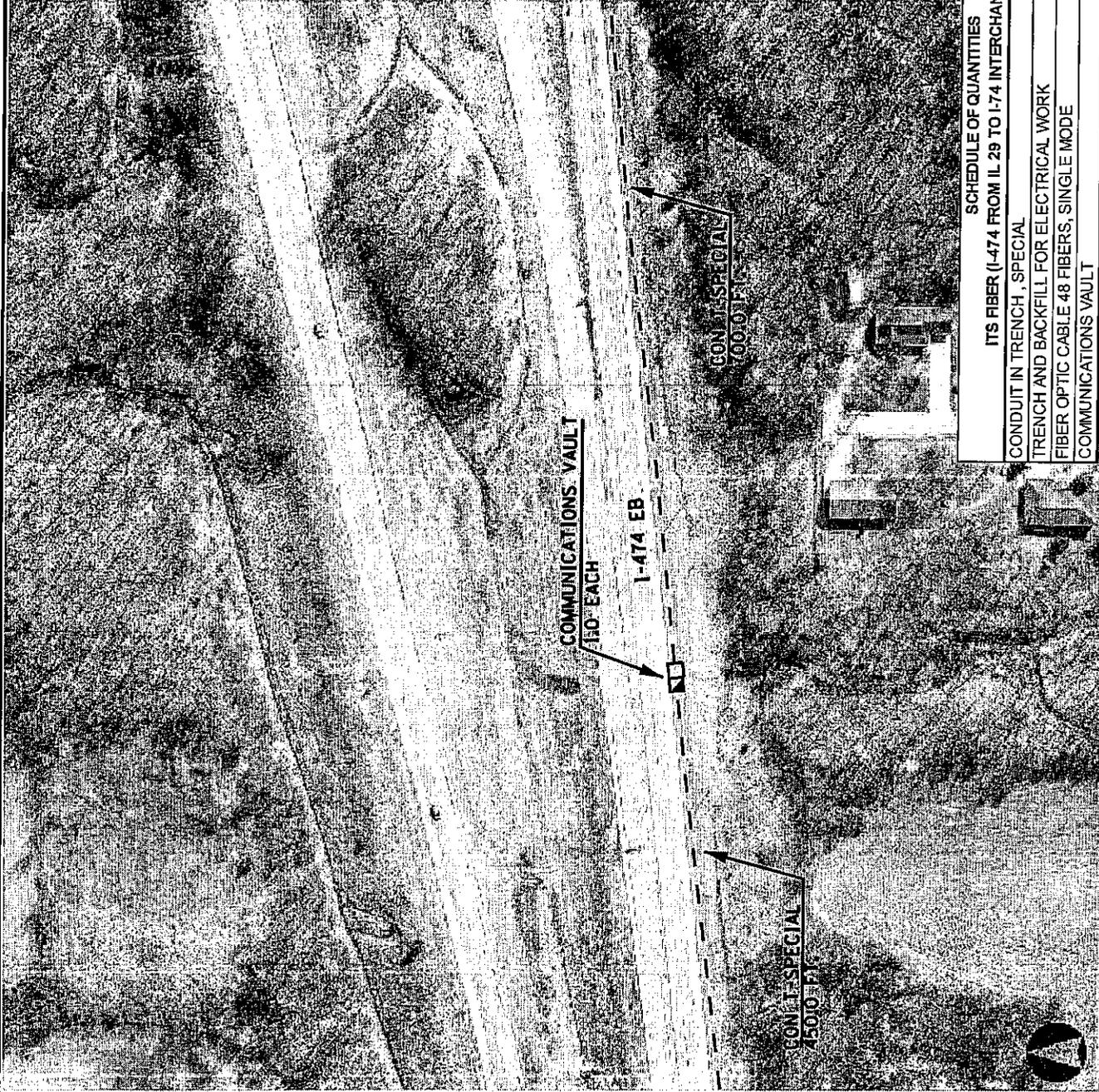
**PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION**  
I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)

SCALE: NONE      I-474 FIBER SHEET 9 OF 14      STA. ----- TO STA. -----

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

PLOT SCALE: \* 48 INCHES \*  
DATE: \* 08/15/11 \*

USER NAME: \* KUSERA \*



**SCHEDULE OF QUANTITIES**  
**ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 10**

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	53
				<b>CONTRACT NO. 68A1B</b>

<b>PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION</b>	
<b>I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)</b>	
SCALE: NONE	I-474 FIBER SHEET 10 OF 14 STA. ----- TO STA. -----

STATE OF ILLINOIS  
 DEPARTMENT  
 OF TRANSPORTATION

PLOT SCALE \* \$Scales\*  
 PLOT DATE \* \$DATE\$  
 USER NAME \* \$USER\$



**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 11

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

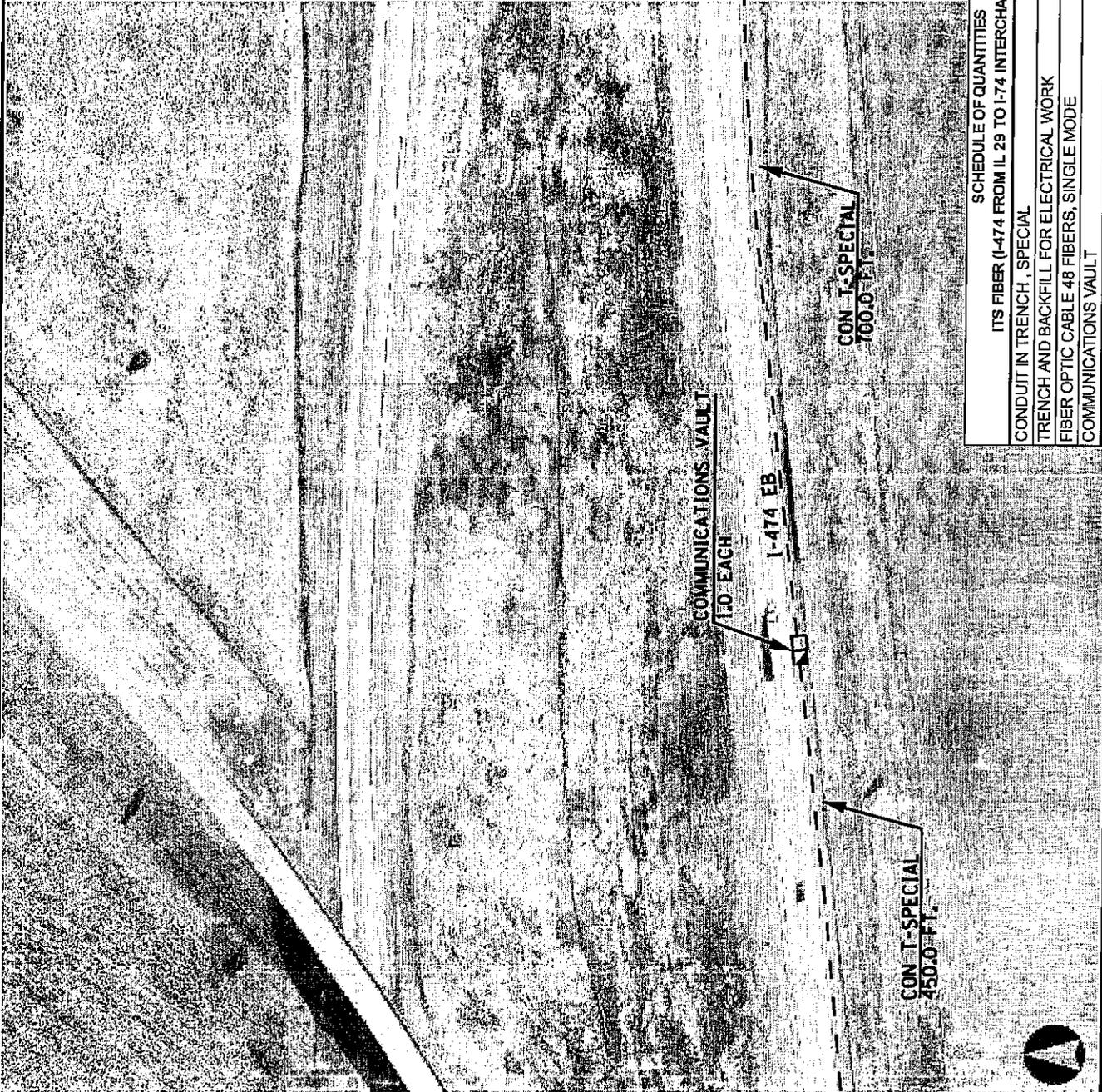
TOTAL SHEETS	67	54
COUNTY	TAZEWELL	
SECTION	D4 TRAFFIC SIGNALS 2011	
ROUTES	VARIOUS	
CONTRACT NO. 68A18		

**PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)**

SCALE: NONE I-474 FIBER SHEET 11 OF 14 STA. ----- TO STA. -----

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

PLOT SCALE: 1" = 400' \*  
SCALE: 1" = 400' \*  
DATE: \*  
USER NAME: \*  
USER: \*  
USER: \*



**SCHEDULE OF QUANTITIES**  
ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 12

CONDUIT IN TRENCH, SPECIAL	FOOT	1150.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1150.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1180.0
COMMUNICATIONS VAULT	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)		COUNTY TAZEWELL	TOTAL SHEET NO. 55
	SCALE: NONE	I-474 FIBER SHEET 12 OF 14	SECTION D4 TRAFFIC SIGNALS 20(I)	TOTAL SHEETS 67
PLOT SCALE * SCALES * PLOT DATE * DATES *			CONTRACT NO. 68A18	
STA. ----- TO STA. -----			CONTRACT NO. 68A18	
USER NAME * USERID				



COMMUNICATIONS VAULT  
1.0 EACH

CON. P-SPECIAL  
50.0 FT.

I-474 EB

CON. T-SPECIAL  
250.0 FT.

COMMUNICATIONS VAULT  
1.0 EACH

CON. T-SPECIAL  
750.0 FT.

