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

REQUESTS FOR AUTHORIZATION TO BID

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

WHO CAN BID?

Bids will be accepted from only those companies that request and receive written Authorization to Bid.

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

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

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

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

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

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

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

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

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

42

1(2) (1(1) (1) (1)
Proposal Submitted By
Name
Address
City

Letting September 23, 2005

NOTICE TO PROSPECTIVE BIDDERS

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

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



Springfield, Illinois 62764

Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 District 1 Construction Funds Route FAI 94

PLEASE MARK THE APPROPRIATE BOX BELOW:	
☐ A <u>Bid Bond</u> is included.	
A Cashier's Check or a Certified Check is included.	

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

INSTRUCTIONS

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

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

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

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

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

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

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.

Call

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Ougstions Boggrding

Questions Regarding	Call
Prequalification and/or Authorization to Bid Preparation and submittal of bids Mailing of CD-ROMS	217/782-3413 217/782-7806 217/782-7806



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1.	Proposal of
	for the improvement identified and advertised for bids in the Invitation for Bids as:
	Contract No. 62934

COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds

Construction of 4 landscaped medians including irrigation and planting along I-94 (Dan Ryan Expressway) from the I-57 interchange to 71st Street in Chicago.

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.

BD 353A (Rev. 11/2001)

- 3. ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER. The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, 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.

NUMBER 5 BELOW DOES NOT APPLY TO SMALL BUSINESS SET-ASIDES

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>A</u>	mount o	of Bid	Proposal <u>Guaranty</u>	<u>Am</u>	ount o	of Bid	Proposal <u>Guaranty</u>
Up to		\$5,000	\$150	\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to	\$10,000	\$300	\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to	\$50,000	\$1,000	\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to	\$100,000	\$3,000	\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to	\$150,000	\$5,000	\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to	\$250,000	\$7,500	\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to	\$500,000	\$12,500	\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to	\$1,000,000	\$25,000	\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to	\$1,500,000	\$50,000	\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to	\$2,000,000	\$75,000	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.

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

BD 354 (Rev. 11/2001)

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		Combination Bid			
No.	Sections Included in Combination	Dollars	Cents		

- 7. SCHEDULE OF PRICES. The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
- 8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 62934

State Job # - C-91-170-05
PPS NBR - 1-77483-0000
County Name - COOK- LAKE-

Code - 31 - 97 - District - 1 - 1 -

Project Number	Route
	FAI 94

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2002010							1000111100
A2002010	T-AESCULUS FLAVA 3	EACH	7.000				
A2008750	T-ULMUS X PAT PE 3 TF	EACH	5.000				
C20099G5	S-SPIREA X BUM MC 5G	EACH	419.000				
C20132G5	S-WEIGELA FL MW 5G	EACH	258.000				
K0030400	PERENNIAL PLANT DAYLI	UNIT	4.000				
K0030450	PERENNIAL PL DAF BULB	UNIT	319.000				
K1003680	MULCH	SQ YD	780.000				
XX002258	STRUCTURE ADJ	EACH	5.000				
XX104800	COMB CC&G TBV.12	FOOT	20.000				
X0301407	PERENNIAL PLT-GAL POT	UNIT	68.000				
X0322256	TEMP INFO SIGNING	SQ FT	100.000				
X0324491	CONC MED WALL 18 WIDE	FOOT	602.000				
X0324493	CONC MEDIAN SURF SP	SQ FT	970.000				
X0324525	PLANTING MIX F & P 36	SQ YD	779.000				
X0324872	CIP T/D WSS RAMP DISB	SQ FT	40.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 62934

State Job # - C-91-170-05
PPS NBR - 1-77483-0000
County Name - COOK- LAKE-

Code - 31 - 97 - District - 1 - 1 -

Project Number	Route
	FAI 94

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0325027	MED & PVT REM (SPL)	SQ YD	994.000				
X0325102	INSPECTION PIPE 4	EACH	4.000				
X0325103	WATER METR IN VAULT 2	EACH	4.000				
X0325104	WATER TAP 2	EACH	4.000				
X0325105	IRRIGATION SYSTEM	SQ YD	779.000				
X0325106	IRR SYS FALL SHUTDOWN	EACH	4.000				
X0325107	IRR SYS SPRING STRTUP	EACH	4.000				
X0325108	BACKFLOW PREVNT RPZ 2	EACH	4.000				
X0325109	POROUS GRANULAR MATL	CU YD	205.000				
X0656300	PAVEMENT REM & REPL	SQ YD	30.000				
X4066426	BC SC SUPER "D" N70	TON	10.000				
X7015000		CAL MO	12.000				
Z0027800	GEOTECH FABRIC	SQ YD	668.000				
20101000	TEMPORARY FENCE	FOOT	825.000				
31101400	SUB GRAN MAT B 6	SQ YD	230.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 62934

State Job # - C-91-170-05
PPS NBR - 1-77483-0000
County Name - COOK- LAKE-

OK- LAKE-

Code - 31 - 97 - District - 1 - 1 -

Project Number	Route
	FAI 94

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
35300510	PCC BSE CSE 10 1/2	SQ YD	91.000				
40600200	BIT MATLS PR CT	TON	1.000				
42001300	PROTECTIVE COAT	SQ YD	814.000				
42400200	PC CONC SIDEWALK 5	SQ FT	120.000				
42400410	PC CONC SIDEWALK 8	SQ FT	211.000				
44000500	COMB CURB GUTTER REM	FOOT	20.000				
44000600	SIDEWALK REM	SQ FT	331.000				
56104600	WATER VALVES 2	EACH	4.000				
56200900	WATER SERV LINE 2 1/2	FOOT	125.000				
60618390	CONC MED SURF CORR	SQ FT	971.000				
67100100	MOBILIZATION	L SUM	1.000				
70101800	TRAF CONT & PROT SPL	L SUM	1.000				
70103816	TR CONT SURVEILLANCE	CAL MO	12.000				
70300520	PAVT MARK TAPE T3 4	FOOT	1,700.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	565.000				

Page 4 8/19/2005

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 62934

State Job # - C-91-170-05 PPS NBR - 1-77483-0000

County Name - COOK- LAKE-

Code - 31 - 97 - District - 1 - 1 -

Project Number	Route
	FAI 94

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78000100	THPL PVT MK LTR & SYM	SQ FT	75.000				
 78000200	THPL PVT MK LINE 4	FOOT	65.000				
 78000400	THPL PVT MK LINE 6	FOOT	25.000				
 78003110	PREF PL PM TB LINE 4	FOOT	45.000				
78300100	PAVT MARKING REMOVAL	SQ FT	110.000				

CON	ITD A	CT	NII.	IR	IBER
CUN		VC I	IΝ	J۱۷	IDER

62934

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.

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

I. GENERAL

- **A.** Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.
- **B.** In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.
- **C.** In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

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

B. Felons

1. The Illinois Procurement Code provides:

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

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

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

- (a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.
- (b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.
- (c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.
- (d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.
- (e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

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

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

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

- (a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.
- 2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

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

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

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

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

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

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

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

H. Confidentiality

1. The Illinois Procurement Code provides:

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

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

I. Insider Information

1. The Illinois Procurement Act provides:

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

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

III. CERTIFICATIONS

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

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

- (a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:
 - (1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or
 - (2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.
- (b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:
 - (1) the business has been finally adjudicated not guilty; or
 - (2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.
- (c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.
- (d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.
- 2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

- 1. Section 3 of the Educational Loan Default Act provides:
- § 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.
- 2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

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

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

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

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

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

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

E. International Anti-Boycott

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

F. Drug Free Workplace

- 1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.
- 2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:
- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- (b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.
- (c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.
- (d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.
- (e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.
- (f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.
- (g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

G. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

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

I. ADDENDA

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

J. Section 42 of the Environmental Protection Act

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

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

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

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

Illinois Department of Transportation Qualification and Equipment Inventory Certification Form

The undersigned authorized representative of Bidder certifies that the attached qualification information provided to the Department is true and correct, and that it is submitted with the understanding that the Department will use and rely upon the accuracy and currency of the information in the evaluation of Bidder's responsibility for award of this public contract.

Bidding Organization				
Cignoture	Data			
Signature	Date			
Printed Name	Title			
Address				
City/State	Zip Code			
Telephone	Facsimile			
E-mail				

Bidders that are currently prequalified by the Department are cautioned that they must complete these forms.

PART I Business and Directory Information

(a)	Name of business (official name and assumed names):
(b)	Business headquarters:
	Address: Facsimile:
(c)	Billing address:
(d)	Type of organization (Sole Proprietor, Corporation, Partnership, etc. – should be the same as on the Taxpayer ID form Part V):
(e)	State of incorporation, State of formation or State of organization:
(f)	If a division or subsidiary of another organization provide the name and address of the parent:
(g)	Businesses are affiliates when either one directly or indirectly controls or has the power to control the other, or, when a third party or parties controls or has the power to control both. In determining whether concerns are independently owned and operated and whether affiliation exists, consideration will be given to all appropriate factors, including the use of common facilities, common ownership and management and contractual arrangements. Identify all affiliated businesses and companies:
(h)	Description of business:
(i)	Length of time in business:
(j)	Number of full-time employees (average from most recent Fiscal Year):
(k)	Total annual sales and receipts for the most recently completed Fiscal Year including any parent and all related and affiliated organizations (tax returns for the relevant year may be required for verification):
(I)	Name and title of all officers/managers:
(m)	Identify and specify the location(s) and telephone numbers of the major offices and other facilities that would relate to performance under the terms of the contract if awarded:
(n)	Identify accounting firm:

(0)	The successful business will be required to register to do business in Illinois. If already registered, provide the date of the registration to do business in Illinois and the name of the registered agent in the State:
(p)	Business web site:
(q)	Is this business currently prequalified by the Department of Transportation? If yes, list all work ratings issued:
(r)	Has this business performed contracts awarded by the Department as prime contractor? If yes, list the three most recent:
(s)	Has this business participated as a subcontractor under contracts awarded by the Department? If yes, list the three most recent identifying the prime contractor:

PART II References

Provide references from established firms or government agencies, (four preferred; two of each type preferred) other than the Department, that can attest to your experience and ability to perform the work of the contract for which this bid is submitted. Bidders that have current work ratings issued by the Prequalification Section need only list references for this contract if more than 50% of the work as determined by the advertised quantities is not covered by an issued work rating.

(1)	Government Agency (Name):
	Contact Person Name:
	Address:
	Phone: E-mail Address:
	Types of services provided and dates provided:
(2)	Governmental Agency (Name):
	Contact Person Name:
	Address:
	Phone: E-mail Address:
	Types of services provided and dates provided:
(3)	Private Firm (Name):
	Contact Person Name:
	Address:
	Phone: E-mail Address:
	Types of services provided and dates provided:
(4)	Private Firm (Name):
	Contact Person Name:
	Address:
	Phone: E-mail Address:
	Types of services provided and dates provided:

PART III Equipment Inventory

List all the equipment that will be used to performing the services required in this contract.

CAPACITY

COMPLETE DESCRIPTION

ID#

YEAR

MAKE

MODEL

			į.	
ntory? not include t owned, ho	any proposed	subcontractoripment be ob	or equipment of	on this form)
ľ	ntory? not include t owned, ho	ntory? not include any proposed t owned, how will the equi	ntory? not include any proposed subcontractor t owned, how will the equipment be ob	e above equipment owned by the company and presentory? not include any proposed subcontractor equipment of towned, how will the equipment be obtained within the ward?

PART IV Department of Human Rights (DHR) Public Contract Number

If the bidder has employed fifteen (15) or more full-time employees at any time during the 365-day period immediately preceding the publication of this invitation for bids, the bidder must have a current Public Contract Number or have proof of having submitted a completed application for one <u>prior</u> to the letting date. If the Department cannot confirm compliance, it will not be able to consider the bid or offer. Please complete the appropriate sections below.

Name of Company (and D/B/A):
DHR Public Contracts Number:
(Check if applicable) The number is not required because the company has employed 14 or less full-time employees during the 365-day period immediately preceding the publication of this invitation.
IF NUMBER HAS NOT YET BEEN ISSUED:
Date completed application was submitted to DHR:
Date of Expiration:

PART V Taxpayer Identification Number

I certify that:

- 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), **and**
- 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- 3. I am a U.S. person (including a U.S. resident alien).

lame (Printed):						
Taxpayer Identification Number:						
Social Security Number or Employer Identification Number						
Legal Status (check one):						
☐ Individual	☐ Governmental					
☐ Sole Proprietorship	☐ Estate or Trust					
☐ Partnership/Legal Corporation	Other					
☐ Tax-exempt						

PART VI Information Regarding Terminations, Litigation, Suspension and Debarment

traded of to servi and the of prop	the last (5) years, describe any damages or penalties or anything of value of given up by the Bidder under any of its existing or past contracts as it relates performed that are similar to the services contemplated by this invitation contemplated Contract. If so, indicate the reason for the penalty or exchangerty or services and the estimated amount of the cost of that incident to the cost of
or State	the last five (5) years, describe any order, judgment or decree of any Fede authority barring, suspending or otherwise limiting the right of the Bidder in any business, practice or activity.
administ of the E or any	the last five (5) years, list and summarize pending or threatened litigation trative or regulatory proceedings, or similar matters that could affect the abiguider to perform the required services. The Bidder must also state whethe owners, officers, or primary partners have ever been convicted of a feloito disclose these matters may result in rejection of the bid or in termination
any sul matter Bidder	osequent contract. This is a continuing disclosure requirement. Any su commencing after submission of a bid, and with respect to the success after the execution of a contract, must be disclosed in a timely manner in statement to the Department.

TO BE RETURNED WITH BID

IV. DISCLOSURES

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

B. Financial Interests and Conflicts of Interest

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

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

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

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

C. <u>Disclosure Form Instructions</u>

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

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

CERTIFICATION STATEMENT

ac	nave determined that the Form A disclosure infor ocurate, and all forms are hereby incorporated by orms or amendments to previously submitted forn	reference in this bid. Ar	ny necessary additional					
•	(Bidding C	Company)						
	Name of Authorized Representative (type or print)	Title of Authorized Repre	sentative (type or print)					
	Signature of Authorized Representative Date							

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

D.

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

1.	Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES NO
2.	Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$90,420.00? YES NO
3.	Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES NO
4.	Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? YES NO
	(Note: Only one set of forms needs to be completed <u>per person per bid</u> even if a specific individual would require a yes answer to more than one question.)
bidding e authorize	answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the 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 ed to execute contracts for your organization. Photocopied or stamped signatures are not acceptable . The person signing can be, but have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.
	swer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on page 2 of Form A must be signed and dated by that is authorized to execute contracts for your company.
bidding e	Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. Note: Signing the NOT ABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, signed and dated or the bidder considered nonresponsive and the bid will not be accepted.
ongoing	ler shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:
agency p attached and are r	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 pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development ust be included. Bidders who submit Affidavits of Availability are suggested to use Option II.
"See Affi	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 davit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois lending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.
Bidders	Submitting More Than One Bid
	submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms nce.
	ne bid submitted for letting item contains the Form A disclosures or Certification Statement and the Form B sclosures. The following letting items incorporate the said forms by reference:

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
•		_
Telephone Number	Email Address	Fax Number (if available)
Disclosure of the information contained in (30 ILCS 500). Vendors desiring to enter i and potential conflict of interest information the publicly available contract file. This Fended contracts. A publicly traded contains faction of the requirements set fort	nto a contract with the State of Illinon as specified in this Disclosure For form A must be completed for bids mpany may submit a 10K discl	ois must disclose the financial information m. This information shall become part of in excess of \$10,000, and for all open- osure (or equivalent if applicable) in
DISCLO	OSURE OF FINANCIAL INFORM	ATION
terms of ownership or distributive income \$90,420.00 (60% of the Governor's salary separate Disclosure Form A for each in FOR INDIVIDUAL (type or print inform	y as of 7/1/01). (Make copies of thindividual meeting these requirem	s form as necessary and attach a
NAME:		
ADDRESS		
Type of ownership/distributable inc	come share:	
stock sole proprietorsh % or \$ value of ownership/distributable	·	other: (explain on separate sheet):
2. Disclosure of Potential Conflicts of potential conflict of interest relationships a and describe.		
(a) State employment, currently or in	the previous 3 years, including cor	tractual employment of services. YesNo
If your answer is yes, please answ	wer each of the following questions.	
Are you currently an offic Highway Authority?	er or employee of either the Capitol	Development Board or the Illinois Toll YesNo
2. Are you currently appoin	ited to or employed by any agency	of the State of Illinois? If you are

agency for which you are employed and your annual salary.

currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State

	3.	If you are currently appointed to or employed by any agency of the S salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/′ (i) more than 7 1/2% of the total distributable income of your firm corporation, or (ii) an amount in excess of the salary of the Governor	1/01) are you entitled to receive , partnership, association or
	4.	If you are currently appointed to or employed by any agency of the S salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/2 or minor children entitled to receive (i) more than 15 % in the aggrincome of your firm, partnership, association or corporation, or (ii) a the salary of the Governor?	1/01) are you and your spouse regate of the total distributable
(b)		oyment of spouse, father, mother, son, or daughter, including contractious 2 years.	ctual employment services
	If your answ	wer is yes, please answer each of the following questions.	YesNo
	1.	Is your spouse or any minor children currently an officer or employed Board or the Illinois Toll Highway Authority?	e of the Capitol Development YesNo
	2.	Is your spouse or any minor children currently appointed to or employ of Illinois? If your spouse or minor children is/are currently appagency of the State of Illinois, and his/her annual salary exceed Governor's salary as of 7/1/01) provide the name of your spouse a of the State agency for which he/she is employed and his/her annual	pointed to or employed by any ds \$90,420.00, (60 % of the ind/or minor children, the name
	3.	If your spouse or any minor children is/are currently appointed to or State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% as of 7/1/01) are you entitled to receive (i) more then 71/2% of the to firm, partnership, association or corporation, or (ii) an amount in Governor?	% of the salary of the Governor otal distributable income of your
	4.	If your spouse or any minor children are currently appointed to or e State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% 7/1/01) are you and your spouse or minor children entitled to rec aggregate of the total distributable income of your firm, partnership (ii) an amount in excess of 2 times the salary of the Governor?	6 of the Governor's salary as of eive (i) more than 15 % in the , association or corporation, or
			YesNo
	unit of	ve status; the holding of elective office of the State of Illinois, the gove local government authorized by the Constitution of the State of Illinoi currently or in the previous 3 years.	
		onship to anyone holding elective office currently or in the previous 2 r daughter.	years; spouse, father, mother, YesNo
	Americ of the	ntive office; the holding of any appointive government office of the Staca, or any unit of local government authorized by the Constitution of t State of Illinois, which office entitles the holder to compensation in excharge of that office currently or in the previous 3 years.	he State of Illinois or the statutes
		nship to anyone holding appointive office currently or in the previous daughter.	2 years; spouse, father, mother, YesNo
	(g) Emplo	yment, currently or in the previous 3 years, as or by any registered lo	bbyist of the State government. YesNo

(h) Relationship to a son, or daughter.	anyone who is or was a registered lobbyist in the previous 2 years; s Yes	pouse, father, mother, _No
committee regist	ployment, currently or in the previous 3 years, by any registered ered with the Secretary of State or any county clerk of the State of largistered with either the Secretary of State or the Federal Board of Yes	Illinois, or any political
last 2 years by ar county clerk of the	nyone; spouse, father, mother, son, or daughter; who was a compen by registered election or re-election committee registered with the Se e State of Illinois, or any political action committee registered with e eral Board of Elections. Yes	ecretary of State or any
	APPLICABLE STATEMENT	
This Disclosure Fo	rm A is submitted on behalf of the INDIVIDUAL named on previ	ous page.
Completed by:		
•	Name of Authorized Representative (type or print)	_
Completed by:		
	Title of Authorized Representative (type or print)	_
Completed by:		
	Signature of Individual or Authorized Representative	Date
	NOT APPLICABLE STATEMENT	
	that no individuals associated with this organization meet the c tion of this Form A.	riteria that would
This Disclosure Fo	rm A is submitted on behalf of the CONTRACTOR listed on the	previous page.
	Name of Authorized Representative (type or print)	_
	Title of Authorized Representative (type or print)	_
	Signature of Authorized Representative	Date

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Procurement Related Information Disclosure

		Disclosure
Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)
LCS 500). This informat		Section 50-35 of the Illinois Procurement Act (contract file. This Form B must be completed
DISCLOSU	IRE OF OTHER CONTRACTS AND PROCUR	REMENT RELATED INFORMATION
pending contracts (inclu of Illinois agency: Ye	ontracts & Procurement Related Information in iding leases), bids, proposals, or other ongoing es No bidder only needs to complete the signature be	procurement relationship with any other State
	 Identify each such relationship by showing St such as bid or project number (attach additiona S: 	
	THE FOLLOWING STATEMENT MU	ST BE SIGNED
	Name of Authorized Representative ((type or print)
	Title of Authorized Representative (t	type or print)
	Signature of Authorized Represo	entative Date

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.



Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds

									Distr	ict 1	Cons	truction	า Fui	nds	•			
PART I. IDENTIFIC	ATION																	
Dept. Human Rights # Duration of Project:																		
Name of Bidder:																		
PART II. WORKFO A. The undersigned which this contract wo projection including a	bidder hark is to be	as analyz e perform ı for mino	ed mir ed, an rity an	d for the d fema TAI	ne locati ale empl BLE A	ons froi oyee ut	m whic ilizatio	h the bi n in all j	idder re	cruits	employe	ees, and he	ereby s	subm	its the foll	owin conf	g workfo	n orce
		TOTA	AL Wo	rkforce	Projec	tion for	Contra	ct						(CURRENT			ES
				MIN	ORITY I	EMPLO	YEES			TR	AINEES	;			TO BE			
JOB CATEGORIES		TAL OYEES	BL	ACK	HISP		*OTI		APPI TIC	REN-	ON T	HE JOB INEES	E		OTAL LOYEES		MINC	ORITY OYEES
	М	F	М	F	М	F	М	F	М	F	М	F		М	F		М	F
OFFICIALS (MANAGERS)																		
SUPERVISORS																		
FOREMEN																		
CLERICAL																		
EQUIPMENT OPERATORS																		
MECHANICS																		
TRUCK DRIVERS																		
IRONWORKERS																		
CARPENTERS																		
CEMENT MASONS																		
ELECTRICIANS																		
PIPEFITTERS, PLUMBERS																		
PAINTERS LABORERS.																		
SEMI-SKILLED																		
LABORERS, UNSKILLED																		
TOTAL																		
		BLE C							_		F	OR DEPA	RTM	ENT	USE ON	JLY		
	OTAL Tra		ojectio	n for C	ontract		+0-]		·				302 0.			
EMPLOYEES IN	_	TAL OYEES	RI A	ACK	HISP	ANIC		THER NOR.										
TRAINING	M	F	M	F	M	F	M	F	1									
APPRENTICES																		

*Other minorities are defined as Asians (A) or Native Americans (N).

ON THE JOB TRAINEES

Please specify race of each employee shown in Other Minorities column.

Note: See instructions on the next page

BC 1256 - Pg 1 (Rev. 3/98) IL 494-0454

Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds

PART II. WORKFORCE PROJECTION - continued

B.		ded in "Tota the unders							tal n	umbe	r of	new h	nires	that v	would	be er	nploye	d in the
	The u	ındersianed	d bidder	proie	cts that	t: (nu	mber)									ne	w hire	s would
	be	undersigned recruited	from	the	area	in v	which	the	CC	ontrac	t p	oroject	is	loca	ated;	and	or (r	number)
						_ new	hires	would	be i	recruit	ted f	rom th	e area	a in w	hich t	he bio	der's p	orincipal
	office	or base of	operatio	n is lo	cated.													
C.		ded in "Tota signed bidd																y by the
	The u	ındersianed	bidder	estim	ates tha	at (nun	nber)										pers	ons will
		indersigned ectly emplo byed by sub			rime co	ntracto	or and	that (num	ber) _						F	persons	s will be
PART	III. AFF	IRMATIVE	ACTIO	N PL	AN													
A.	utiliza in any comm (geard utiliza	indersigned ition project y job categ nencement ed to the tion are co epartment	tion incluory, and of work completi rrected.	uded ut in the control of the contro	inder P .e eventelop arages of Affirm	ART II t that that the sub- f the	I is de the ur omit a contra	termin ndersig writte nct) wh	ed to ned n At neret	be a bidde ffirmat by de	n un er is tive ficiei	iderutil award Action ncies	ization led thi Plan in mir	n of m is cor inclu nority	ninorit ntract, uding and/o	y pers he/sh a spe or fen	sons or ne will, ecific ti nale er	women prior to metable nployee
	subm to be	undersigned itted herein part of the	, and th contract	e goa speci	ls and t fication	timetal s.	ble inc	cluded		er an	Affir	mative	e Actic	n Pla	n if re	equire		deemed
COM	, any									101	Ортк	3110 140						_
Addre	ess																	
						NOTI	CE RE	GARDI	NG S	SIGNA	TUR	E						
		lder's signat o be comple						will cor	nstitu	te the	signi	ing of tl	nis fori	m. Th	e follo	wing s	ignature	block
	Signatu	ire:							Title:						Date:			
Instruc	tions:	All tables m	ust include	subco	ntractor p	ersonne	el in add	dition to	prime	contra	ctor p	personne	el.					
Table /	۸ -	Include both (Table B) th should inclu	at will be	allocate	d to cont	ract wo	rk, and	include	all ap	prentic	es ar	nd on-the	e-job tra	ainees.	. The "	Total E	mployee	s" column
Table I	3 -	Include all e currently em		curren	ly employ	yed that	will be	allocate	d to t	he cont	tract v	work inc	luding a	any app	orentice	es and o	on-the-jo	b trainees
Table (O -	Indicate the	racial brea	akdown	of the to	tal appre	entices	and on-	he-jo	b traine	es sh	nown in	Table A	۸.				

Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds

PROPOSAL SIGNATURE SHEET

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

	Firm Name	
(IF AN INDIVIDUAL)		
	Firm Name	
(IF A CO-PARTNERSHIP)		
,		
		Name and Address of All Members of the Firm:
_		·
-		
	Ву	Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
(IF A CORPORATION)		
(IF A JOINT VENTURE, USE THIS SECTION	Attest	Signature
FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)	Business Address	
,		
	Corporate Name	
	Ву	
		Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
(IF A JOINT VENTURE)		
	Attest	Signature
	Business Address	Signature
If more than two parties are in the joint venture	nlease attach an ac	Iditional signature sheet

THE PROPOSAL BID BOND IS NOT APPLICABLE TO SMALL BUSINESS SET-ASIDES



Electronic Bid Bond ID#

Company/Bidder Name

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 Article 102.09 of the "Standard Specifications for Road and and truly to be paid unto said STATE OF ILLINOIS, for the	Bridge Construction" in effe	ect on the date of invitation for bid	or for the amount specified in ls, whichever is the lesser sum, well
THE CONDITION OF THE FOREGOING OBLIGAT ILLINOIS, acting through the Department of Transportation, indicated above.	ION IS SUCH, That Wherea for the improvement design	is, the PRINCIPAL has submitted atted by the Transportation Bulleti	a bid proposal to the STATE OF in Item Number and Letting Date
NOW, THEREFORE, if the Department shall accept the the bidding and contract documents, submit a DBE Utilization PRINCIPAL shall enter into a contract in accordance with the coverages and providing such bond as specified with good at labor and material furnished in the prosecution thereof; or if, into such contract and to give the specified bond, the PRINC specified in the bid proposal and such larger amount for which proposal, then this obligation shall be null and void, otherwise	on Plan that is accepted and a e terms of the bidding and co and sufficient surety for the fa in the event of the failure of IPAL pays to the Departmen the the Department may contr	approved by the Department; and is contract documents including evidenthful performance of such contract the PRINCIPAL to make the requirement the difference not to exceed the ract with another party to perform	if, after award by the Department, the ence of the required insurance act and for the prompt payment of uired DBE submission or to enter penalty hereof between the amount
IN THE EVENT the Department determines t paragraph, then Surety shall pay the penal sum to the I full payment within such period of time, the Department all its expenses, including attorney's fees, incurred in an	Department within fifteen (may bring an action to co	(15) days of written demand the bllect the amount owed. Surety	erefor. If Surety does not make
In TESTIMONY WHEREOF, the said PRINC officers this day of	PAL and the said SURET	Y have caused this instrument D.,	t to be signed by their respective
PRINCIPAL	SURETY		
(Company Name)	(Company l	Name)	
By:	By:		
(Signature & Title)		(Signature of Attor	ney-in-Fact)
	V . C . 1. C . D		
STATE OF ILLINOIS, COUNTY OF	Notary Certification for Pr	incipal and Surety	
I,	, a Notary Publ	ic in and for said County, do herel	by certify that
and		•	
(Insert names of ind	ividuals signing on behalf of	f PRINCIPAL & SURETY)	
who are each personally known to me to be the same periodic property, appeared before me this dainstrument as their free and voluntary act for the uses a	y in person and acknowle	dged respectively, that they sig	
Given under my hand and notarial seal this	day of	, A.D	
My commission expires			
	Nota	ary Public	
In lieu of completing the above section of the Proposal is ensuring the identified electronic bid bond has been econditions of the bid bond as shown above.			

Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

Name:	
Address:	
Phone No.	

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

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

NOTICE

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

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

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

Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds



Illinois Department of Transportation

NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., September 23, 2005. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. **DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 62934 COOK County Section (1516.1,1717&1818)I-5 Route FAI 94 District 1 Construction Funds

Construction of 4 landscaped medians including irrigation and planting along I-94 (Dan Ryan Expressway) from the I-57 interchange to 71st Street in Chicago.