SCHEDULE OF QUANTITIES

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 13

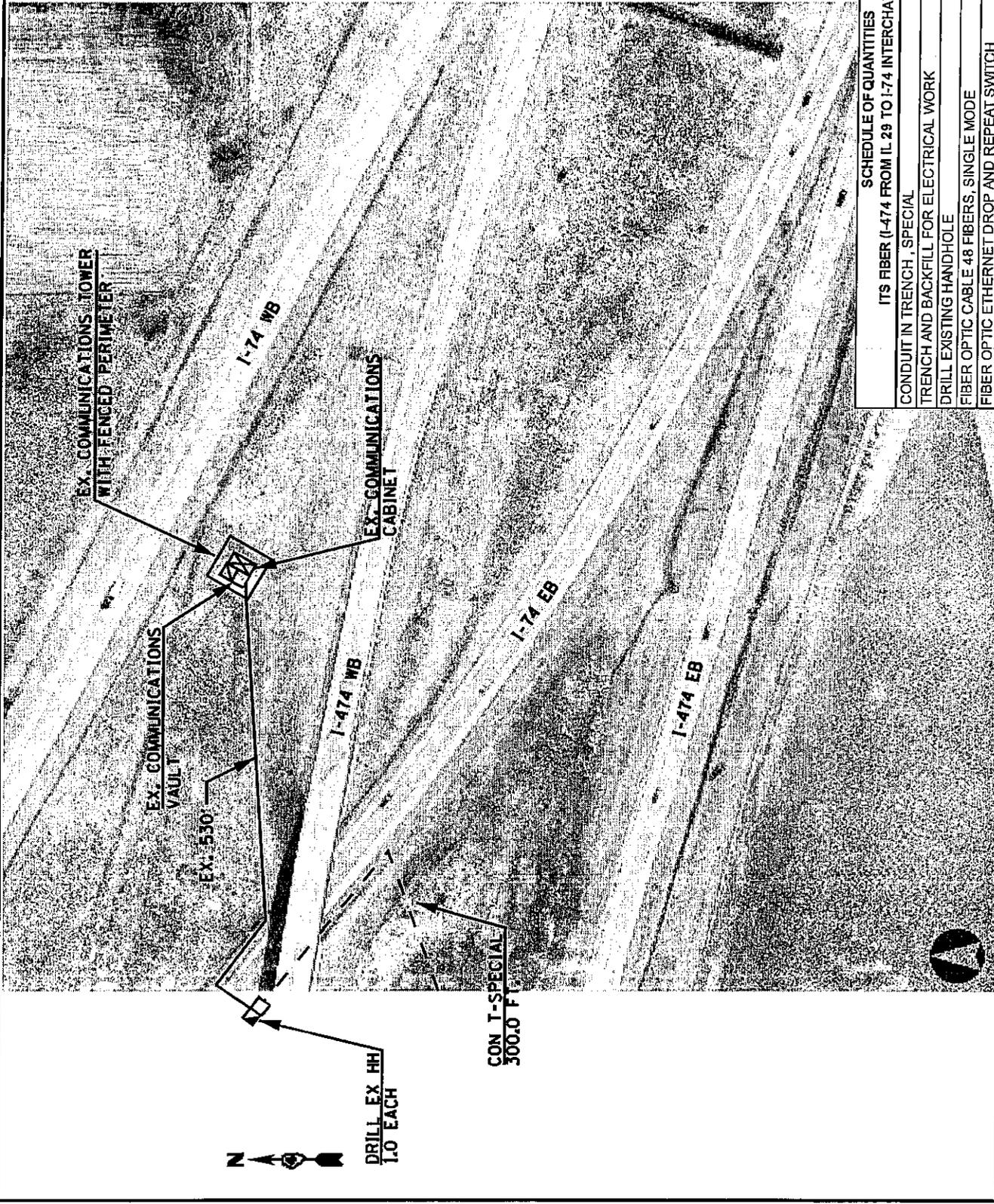
CONDUIT IN TRENCH, SPECIAL	FOOT	1200.0
CONDUIT PUSHED, SPECIAL	FOOT	50.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1200.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	1310.0
COMMUNICATIONS VAULT	EACH	2.0

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION  
I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)

SCALE: NONE | I-474 FIBER SHEET 13 OF 14 | STA. ----- TO STA. -----

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	56
			CONTRACT NO. 6BA1B	



**SCHEDULE OF QUANTITIES**

ITS FIBER (I-474 FROM IL 29 TO I-74 INTERCHANGE) - SHEET 14

CONDUIT IN TRENCH, SPECIAL	FOOT	300.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	300.0
DRILL EXISTING HANDHOLE	EACH	1.0
FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	908.0
FIBER OPTIC ETHERNET DROP AND REPEAT SWITCH	EACH	1.0

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CONDUIT AND FIBER OPTIC CABLE INSTALLATION I-474 FROM COLE ST. OVERPASS TO I-74 INTERCHANGE (CONTINUED)		COUNTY TAZEWELL	TOTAL SHEET SHEETS 67	SHEET NO. 57
	SCALE: NONE	I-474 FIBER SHEET 14 OF 14	VARIOUS	D4 TRAFFIC SIGNALS 20(I)	CONTRACT NO. 68A18
<small>           PLOT SCALE * SCALES *            USER NAME * USER#         </small>		<small>           STA. ----- TO STA. -----         </small>			

FIBER OPTIC CABLE TERMINATION NOTES (SINGLE MODE CABLE)

1. THE PROPOSED FIBER OPTIC CABLE SHALL BE TERMINATED AS SHOWN ON THE FIBER OPTIC LINE/TERMINATION DIAGRAM WITH ST CONNECTORS.
2. ALL CABLE SPLICES AND TERMINATIONS SHALL BE FUSION SPLICED.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR FIBER OPTIC CABLE TERMINATION, INCLUDING, BUT NOT LIMITED TO, BREAKOUT KITS, FANOUT KITS, ENCLOSURES, WEATHERPROOF SPLICE BOOTS, SPLICE SLEEVES, CONNECTORS, INTERCONNECT CENTERS, ETC.
4. ALL ST CONNECTORS SHALL BE FUSION SPLICED UTILIZING PRE-FORMED CABLES WITH CONNECTORS THAT ARE FUSION SPLICED TO THE PROPOSED FIBER.
5. ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE BID PRICE FOR THE PROPOSED FIBER OPTIC CABLE. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THIS WORK.

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

PLOT SCALE \* SCALES\*  
PLOT DATE \* DATES\*

SCALE: NONE

MAST ARM EXTENSION DETAIL

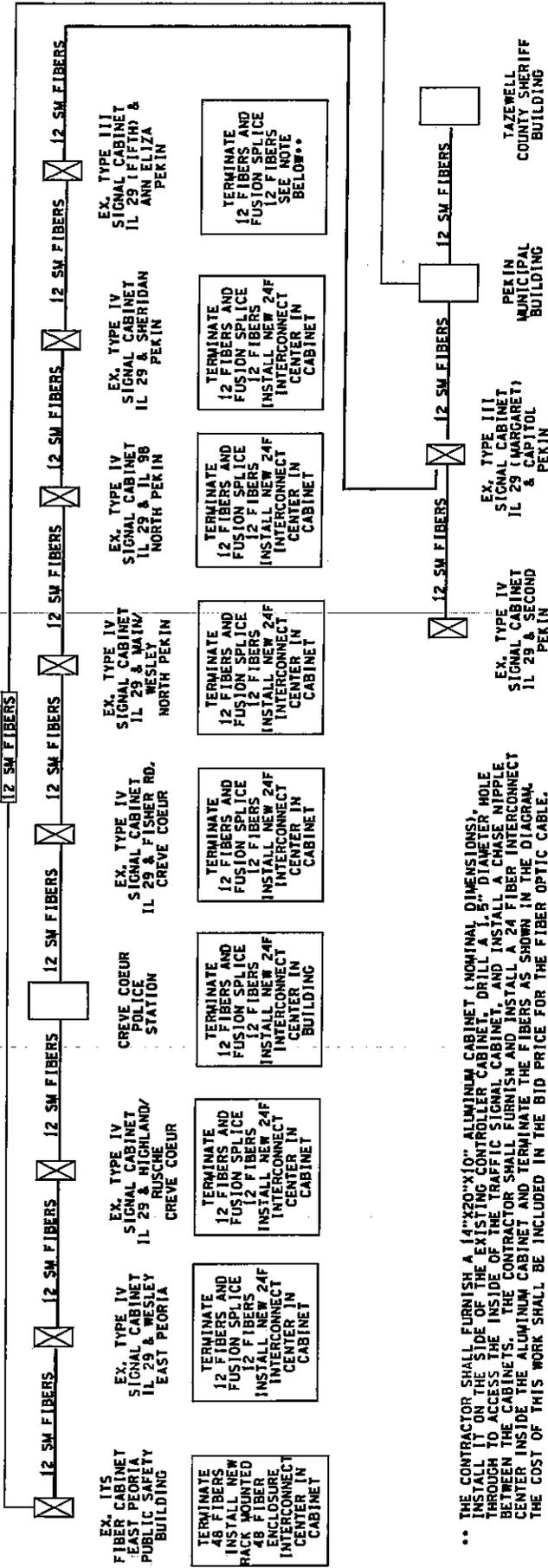
STA. ----- TO STA. -----

ROUTES	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	58
				CONTRACT NO. 68A18

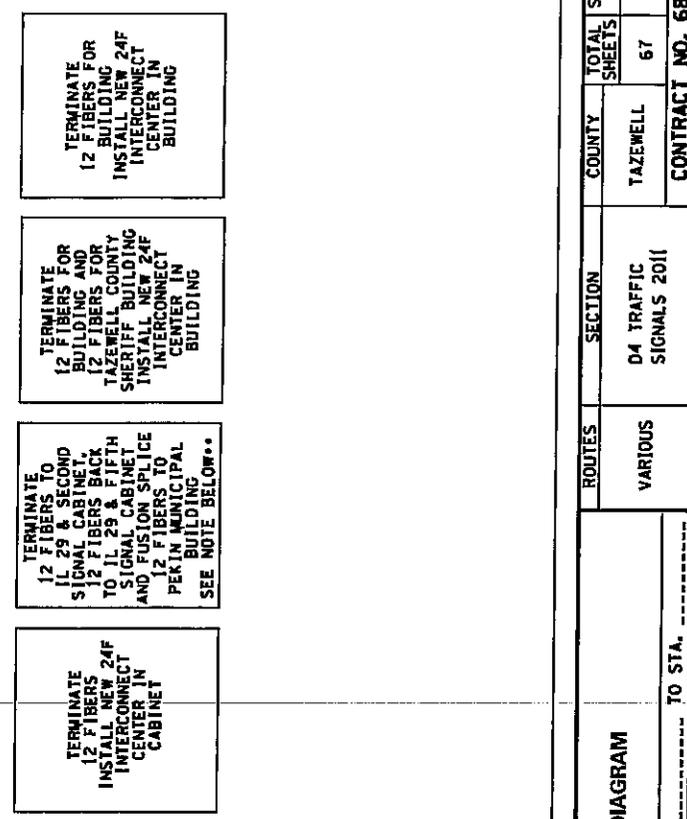
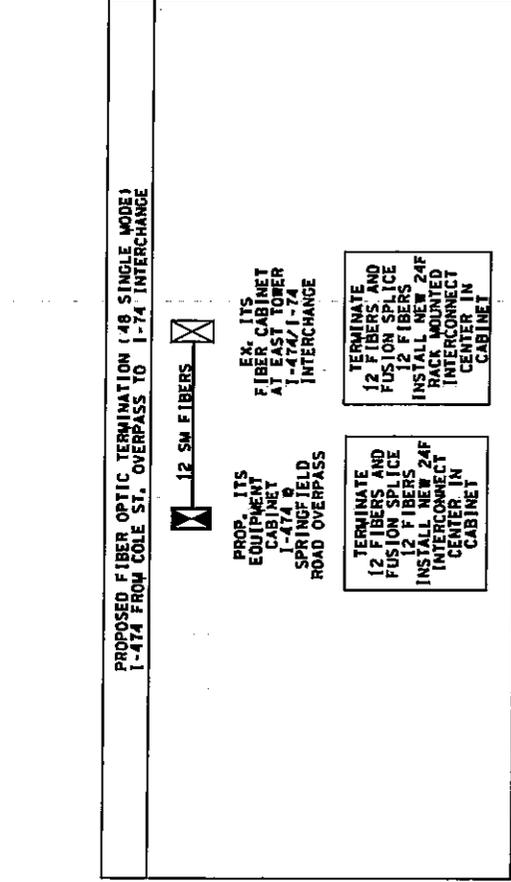
USER NAME \* USERS\*

PROPOSED FIBER OPTIC TERMINATION (48 SINGLE MODE)  
IL 29 FROM EAST PEORIA TO PEKIN MUNICIPAL BUILDING

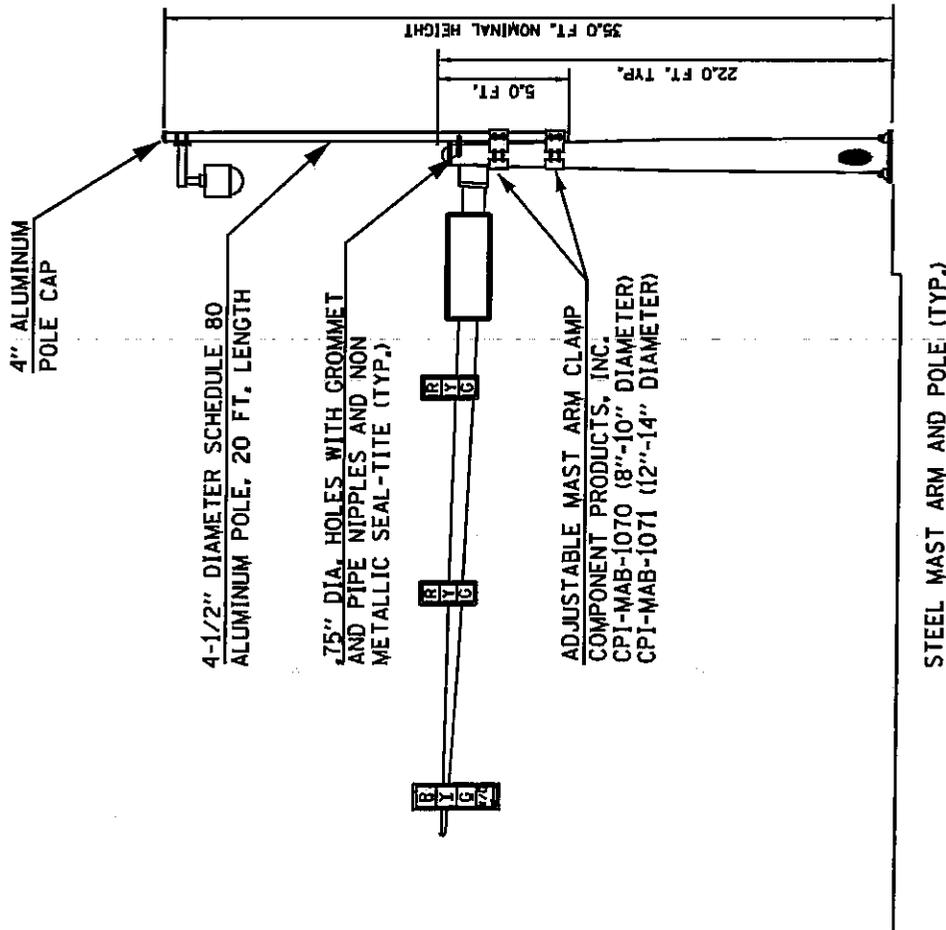
FUSION SPLICE 12 FIBERS TO CREATE CONTINUOUS FIBER LINK FROM EAST PEORIA PUBLIC SAFETY BUILDING TO PEKIN MUNICIPAL BUILDING



•• THE CONTRACTOR SHALL FURNISH A 14"x20"x10" ALUMINUM CABINET (NOMINAL DIMENSIONS), INSTALL IT ON THE SIDE OF THE EXISTING CONTROLLER CABINET, DRILL A 1.5" DIAMETER HOLE THROUGH TO ACCESS THE INSIDE OF THE TRAFFIC SIGNAL CABINET, AND INSTALL A CHASE NIPPLE BETWEEN THE CABINETS. THE CONTRACTOR SHALL FURNISH AND INSTALL A 24 FIBER INTERCONNECT CENTER INSIDE THE ALUMINUM CABINET AND TERMINATE THE FIBERS AS SHOWN IN THE DIAGRAM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE FIBER OPTIC CABLE.



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC TERMINATION DIAGRAM		COUNTY TAZEWELL	TOTAL SHEETS 67	SHEET NO. 59
	SCALE: NONE	IL 29 FIBER SHEET 1 OF 36			
SCALE: NONE		IL 29 FIBER SHEET 1 OF 36	VARIOUS	TO STA. -----	



4" ALUMINUM  
POLE CAP

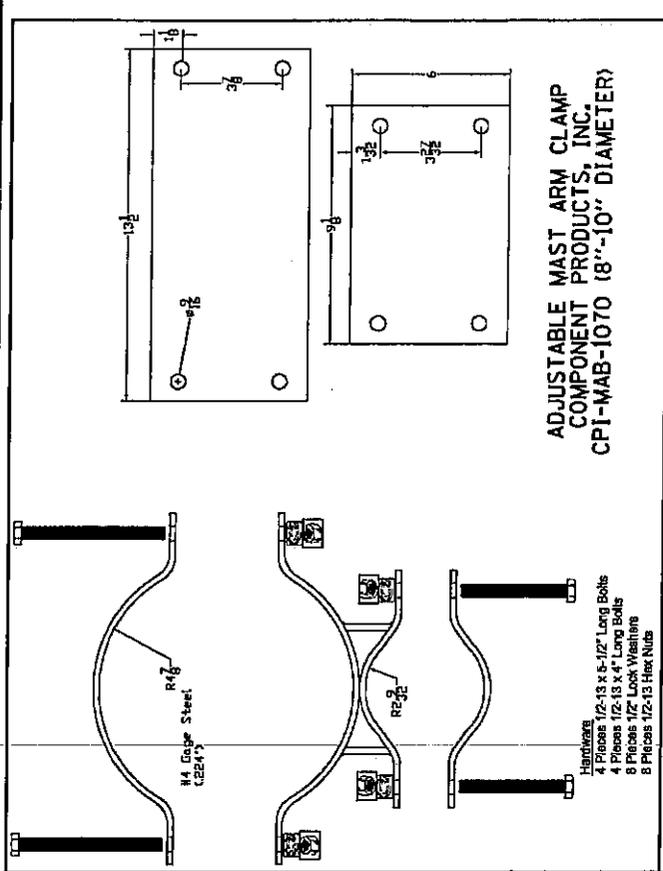
4-1/2" DIAMETER SCHEDULE 80  
ALUMINUM POLE, 20 FT. LENGTH

.75" DIA. HOLES WITH GROMMET  
AND PIPE NIPPLES AND NON  
METALLIC SEAL-TITE (TYP.)

ADJUSTABLE MAST ARM CLAMP  
COMPONENT PRODUCTS, INC.  
CPI-MAB-1070 (8"-10" DIAMETER)  
CPI-MAB-1071 (12"-14" DIAMETER)

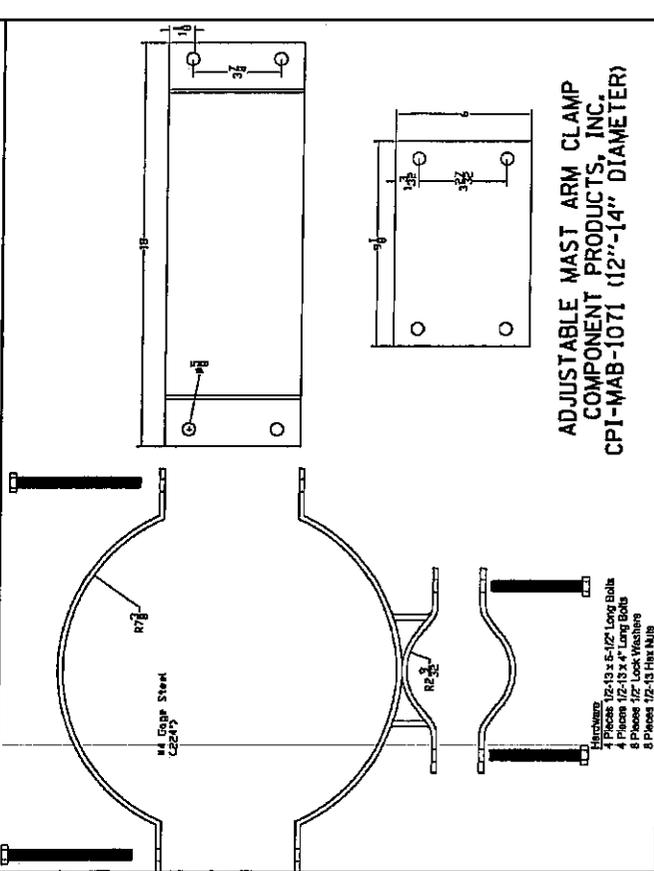
STEEL MAST ARM AND POLE (TYP.)