- 3. INSTRUCTIONS TO BIDDERS. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.
 - (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the Illinois Department of Transportation

Timothy W. Martin, Secretary

BD 351 (Rev. 01/2003)

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS Adopted March 1, 2005

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

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

SUPPLEMENTAL SPECIFICATIONS

Std. S	pec. Sec.	Page No.
101	Definition of Terms	1
105	Control of Work	2
205	Embankment	3
251	Mulch	4
281	Riprap	5
282	Filter Fabric for Use With Riprap	
285	Concrete Revetment Mats	
311	Granular Subbase	
351	Aggregate Base Course	
440	Removal of Existing Pavement and Appurtenances	
442	Pavement Patching	
449	Removal and Replacement of Preformed Elastomeric Compression Joint Seal	
481	Aggregate Shoulders	
501	Removal of Existing Structures	
503	Concrete Structures	
505	Steel Structures	
506	Cleaning and Painting Metal Structures	25
508	Reinforcement Bars	
512	Piling	
540	Box Culverts	
589	Elastic Joint Sealer	30
602	Catch Basin, Manhole, Inlet, Drainage Structures and Valve Vault	0.4
	Construction, Adjustment and Reconstruction	31
603	Adjusting Frames and Grates of Drainage and Utility Structures	
610	Shoulder Inlets with Curb	
665	Woven Wire Fence	
669	Removal and Disposal of Regulated Substances	
671	Mobilization	
702	Work Zone Traffic Control Devices	37
1003	Fine Aggregates	38
1004	Coarse Aggregate	39
1005	Stone, Concrete Blocks and Broken Concrete for Erosion Protection,	
	Sediment Control and Rockfill	42
1006	Metals	
1007	Timber and Preservative Treatment	49
1012	Hydrated Lime	50
1020	Portland Cement Concrete	
1021	Concrete Admixtures	
1022	Concrete Curing Materials	
1024	Nonshrink Grout	
1041	Brick	
1043	Precast Reinforced Concrete Manhole Sections and Adjusting Rings	
1056	Preformed Flexible Gaskets and Mastic Joint Sealer for Sewer and Culvert Pipe	66
1059	Elastic Joint Sealers	
1060	Waterproofing Materials	
1069	Pole and Tower	
1003	Foundation and Breakaway Devices	
1070	Post and Foundation	
1080	Fabric Materials	
1080		
1083	Materials For Planting	
	Elastomeric Bearings	
1094	Overhead Sign Structures	
1103	Poniano Gemeni Concrete Foulomeni	79

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

СНЕ	CK	SHEET# PAG	E NO.
1		State Required Contract Provisions All Federal-aid Construction Contracts (Eff. 2-1-69) (Rev. 10-1-83)	
2		Subletting of Contracts (Federal-aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	
3	X	EEO (Eff. 7-21-78) (Rev. 11-18-80)	
4	X	Specific Equal Employment Opportunity Responsibilities NonFederal-aid Contracts	
		(Eff. 3-20-69) (Rev. 1-1-94)	94
5	X	Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 4-1-93)	100
6		Reserved	
	Х	Asphalt Quantities and Cost Reviews (Eff. 7-1-88)	
8		National Pollutant Discharge Elimination System Permit (Eff. 7-1-94) (Rev. 1-1-03)	107
9		Haul Road Stream Crossings, Other Temporary Stream Crossings and In-Stream Work Pads	
		(Eff. 1-2-92) (Rev. 1-1-98)	. 108
10		Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-02)	. 109
11		Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-02)	. 112
12		Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-97)	
13		Asphaltic Emulsion Slurry Seal and Fibrated Asphaltic Emulsion Slurry Seal (Eff. 8-1-89) (Rev. 2-1-97)	. 117
14		Bituminous Surface Treatments Half-Smart (Eff. 7-1-93) (Rev. 1-1-97)	. 123
15		Quality Control/Quality Assurance of Bituminous Concrete Mixtures (Eff. 1-1-00) (Rev. 3-1-05)	. 129
16		Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 2-1-95)	. 148
17		Bituminous Surface Removal (Cold Milling) (Eff. 11-1-87) (Rev. 10-15-97)	
18		Resurfacing of Milled Surfaces (Eff. 10-1-95)	
19		PCC Partial Depth Bituminous Patching (Eff. 1-1-98)	
20	X	Patching with Bituminous Overlay Removal (Eff. 10-1-95) (Rev. 7-1-99)	
21		Reserved	
22		Protective Shield System (Eff. 4-1-95) (Rev. 1-1-03)	
23		Polymer Concrete (Eff. 8-1-95) (Rev. 3-1-05)	
24		Controlled Low-Strength Material (CLSM) (Eff. 1-1-90) (Rev. 3-1-05)	
25		Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-98)	. 169
26		Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-97)	
27		Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-97)	
28		Reserved	
29		Reserved	
30		Reserved	
31		Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	
32		Reserved	
33		English Substitution of Metric Bolts (Eff. 7-1-96)	
34		English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	183
35		Polymer Modified Emulsified Asphalt (Eff. 5-15-89) (Rev. 1-1-04)	
36		Corrosion Inhibitor (Eff. 3-1-80) (Rev. 7-1-99)	
37		Quality Control of Concrete Mixtures at the Plant-Single A (Eff. 8-1-00) (Rev. 1-1-04)	
38	v	Quality Control of Concrete Mixtures at the Plant-Double A (Eff. 8-1-00) (Rev. 1-1-04)	
39 40	X	Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 3-1-05)	
40		Traffic Barrier Terminal Type 1, Special (Eff. 8-1-94) (Rev. 1-1-03)	
	v	Segregation Control of Bituminous Concrete (Eff. 7-15-97)	
42		Reserved	

TABLE OF CONTENTS

LOCATION OF PROJECT	1
DESCRIPTION OF PROJECT	1
MAINTENANCE OF ROADWAYS	2
STATUS OF UTILITIES TO BE ADJUSTED	2
COMPLETION DATE PLUS GUARANTEED WORKING DAYS	3
INTERIM COMPLETION DATE FOR PHASE I	3
FAILURE TO COMPLETE PHASE I WORK ON TIME	4
INTERIM COMPLETION DATE FOR PHASE II	4
RESTRICTION ON GUARANTEED WORKING DAYS	5
COORDINATION WITH ADJACENT AND/OR OVERLAPPING CONTRACTS	5
ADVANCED PUBLIC NOTIFICATION	7
CONTRACTOR'S DAILY WORK SCHEDULE	8
ADA RAMPS, CITY OF CHICAGO	8
CHANGEABLE MESSAGE SIGNS	14
TEMPORARY INFORMATION SIGNING	14
WORK ZONE TRAFFIC CONTROL (LUMP SUM PAYMENT)	15
TRAFFIC CONTROL PLAN	16
CONTRACTOR OFF-STREET PARKING	16
PLANTING MIX FURNISH AND PLACE	17
MULCH	20
MEDIAN AND PAVEMENT REMOVAL (SPECIAL)	21
PAVEMENT REMOVAL AND REPLACEMENT	22
CONCRETE MEDIAN SURFACE	
CONCRETE MEDIAN WALL, 18 INCH WIDE	24
STRUCTURES TO BE ADJUSTED	
WATER SERVICE LINE, 2 ½ INCH	27
WATER TAP, 2 INCH	28
WATER METER IN VAULT, 2 INCH	
WATER VALVE, 2 INCH	
BACKFLOW PREVENTER (RPZ), 2 INCH	
GEOTECHNICAL FABRIC	
POROUS GRANULAR MATERIAL	34
INSPECTION PIPE, 4 INCH	35
IRRIGATION SYSTEM	35
IRRIGATION SYSTEM FALL SHUTDOWN	47
IRRIGATION SYSTEM SPRING STARTUP	
PLANTING PERENNIAL PLANTS	
PLANTING WOODY PLANTS	
BITUMINOUS CONCRETE SURFACE COURSE (BDE)	60

BITUMINOUS EQUIPMENT, SPREADING AND FINISHING MACHINE (BDE)	60
CONCRETE ADMIXTURES (BDE)	61
CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)	65
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	72
FLAGGER VESTS (BDE)	80
FREEZE-THAW RATING (BDE)	80
HAND VIBRATOR (BDE)	
PARTIAL PAYMENTS (BDE)	80
PAYMENTS TO SUBCONTRACTORS (BDE)	81
PERSONAL PROTECTIVE EQUIPMENT (BDE)	82
PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)	83
PORTLAND CEMENT (BDE)	83
PORTLAND CEMENT CONCRETE (BDE)	84
PREFORMED RECYCLED RUBBER JOINT FILLER (BDE)	84
RAP FOR USE IN BITUMINOUS CONCRETE MIXTURES (BDE)	85
SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)	88
SUBGRADE PREPARATION (BDE)	88
SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)	89
TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)	95
TRUCK BED RELEASE AGENT (BDE)	96
WEIGHT CONTROL DEFICIENCY DEDUCTION	96
WORK ZONE TRAFFIC CONTROL DEVICES (BDE)	97

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2002 (hereinafter referred to as the Standard Specifications): the latest edition of the "Illinois 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 reconstruction of FAI Route 94, Section (1516.1, 1717 & 1818) I-5 in Cook County from the I-57 Interchange to 71st Street. In case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

F.A.I. Route 94 (Dan Ryan / Bishop Ford / I-57 Expressways)

Section: (1516.1, 1717 & 1818) I-5

County: Cook

Contract: 62934 (17G)

LOCATION OF PROJECT

The project is located along the section of Interstate 94 (Dan Ryan Expressway), between 75th Street and 76th Street in the City of Chicago. The work follows 75th Street and 76th Street roadway within the project limits given and includes work at or near the intersections of 75th Street and Lafayette Avenue, 75th Street and State Street, 76th Street and Lafayette Avenue and 76th Street and State Street. The length along the expressway between these two cross streets is approximately 0.12 miles.

DESCRIPTION OF PROJECT

The project consists of constructing median planting areas at the locations described. The work includes, but is not limited to the following:

75th Street Medians at Lafayette Avenue and State Street

- The removal and replacement of curb and gutter, sidewalk, median and pavement removal and pavement removal and replacement.
- The construction of concrete medians, concrete median wall and the installation an irrigation system. The work also includes installation of electrical and plumbing material and equipment required for the irrigation system, including but not limited to electrical conduit, wiring, junction boxes, water service lines, valves, meters, backflow preventers, and water taps to the existing main.

- Placement of porous granular materials, geotechnical fabric, planting mix, mulch and plant material.

76th Street Medians at Lafayette Avenue and State Street

- The installation an irrigation system. The work also includes installation of electrical and plumbing material and equipment required for the irrigation system, including but not limited to electrical conduit, wiring, junction boxes, water service lines, valves, meters, backflow preventers, and water taps to the existing main.
- Placement of porous granular materials, geotechnical fabric, planting mix, mulch and plant material.

The project also includes providing traffic control protection, informational signing and other incidental and collateral work.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987 Revised: July 1, 1994

Utility companies involved in this project have provided the estimated dates:

Name of Utility	<u>Type</u>	<u>Location</u>	Estimated Dates for Start and Completion of Relocation or Adjustments
PEOPLES ENERGY	PROPOSED 2 1/2" WATER SERVICE LINE IN CLOSE PROXIMITY TO AND CROSSES 4" GAS.		No conflict anticipated. Contractor must hand excavate near gas line.

PEOPLES ENERGY	PROPOSED 2 1/2" WATER SERVICE LINE CROSSES 6" GAS.	Near alley east of 75 th and State	· •
COM ED	PROPOSED 2 1/2" WATER SERVICE LINE CROSSES 3H, 4W DUCT.	SW corner of Lafayette and 75 th .	No conflict anticipated. Contractor must hand excavate. Contact Mr. Don Reis at 773-838-2905
Com Ed	PROPOSED EXCAVATION MAY EXPOSE DUCT.	Near alley west of 75 th and Lafayette	· •
COM ED	PROPOSED PAVEMENT EXCAVATION OVER DUCT PACKAGE.	Near alley east of 75 th and State	No conflict anticipated.

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

COMPLETION DATE PLUS GUARANTEED WORKING DAYS

When a completion date plus guaranteed working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by May 31, 2007, except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within fifteen (15) guaranteed working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the guaranteed working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 of the Standard Specifications, or the Special Provision for Failure to Complete the Work on Time, if included in this Contract, shall apply to both the completion date and the number of working days.

INTERIM COMPLETION DATE FOR PHASE I

The Contractor shall complete all Phase I work excluding bulb planting by October 15, 2006. The associated work to be completed in Phase I is as follows:

Phase I:

Construction of the concrete median wall, concrete medians, porous granular material, irrigation systems, planting soil mix and complete all other work associated with these items for the 75th Street Medians.

Installation of the porous granular material, irrigation systems, planting soil mix and complete all other work associated with these items for the 76th Street Medians.

Installation of plant materials for the 75th and 76th Street Medians.

FAILURE TO COMPLETE PHASE I WORK ON TIME

Should the Contractor fail to complete the Phase I work on or before the completion date as specified in Special Provision for Interim Completion Date For Phase I or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of \$725.00 per day not as a penalty but as liquidated damages, for each calendar day or portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the roadway and utilities if the project is delayed in completion. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

INTERIM COMPLETION DATE FOR PHASE II

The Contractor shall complete all Phase II work by May 31, 2007. The associated work to be completed in Phase II is as follows:

Phase II:

Weeding, watering and all work which is necessary to maintain the health and satisfactory appearance of all plant materials in the 75th and 76th Street Medians during the period of establishment (March 1, 2007 to April 30, 2007).

Installation of all required replacement plant materials and all required clean up the 75th and 76th Street Medians.

RESTRICTION ON GUARANTEED WORKING DAYS

Effective: January 21, 2003

All temporary lane closures during the period governed by guaranteed working days will not be permitted during the hours of 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. Monday through Friday.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

Failure to Open Traffic Lanes to Traffic: Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable and shall pay to the Department the amount of \$250 per lane blocked, not as a penalty but as liquidated and ascertained damages, for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. The Department may deduct such damages from any monies due the Contractor. These damages shall apply during the period governed by guaranteed working days and any extensions of that contract time.

COORDINATION WITH ADJACENT AND/OR OVERLAPPING CONTRACTS

This contract abuts and /or overlaps with other concurrent Contracts as listed below. Each Contract includes work items requiring close coordination between the Contractors regarding the sequence and timing for the execution of such work items.

67 [™] ST. SB & NB C-D SYSTEM & RAMPS	Contract 62590	(Dan Ryan Contract 7)
--	----------------	-----------------------

<u>Location</u> <u>Starting Date</u> <u>Tentative Completion Date</u>

67th to 71st ST Under Construction June - 2005

CONSTRUCT NB EXPRESS LANES Contract 62300 (Dan Ryan Contract 14)

<u>Location</u> <u>Starting Date</u> <u>Tentative Completion Date</u>

31st to 71st ST March 2006 November - 2006

CONSTRUCT SB EXPRESS LANES Contract 62302 (Dan Ryan Contract 15)

Location Starting Date Tentative Completion Date

31st to 71st ST March 2006 November - 2006

NB RET. WALLS, RAMPS, SIGNING (Contract 62694) Dan Ryan Contract 17A

Location Letting Date Tentative Completion Date

71st ST to I-57 Interchange June 2005 July - 2006

SB RET. WALLS, RAMPS, SIGNING (Contract 62695) Dan Ryan Contract 17B

AND 76th STREET BRIDGE

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

71st ST to I-57 Interchange June 2005 July - 2006

WATER MAIN AND S. S. JACKING (Contract 62872) Dan Ryan Contract 17D

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

73rd ST to I-57 Interchange January 2005 July - 2005

LIGHTING & SURVEILLANCE (Contract 62583) Dan Ryan Contract 2

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

31st ST to I-57 Interchange April- 2005 December - 2007

I-57 CONVENTIONAL LIGHTING (Contract 62937) Dan Ryan Contract 2D

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

Halsted ST to Railroad Br June- 2006 December – 2007

SEWER TELEVISING SB RAMPS (Contract 62935) Dan Ryan Contract 17F

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

71st ST to I-57 Interchange June - 2005 July - 2006

CORNER GARDEN & IRRIGATION SYSTEMS, SB LOCATIONS

(Contract 62933) Dan Ryan Contract 17H

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

S. Lafayette Ave,

between 79th & 95th August - 2005 July - 2006

FENCING NB RAMPS, (Contract 62932) Dan Ryan Contract 171

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

71st ST to 95th ST June - 2005 July - 2006

FENCING SB RAMPS, (Contract 62931) Dan Ryan Contract 17J

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

76th ST to I-57 Interchange June - 2005 July - 2006

NB MAINLINE RECONSTRUCTION (Contract 62304) Dan Ryan Contract 20 AND BRIDGE RECONSTRUCTION

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

76th ST to I-57 Interchange June - 2006 November – 2007

SB MAINLINE RECONSTRUCTION, (Contract 62593) Dan Ryan Contract 23

<u>Location</u> <u>Letting Date</u> <u>Tentative Completion Date</u>

76th ST to I-57 Interchange June - 2006 November – 2007

OVERHEAD BRIDGES (OVER DAN RYAN EXPRESSWAY)

<u>Location</u>	<u>Letting Date</u>	<u> l'entative Completion Date</u>
71 st Street Bridge	July 2005	Dec 2005
75 th Street Bridge	Unknown	Feb 2005
91 st Street Bridge	March 2005	Dec 2005
Michigan Avenue Bridge	Dec 2004	Sept 2005

Supplemental to the requirements of the Standard Specifications Article 105.08-Cooperation Between Contractors, the Contractors shall identify all such work items at the beginning of the Contract, and coordinate sequence and timing for their execution with the other Contractors through the Engineer. These work items shall be identified as separate line items in the Contractor's proposed Construction and Progress Schedule. Any conflicts between Contractor's schedules, the Department will be consulted through the Engineer to determine a resolution. Additional compensation or extension of the contract time will not be allowed for work and/or progress and/or lack of progress affected by lack of such coordination by the Contractor.

ADVANCED PUBLIC NOTIFICATION

Description.

This work shall consist of furnishing, installing, maintaining, relocating for various stages of construction, and eventually removing the advanced signing.

General.

The Contractor shall provide notice to the public a minimum of 14 days in advance of any work that requires the closure of lanes or ramps through the use of a changeable message sign or temporary information signing.

Basis of Payment.

This work will be paid as CHANGEABLE MESSAGE SIGNS in calendar months or TEMPORARY INFORMATION SIGNING in sq. ft.

CONTRACTOR'S DAILY WORK SCHEDULE

Description:

The Contractor shall submit a daily work schedule to the Resident Engineer for the purpose of coordinating the Contractor's activities for the next working day. The daily schedule must be submitted by 3:00 pm the day before. This schedule is necessary for the Engineer to schedule inspection, testing and layout checking for the following day.

The schedule shall include the location and type of all work to be performed that day and all material deliveries. It shall identify all concrete pours, the concrete mix design numbers, and estimated number of cubic yards. The placement of bituminous materials shall be identified, including the mix design numbers, location and number of estimated tons to be placed. The Contractor shall identify all locations where survey verification is required and shall give sufficient advance notification to the Engineer so as not to cause delay.

Method of Measurement:

This coordination work will not be measured for payment.

Basis of Payment:

Preparation and submittal of the Contractor's Daily Work Schedule shall not be paid for separately, but shall be included in the cost of the contract items of work.

ADA RAMPS, CITY OF CHICAGO

CAST IN PLACE TACTILE/DETECTABLE WARNING SURFACE SYSTEM FOR RAMPS FOR PEOPLE WITH DISABILITIES.

PART 1 GENERAL

1. Related Documents

A. The Contract Plans and Standard Specifications, apply to this Section.

2. Description

A. This Section specifies furnishing and installing cast-in-place tactile tile modules where indicated.

3. Submittals

- A. Product Data: Submit manufacturer's literature describing products, installation procedures and routine maintenance.
- B. Samples for Verification Purposes: Submit two (2) samples minimum 6"x8" of the kind proposed for use.

- C. Shop drawings are required for products specified showing fabrication details; composite structural system; plans of placement including joints, and material to be used as well as outlining installation materials and procedures.
- D. Material Test Reports: Submit test reports from qualified independent testing laboratory indicating that materials proposed for use are in compliance with requirements and meet the properties indicated. All test reports must be conducted on a tactile system as certified qualified independent testing laboratory. bν
- E. Maintenance Instructions: Submit copies of manufacturer's specified maintenance practices for each type of tactile system and accessory as required.

4. **QUALITY ASSURANCE**

- A. Provide tactile system and accessories as produced by a single manufacturer.
- B. Installer's Qualifications: Engage an experienced Installer certified in writing by tactile manufacturer as qualified for installation, who has successfully completed installations similar in material, design, and extent to that indicated for the project.
- C. Americans with Disabilities Act (ADA): Provide tactile warning surfaces which comply with the detectable warnings on walking surfaces section of the Americans with Disabilities Act (Title 49 CFR TRANSPORTATION, Part 37.9 STANDARDS FOR ACCESSIBLE TRANSPORTATION FACILITIES, Appendix A, Section 4.29.2 DETECTABLE WARNINGS ON WALKING SURFACES.
- D. California Code of Regulations (CCR): Provide only approved DSAAC detectable warning products as provided in the California Code of Regulations (CCR). Title 24, Part 1, Articles 2, 3 and 4 and Part 2, Section 205 definition of "Detectable Warning". Section 1127B.5 for "Curb Ramps" and Section 1133B.8.5 for "Detectable Warnings at Hazardous Vehicle Area's".
- E. The tile must incorporate an in-line dome pattern of truncated domes 0.2" in height, 0.9" diameter at the base, and 0.4" diameter at top of dome, spaced 2.35" nominal as measured on a diagonal. For wheelchair safety the field area must consist of a non-slip surface with a minimum of 40 - 90° raised points 0.045" high, per square inch.
 - 1. Dimensions: Tile Assemblies must be held within the following dimensions and tolerances:

Length and Width: 24"x 24" nominal, Plus or minus

1/16".

Depth 1.500" ± 5% max. : $0.1875 \pm 5\%$: $\pm 0.5\%$ max. Face Thickness $0.1875 \pm 5\%$ max.

Warpage of Edge

- 2. Water Absorption of Tile when tested by ASTM-D 570 not to exceed 0.35%.
- 3. Slip Resistance of Tile when tested by ASTM-C 1028, the combined wet/dry static co-efficient of friction not to be less than 0.90 on top of domes and field area.
- 4. Compressive Strength of tile when tested by ASTM-D 695-91 not to be less than 18,000 psi.
- 5. Tensile Strength of Tile when tested by ASTM-D 638-91 not to be less than 10,000 psi.
- 6. Flexural Strength of Tile when tested by ASTM C293-94 not to be less than 24,000 psi.
- 7. Chemical Stain Resistance of Tile when tested by ASTM-D 543-87 to withstand without discoloration or staining 1% hydrochloric acid, urine, calcium chloride, stamp pad ink, gum and red aerosol paint.
- 8. Abrasive Wear of Tile when tested by BYK Gardner Tester ASTM-D 2486* with reciprocating linear motion of 37 \pm cycles per minute over a 10" travel. The abrasive medium, a 40 grit Norton Metallite sand paper, to be fixed and leveled to a holder. The combined mass of the sled, weight and wood block to be 3.2 lb. Average wear depth must not exceed 0.030 after 1000 abrasion cycles measured on the top surface of the dome representing the average of three measurement locations per sample.
- 9. Fire Resistance: When tested to ASTM E84 flame spread must be less than 25.
- 10. Gardner Impact to geometry "GE" of the standard when tested by ASTM-D 5420-93 to have a mean failure energy expressed as a function of specimen thickness of not less than 450 in. 1bf/in. A failure is noted if a hairline fracture is visible in the specimen.
- 11. Accelerated Weathering of Tile when tested by ASTM-G26-95 for 2000 hours must exhibit the following result no deterioration, fading or chalking of surface of tile.

5. Delivery, Storage and Handling

- A. Deliver glass fiber reinforced ceramic cement warning panels to worksite in such quantities and at such times to assure continuity of installation. Handle and transport units in a position consistent with their shape and design in order to avoid excessive stresses or damage.
- B. Store units at worksite to prevent cracking, distorting, warping, staining or other physical damage and so that markings are visible.

- C. Keep panels under cover and protected until installed.
- D. Deliver ABS anchors in sufficient quantity for the work to be done before the start of construction.

6. Site Conditions

- A. Environmental Conditions and Protection: Maintain minimum temperature of 40 degrees F in spaces to receive tactile tiles for at least 48 hours prior to installations, during installation, and for not less than 48 hours after installation. Store tactile tile material in spaces where they will be installed for at least 48 hours before beginning installation. Subsequently, maintain minimum temperature of 40 degrees F in areas where work is completed.
- B. The use of water for work, cleaning or dust control, etc. must be contained and controlled and must not be allowed to come into contact with the passengers or public. Provide barricades or screens to protect passengers or public.
- C. Disposal of any liquids or other materials of possible contamination must be made in accordance with federal state and local laws and ordinances.
- D. Cleaning materials must have code acceptable low VOC solvent content and low flammability if used on the site.

7. Extra Stock

A. Deliver extra stock to storage area designated by engineer. Furnish new materials from same manufactured lot as materials installed and enclose in protective packaging with appropriate identification for cast-in-place tactile tiles. Furnish not less than two (2)% of the supplied materials for each type, color and pattern installed.

8. Guarantee

A. Cast-in-place tactile tiles must be guaranteed in writing for a period of five years from date of final completion. The guarantee includes defective work, breakage, deformation, and loosening of tiles.

Part 2 PRODUCTS

1. Manufacturers

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

- 2 Glass Fiber Reinforced Ceramic Cement (GFRCC)
 - A. Proprietary Ceramic Cement Blend.
 - 1. Use only one brand, type and source of supply of cement throughout GFRCC production unless noted otherwise.
 - B. Aggregates
 - 1. Proprietary blend
 - C. Water. Potable, free from foreign materials in amounts harmful to concrete.
 - D. Admixtures: conform to ASTM C260 for air entrapment, ASTM C494 for chemical admixtures, or ASTM C618 for fly ash or natural pozzolan admixtures, at manufacturers option. Do not use admixtures that contain more than 0.1% chloride ions.

E. Coloring Agent

- 1. Conform to ASTM C979, ultraviolet resistant, high temperature stable, harmless to concrete set or strength.
- 2. The amount of coloring agent must not exceed 10% of the cement weight.
- 3. Color: Federal Brick Red 30166 Color must be homogeneous throughout the tile.

3 ANCHORS AND SUBSYSTEMS

A. Each GFRCC panel is to be attached to the supporting concrete with a minimum of anchors in the top horizontal plane and in the preformed holes.

PART 3 EXECUTION

1. Installation

- A. During all concrete pouring and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
- B. The specifications of the concrete sealants and related materials must be in strict accordance with the contract documents and the guidelines set by their respective manufacturers.
- C. The physical characteristics of the concrete must be consistent with the Standard Specifications while maintaining a slump range of 4 7 to permit solid placement of the Cast-In-Place Tile System. An overly wet mix will cause the Cast-In-Place System to float, therefore under these conditions suitable weights such as 2 concrete blocks or sandbags (25 lb) must be placed on each tile.
- D. Prior to placement of the Cast-In-Place System, the contract plans must be reviewed.

- E. The concrete pouring and finishing operations require typical mason's tools, however, a 4' long level with electronic slope readout, 25 lb. weights, vibrator and small sledge hammer with 2" x 6" x 20" wood tamping plate are specific to the installation of the Cast-In Place System.
- F. The concrete must be poured and finished, true and smooth to the required dimensions and slope prior to tile placement. Immediately after finishing the concrete, the electronic level should be used to check that the required slope is achieved. The tile must be placed true and square to the curb edge in accordance with the contract plans The Cast-In-Place Tiles must be tamped or vibrated into the fresh concrete to ensure that the field level of tile is flush to the adjacent concrete surface. The contract plans indicate that the tile field level (base of truncated dome) is flush to adjacent surfaces to permit proper water drainage and eliminate tripping hazards between adjacent finishes. The tolerance for elevation differences between tile and adjacent surface is 1/16". Place the second panel next to the first, leaving no gap (tiles must be abutted to one another) and press into the wet concrete using a twisting back and forth motion. Be certain that the second panel is even and level with the first and with the surrounding concrete
- G. Immediately after tile placement, the tile elevation is to be checked to adjacent concrete. The tile elevation and slope should be set consistent with the contract plans to permit water drainage to curb as the design dictates.
- H. While concrete is workable a steel trowel must be used to trowel the concrete around the tile perimeter to the field level of the tile. Trowel concrete flat, remove any excess concrete and leaving no gap (tiles must be abutted to one another) between the panels. Apply finish to the area immediately surrounding the panels as shown in the plans.
- I. Remove the protective plastic coating and insert one anchor into each of the preformed holes, being certain that the anchors are inserted completely, flush to the panel surface. Tap the top of each anchor 5-6 times using the trowel handle. This will insure good contact of the concrete with the anchor.
- J. During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external forces placed on the tile to rock the tile, causing a void between the underside of tile and concrete.
- K. Following tile placement, review installation tolerances to contract drawings and adjust tile before the concrete sets, 2 suitable weights of 25 lb each must be placed on each tile as necessary to ensure solid contact of tile underside of concrete.
- L. Following the curing of the concrete, the protective plastic wrap is to be removed from the tile face by cutting the plastic with a sharp knife tight to the concrete/tile interface. If concrete bleeding occurs, a wire brush will clean the residue without damage to the tile surface.

2. Cleaning and Protection

- A. Protect tiles against damage during construction period to comply with tactile tile manufacturer's specification.
- B. Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.
- C. Clean tactile tiles not more than four days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean tactile tile by method specified by tactile tile manufacturer.

<u>Method of Measurement:</u> CAST IN PLACE TACTILE/DETECTABLE WARNING SURFACE SYSTEM FOR RAMPS FOR PEOPLE WITH DISABILITIES will be measured per square foot.

<u>Basis of Payment:</u> The work under this item will be paid for at the contract unit price per square foot as shown in the Schedule of Unit Prices for CAST IN PLACE TACTILE/ DETECTABLE WARNING SURFACE SYSTEM FOR RAMPS FOR PEOPLE WITH DISABILITIES which price will include all labor, installation, equipment, materials and incidental work necessary to complete the work as specified.

CHANGEABLE MESSAGE SIGNS

This item shall be as contained in the Special Provisions for "Portable Changeable Message Signs" except as follows:

Two signs will be required for this contract. The signs shall be located as directed by the Engineer.

TEMPORARY INFORMATION SIGNING

Description:

This work shall consist of furnishing, installing, maintaining, relocating for various stages of construction and eventually removing temporary information signing.

Materials:

Materials shall be according to the following Articles of Section 1000 - Materials:

	<u>Item</u>	Article/Section
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.01

- Note 1. The Contractor may use 5/8 inch instead of 3/4 inch thick plywood.
- Note 2. Type A sheeting can be used on the plywood base.
- Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1084.02(b).
- Note 4. The overlay panels shall be 0.08 inch thick.

General Construction Requirements

Installation:

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs, which are placed along the expressway shoulder and/or within the construction zone, shall be installed according to the requirements of Article 702.05 and Article 720.04. The signs shall be 7 ft. above the near edge of the pavement and shall be a minimum of 2 ft. beyond the edge of the paved shoulder. A minimum of two posts per sign shall be used.

The attachment of temporary signs to the existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs, which are placed on overhead bridge structures, shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

Method of Measurement:

This work shall be measured for payment in square feet edge to edge (horizontally and vertically). All hardware, posts, supports, bases for ground mounted signs, and connections, which are required for mounting these signs shall be included as part of this pay item.

Basis of Payment:

This work shall be paid at the contract unit price per square foot for TEMPORARY INFORMATION SIGNING, which price shall be full compensation for all labor, equipment and materials required for performing the work as herein specified.

WORK ZONE TRAFFIC CONTROL (LUMP SUM PAYMENT)

Effective: February 1, 1996 Revised: November 1, 1996

Specific traffic control plan details and Special Provisions have been prepared for this contract.

Method of Measurement: All traffic control (except traffic control pavement marking) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis. Traffic control pavement markings will be measured per meter (foot).

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). This price shall be payment in full for all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985 Revised: October 1, 1995

Traffic Control shall be in accordance with the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to Traffic Control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS

701301 – Lane Closure 2L, 2W Short Time Operations

701601 - Urban Lane Closure Multilane 1W or 2W With Nontraversable Median

701701 – Urban Lane Closure Multilane Intersection

701801 – Lane Closure Multilane, 1W or 2W Crosswalk Or Sidewalk Closure

702001 - Traffic Control Devices

DETAILS

TC-10 Traffic Control and Protection for Side Roads, Intersections & Driveways TC-22 Temporary Information Signing

SPECIAL PROVISIONS

Flagger Vests
Personal Protective Equipment
Temporary Information Signing
Portable Changeable Message Signs (BDE)
Traffic Control Deficiency Deduction (BDE)
Work Zone Traffic Control Devices (BDE)

CONTRACTOR OFF-STREET PARKING

The Contractor and all employees working on this project will not be allowed to park their vehicles and equipment on frontage roads or streets. The Contractor shall provide off-street parking facility for all vehicles and equipment. He should also provide any transportation required to get his employees to and from the work site. The Contractor will provide the RE with written documentation of the off-site parking location.

The cost to comply with this requirement will not be paid for separately, but shall be considered as included in the contract unit bid prices of the contract, and no additional compensation will be allowed.

PLANTING MIX FURNISH AND PLACE

Work under this item shall be performed in accordance with Section 200 of the Standard Specifications for Road and Bridge Construction except as modified herein.

<u>Description:</u> This work shall consist of furnishing, transporting, testing, preparing, and placing planting soil including finish grading to the depth specified in areas as shown in the plans or as directed by the Engineer.