35.0 FT. NOMINAL HEIGHT  
5.0 FT.  
22.0 FT. TYP.



ADJUSTABLE MAST ARM CLAMP  
COMPONENT PRODUCTS, INC.  
CPI-MAB-1070 (8"-10" DIAMETER)

- Hardware  
4 Pieces 1/2-13 x 6-1/2" Long Bolts  
4 Pieces 1/2-13 x 4" Long Bolts  
8 Pieces 1/2" Lock Washers  
8 Pieces 1/2-13 Hex Nuts



ADJUSTABLE MAST ARM CLAMP  
COMPONENT PRODUCTS, INC.  
CPI-MAB-1071 (12"-14" DIAMETER)

- Hardware  
4 Pieces 1/2-13 x 6-1/2" Long Bolts  
4 Pieces 1/2-13 x 4" Long Bolts  
8 Pieces 1/2" Lock Washers  
8 Pieces 1/2-13 Hex Nuts

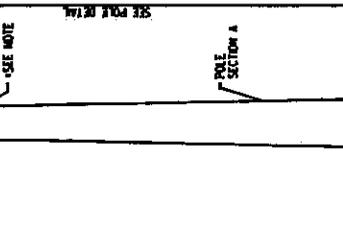
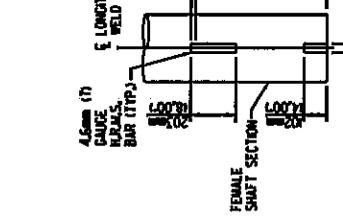
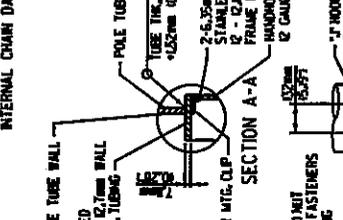
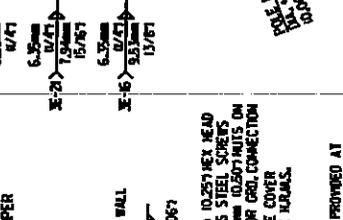
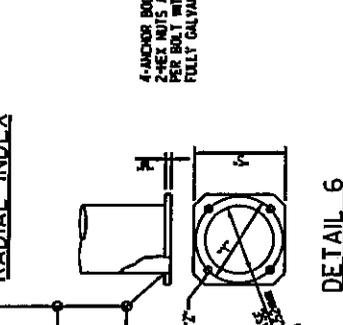
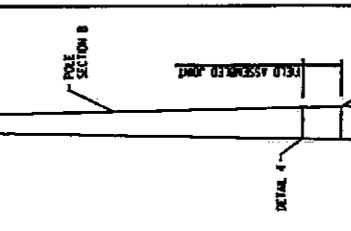
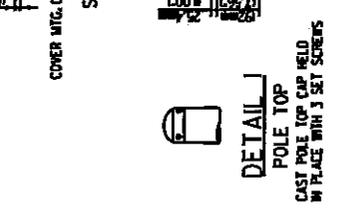
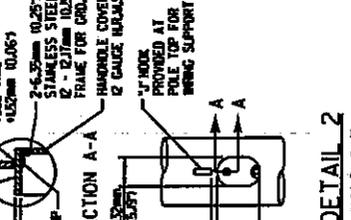
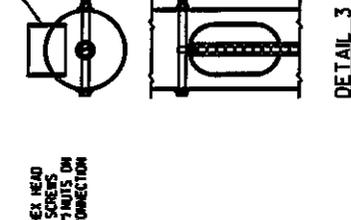
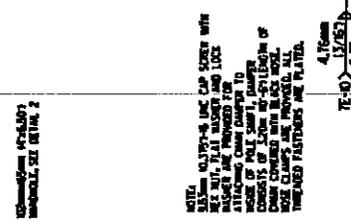
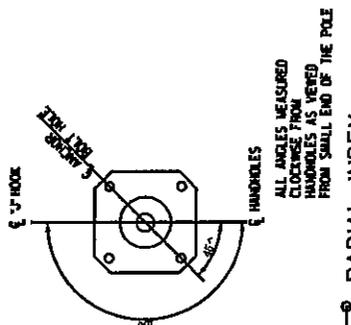
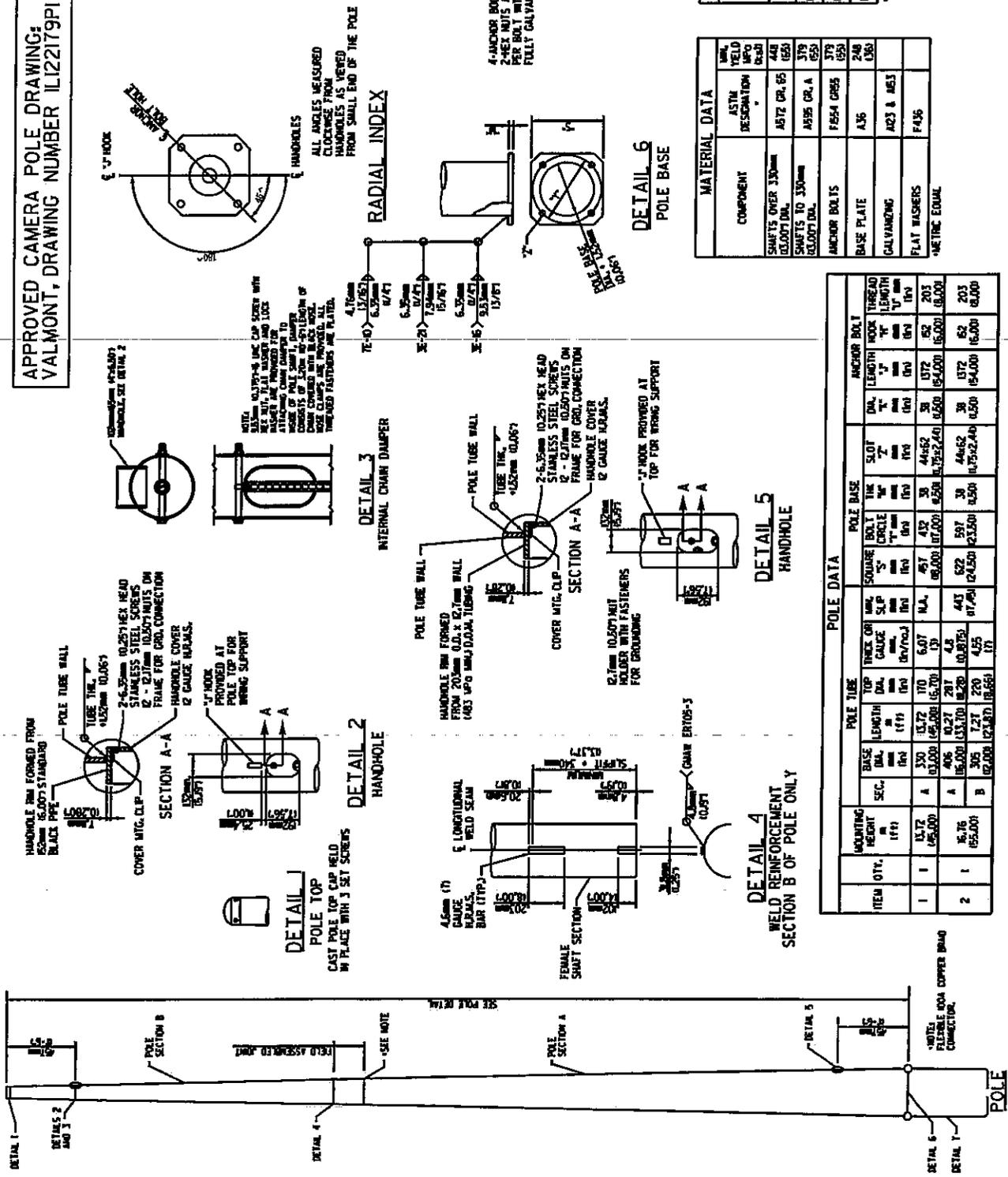
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAST ARM EXTENSION DETAIL		COUNTY TAZEWELL	TOTAL SHEET SHEETS 67	CONTRACT NO. 68A18
	SCALE: NONE	IL 29 FIBER SHEET 1 OF 36			
PLOT SCALE * SCALES * DATE * SHEETS *		TO STA. -----	USER NAME * USERID		



**APPROVED CAMERA POLE DRAWING:  
VALMONT, DRAWING NUMBER IL22179PI**

**NOTES:**

- DESIGN SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS FOR 90 MPH WIND LOAD AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 1, 2002.
- THE EXPOSED LENGTH OF THE ANCHOR BOLT BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT SHOULD NOT EXCEED ONE BOLT DIAMETER.



**MATERIAL DATA**

COMPONENT	ASTM DESCRIPTION	MIN. YIELD STRENGTH (MPa)	MIN. TENSILE STRENGTH (MPa)
ANCHOR BOLT NUTS	A563 GR. A	448 (65)	578 (85)
R-K COVER	CM00 STEEL	375 (55)	485 (70)
R-K FRAME	A 36	248 (36)	355 (51)
POLE TOP	B76	248 (36)	355 (51)

\*-ME THE EQUAL

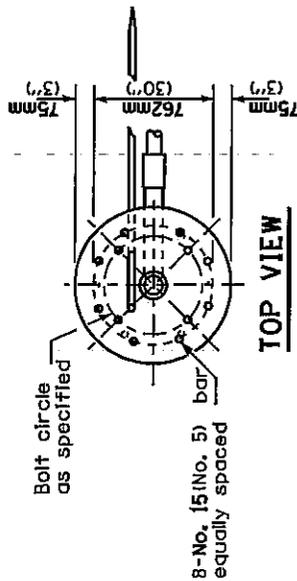
**MATERIAL DATA**

COMPONENT	ASTM DESCRIPTION	MIN. YIELD STRENGTH (MPa)	MIN. TENSILE STRENGTH (MPa)
SHAFTS OVER 130mm (5.118") DIA.	A572 GR. 55	448 (65)	578 (85)
SHAFTS TO 130mm (5.118") DIA.	A572 GR. A	375 (55)	485 (70)
ANCHOR BOLTS	F554 GR55	375 (55)	485 (70)
BASE PLATE	A 36	248 (36)	355 (51)
GALVANIZING	A23 & A63		
FLAT WASHERS	F436		