<u>General Requirements:</u> In general the planting soil shall be two (2) parts pulverized top soil and one (1) part coarse sand. The sand, in the amount required to produce an acceptable planting soil, shall be added and mixed during the pulverization process only. The sand shall be of an FA 2 gradation.

<u>Soil Stockpiling:</u> The Contractor shall obtain the total quantity of planting soil required for this project and stockpile this material at an acceptable offsite location a minimum of 30 days in advance of placement. The stockpile must be covered to avoid excessive moisture content and erosion. The Contractor shall have the material tested following the guidelines presented below under Soil Testing and, if approved, this stockpile shall be the sole source for planting soil to be delivered to site. The test results along with a Request for Inspection form shall be sent to the Engineer prior to delivering the material to site. This transmittal must also identify the location of the stockpile. If there are any changes in source the Contractor shall notify the Engineer immediately. There will be no additional time allowed for the completion of this project in order to substitute, test, and approve a new source of planting soil.

<u>Delivery, Storage and Handling:</u> Protect soil from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events. Do not allow excess water to enter site prior.

<u>Soil Testing:</u> No planting soil shall be delivered to the site until the Engineer has reviewed test results and has accepted the planting soil. The Contractor shall employ a soil testing agency acceptable to the Engineer, which uses test methods approved by the Association of Agricultural Chemists. Test frequency shall be as follows:

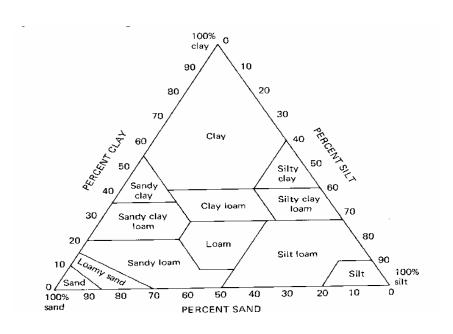
Quantity of Soil Placed (c.y.)	Number of Tests
1 - 200	1
200 – 1000	3
1000 <	((Quantity - 1000) / 500) + 3
	round up to whole number

When more than one test is performed, the average of the test results will be used to determine acceptance.

The planting soil test report must obtain the following information:

Chemical Ana	alysis:	HIGH	LOW
a.	рН	7.0	6.5
Mechanic	al Analysis		
a.	% clay	25%	0%
b.	% silt	77%	45%
C.	% sand	33%	25%

- 3. Additionally the following variables are required.
 - d. cation exchange capacity (CEC)
 - e. soluble salts
 - f. organic matter
 - g. phosphorous
 - h. available potassium
 - i. nutrients
 - j. residual chemicals
 - k. Recommendations to mitigate any issues from the results in items 3a through 3g.



The mechanical analysis shall show that the % sand, % silt, and the % clay must yield a silt loam soil. See the attached Textural Classes diagram above. To determine the class plot a line parallel to the % clay axis starting the line at the value of the % silt. Plot another line parallel to the % sand axis starting the line at the value of the % clay. The intersection of these lines shall be in the silt loam region, for the soil to be approved.

Preparation and Placement:

- 1. Perform or coordinate final adjustments of any utility structure.
- 2. Clean planters of all trash and debris before placement of soil mix.

 Remove and legally dispose of debris off site in accordance with Article 202.03. Repair to the satisfaction of the Engineer any portion of the geotechnical fabric or drainage layers prior to installation of planting soil mix.
- 3. Place, spread and rough grade specified planting soil to depths specified in all areas to be planted. Place planting soil mix in two level (2) lifts. The first lift shall contain 2/3 of the planter soil depth. After placing each lift, moisten the surface at a rate sufficient to hydraulically settle the soil, as determined by the Engineer. Allow water to thoroughly percolate through the soil before placing the next lift. Allow for settling, and place additional planting soil as necessary. Allow for placement and mixing of compost, as determined by the Engineer, but place enough soil mix to meet finish grades within =/- 0.10 foot of design grades.
- 4. Rake smooth and finish grade all planted areas. The removal of excess material or the addition of planting soil may be required prior to landscaping. This shall be considered incidental to planting soil. Grading will be to a tolerance +/- .10 foot of design grades. Any grade disturbed by irrigation installation shall be restored to finish grade and raked smooth.
- 5. All debris, litter, tire tracks, dirt, and unintended materials shall be removed, swept or washed off of all landscape, hard median surfaces, and pavement on a daily basis.

Planter Soil Acceptance:

The Engineer retains the right to visually inspect planting soil mix on site before placement. The Engineer may ask that material suspected of not meeting specification be removed from the site, until the material can be mechanically tested.

The final determination of the planter soil quality shall be based upon soil tests taken by the Engineer. The samples shall be taken at the time of planting soil installation. The samples will be tested by independent accredited agencies, for the Engineer. The test frequency shall be the same as listed above. When more than one test is required, the percentages of sand, silt and clay will be averaged. This averaged value will be used to determine the soil quality. If the averaged test result for sand or silt content is outside the range specified by less than five (5%) percent, an adjusted unit price will be used in computing payment for the planting soil. The adjusted unit price will be a percentage of the contract unit price as given in the following schedule:

Average Sand or Silt Deficiency	Percent of Contract Payment
0 to 2	80
2.1 to 4	66
4.1 to 5	50

Clay content in excess of this specification by two (2%) percent or less: If the averaged result for clay is outside the range specified by less than two (2%) percent an adjusted unit price will be used in computing payment for the planting soil. The adjusted unit price will be sixty-six (66%) percent of the contract unit price.

The Contractor shall remove all planting soil and install material meeting this specification. The Contractor shall be responsible for all costs incurred to remove deficient material and install acceptable planting soil. The Contractor shall be responsible for any damage to plant material, irrigation system, waterproof membrane, or any other damage caused by this work. The Contractor shall be responsible for all additional traffic control. No addition time will be provided in the contract to perform remedial work.

<u>Method of Measurement</u>: Planting Mix Furnish and Place will be measured for payment in place to the depth specified in square yards. Areas not meeting the depth specified shall not be measured for payment.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per square yard (square meter) for PLANTING MIX FURNISH AND PLACE, 36". Payment shall include all testing, furnishing, stockpiling, transporting of materials, all labor and equipment necessary, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer. Furnishing and Placing Compost shall be paid for separately.

MULCH

Mulch installation described shall be performed at all planter locations and as directed by the Engineer.

<u>Description</u>: This item shall consist of furnishing, transporting and placing shredded hardwood bark mulch in planter areas as described herein and per direction of the Engineer.

<u>General Requirements</u>: The Contractor shall supply and install shredded hardwood bark mulch, as required to mulch around trees, shrubs, and herbaceous plants in landscaped areas.

The Contractor shall remove all litter and plant debris before mulching. The Contractor shall repair grade by raking Planting Soil as needed, before mulching. Care shall be taken not to bury leaves, stems, or vines under mulch material.

All finished mulch areas shall be left smooth and level to maintain a uniform surface and appearance. All work areas shall be cleaned of debris and mulch, prior to leaving the site.

Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark, not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. All hardwood mulch shall be processed through hammermill. Hardwood bark not processed through a hammermill shall not be accepted.

A sample and request for material inspection form must be supplied to the Engineer for approval prior to performing any work.

Place mulch layer around plants as follows:

Perennials, including: bulbs, ground cover, vines, grasses:

Two (2) inches deep – keep mulch away from crowns of plants.

Shrubs, including shrubs and roses:

Three (3) inches deep mulch – keep mulch away from stems, crown, or neck of shrub.

Trees, shade and ornamental:

Three (3) inches deep – keep mulch away from the trunk of the tree.

<u>Method of Measurement</u>: Mulch shall be measured for payment in place and in units of square yards of mulch installed, as described herein. This item will not be paid by Load Tickets.

<u>Basis of Payment</u>: Mulch will be paid for at the contract unit price per square yard which price shall include all labor, material, and equipment necessary to complete the item stated above.

MEDIAN AND PAVEMENT REMOVAL (SPECIAL)

Work under this item shall be performed in accordance with Section 440 of the Standard Specifications and the Standard Details, except as herein modified.

<u>Description</u>: This item shall consist of the full depth removal and disposal of the existing median and pavement to the limits shown on the plans or as directed by the Engineer. This item shall include excavation of material from the top of the existing median or pavement surface to the bottom of the proposed subgrade elevation for: subbase granular material; porous granular backfill, special; and Pipe Underdrain(PVC) 4 inch, whichever is lower. This work shall include the removal and disposal of granular base and sub-base courses, stabilization stone, earth, slag of all types, curbs of all types, and abandoned structures to the required elevation.

Also included is the removal and disposal of existing street car track including rails, ties, pavement and/or ballast unless a separate pay item has been supplied in the contract for Track Removal, in which case the area of track removal shall not be included in this item.

<u>General Requirements:</u> The Contractor shall sawcut full depth a perpendicular clean joint between that portion of the median or pavement to be removed and that portion of the median, or pavement to remain in place. The cost of this work shall be considered incidental to the contract unit price of this item.

If the Contractor removes or damages the existing median or pavement outside of the limits designated by the Engineer for removal, he will be required to repair that portion at his own expense and to the satisfaction of the Engineer.

Any appurtenant median items including curb around planter cutouts and planter cutout contents, located within the existing medians marked for removal on the drawings, shall be included in this work at no additional cost.

Any trees less than six (6) inches in diameter within the existing medians that are not designated by the Engineer to remain or marked for transplanting on the drawings shall be removed and included in this work at no additional cost.

Removed median and pavement shall not be stockpiled on the job site but disposed of in accordance to Article 202.03.

If, upon removal of the median and pavement, a soft or unstable sub-grade is encountered at a location where pavement is to be replaced, this material shall be excavated and replaced with compacted porous granular material, of the gradation as determined by the Engineer. The cost of the excavation of unstable sub-grade will not be paid for separately but shall be considered incidental to this item. The cost of the replacement material shall be paid under POROUS GRANULAR MATERIAL.

<u>Method of Measurement</u>: Median and Pavement Removal shall be measured for payment in place and the area computed in square yards.

<u>Basis of Payment</u>: MEDIAN AND PAVEMENT REMOVAL (SPECIAL) shall be paid for at the contract unit price per square yard, which price shall include full depth saw cut, removal and disposal of existing median and pavement, removal of existing street car track, aggregate base and all granular material to required elevation, trees less than six (6) inches in diameter, all types of abandoned structures, steel reinforcement and wire mesh, and compaction and proof rolling of subgrade.

PAVEMENT REMOVAL AND REPLACEMENT

Work under this item shall be performed in accordance with Sections 440 and 441 of the Standard Specifications and Detailed Construction Standards, except as herein modified.

<u>Description</u>: This work shall consist of full depth sawcutting, removal, disposal, and replacement of existing pavement that is not scheduled for removal but is to remain in place at locations of proposed sewers, manholes, drains, conduits and water services.

General Requirements: This work shall consist of full depth sawcutting of the existing pavement, the excavation of the existing pavement material, its legal disposal beyond the limits of the project, and full depth pavement replacement, including supplying, drilling, installing, and grouting dowel bars into the PCC base course of the adjacent pavement. If machine breaking is necessary because the existing pavement is concrete or has a concrete base, it shall be done to the satisfaction of the Engineer and in such a manner that any underlying utility structures will not be disturbed.

The materials and method for replacement of the removed pavement shall be as shown in the Detail Construction Standard or Plans, performed in accordance to Sections 353 and 406 of the Standard Specifications and ISP 05-16.

High-early strength PCC base course, bituminous materials prime coat, and "SuperPave" bituminous concrete binder and surface courses shall be used. These materials will not be measured or paid separately.

ITEM				AC TYPE	VOIDS	RAP %
BIT.	CONC.	SURFACE	COURSE,	PG 64-22	4% @ 70 Gyr	10
SUPERPAVE, MIX "D", N70						

Also included in this item is any additional Traffic Control required to safely route traffic around the removed pavement and until the replacement pavement has cured and is ready to be opened to traffic. This Traffic Control shall include the use of arrow boards when required. The Engineer shall be the sole judge of the need for arrow boards. Traffic Control shall not be paid for separately but considered incidental to this item.

Removed sections of pavement shall not be left open over night, but shall be backfilled to existing elevation or plated. No additional payment shall be made for backfilling or plating sections of removed pavement.

<u>Method of Measurement:</u> Pavement Removal and Replacement will be measured for payment in square yards. Removal and replacement shall not be measured separately. The actual area of full depth replacement shall be used as the basis of payment.

<u>Basis of Payment</u>: PAVEMENT REMOVAL AND REPLACEMENT will be paid for at the contract unit price per square yard, which price shall include all labor, materials, and equipment to perform the work including full depth sawcutting, removal, disposal, traffic control, temporary backfilling, plating, sub-base, concrete base course, prime coat, binder and surface courses, dowel bars, and any other work required to complete this work as specified.

CONCRETE MEDIAN SURFACE

Work under these items shall be in accordance with the requirements of Section 606 of the Standard Specifications for Road and Bridge Construction and Standard Details, except as herein modified.

<u>Description</u>: This work shall consist of constructing Portland Cement Concrete (PCC) medians and corrugated medians at locations shown on the drawings and as directed by the Engineer.

<u>General Requirements</u>: Concrete shall be placed over improved sub-grade or sub-base or as shown in the plans. Concrete shall not be placed on soft, muddy, frozen or non-compacted sub-grade or sub-base.

Joints shall be in accordance with the drawings and the Standard Details. Preformed expansion joint material shall conform to Article 1051.03. Concrete shall be CLASS SI and conform to the requirements of Section 1020.

When directed by the Engineer, a protective surface treatment shall be applied, which will be paid for under the item for PROTECTIVE COAT. Membrane curing will not be permitted where at protective coat or water repellent is to be applied. Concrete at these locations shall be cured by another method specified in Article 1020.13 at no additional cost.

When shown on the plans, or directed by the Engineer, decorative scoring patterns whether sawed or hand tooled shall be considered incidental to these items.

<u>Method of Measurement</u>: Concrete Median Surface, (Corrugated) will be measured for payment in place and the area computed in square feet.

Concrete Median Surface, (Special) will be measured for payment and the area computed in square feet.

<u>Basis of Payment</u>: CONCRETE MEDIAN SURFACE (CORRUGATED), will be paid for at the contract unit price per square foot for which price shall include furnishing and placing all concrete, dowels, all joints, scoring patterns, and corrugations.

CONCRETE MEDIAN SURFACE, (SPECIAL) will be paid for at the contract unit price per square foot, which price shall include furnishing and placing all concrete, dowels, welded wire fabric, all joints, scoring patterns, and corrugations.

CONCRETE MEDIAN WALL, 18 INCH WIDE

Work under these items shall be in accordance with the requirements of Section 606 of the Standard Specifications for Road and Bridge Construction and Standard Details, except as herein modified.

<u>Description</u>: This work shall consist of constructing Portland Cement Concrete (PCC) median wall of the specified dimensions at locations shown on the plans and as directed by the Engineer.

<u>General Requirements</u>: Concrete shall be placed on compacted prepared sub-base which will be paid for separately. Concrete shall not be placed on soft, muddy, frozen or non-compacted sub-base. Joints shall be in accordance with the drawings, and Standard Details. Pre-formed expansion joint material shall conform to Article 1051.03. Concrete shall be CLASS SI and conform to the requirements of Section 1020.

When directed by the Engineer, a protective surface treatment or water repellent shall be applied, which will be paid for under the item for PROTECTIVE COAT. Membrane curing will not be permitted where at protective coat is to be applied. Concrete at these locations shall be cured by another method specified in Article 1020.13 at no additional cost to the City.

When shown on the plans, or directed by the Engineer, decorative scoring patterns whether sawed or hand tooled shall be considered incidental to these items.

The use of slip form installation may be allowed when approved by the Engineer.