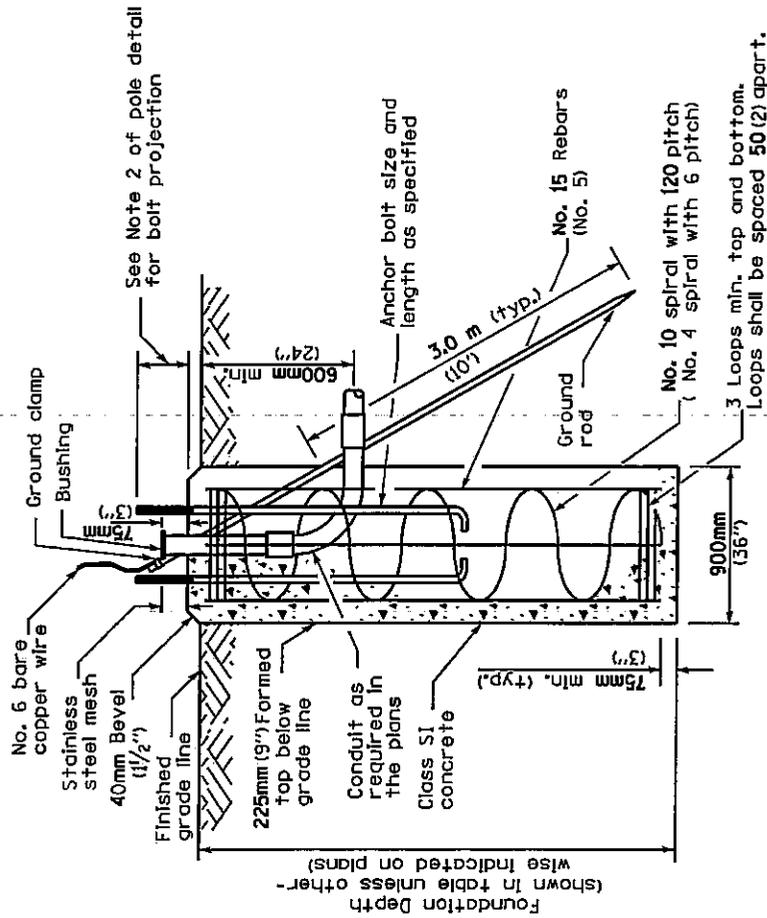
\*-ME THE EQUAL

**POLE DATA**

ITEM	QTY.	MOUNTING HEIGHT (ft)	POLE TUBE		POLE BASE		ANCHOR BOLT	
			LENGTH (ft)	DIAM. (in)	DIAM. (in)	LENGTH (ft)	DIAM. (in)	LENGTH (ft)
1	1	15.17 (46.20)	15.17 (46.20)	170 (4.27)	457 (11.46)	38 (0.96)	172 (4.27)	52 (1.32)
2	1	16.76 (51.00)	16.76 (51.00)	170 (4.27)	457 (11.46)	38 (0.96)	172 (4.27)	52 (1.32)



**TOP VIEW**



Pole Height	Foundation depth
13.7m (45')	4.4m (14'-6")
16.8m (55')	6.2m (20'-4")

**Notes:**

- The Engineer shall determine the class of soil during excavation. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength ( $Q_u$ ) > 100 kPa (1.0 tsf). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
- The anchor bolts and raceways shall be properly secured in place.
- Concrete shall be class "SI" Concrete and the foundation must be cured for ten (10) days before the pole is erected.
- The cable trench shall be backfilled and firmly compacted before the pole is erected.
- For sloping grades, the foundation design depth shall be increased by the corresponding cross slope shaft depth increase factor given by:
  - Cohesive soil - cross slope shaft increase factor  $0.009 \times (\text{slope angle}) + 1.0$
  - Granular soil - cross slope shaft increase factor  $0.00005 \times (\text{slope angle}) + 1.0$
- Install grounding system in accordance with Section 806 of the IDOT Standard Specifications.

STATE OF ILLINOIS  
DEPARTMENT  
OF TRANSPORTATION

**CCTV CAMERA POLE CONCRETE FOUNDATION DETAIL**

SCALE: NONE

STA. ----- TO STA. -----

COUNTY	SECTION	ROUTES	TOTAL SHEETS	SHEET NO.
TAZEWELL	D4 TRAFFIC SIGNALS 2011	VARIOUS	67	63
CONTRACT NO. 68A18				

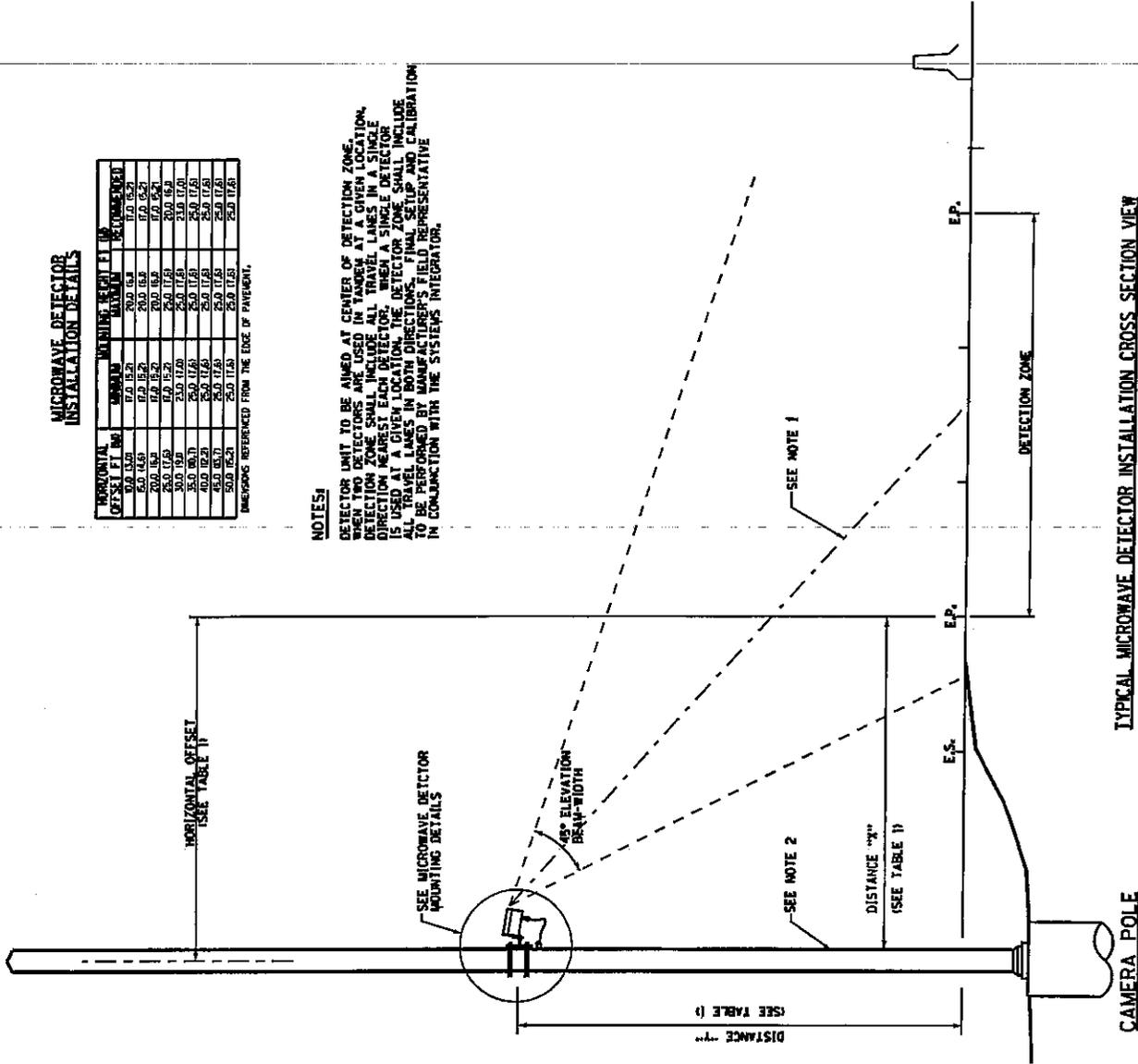
**MICROWAVE DETECTOR  
INSTALLATION DETAILS**

HORIZONTAL OFFSET, FT.	MINIMUM CABLE LENGTH, FT.	MINIMUM CABLE LENGTH, FT.
10.0	17.0	15.0
15.0	22.0	20.0
20.0	27.0	25.0
25.0	32.0	30.0
30.0	37.0	35.0
35.0	42.0	40.0
40.0	47.0	45.0
45.0	52.0	50.0
50.0	57.0	55.0
55.0	62.0	60.0
60.0	67.0	65.0
65.0	72.0	70.0
70.0	77.0	75.0
75.0	82.0	80.0
80.0	87.0	85.0
85.0	92.0	90.0
90.0	97.0	95.0
95.0	102.0	100.0
100.0	107.0	105.0
105.0	112.0	110.0
110.0	117.0	115.0
115.0	122.0	120.0
120.0	127.0	125.0
125.0	132.0	130.0
130.0	137.0	135.0
135.0	142.0	140.0
140.0	147.0	145.0
145.0	152.0	150.0
150.0	157.0	155.0
155.0	162.0	160.0
160.0	167.0	165.0
165.0	172.0	170.0
170.0	177.0	175.0
175.0	182.0	180.0
180.0	187.0	185.0
185.0	192.0	190.0
190.0	197.0	195.0
195.0	202.0	200.0
200.0	207.0	205.0
205.0	212.0	210.0
210.0	217.0	215.0
215.0	222.0	220.0
220.0	227.0	225.0
225.0	232.0	230.0
230.0	237.0	235.0
235.0	242.0	240.0
240.0	247.0	245.0
245.0	252.0	250.0
250.0	257.0	255.0
255.0	262.0	260.0
260.0	267.0	265.0
265.0	272.0	270.0
270.0	277.0	275.0
275.0	282.0	280.0
280.0	287.0	285.0
285.0	292.0	290.0
290.0	297.0	295.0
295.0	302.0	300.0
300.0	307.0	305.0
305.0	312.0	310.0
310.0	317.0	315.0
315.0	322.0	320.0
320.0	327.0	325.0
325.0	332.0	330.0
330.0	337.0	335.0
335.0	342.0	340.0
340.0	347.0	345.0
345.0	352.0	350.0
350.0	357.0	355.0
355.0	362.0	360.0
360.0	367.0	365.0
365.0	372.0	370.0
370.0	377.0	375.0
375.0	382.0	380.0
380.0	387.0	385.0
385.0	392.0	390.0
390.0	397.0	395.0
395.0	402.0	400.0
400.0	407.0	405.0
405.0	412.0	410.0
410.0	417.0	415.0
415.0	422.0	420.0
420.0	427.0	425.0
425.0	432.0	430.0
430.0	437.0	435.0
435.0	442.0	440.0
440.0	447.0	445.0
445.0	452.0	450.0
450.0	457.0	455.0
455.0	462.0	460.0
460.0	467.0	465.0
465.0	472.0	470.0
470.0	477.0	475.0
475.0	482.0	480.0
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485.0	492.0	490.0
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780.0	787.0	785.0
785.0	792.0	790.0
790.0	797.0	795.0
795.0	802.0	800.0
800.0	807.0	805.0
805.0	812.0	810.0
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815.0	822.0	820.0
820.0	827.0	825.0
825.0	832.0	830.0
830.0	837.0	835.0
835.0	842.0	840.0
840.0	847.0	845.0
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855.0	862.0	860.0
860.0	867.0	865.0
865.0	872.0	870.0
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925.0	932.0	930.0
930.0	937.0	935.0
935.0	942.0	940.0
940.0	947.0	945.0
945.0	952.0	950.0
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955.0	962.0	960.0
960.0	967.0	965.0
965.0	972.0	970.0
970.0	977.0	975.0
975.0	982.0	980.0
980.0	987.0	985.0
985.0	992.0	990.0
990.0	997.0	995.0
995.0	1002.0	1000.0

MEASUREMENTS REFERENCED FROM THE EDGE OF PAVEMENT.

**NOTES:**

DETECTOR UNIT TO BE AIMED AT CENTER OF DETECTION ZONE. WHEN TWO DETECTORS ARE USED IN TANDEM AT A GIVEN LOCATION, DETECTION ZONE SHALL INCLUDE ALL TRAVEL LANES IN A SINGLE LANE. DETECTOR SHALL BE USED IN TANDEM WITH A SINGLE DETECTOR IN ALL TRAVEL LANES IN BOTH DIRECTIONS. FINAL DETECTOR CALIBRATION SHALL INCLUDE ALL TRAVEL LANES IN BOTH DIRECTIONS. FINAL CALIBRATION TO BE PERFORMED BY MANUFACTURER'S FIELD REPRESENTATIVE IN CONJUNCTION WITH THE SYSTEMS INTEGRATOR.



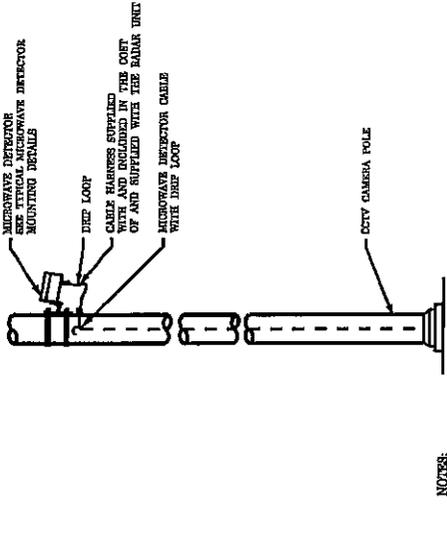
**TYPICAL MICROWAVE DETECTOR INSTALLATION CROSS SECTION VIEW**

**CAMERA POLE**

**MICROWAVE DETECTOR INSTALLATION AND POLE DETAILS**

**MICROWAVE DETECTOR POLE MOUNTING DETAILS**

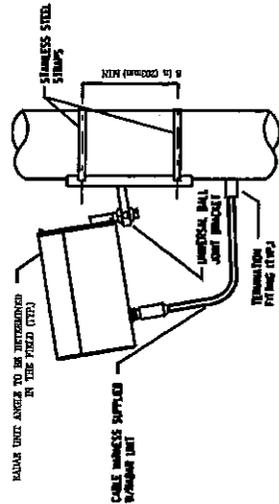
**MOUNTED TO VERTICAL POLE**



**NOTES:**

1. ALL CABLES TO BE INSTALLED WITHIN CONDUIT AS NOTED.
2. CABLES/CONDUITS SHALL NOT ENTER TOP OF ENCLOSURE/CABINET OR PULL/JOINING BOXES.
3. CABLE BUNDLES FROM POLE MOUNTED EQUIPMENT IS SUPPLIED WITH ITS ASSOCIATED BRACKET, BUSHING, AND TERMINAL. THE SHIELD UNIT IS SUPPLIED WITH CABLES BRACKET, BUSHING, PAID POLE AND PARTS OF ITS ASSOCIATED EQUIPMENT. PROVIDE DEEP LOOP AT EACH CABLE TERMINATOR.

**MICROWAVE DETECTOR POLE MOUNTING DETAIL  
SEE MICROWAVE DETECTOR INSTALLATION DETAILS  
TABLE FOR POLE OFFSET AND MOUNTING HEIGHT**



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCALE: NONE	IL 29 FIBER SHEET 1 OF 36	STA. -----	TO STA. -----	ROUTE:	SECTION:	COUNTY:	TOTAL SHEET	SHEET NO.
					VARIOUS	D4 TRAFFIC SIGNALS 2011	TAZEWELL	67	64
							CONTRACT NO. 68A18		

**NOTES:**

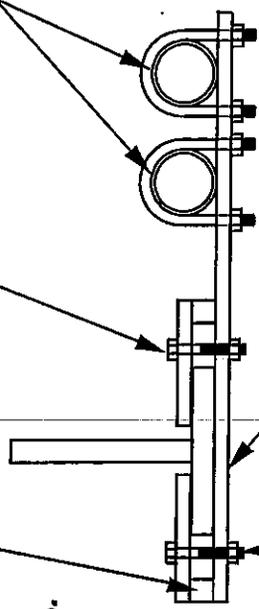
1. THE CONTRACTOR SHALL VERIFY AND FINALIZE ALL BRACKET DIMENSIONS. THE BRACKETS SHALL BE COMPATIBLE WITH EXISTING FIELD CONDITIONS.
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT THE BRACKET DIMENSIONS ARE CORRECT PRIOR TO RELEASING THE BRACKETS FOR PRODUCTION.
3. THE CONTRACTOR SHALL CONSTRUCT PROTOTYPE BRACKETS AND INSTALL THEM ON THE STRUCTURE TO VERIFY FIT PRIOR TO RELEASE.
4. ALL HARDWARE SHALL BE 1/2" DIAMETER STAINLESS STEEL (GRADE 18-8/304).
5. THE CONTRACTOR SHALL UTILIZE LOCK WASHERS WITH ALL NUTS.
6. THE CONTRACTOR SHALL UTILIZE THREAD LOCKER ON ALL THREADED CONNECTIONS.
7. ALL BRACKET COMPONENTS SHALL BE FULLY HOT DIPPED GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS (AASHTO M 111).
8. THERE WILL BE NO ADDITIONAL COMPENSATION FOR MINOR ADJUSTMENTS TO THE CONDUIT MOUNTING BRACKETS THAT ARE REQUIRED FOR COMPATIBILITY WITH EXISTING FIELD CONDITIONS.
9. THE CONTRACTOR SHALL SUBMIT A COMPLETE PACKAGE (INCLUDING CONDUIT BRACKETS, HARDWARE, ATTACHMENT POINTS, ATTACHMENT METHODS, ETC.) TO THE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WORK.

1/8" THICK RUBBER PAD SHALL BE USED AT ALL LOCATIONS WHERE THE BRACKET IS IN CONTACT WITH THE BRIDGE BEAMS TO PREVENT DAMAGE TO THE PAINT AND TO MINIMIZE VIBRATION INDUCED MOVEMENT OF THE BRACKET ON THE BEAM.

BAR STOCK (THICKNESS EQUAL TO FLANGE THICKNESS AND LENGTH EQUAL TO BRACKET WIDTH)

BRACKET HOLES TO BE CENTERED NEAR MID POINT BETWEEN BAR STOCK AND EDGE OF BRIDGE BEAM

2" GALVANIZED STEEL CONDUIT



BRACKET MUST BE INSTALLED LEVEL TO MAKE ADEQUATE CONTACT WITH BRIDGE BEAM

1/2" DIA. STAINLESS STEEL BOLTS TYP.

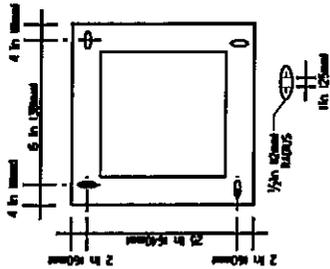
CONDUIT ATTACHMENT ON BRIDGE BEAM (TYP.)

8 FT. MAX SPACING BETWEEN BRACKETS TYP. (CENTER TO CENTER)

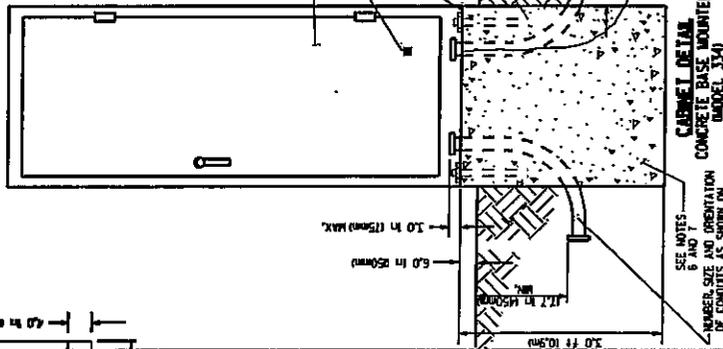
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCALE: NONE		IL 29 FIBER SHEET 1 OF 36	STA. -----	TO STA. -----	CONDUIT BRACKET DETAIL	ROUTES VARIOUS	SECTION DA TRAFFIC SIGNALS 2011	COUNTY TAEZEWELL	TOTAL SHEET SHEETS 67	SHEET NO. 65
									CONTRACT NO. 68A1B		

**NOTES: MODEL 334 CABINET**

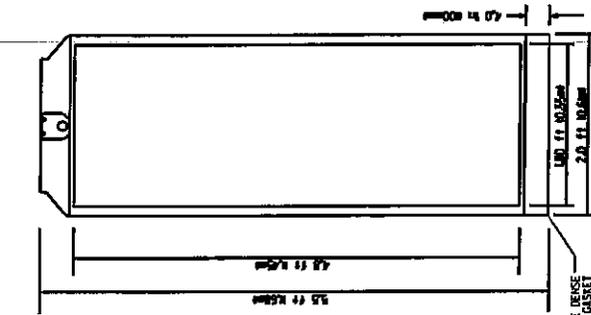
- REFER TO SPECIAL PROVISIONS FOR CABINET DETAILS AND ADDITIONAL REQUIREMENTS.
- CABINET ENTRIES INCLUDE VERTICAL ARRANGEMENT FOR MAJOR EQUIPMENT ITEMS ONLY.
- THERE WILL BE ADDITIONAL ITEMS INSTALLED IN THE FRONT PANEL AND BACK PANELS AS PER THE SPECIAL PROVISIONS.
- PROVIDE ALL UNUSED SPACE AT BOTTOM OF CABINET.
- THE CONDUIT SHALL BE INSTALLED INSULATED BUSWIRES AND MUST SEAL AIR AT ALL CONDUIT BEND LOCATIONS IN FOUNDATIONS.
- CONCRETE BASE TO BE FORMED AT LEAST 6.0 IN (150mm) BELOW THE GROUND SURFACE.
- CONCRETE BASE MUST BE CAST IN PLACE.
- THE CABINET SHALL BE EMPLOYED WITH A THERMOSTATICALLY CONTROLLED VENTILATION FAN DELIVERE PLATED FILTER, POWER PANEL, 50 FIBER BACK MOUNTED ENCLOSURE WITH AND 50 FIBER OPTIC PORTING, AND EQUIPMENT SHELF, AND 50 FIBER OPTIC PORTING WITH 50 FIBER OPTIC CABLES.
- ALL WORK MENTIONED SHALL BE DONE UNDER T&E CABINET, MODEL 334 EXCLUSIVE OF THE CONCRETE FOUNDATION.