Epoxy coated reinforcement bars shall be installed as shown on the plans, in accordance with the requirements of Section 508 of the Standard Specifications. Materials shall meet the requirements of Article 1006.10. The reinforcement bars, when delivered on the job, shall be stored above the surface of the ground on wooden or padded steel cribbing, and shall be protected from mechanical injury and from deterioration by exposure. When placed in the work, they shall be free from dirt, paint, oil or other foreign substances. All systems for handling epoxy-coated reinforcement bars shall have padded contact areas. The bars or bundles shall not be dropped or dragged. Epoxy-coated reinforcement bars to be cut in the field shall be either sawed or sheared but shall not be frame cut. Patching of the bars cuts shall be in accordance with ASTM specifications. Placing and securing of the reinforcement bars shall be in accordance with Article 508.05. All tie wire shall be epoxy coated. The installation of epoxy coated reinforcement bars shall be considered incidental to these items.

<u>Method of Measurement</u>: The concrete median wall will be measured for payment in lineal feet, along the face of the concrete wall.

<u>Basis of Payment</u>: CONCRETE MEDIAN WALL will be paid for at the contract unit price per lineal foot of the specified width which price shall include steel reinforcement, furnishing and placing all concrete, joints and decorative scoring.

STRUCTURES TO BE ADJUSTED

This work will be done in accordance with Section 603 and applicable portions of Section 602 of the Standard Specifications and the Standard Detail for Type I, Frame Adjustment shown in the plans, except as herein modified.

<u>Description:</u> This item shall include all those existing catch basins, manholes, inlets, valve vaults, City Electric manholes or other structures which are to be adjusted to grade where twenty-four inches or less of masonry will be either added, removed or rebuilt to bring the specified casting to the finished grade of the proposed improvement. The maximum adjusting ring height is eight inches. If the adjustment exceeds a height of eight inches, the cone must be removed and the barrel section adjusted.

General Requirements: Prior to starting construction, an inspection of all the existing structures, will be made by the Engineer and the Contractor to determine the amount of existing debris in these structures. Upon completion of the work, the Contractor shall clean only those structures where debris has been added due to construction with the following additions, catch basins shall be cleaned of all construction debris and existing debris shall be removed to one foot below the half trap, inlets and storm sewer manholes shall be cleaned of all construction and existing debris, valve vaults for mains less than 24 inches in diameter shall be cleaned of all construction

debris and existing debris shall be removed to the top of the main, valve vaults for mains 24 inches or greater in diameter shall be cleaned of all construction debris and all existing debris shall be removed to one foot below the "button". This work will not be paid for separately, but shall be considered incidental to this item.

Backfilling to subbase elevation shall be done with sand as specified in Article 550.07; however, no separate payment for backfilling will be made under these items and the work will be considered incidental to these items.

Bricks shall meet the requirements of Section 1041.

If in any load of brick more than ten percent are inferior, the whole load will be rejected. If less than ten percent are inferior, the brick may be accepted, provided the Contractor will, at his expense, cut out all inferior bricks, and remove them from the site of the work at once.

With approval of the Engineer the Contractor may use precast adjusting rings. Adjustment bricks, rings and structure frames are to be set in a full mortar bed. Shimming of the frame with wood and stones shall not be allowed. The interior of the adjustment shall be "buttered" to the satisfaction of the Engineer. Use of partial bricks will not be allowed. Bricks shall be laid in full header courses only.

Existing frames and lids that are obsolete or damaged shall be replaced when ordered by the Engineer in writing, except that existing frames and lids damaged by the Contractor's operations during construction shall be replaced by the Contractor at his expense.

Removal and patching of pavement around a structure shall be considered as part of the adjustment or reconstruction of that structure, and no additional compensation will be made.

Patching of pavement with Bituminous concrete shall not be allowed. Only High Early Strength Concrete meeting the requirements of Section 1001 and 1020 shall be used. Construction shall be in accordance with the applicable portions of Section 503 of the Standard Specifications.

Under no circumstance shall an adjustment not be completed in the same day as it is started. Under no circumstance shall debris be left in the street overnight.

The Contractor shall stage adjustment work so that the traffic flows in a safe manner.

<u>Method of Measurement:</u> Structure to be Adjusted will be measured on a per each basis which will include up to the first twenty-four inches of required masonry work.

<u>Basis of Payment:</u> STRUCTURES TO BE ADJUSTED will be paid for at the contract unit price per each, which price shall be payment in full for excavation, construction, backfilling, concrete, brick, mortar and disposal of surplus excavation, formwork and all labor and materials including reinforcement bars, and ladder rungs.

WATER SERVICE LINE, 2 ½ INCH

<u>Description:</u> This work shall consist of excavation, furnishing and installing the water service line, and trench backfill. Water service line shall be installed from the Backflow Preventer, (RPZ) to the nearest planter, and between planters at the locations indicated on the plans or as directed by the Engineer.

<u>General Requirements:</u> The Water Service Line shall be installed in a trench at a minimum depth of thirty (30) inches below the finished elevation. The line shall be continuously snaked in alternate horizontal curves, in accordance with the pipe manufacturer's recommendations, to compensate for thermal contraction and expansion.

A tracing wire, 1/C # 14 cable, starting at the RPZ backflow preventer, shall be run continuously in the bottom of the trenches and through the sleeves alongside the full length of the PVC piping.

A warning tape shall be run continuously, at six (6) inches below grade, directly above the Water Service Line and for its full length. At street crossings, the warning tape shall be located above the pipe sleeve between the base course and the bottom of pavement. Acceptable warning tape shall be Presco Products Detectable Underground Utility Marking Tape # D2105-Blue or an equivalent type approved by the Engineer.

Horizontal and vertical separation requirements between water and sewer lines shall be in accordance with IEPA requirements.

The Water Service Line shall enter median planters beneath the concrete median and above the Geotechnical Fabric Envelope which surrounds the French Drain.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be the limited to the area shown on the plans and details. All shoring required shall be considered incidental to this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Water Service Line shall consist of irrigation mainline pipe, ductile iron sleeves, and additional conduits.

Irrigation Mainline Piping

The polyvinyl chloride (PVC) irrigation mainline piping shall connect to the copper water piping a minimum of five (5) feet downstream of the RPZ assembly and extend not less than four (4) feet inside of the planter.

The line shall be Class 200, Polyvinyl Chloride (PVC) with a minimum pressure rating of 200 PSI. Standard Dimension Ratio (SDR) 21, pressure-rated pipe, Type 1, Grade 1, as identified in ASTM D-1784. Pipe shall conform with the requirements of Commercial Standard CFS-256 and ASTM D-2241. The water service line shall meet or exceed the minimum requirements set forth by the American Society of Testing Materials (ASTM) and the National Sanitation Foundation (NSF). Materials used in manufacture of the service line piping shall contain the specified amounts of pigment, stabilizers, and other additives approved by the NSF for conveyance of potable water.

Pipe fittings, such as elbows and tees, shall be schedule 80 PVC meeting or exceeding the requirements of ASTM D-2466 for socket-type PVC fittings. Material shall be Type 1, Grade 1 white PVC (cell classification 12454B) and conform to ASTM D-1784. A PVC cap shall be temporarily installed on the downstream end of the Water Service Line to permit hydrostatic testing prior to connection to the Irrigation System.

After all PVC pipe joints, including the temporary end cap, are completely cured, and after shallow backfilling (leaving all joints exposed to view), the Irrigation Mainline shall be subjected to hydrostatic pressure testing using only water. Compressed air or gases shall not be used for testing. The line shall remain under low-pressure while it is visually inspected in its entirety. After repair of any leaks, the line shall be more heavily backfilled but still leaving the joints exposed pipe shall then be subjected to full city water pressure for not less than twelve hours. Removal of the temporary end cap, after completion of all testing, shall be included in this item.

Installation and testing of the Water Service Line 2 1/2"shall be performed in a manner meeting the approval of the Engineer.

Ductile Iron Sleeves

Water Service Lines beneath pavement, sidewalk, alley, driveways, and concrete median wall, and concrete median surface must be installed in Ductile Iron Sleeves, 6 inch diameter.

Sleeve lengths shall extend not less than twelve (12) inches into planter or turf areas.

Method of Measurement: Water Service Line will be measured in per linear foot basis.

<u>Basis of Payment:</u> WATER SERVICE LINE, 2 1/2 INCH shall be paid for at the contract price per foot, which price shall include all excavation, trench backfill, PVC piping, fittings, warning tape, tracing wire, ductile iron sleeves, additional conduits, hydrostatic testing, all permits and associated fees, and all other incidentals required to complete this work as specified herein and as shown on the plans.

WATER TAP, 2 INCH

<u>Description:</u> This work shall consist paying for and obtaining a water main tap permit from the City of Chicago Department of Water Management (CDWM), scheduling date and time for the CDWM to perform the tap, excavation to the existing water main, exposing the water main, cleaning the exterior of the water main, installing copper piping from the water tap to the water

valve assembly, and placing and compacting trench backfill for each of the water service connections shown on drawings or as directed by the Engineer.

<u>General Requirements:</u> This work must be performed by a City of Chicago Licenced Plumbing Contractor.

The Contractor shall obtain a Water Tap Permit from the City of Chicago Department of Water Management at 121 N. LaSalle Street (City Hall), Room 1111. The contractor must supply approved irrigation shop drawings which indicate maximum flow rates, length of taps from property lines, and any other information required by CDWM. The Contractor will be required to pay a fee to the Department of Water Management in order to obtain the permit.

The contractor must supply street opening permit from the CDOT Bureau of Traffic.

The Contractor must schedule the date and time to perform the tap with the CDWM. The tap date is approximately two (2) weeks following permit issuance. The tap date must be coordinated with the Construction Phasing and the Maintenance of Traffic Plans, to minimize traffic conflicts.

The Contractor shall not remove pavement or excavate trench to the water main more than one (1) working day prior to the scheduled tap, unless otherwise approved by the Engineer. The placement and anchoring of steel plates and all additional traffic control required shall be considered incidental to this item.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be the minimum area required to facilitate the water tap. All shoring required shall be considered incidental to this item. This item shall also include excavation required to install pipe from the water tap to the Water Valve Assembly.

The excavation for water taps to be installed under pavement shall be from the sub-grade elevation to the depth required to perform the water tap. The excavation for water taps under non-paved areas shall be from the existing surface elevation to the depth required to perform the tap. Excavation shall not be paid for separately but shall be considered incidental to this item. Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

The Contractor shall clean the exterior of the water main to facilitate placement of the "saddle" by CDWM to perform the water tap. The Contractor shall use equipment which will not damage the water main. If the water main is not prepared to the satisfaction of the CDWM the tap will not be performed and must be rescheduled.

The Contractor shall install Type K Copper Pipe, 2 inch diameter from the water tap to the Water Valve Assembly. This work shall be considered incidental to this item.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Method of Measurement: Water Taps will be measured on a per each basis.

<u>Basis of Payment:</u> WATER TAP, 2 INCH will be paid for per each, which price shall include all labor, material, and equipment required to complete the work as specified.

WATER METER IN VAULT, 2 INCH

<u>Description:</u> This work shall consist of excavation, furnishing and installing water meter in a concrete vault, Type K, 2 inch copper pipe, and sand backfill at locations indicated on the plans or as directed by the Engineer.

The water meter type and brand shall be in accordance with the Chicago Department of Water Management Standards and AWWA C-700. The vault shall be a precast concrete as shown on the details in accordance with section 504 of the Standard Specifications and as directed by the Engineer.

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the water meter in vault to the backflow preventer (RPZ).

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item. Any dewatering required shall not be paid for separately but will be incidental to the contract unit price of this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation

The installation of the water service line shall conform to Section 562 of the Standard Specifications and the Chicago Department of Water Management requirements.

The Contractor must notify the Chicago Department of Water Management (744-3711) seventy-two (72) hours before this work commences so that the Chicago Department of Water Management can provide field inspectors to oversee this work.

<u>Method of Measurement:</u> Water meter in vault will be measured on a per each basis.

<u>Basis of Payment:</u> WATER METER IN VAULT, 2 INCH shall be paid for at the contract unit price per each which price shall include excavation, disposal of excavated material, meter, vault, frame and lid, fittings, connections and adjustments, Type K, 2 inch copper pipe, and sand backfill required to complete the work as specified.

WATER VALVE, 2 INCH

<u>Description:</u> Work associated with this item shall include excavation, the furnishing and installation of water valves and water valve service boxes, installation Type K copper water pipe, and sand backfill as indicated on the plans, and as directed by the Engineer.

Water valves, 2 inch, shall be curb stops fabricated of brass and provided with outlets suitable for copper connections. Curb stops shall be of the round-way type conforming to AWWA Standard C800-89 Underground Service Line Valves and Fittings.

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the valve assembly to the water meter in vault.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Curb Stops shall be housed in curb boxes. Curb boxes shall be screw type, with the base threaded to attach to the curb stop or shall be Buffalo or "arch" type, and of such construction that it shall be capable of extension to finished grade. Base sections and lids shall be cast of heavy, high grade iron. "Water" shall be marked on lid. Curb stop and box shall be equipped with a shut-off rod, typically 2 inches shorter than the curb box at is maximum extension.

Method of Measurement: Water valves 2" will be measured on a per each basis.

<u>Basis of Payment</u>: WATER VALVES 2" will be paid for per each, which price shall include all labor, material, and equipment required to complete the work as specified.

BACKFLOW PREVENTER (RPZ), 2 INCH

<u>Description:</u> This item shall consist of excavation, installation of ASSE Standard backflow preventers, installation Type K copper water pipe, and sand backfill as indicated on the plans, and as directed by the Engineer.

<u>General Requirements:</u> Backflow preventers shall be of the size indicated for maximum flow rate and maximum pressure loss required. City approved with AGD Series air gap.

- 1. Working Pressure: 150 psi minimum except where otherwise indicated.
- 2. 2 Inches and Smaller: Bronze body with threaded ends.
- 3. 2-1/2 Inches and Larger: Bronze, cast-iron, steel, or stainless-steel body with flanged ends. Provide AWWA C550, interior protective epoxy coating for backflow preventers with cast-iron or steel body.

Interior Components must be Corrosion-resistant materials.

Other incidental items:

- 1. Strainer supplied within RPZ and compatible with size and capacity of unit, on the inlet.
- 2. Winterizing pipe caps.
- 3. RPZ Enclosure fastened to concrete base and concrete filled steel bollards.

Reduced-Pressure-Principle Backflow Preventer: ASSE 1013, with (OS&Y) gate valves on inlet and outlet, and strainer on inlet. Include test cocks and pressure-differential relief valve with ASME A112.1.2 air-gap fitting located between 2 positive-seating check valves for continuous pressure application.

- 1. Pressure Loss: 15 psig maximum, through middle third of flow range.
- 2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2 inches (50 mm) and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
- 3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

Anti-siphon, Pressure-Type Vacuum Breakers: ASSE 1020, with valves, spring-loaded check valve, and spring-loaded floating disc. Include test cocks and atmospheric vent for continuous pressure application.

- 1. Pressure Loss: 6 psig maximum, through middle third of flow range.
- 2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2 inches and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
- 3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

Pressure Gauge:

ASME B40.1, 4-1/2-inch (115 mm) diameter dial, with dial range of 2 times system operating pressure and bottom outlet.

Concrete Base: Concrete: Portland cement mix, 3000 psi.

- Cement: ASTM C 150, Type I.
- 2. Fine Aggregate: ASTM C 33, sand.
- 3. Coarse Aggregate: ASTM C 33, crushed gravel.
- Water: Potable.

Reinforcement: Steel conforming to the following:

- 1. Fabric: ASTM A 185, welded wire fabric, plain.
- 2. Reinforcement Bars: ASTM A 615, Grade 60, deformed.

Backflow Preventers: RPZ's shall be FEBCO Model No. 825YA or an approved equivalent complete with shutoff valves, wye strainers shall be FEBCO Model 650 or an approved equivalent. RPZ's shall be furnished with flanged unions to facilitate field removal for freeze protection or maintenance. All work shall be in accordance with Chicago Department of Water Management Standards.

Valves for above ground installation shall be

- A. Grinnell Supply Sales Co., Grinnell Corp.
- B. Milwaukee Valve Co., Inc.
- C. Nibco, Inc.
- D. Hammond Valve Div., Prairie Manufacturing Corp.
- E. Or an approved equivalent

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the backflow preventer (RPZ) to a point five (5) feet downstream. From that point the system will either be paid as IRRIGATION SYSTEM or WATER SERVICE LINE.