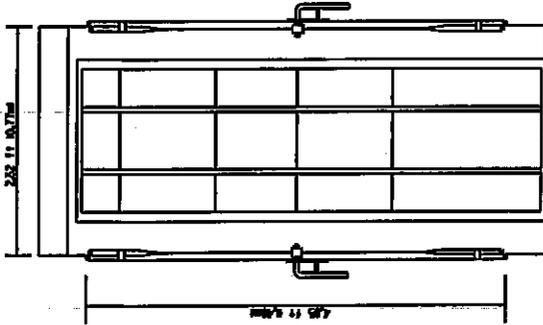
**BOTTOM VIEW  
MODEL 334**



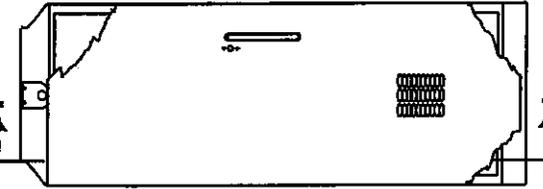
**CABINET DETAIL  
CONCRETE BASE MOUNTED  
MODEL 334**



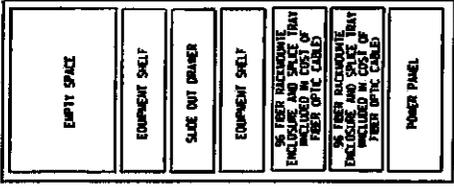
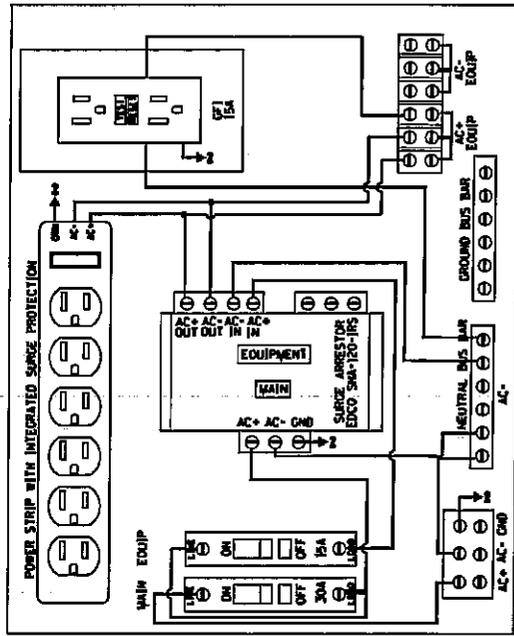
**FRONT VIEW  
(DOOR REMOVED)  
MODEL 334**



**SECTION A-A  
FOUNDATION MOUNTED CABINET  
MODEL 334**



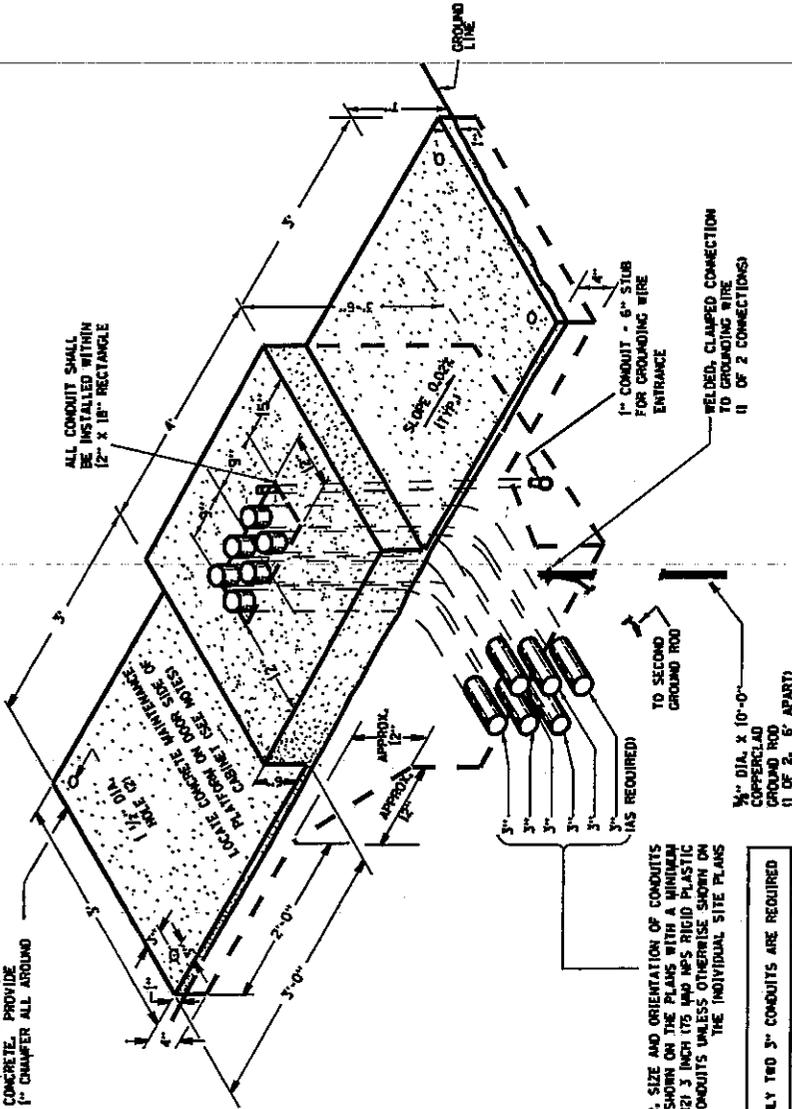
**FRONT VIEW  
(DOOR CLOSED)  
MODEL 334**



**CONTROL CABINET  
LAYOUT (TYPICAL)  
MODEL 334**

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TYPE 334 CABINET DETAIL		COUNTY TAZEWELL		TOTAL SHEET SHEETS 67		CONTRACT NO. 68A18	
SCALE: NONE		IL 29 FIBER SHEET 1 OF 36		SECTION D4 TRAFFIC SIGNALS 2011		ROUTES VARIOUS		TOTAL SHEET SHEETS 67	
PLOT SCALE * SCALES * PLOT DATE * QUATER		USER NAME * USER8		TO STA. -----		FROM STA. -----		CONTRACT NO. 68A18	

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



NUMBER, SIZE AND ORIENTATION OF CONDUITS AS SHOWN ON THE PLANS WITH A MINIMUM OF 12 1/2 INCH (125 AND NPS RIGID PLASTIC CONDUITS UNLESS OTHERWISE SHOWN ON THE INDIVIDUAL SITE PLANS

ONLY TWO 3" CONDUITS ARE REQUIRED

**TYPICAL DETAIL**  
CONCRETE BASE, CONTROLLER CABINET

**GENERAL NOTES**

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- INSTALL FOUR - 3/4 INCH DIAMETER X 12 INCH MINIMUM LENGTH APPROVED J-BOLTS TO ANCHOR THE CABINET BASES. THE ANCHOR BOLTS SHALL BE GALVANIZED STEEL AND LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.
- WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
- CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 3 INCH.
- DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL. PRIOR TO CABINET INSTALLATION, LEVELING OF TOP SURFACES AFTER CONCRETE BASE HAS CURED SHALL ONLY BE ACCOMPLISHED BY GRINDING.
- MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED. MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.
- ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
- CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- PLUS ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS Poured. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- ALL METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE BUSHINGS IF WIRE IS INSTALLED AND ALL NON METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE END BELLS IF WIRE IS INSTALLED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE FOUNDATION, TYPE 1 (MODEL 334 CABINET) DETAIL		ROUTE	SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
	SCALE: NONE	IL 29 FIBER SHEET 1 OF 36	VARIOUS	D4 TRAFFIC SIGNALS 20(1)	TAZEWELL	67	67
						CONTRACT NO. 68A18	

## ILLINOIS DEPARTMENT OF LABOR

### PREVAILING WAGES FOR TAZEWELL COUNTY EFFECTIVE APRIL 2011

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.

# Tazewell County Prevailing Wage for April 2011

Trade Name Trng	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac
ASBESTOS ABT-GEN 0.850	NW	BLD		25.290	26.790	1.5	1.5	2.0	7.050	11.62	0.000
ASBESTOS ABT-GEN 0.850	NW	HWY		27.080	28.330	1.5	1.5	2.0	7.050	12.17	0.000
ASBESTOS ABT-GEN 0.800	SE	BLD		24.950	25.700	1.5	1.5	2.0	6.550	10.74	0.000
ASBESTOS ABT-MEC 0.620		BLD		31.010	0.000	1.5	1.5	2.0	10.82	10.66	0.000
BOILERMAKER 0.350		BLD		34.170	37.170	2.0	2.0	2.0	6.820	8.550	0.000
BRICK MASON 0.500		BLD		30.630	32.130	1.5	1.5	2.0	6.900	8.580	0.000
CARPENTER 0.320		BLD		28.890	31.140	1.5	1.5	2.0	7.250	11.15	0.000
CARPENTER 0.320		HWY		29.830	32.080	1.5	1.5	2.0	7.250	11.58	0.000
CEMENT MASON 0.500		BLD		26.300	28.050	1.5	1.5	2.0	6.590	12.80	0.000
CEMENT MASON 0.500		HWY		27.500	28.900	1.5	1.5	2.0	6.590	13.23	0.000
CERAMIC TILE FNSHER 0.490		BLD		28.320	0.000	1.5	1.5	2.0	6.900	8.580	0.000
ELECTRIC PWR EQMT OP 0.000	ALL			34.080	0.000	1.5	1.5	2.0	4.750	9.540	0.000
ELECTRIC PWR GRNDMAN 0.000	ALL			23.380	0.000	1.5	1.5	2.0	4.750	6.550	0.000
ELECTRIC PWR LINEMAN 0.000	ALL			37.860	40.300	1.5	1.5	2.0	4.750	10.61	0.000
ELECTRIC PWR TRK DRV 0.000	ALL			24.530	0.000	1.5	1.5	2.0	4.750	6.870	0.000
ELECTRICIAN 0.250		BLD		33.790	36.290	1.5	1.5	2.0	5.250	9.550	0.000
ELECTRONIC SYS TECH 0.250		BLD		27.060	28.810	1.5	1.5	2.0	5.250	8.810	0.000
ELEVATOR CONSTRUCTOR 0.000		BLD		39.100	43.990	2.0	2.0	2.0	10.53	10.71	2.350
GLAZIER 1.000		BLD		28.520	30.520	1.5	1.5	2.0	8.100	7.700	0.000
HT/FROST INSULATOR 0.620		BLD		41.350	43.850	1.5	1.5	2.0	10.82	11.86	0.000
IRON WORKER 0.420		BLD		29.390	31.140	1.5	1.5	2.0	8.140	10.51	0.000
IRON WORKER 0.370		HWY		32.340	34.340	1.5	1.5	2.0	8.140	10.51	0.000
LABORER 0.800	NW	BLD		24.290	25.790	1.5	1.5	2.0	7.050	11.62	0.000
LABORER 0.800	NW	HWY		26.330	27.580	1.5	1.5	2.0	7.050	12.17	0.000
LABORER 0.800	SE	BLD		24.950	25.700	1.5	1.5	2.0	6.550	10.74	0.000
LABORER 0.800	SE	HWY		27.390	28.390	1.5	1.5	2.0	6.550	10.74	0.000
LATHER 0.320		BLD		28.890	31.140	1.5	1.5	2.0	7.250	11.15	0.000
MACHINERY MOVER		HWY		32.340	34.340	1.5	1.5	2.0	8.140	10.51	0.000