The copper piping may be converted to PVC pipe five (5) feet downstream of the backflow preventer.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be the limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Method of Measurement: Backflow preventers (RPZ) will be measured per each installed.

<u>Basis of Payment:</u> BACKFLOW PREVENTER (RPZ), 2 INCH shall be paid for at the contract unit price per each, which price shall include excavation, disposal of excavated material, backflow preventer (RPZ), enclosure, locks, keys, pipe caps, installation of Type K copper piping, and sand backfill required to complete the work as specified.

GEOTECHNICAL FABRIC

<u>Description</u>: This work shall consist of placing Geotechnical Fabric for French Drain in landscaped areas, as shown on the plans or as directed by the Engineer.

<u>General Requirements</u>: The fabric shall be delivered to the jobsite is such a manner to facilitate handling and incorporation into the work without damage. In no case shall the fabric be stored and exposed to direct sunlight that might significantly diminish its strength or toughness. Torn or punctured fabric shall not be used.

After the trench has been approved by the Engineer, the fabric shall be loosely rolled out so the center of the fabric is at the centerline of the excavated trench, and it will not tear when the aggregate is placed. When more than one section of fabric is used, the fabric shall overlap a minimum of two (2) feet. Enough fabric shall remain uncovered after the trench is filled to provide for fabric to overlap a minimum of two (2) feet at the top.

During backfilling with Porous Granular Material, a minimum 6-inch cushion of the aggregate shall be carefully placed over the lined trench before end dumping larger aggregates out of trucks or other equipment. Following the backfilling operation, the fabric shall be lapped over the top and covered with soil.

Materials for the geotechnical fabric shall meet the requirements of Section 1080.05 of the Standard Specifications.

<u>Method of Measurement</u>: Geotechnical Fabric will be measured for payment in place and the area computed in square yards. The additional fabric required for overlaps of individual sheets and overlaps at the top of the french drain will not be measured for payment.

<u>Basis of Payment</u>: GEOTECHNICAL FABRIC will be paid for at the contract unit price per square yard, which price shall include all labor, material and equipment for furnishing, transporting, and installing the material in place.

POROUS GRANULAR MATERIAL

Work under this item shall be in accordance with the requirements of Section 207 of the Standard Specifications except as herein modified.

<u>Description</u>: This work shall consist of furnishing, transporting and placing porous granular material.

<u>General Requirements</u>: Materials placed as French Drains in medians shall be of CA (1) or CA (3) gradation as described in Section 1004 of the Standard Specifications. Geotechnical Fabric and Inspection Pipes shall be paid for separately.

Material placed as backfill, or other applications shall be meet the requirements of Section 1003 and 1004 of the Standard Specifications, except that wet bottom boiler slag as defined in Article 1004.01 will not be allowed. The gradations for different applications shall be determined by the Engineer. The use of limestone, crushed concrete, or any other lime bearing material will not be permitted within two (2) feet of any planted area.

The aggregate shall be placed in six (6) inch layers, loose measurement, and compacted in a manner approved by the Engineer, except that if the desired results are being obtained, the compacted thickness of any layer may be increased to a maximum thickness of eight (8) inches.

<u>Method of Measurement</u>: Porous Granular Material will be measured for payment in cubic yards, compacted in place and the volume computed by the method of average end areas.

<u>Basis of Payment</u>: POROUS GRANULAR MATERIAL will be paid for at the contract unit price per cubic yard, which price shall include all labor, material and equipment for furnishing, transporting, placing and compacting the material in place.

INSPECTION PIPE, 4 INCH

<u>Description</u>: This work shall consist of the installation of inspection pipe, 4 inch diameter at an approximate 100' spacing along the landscaped medians as indicated on the plans or as directed by the Engineer.

<u>General Requirements</u>: Inspection Pipe, 4 inch shall extend from 3 inches above the mulch surface to the bottom of the French Drain, as shown in the plans.

The Inspection Pipe, 4 inch shall be Polyvinyl Chloride (PVC) pipe. The bottom 3 inches of the Inspection Pipe, 4 Inch shall be notched as indicated on plan details.

The top of the Inspection Pipe, 4 Inch is to be capped by use of a threaded cap. The cap must be easily removed by use of a hand wrench.

Geotechnical fabric shall be secured around the inspection pipe by use of a stainless steel adjustable pipe clamp. The geotechnical fabric secured to the inspection pipe shall over lap the French Drain system a minimum of two (2) feet. This work is considered incidental to this item.

A 3/4 x 3/4 inch or 3/4 inch diameter wooden rod, the same length as the Inspection Pipe, shall be placed inside the pipe.

Method of Measurement: Inspection Pipe, 4 Inch will be measured on a per each basis.

<u>Basis of Payment</u>: INSPECTION PIPE, 4 INCH shall be paid for at the contract unit price per each. This price shall include all labor, material and equipment required to complete this item.

IRRIGATION SYSTEM

Description:

A. This work includes design and installation of the irrigation system as indicated on the drawings and as specified herein.

- B. Contractor shall prepare design drawings and shop drawings for approval by the Engineer and the Department of Water Management prior to commencement of any work on this item.
- C. This work shall include all labor, material, equipment, permits, and services to construct the irrigation system as designed in approved shop drawings, in accordance with sections 561, 562, 563, and 565 of the Standard Specification for Road and Bridge Construction and the Standard Construction Details, except as herein modified.
- D. This work shall include monitoring and adjusting the completed system to assure healthy plant development.

Water Services:

- A. Work described in the items WATER TAP, WATER VALVE ASSEMBLY, WATER METER IN VAULT, BACKFLOW PREVENTER (R.P.Z.), and WATER SERVICE LINE will collectively be described as Water Service Components within this specification.
- B. Water Service Components must be installed prior to the installation of the irrigation system, unless otherwise approved by the Engineer.
- C. The Water Service Components to be provided in this <u>contract</u> are shown in the plans. The number of water services and sizes shown in the plans have been designed to provide an adequate amount of water supply to service the areas to be irrigated (based on City of Chicago average water main pressure). If it is determined the Irrigation System requires a greater water supply to conform with the requirements of this specification the Contractor must notify the Engineer immediately. Contractor is to verify existing water pressure at the main and notify the Engineer in writing.
- D. The locations of Water Service Components are shown on the plans schematically. The location the Water Service Components will be determined by the Engineer in the field. The irrigation system must be designed to accommodate the location of the Water Service Components as installed.

Electrical Services:

- A. The items contained in this contract used to supply electrical power for the irrigation system will be collectively described as the Electrical Service within this specification.
- B. Electrical Services are not required for battery or solar powered irrigation system controllers. The types of controllers to be used are shown on the plans.
- C. This specification includes requirements for both battery and electrical powered components. Therefore, some items are dependent on the type of system to be installed.
- D. Electrical Services will be obtained from either a new service from a Commonwealth Edison power source, or from a street lighting controller.

- E. Electrical services for pump stations <u>must</u> be obtained from a Commonwealth Edison power source.
- F. Electrical Service will extend to the pump station or irrigation system controller, and paid for using appropriate items. All electrical components from the pump station or irrigation system controller required to operate the irrigation system in accordance with this specification is considered incidental to this item and must be shown on the shop drawings.
- G. Contractor shall label all wire and circuit breakers to indicate they belong to the irrigation system, as directed by the Engineer.

Codes and Standards:

- A. Codes: All plumbing work shall be installed within applicable provisions of the City of Chicago building codes.
- B. All devices and their installation must be in accordance with the City of Chicago Plumbing Code.
- C. Standards: Items listed to conform to ASTM, ANSI, or manufactures recommendations, for installation.

Design:

The design will be completed, reviewed, and signed by a Licensed Professional Engineer or a Licensed Plumber. The design will follow these guidelines:

- A. Max velocity = 5 feet per second.
- B. Spray head distribution system shall be designed, unless the existing water main pressure is not sufficient. If main pressure is not sufficient a drip line system could be designed if approved by the Engineer.
- C. Spray Heads Minimum Height:

Non-Turf Areas: 12 inches expandable to 18 inches

Turf Areas: minimum 4 inches or sufficient height to account for grade

differentials

D. PSI variance:

All spray heads should operate at ±3 psi of every spray head within a zone.

All zones should operate at ±3 psi of every zone within a system.

E. Isolation Valves:

Median Planters Isolate each median planter
Parkway Planters Isolate every 300 feet
Turf, Parks, & Malls Per Engineer's Approval

F. Head Spacing:

Median and Parkway Planters: 10 feet max spacing

Turf, Parks, Malls, and Plazas: 50% of the diameter of throw minimum. Square or triangular spacing must be used. The heads should have a matched

precipitation rate.

G. Angle of Trajectory: Should be calculated so that the spray will be above the mature plant height.

H. Precipitation:

Non-turf: Minimum 1 ½ Inch per week
Turf: Minimum 1 Inch per week

I. Watering Run Times:

Spray Head: Three (3) waterings per week, eight (8) hour per watering

maximum duration.

Drip: Three (3) run times per week, twenty-four (24) hour per watering

maximum duration.

J. Wiring size: calculations must be made to account for voltage drops and any splicing must be reflected on the shop drawings.

K. Quick Couple Valves Spacing:

Median Planters: 200 feet or 1 per median Parkway Planters: 200 feet or 3 per block

Parks, Malls and Plazas: 100 feet radius between valves, minimum 1.

Submittals:

- A. Shop drawings shall be prepared by a Licensed Professional Engineer or a Licensed Plumber with proven experience in the design of irrigation systems of the magnitude of this project.
- B. Shop drawings shall include pipe detailing, controller layout, fabrication and installation of irrigation systems. Indicate plans, elevations and dimensions, including all accessories.
- C. Submittals shall include hydraulic calculations for circuit pressure losses and existing water pressure at the main.
- D. Submittals shall include wiring sizes and electrical calculations.
- E. Submittals shall include a complete package of catalog cut sheets for all equipment used in this irrigation system.

Manufacturers and Minimum Requirements:

Manufacturers: All products list herein are acceptable. However, the contractor can specify other products. These will be subject to review for approval prior to installation. Judgment of whether a product is equal to the approved will be based on the product information sheet, and the Engineer's past experiences with products.

1. PVC or Polyethylene Piping & Fittings:

All sprinkler piping mainlines and lateral pipe shall be SDR-21, Class 200, Polyvinyl Chloride (PVC) with a minimum pressure rating of 200 PSI. Pipe shall be permanently and continuously marked with the manufacturer's name, trademark, size, type, and National Sanitation Foundation (NSF) seal of approval. Pipe shall conform with the requirements of Commercial Standard CFS-256 and ASTM D-2241. PVC pipe shall be as manufactured by Crestline.

All PVC fittings shall be solvent weld, Schedule #40 and shall conform to ASTM D-2466. Fittings shall be manufactured from PVC Type I materials and shall meet National Sanitation Foundation (NSF) standards. PVC fittings shall be as manufactured by Spears Manufacturing Company. PVC fittings shall be joined with an approved PVC primer and cement.

Polyethylene piping 1 inch thru 1 $\frac{1}{2}$ inch can be used for lateral piping, (down stream of the control valve). The pipe shall be polyethylene NT80 irrigation pipe SIDR-15 PE2406 NSF-PW ASTM D 2239 PPFA manufactured by Crestline. The pipe must be permanently continuously labeled accordingly. The insert fittings are to be constructed of PVC and shall conform to ASTM D 2609 and National Sanitation Foundation Standard #14 plastic fittings for potable water. Insert fittings shall be clamped to pipe with two (2) stainless steel crimp type clamps on each pipe end.

Plastic insert fittings for polyethylene plastic pipe are manufactured by Spears Manufacturing Company. Clamps shall be manufactured by Oetiker.

2. <u>Installation Main & Lateral Piping:</u>

All sprinkler main lines shall be installed by open trench method using either a chain type trencher or hand excavated. Trenches shall be excavated so as to provide sufficient depth and width to permit proper handling and installation of pipe and fittings. Excavate the trench deep enough to provide a minimum of 18 inches of cover over the pipe. Ensure that the bottom of the trench is clean and smooth with all rock, loose soil and organic matter removed. Trench bottom must provide a smooth and continuous bearing surface to support the pipe.

When the cutting of pipe is required the pipes shall be cut clean and square with all burrs removed prior to solvent welding. Pipe must be free of all dust, dirt, moisture, grease, oil, or any other foreign material.

Pipe shall be joined by solvent welding method using a quality primer and cement applied according to the manufacturer's recommendation. Excess solvent shall be wiped cleaned from the pipe and fittings.

Sprinkler lateral piping may be installed by either open trench method or with an approved "vibratory plow". Where the open trench method is employed, the above specifications shall apply. In both the "open trench" method and the "vibratory plow" method, the minimum depth of cover for the lateral lines shall be 18 inches.

Where the "vibratory plow" method is used, the "mole" or "bullet" of the plow which precedes the pipe and is used to form the opening for the pipe shall not be less than 1 inch larger diameter than the outside diameter of the pipe. Starting and finishing holes shall be of sufficient size to allow for proper connection of the required fittings.

For polyethylene pipe, the insert fittings are to be clamped with stainless steel clamps. All fittings are to be double clamped securely over the barbs on fittings.

Detectable Warning Tape shall be installed over all pipes. The tape will be placed so that it is 6 inches above the top of the pipe. Polyethylene film warning tape manufactured for marking and identifying underground utilities, 4 inches wide and 5 mils thick minimum continuously inscribed with "Irrigation" detectable by metal detector when tape is buried up to 30 inches deep.

3a. <u>Irrigation Controllers (Electric Operated):</u>

The irrigation controllers shall accommodate all zones plus 3 extra zones, providing for complete automatic operation of the system. Run time for the controller shall be 0-2 Hours per station and shall provide for schedules of up to 2 weeks with interval scheduling available as an alternate method. The controllers shall have a seasonal adjust features capable of increasing or decreasing station timing from 0% to 200%. The controllers shall have a non-volatile memory capable of holding program information during power outages.

The controllers shall have a 365-day calendar, which automatically adjusts for leap year.

The controllers shall be programmable for up to 32 start times per day per program and shall be capable of operating 24 Volt AC electric remote control valves via a 30 Volt AC transformer.

The controller cabinets shall be constructed of cold forged stainless steel, and have a key-lockable door for vandal resistance.

The controllers shall be UL listed.

The controllers shall be Rainbird model ESP-MC.

3b. Battery Operated Controller:

An IBOC 12PLUS Series controller manufactured by Irritrol Systems, or an approved equivalent controller shall be furnished and installed to regulate the irrigation system. The controller shall operate on one six volt alkaline battery. The controller must be capable of watering a minimum of 12 stations.

4. <u>Install Irrigation Controller (Electric Operated):</u>

The irrigation controller is to be installed in a cabinet. The cabinet shall be brown in mulched areas and green in turfed areas or as directed by the Engineer. The cabinet shall have a single duplex outlet securely fastened. The cabinet will be able to be locked with a single lock. The lock will be provided by the Engineer. The cabinet will have the dimensions and installed per the details in the plans.

Weatherproof break-away in-line fuses shall be installed in the electrical service cable prior to the connection to the controller. The fuses shall be in the controller cabinet.

The low voltage irrigation control wiring is to be installed in 2 inch steel heavy wall electrical conduit for protection. The conduit shall run from the controller, down and out 12 inches into the soil area. Conduit fittings are to be used to make 90 degree turn backs on the conduit at points of exit from the walls. (In no case shall the low voltage irrigation control wiring be installed in Class 160 or 200 PVC sprinkler pipe and Schedule 40 PVC 90-degree elbows).

The locations of all zones and recommended run times shall also be labeled on the controller along with the name, address, and phone number of the irrigation Installer.

The Contractor is responsible for obtaining any electric permits required for the low voltage wiring.