0.250											
TRUCK DRIVER	ALL	5	31.160	0.000	1.5	1.5	2.0	9.650	4.347	0.000	
0.250											
TRUCK DRIVER	O&C	1	23.580	0.000	1.5	1.5	2.0	9.050	4.347	0.000	
0.250											
TRUCK DRIVER	O&C	2	23.920	0.000	1.5	1.5	2.0	9.050	4.347	0.000	
0.250											
TRUCK DRIVER	O&C	3	24.090	0.000	1.5	1.5	2.0	9.050	4.347	0.000	
0.250											
TRUCK DRIVER	O&C	4	24.300	0.000	1.5	1.5	2.0	9.050	4.347	0.000	
0.250											
TRUCK DRIVER	O&C	5	24.930	0.000	1.5	1.5	2.0	9.050	4.347	0.000	
0.250											
TUCKPOINTER	BLD		30.630	32.130	1.5	1.5	2.0	6.900	8.580	0.000	
0.500											

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

### TAZEWELL COUNTY

ASBESTOS - See Laborers

CARPENTERS (NORTH) - That part of the county North including the towns of Marquette Hts., Morton, CreveCoeur and Deer Creek.

LABORERS (NORTHWEST) - The area bounded by the old city limits of East Peoria.

MILLWRIGHTS - See Carpenters

PILEDRIVERS - See Carpenters

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. 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. 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, MARBLE FINISHER, TERRAZZO FINISHER

Assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments required to complete the proper installation of the work covered by said crafts. 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, vactor 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 - BUILDING

Class 1. Cranes; Overhead Cranes; Gradall; All Cherry Pickers; Mechanics; Central Concrete Mixing Plant Operator; Road Pavers (27E - Dual Drum - Tri Batchers); Blacktop Plant Operators and Plant Engineers; 3 Drum Hoists; Derricks; Hydro Cranes; Shovels; Skimmer Scoops; Koehring Scooper; Drag Lines; Backhoe; Derrick Boats; Pile Drivers and Skid Rigs; Clamshells; Locomotive Cranes; Dredge (all types) Motor Patrol; Power Blades - Dumore - Elevating and similar types; Tower Cranes (Crawler-Mobile) and Stationary; Crane-type Backfiller; Drott Yumbo and similar types considered as Cranes; Caisson Rigs; Dozer; Tournadozer; Work Boats; Ross Carrier; Helicopter; Tournapulls - all and similar types; Scoops (all sizes); Pushcats; Endloaders (all types); Asphalt Surfacing Machine; Slip Form Paver; Rock Crusher; Heavy Equipment Greaser; CMI, CMI Belt Placer, Auto Grade & 3 Track and similar types; Side Booms; Multiple Unit Earth Movers; Creter Crane; Trench Machine; Pump-crete-Belt Crete-Squeeze Cretes-Screw-type Pumps and Gypsum; Bulker & Pump - Operator will clean; Formless Finishing Machine; Flaherty Spreader or similar types; Screed Man on Laydown Machine; Wheel Tractors (industrial or Farm-type w/Dozer-Hoe-Endloader or other attachments); F.W.D. & Similar Types; Vermeer Concrete Saw.

Class 2. Dinkeys; Power Launches; PH One-pass Soil Cement Machine (and similar types); Pugmill with Pump; Backfillers; Euclid Loader; Forklifts; Jeeps w/Ditching Machine or other attachments; Tuneluger; Automatic Cement and Gravel Batching Plants; Mobile Drills (Soil Testing) and similar types; Gurries and Similar Types; (1) and (2) Drum Hoists (Buck Hoist and Similar Types); Chicago Boom; Boring Machine & Pipe Jacking Machine; Hydro Boom; Dewatering System; Straw Blower; Hydro Seeder; Assistant Heavy Equipment Greaser on Spread; Tractors (Track type) without Power Unit pulling Rollers; Rollers on Asphalt -- Brick Macadem; Concrete Breakers; Concrete Spreaders; Mule Pulling Rollers; Center Stripper; Cement Finishing Machines & CMI Texture & Reel Curing Machines; Cement Finishing Machine; Barber Green or similar loaders; Vibro Tamper (All similar types) Self-propelled; Winch or Boom Truck; Mechanical Bull Floats; Mixers over 3 Bag to 27E; Tractor pulling Power Blade or Elevating Grader; Porter Rex Rail; Clary Screed; Truck Type Hoptoe Oilers; Fireman; Spray Machine on Paving; Curb Machines; Truck Crane Oilers; Oil Distributor; Truck-Mounted Saws.

Class 3. Air Compressor; Power Subgrader; Straight Tractor; Trac Air without attachments; Herman Nelson Heater, Dravo, Warner, Silent Glo, and similar types; Roller: Five (5) Ton and under on Earth or Gravel; Form Grader; Crawler Crane & Skid Rig Oilers; Freight

Elevators - permanently installed; Pump; Light Plant; Generator; Conveyor (1) or (2) - Operator will clean; Welding Machine; Mixer (3) Bag and Under (Standard Capacity with skip); Bulk Cement Plant; Oiler on Central Concrete Mixing Plant.

#### OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION

CLASS 1. Cranes; Hydro Cranes; Shovels; Crane Type Backfiller; Tower, Mobile, Crawler, & Stationary Cranes; Derricks; Hoists (3 Drum); Draglines; Drott Yumbo & Similar Types considered as Cranes; 360 Degree Swing Excavator (Shears, Grapples, Movacs, etc.); Back Hoe; Derrick Boats; Pile Driver and Skid Rigs; Clam Shell; Locomotive - Cranes; Road Pavers - Single Drum - Dual Drum - Tri Batcher; Motor Patrols & Power Blades - Dumore - Elevating & Similar Types; Mechanics; Central Concrete Mixing Plant Operator; Asphalt Batch Plant Operators and Plant Engineers; Gradall; Caisson Rigs; Skimmer Scoop - Koering Scooper; Dredges (all types); Hoptoe; All Cherry Pickers; Work Boat; Ross Carrier; Helicopter; Dozer; Tournadozer; Tournapulls - all and similar types; Operation of Concrete and all Recycle Machines; Multiple Unit Earth Movers; Scoops (all sizes); Pushcats; Endloaders (all types); Asphalt Surfacing Machine; Slip Form Paver; Rock Crusher; Operation of Material Crusher, Screening Plants, and Tunnel Boring Machine; Heavy Equipment Greaser (top greaser on spread); CMI, Auto Grade, CMI Belt Placer & 3 Track and Similar Types; Side Booms; Asphalt Heater & Planer Combination (used to plane streets); Wheel Tractors (with Dozer, Hoe or Endloader Attachments); CAT Earthwork Compactors and Similar Types; Blaw Knox Spreader and Similar Types; Trench Machines; Pump Crete - Belt Crete - Squeeze Crete - Screw Type Pumps and Gypsum (operator will clean); Creter Crane; Operation of Concrete Pump Truck; Formless Finishing Machines; Flaherty Spreader or Similar Types; Screed Man on Laydown Machine; Vermeer Concrete Saw; Operation of Laser Screed; Span Saw; Dredge Leverman; Dredge Engineer; Lull or Similar Type; Hydro-Boom Truck; Operation of Guard Rail Machine; and Starting Engineer on Pipeline or Construction (11 or more pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc, and Ground Heater (Trailer Mounted).

CLASS 2. Bulker & Pump; Power Launches; Boring Machine & Pipe Jacking Machine; Dinkeys; Operation of Carts, Powered Haul Unit for a Boring Machine; P & H One Pass Soil Cement Machines and Similar Types; Wheel Tractors (Industry or Farm Type - Other); Back Fillers; Euclid Loader; Fork Lifts; Jeep w/Ditching Machine or Other Attachments; Tunneluger; Automatic Cement & Gravel Batching Plants; Mobile Drills - Soil Testing and Similar Types; Pugmill with Pump; All (1) and (2) Drum Hoists; Dewatering System; Straw Blower; Hydro-Seeder; Bump Grinders (self-propelled); Assistant Heavy Equipment Greaser; Apsco Spreader; Tractors (Track-Type) without Power Units Pulling Rollers; Rollers on Asphalt - Brick or Macadam; Concrete Breakers; Concrete Spreaders; Cement Strippers; Cement Finishing Machines & CMI Texture & Reel Curing Machines; Vibro-Tampers (All Similar Types Self-Propelled); Mechanical Bull Floats; Self-Propelled Concrete Saws; Truck Mounted Power Saws; Operation of Curb Cutters; Mixers - Over Three (3) Bags; Winch and Boom Trucks; Tractor Pulling Power Blade or Elevating Grader; Porter Rex Rail; Clary Screed; Mule Pulling Rollers; Pugmill without Pump; Barber Greene or Similar Loaders; Track Type Tractor w/Power Unit attached (minimum); Fireman; Spray Machine on Paving; Curb Machines; Paved Ditch Machine; Power Broom; Self-Propelled

Sweepers; Self-Propelled Conveyors; Power Subgrader; Oil Distributor; Straight Tractor; Truck Crane Oiler; Truck Type Oilers; Directional Boring Machine; Horizontal Directional Drill; Articulating End Dump Vehicles; Starting Engineer on Pipeline or Construction (6 -10 pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc., and Ground Heater (Trailer Mounted).

CLASS 3. Straight Framed Truck Mounted Vac Unit (separately powered); Trac Air Machine (without attachments); Rollers - Five Ton and Under on Earth and Gravel; Form Graders; Bulk Cement Plant; Oilers; and Starting Engineer on Pipeline or Construction (3 - 5 pieces) including: Air Compressor (Trailer Mounted), All Forced Air Heaters (regardless of Size), Water Pumps (Greater than 4-1/2" or Total Discharge Over 4-1/2"), Light Plants, Generators (Trailer Mounted - Excluding Decontamination Trailer), Welding Machines (Any Size or Mode of Power), Conveyor, Mixer (any size), Stud Welder, Power Pac, etc., and Ground Heater (Trailer Mounted).

#### 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 217-782-1710 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.