The irrigation controller shall be installed in a secured enclosure (cabinet). The enclosure shall be UL NEMA 4X Hinge Clip with provisions for a padlock and safety chain for door stops. The approximate dimensions are 20"x20"x8" with 4 legs. It shall be constructed of all stainless steel type 316 code gauge all seam weld grinded smooth. All conduits shall enter from the bottom. The enclosure shall be equipped with proper ventilation. The enclosure shall be primed and painted (brown in mulch area and green in turf area or black if determined by the Engineer). The controller and equipment shall be mounted on a back plate. It shall include a disconnect, GFI protection, duplex outlet, and protected fuses. All equipment housed in the enclosure shall be labeled as UL assembly. The enclosure shall be securely fastened square and level to the concrete pad using all stainless steel fasteners.

5a. <u>Automatic Control Valves (Electric Operated):</u>

Automatic Control Valve shall be female pipe inlet and female pipe outlet connection. The diaphragm shall be of rubber construction to retain flexibility and provide maximum sealing throughout its area.

The valve shall have a manual flow control, with a hand-operated, rising-type flow control stem with control wheel/handle. All parts shall be serviceable without removing valve from the line.

18 inch solenoid lead wires shall be attached to a 24 VAC, 50/60 cycle solenoid with waterproof molded coil. The valves shall be normally closed.

The automatic control valve shall be model PEB series as manufactured by Rainbird.

5b. Solenoid & Control Module for Control Valves (Battery Operated)

If electric power is not readily available the irrigation system shall be operated with latching solenoids, control modules and field transmitters. The latching solenoid shall be supplied with an installed filtered adapter allowing installation of the solenoid to the appropriate solenoid valve.

The DC latching solenoid shall be as manufactured by Rain Bird Sprinkler Mfg. Corp. or an approved equivalent.

6a. <u>Installation Automatic Control Valves (Electric Operated):</u>

The automatic control valves are to be installed at the locations indicated on the shop drawings. All PVC shall conform to the Section 1. PVC Piping and Fittings. Schedule 80 toe-nipples are to be used on the up stream and down stream sides of the valve. Wire splicing for valves to follow Section 12 of this specification, CONTROL WIRING. Valves shall be assembled so that they fit comfortably and properly in the valve boxes allowing sufficient room for service. Every effort should be made to install the valves, and valve boxes, in a location where they will not interfere with foot traffic or the maintenance of the landscape.

6b. <u>Installation Solenoid and Control Module for Control Valves (Battery Operated)</u>
The control module shall be mounted inside the valve box with stainless steel fasteners. It will be mounted for ease of accessibility and connection to irrigation controller.

At sometime after the completion of this project, the Engineer may deem it necessary to utilize a power source. Wiring as for the model PEB series as manufactured by Rainbird is required. The wiring should terminate at the location of the RPZ.

7. Heads; Rotary, Spray, Swing Joints:

a. Median and Parkway Planters: The Sprinkler Heads shall be fixed spray type designed for in-ground installation. The body of the sprinkler shall be constructed of non-corrosive heavy -duty cycolac. The sprinkler heads shall have a riser screen filter to prevent entry of foreign materials to the nozzle. All parts shall be removable through the top of the sprinkler case. The sprinkler heads shall have a stainless steel retraction spring to ensure positive pop-down and shall have a Conilip seal and cap to provide proper sealing.

The sprinkler heads shall be of pop-up design with an overall body height of 16 inches, and have a pop-up stroke of 12 inches.

The Spray Heads shall be Model 1812 for landscaped areas as manufactured by the Rainbird, for turf areas Model 1804 is permitted provided that available pressure does not allow for the use of rotary heads.

b. Turf Areas (when approved by the Engineer): Full and Part Circle Rotary Sprinkler Heads shall be gear drive rotary sprinkler heads with a built in check valve to eliminate low head drainage. Radius reduction shall be adjustable by up to 25% by means of radius adjustment screw accessible from the top of the cap. Water distribution shall be via two (2) nozzles mounted in a stainless nozzle turret. The dual nozzles shall elevate 2-3/8 inches when in operation.

Retraction shall be achieved by a heavy-duty stainless steel retraction spring. The sprinkler head shall have a riser seal and a wiper which permits limited flushing on the up and down stroke. Rotation shall be accomplished by a planetary gear assembly. The sprinkler head housing shall be of high impact molded plastic with a 1 inch NPT connection.

The rotary heads shall be I-25 ADS series with stainless steel sleeve, manufacturing by Hunter.

c. All heads will be installed with swing joints. Sprinkler head swing joints are to be factory assembled PVC swing joints constructed of 315-psi pressure rated materials. Swing joints shall be three-elbow construction with pre-lubricated buttress threaded connections and double O-Ring seals.

Sprinkler head swing joints shall be manufactured by Spears Manufacturing Company, Sylmar, California.

8. <u>Installation Heads; Rotary, Spray, Swing Joints:</u>

Sprinkler heads shall be installed flush and level with existing grades. Where sprinkler heads are installed along curbs or sidewalks, heads are to be placed 4 inches from the curb or sidewalk to allow for mechanized trimming. Where sprinkler heads are installed in plant beds, the sprinkler heads must be installed 2 inches from the edge of planter wall. Soil around sprinkler head shall be tightly compacted.

All lines are to be flushed clean of debris prior to the installation of sprinkler head. Sprinkler heads and spray arcs are to be adjusted so that spray does not encroach into roadways or wet buildings and other structures.

9. Quick Couple Valves:

Quick Couple Valves shall be 1 inch with one-piece body construction from heavy cast bronze.

Quick Couple Valves shall be model QCV100N manufactured by Storm irrigation Products.

Two quick Coupler Keys shall be provided. The keys shall be one (1) inch single lug coupler made from heavy cast bronze.

Quick Couple Keys shall be model C-100 with hose swivel model HS100 manufactured by Storm irrigation Products.

10. Installation of Quick Couple Valves:

Quick coupler valves are to be installed plumb in a 10 inch round valve box (see Valve Box for product) The quick coupler valves are to be secured with a 36 inch x 5/8 inch epoxy coated steel rebar driven into stable ground. The quick coupler valve and rebar are to be secured together with three separate heavy duty stainless hose clamps. All quick coupler valves shall be mounted on a prefabricated triple swing joint assembly.

The swing joint assembly shall be model 5806-01-012 manufactured by Spears Manufacturing Company.

11. Control Wiring:

The irrigation control wire shall be a minimum of 14 gauge, single conductor, low energy circuit cable. A single 12-gauge single conductor white control wire shall be utilized as the common wire and connected in series to each valve. Zone wire shall be red, yellow, or orange in color. Irrigation Control Wire shall be a 14 gauge minimum PVC jacketed, single conductor, 600 volt rated, low energy direct burial circuit cable. The irrigation control wire shall be UL listed.

Irrigation control wiring shall be manufactured by Paige Electric Company, Union New Jersey.

12. Installation of Control Wiring:

Every other solenoid valve should have a spare control wire running from the irrigation controller. The spare wires should be marked at both termination points. The irrigation control wires are to be bundled and taped together at five-foot intervals. An expansion loop shall be provided every 100 feet, at every 90-degree angle, and at each valve location. Where irrigation control wiring is installed by itself, the minimum depth of cover shall be 24 inches. Under no circumstance shall the control wires be pulled through the ground. If a vibratory plow is utilized to install control wire, the plow must be used with a wire or cable-laying blade, which allows for cable installation without pulling the wire through the ground.

Splicing is not permissible unless approved on the shop drawings. If splicing has been approved all splices shall be waterproof. Should splices be required other than at valve locations, those splices must be installed in a valve box and noted on the As Built Plans. Under no circumstances shall splices be buried.

Splice Kits shall be Scotch DBY Direct Bury Splice Kit as manufactured by Electric Products Division/3M, St. Paul, MN.

13. Valve Boxes:

Valve Access Boxes shall be constructed of a combination of polyolefin and fibrous inorganic components (Superflexon Plastic) which is chemically inert and normally unaffected by moisture, corrosion and the effects of temperature change. Valve Boxes shall have a tensile strength of 3,400 psi.

For the automatic control valves, the Valve Box Base shall be #170101 and Valve Box Lid shall be #17314 as manufactured by Ametek Plymouth Products Division, Sheboygan, Wisconsin.

For the quick couple valves, the Valve Box shall be Model #181014 as manufactured by Ametek Plymouth Products Division, Sheboygen, Wisconsin.

The lids and boxes will be green for turfed areas and brown for mulched areas.

14. Installation of Valve Boxes:

Each automatic control valve shall be installed in a valve box. A minimum of two valve boxes shall be stacked. The valve boxes shall be installed so that the valve is centered in the box allowing sufficient room for servicing of the valves. Clearance between the highest part of the valve and the bottom of the valve box lid shall be 2 inch minimum. The lid must not be too deep for convenient service. The valve box must not rest on the pipe. Clearance between the top of the piping and the bottom of the valve box shall be a minimum of 1 inch. Each valve box is to be installed flush and plumb to grade.

As a part of the valve box installation 3 to 4 inches of $\frac{1}{2}$ to 1 inch stone, free of fines should be placed so that the top of the stone is 2" below the valve.

15. Drip Lines:

The drip system shall include all necessary components for a drip system. Such as, filter for solenoid, drip tubing, check valves, air vacuum relief valve, lateral piping, line flush valve and fittings.

The drip tubing is to have a root barrier which makes it resistant to root intrusion. The drip tubing is to be Netafim Techline pipe with a dripper flow rate of 0.9 GPH part # TLDL 9-1210 with 12 inch on center spacing for the drippers.

16. Drip Lines Installation:

The drip tubing will be installed in rows 12 to 16 inches apart. The rows closest to the walls of the landscaped planter shall be 2 to 4 inches from the edge of the walls. The drip tubing shall be laid on the finished grade of the soil mixture. The drip tubing must be secured a minimum of every 3 feet with Techline Staples (TLS6). The drip tubing must be installed parallel to the longest wall of the landscaped planter. If the drip tubing needs to go around a plant or obstacle, the tubing must return to its original line as soon as possible. The installation must be complete prior to mulch installation.

When possible the system shall use a center feed layout. The drip tubing shall feed from a PVC or Polyethylene supply header in a grid layout. The exhaust header and the supply header shall form a continuous loop with PVC or Polyethylene piping. The maximum distance between each supply header and exhaust header is 70 feet. The furthest distance in each direction of the solenoid valve shall contain a Netafim Line Flushing Valve, model TLFV-1. The flush valve will be below grade in a valve box with a sump. A filter shall be installed down stream of the solenoid valve with the appropriate

filter mesh in accordance with Techline design manual. An air vacuum relief valve is to be installed at the highest points of each zone. The air vacuum relief valve is to be installed in a valve box. A single micro-spray head is required for each zone. The spray head is required to indicate that a zone is on and working. It should not be used as a main watering source for an area.

In situations where the slope is greater than or equal to 4% install the drip tubing perpendicular to the slope. Check valves must be installed to prevent water from draining to the lower elevations.

Hydrostatic Testing:

- A. The test shall consist of pressurizing the mainline piping system to a minimum of 150 psi for a period of four (4) hours.
- B. During the test, the piping system shall maintain 150 psi with an allowable pressure drop of not more that 5 psi, if any deficiencies in the piping system are found, the piping or fittings shall be repaired or replaced at no additional cost to the contract.

Pressure & Flow Testing:

- A. A test will be taken of the static pressure on the upstream and downstream sides of the RPZ valve.
- B. A pressure reading shall be taken at each zone while each zone is running.
- C. The flow rate shall be recorded from the water meter at each running zone for a 5-minute period.
- D. This information shall be recorded on the As-Built drawings.

As Built Drawings:

Upon completion of the installation the Contractor shall prepare and submit an "As-Built" drawing of the completed project. The drawings will show the accurate locations of all valves, quick couplers, mainline, wire splices, backflow devices, and controllers. The drawing shall also show the approximate location of sprinkler heads and lateral lines. Each controller shall be labeled on the plan alphabetically starting with A and the zones controlled by that controller shall be labeled A-1, A-2, A-3...etc.

The drawings must also show the locations of Water Service Components and Electrical Service Components.

Demonstration:

Demonstrate to Engineer's maintenance personnel operation of equipment, sprinklers, specialties, and accessories. Review operating and maintenance information. Provide 7 days notice to all parties in advance of each demonstration.

Method of Measurement: Irrigation system shall be measured per square yard of planted area.

Basis of Payment: IRRIGATION SYSTEM will be paid for at the contract unit price per square yard of planted area. Which price shall be payment in full for all labor, material, equipment, and services necessary for providing the landscape irrigation systems in a serviceable, fully operational manner, including, but not limited to, excavation, backfilling, sprinkler heads, solenoid control valves, isolation valves, valve boxes, automatic controls, system testing, owner personnel training, piping, equipment identification, plumbing permits, inspection fees, valve tags, charts, supports, sleeves, fittings, valves, and accessories.

IRRIGATION SYSTEM FALL SHUTDOWN IRRIGATION SYSTEM SPRING STARTUP

Description: The work to be performed under this item consists of placing the irrigation systems into operation (start-up) and preparing the irrigation systems for winter (shutdown) in accordance with the detailed specifications herein and generally accepted practices for operating, adjusting, and maintaining irrigation systems. This pay item does not include the initial start-up of the irrigation system. Initial start-up shall be included in the pay item **IRRIGATION SYSTEM per square yard.**

All work on the irrigation system shall be performed between April 1 and November 20 or as specified.

All plumbing work shall be done by licensed plumbers as per the applicable requirements of the <u>Chicago Building Code</u> and <u>Illinois Plumbing Code</u> (latest edition).

<u>General Requirements</u>: The Contractor shall coordinate all activities required for the completion of contract requirements with the Engineer's vendors, suppliers, all subcontractors, and CDOT personnel. The procedures described below represent the intended minimum requirements for irrigation system maintenance; however, the Contractor's design may require different or additional procedures. The Contractor shall submit his recommended maintenance procedures in similar detail for review and approval by the Engineer.

<u>Irrigation Systems Fall Shut-Down (October 1st – 31st):</u>

The Contractor shall prepare the entire irrigation system(s) for winter and protect its components against damage due to freezing or exposure.

Fall shut-down shall occur after October 1st and must be completed not later than October 31st. The following descriptions of work are minimum requirements applicable to all parts of the irrigation systems with the limits shown on the plans:

- 1. Full inspection as detailed in "Irrigation Systems Inspection" section.
- Close valve in service line between city water main and water meter (supply side and discharge side). The piping drain valve downstream of the meter discharge valve shall remain closed and plugged at this time.

- 3. Open water outlets on ends of main piping to depressurize piping. Using the controller, activate each circuit to permit depressurization.
- 4. Remove the reduced pressure zone (RPZ) backflow preventer and prepare it for winter storage, including draining all water from the unit.
- 5. Provide compressed air (minimum one compressor 160 C.F.M.). Open each water outlet until all water and water vapor is released.
- 6. Carefully introduce compressed air into the water service line at the downstream (output) side of the RPZ. The Contractor shall provide any necessary special fittings for connection to the pipe flanges where the RPZ was removed.
- 7. Purge the water service line, the water supply pipe, and each circuit with compressed air. Purge each circuit for a minimum of five (5) minutes.
- 8. In the meter vault, remove the plug from the drain valve and open the drain valve to allow water in the water service line between the RPZ and the water meter to drain into the meter vault. Open the meter discharge side valve and allow water to drain from the water meter. Leave both the drain valve and the meter discharge valve open (until Spring Startup).
- 9. Remove all standing water from within the water meter vault. Record the water meter reading, serial number, and location.
- 10. Store RPZ units for the winter in a secured, frost-free storage facility. Important: RPZ units shall be reinstalled in the spring on the same water service lines from which they were removed in the Fall. After an RPZ is removed; record its serial number and location to facilitate reinstallation at the correct location in the spring.
- 11. Lubricate hinges and locks on all controller and RPZ cabinets.
- 12. Cover the exposed pipe connection fittings on RPZ units and water service lines with black or grey pipe caps. If caps are not available, the Contractor shall provide them at no additional cost to the contract. Covering the fitting with duct tape is not acceptable.

Any damage caused by improper or inadequate irrigation systems' fall shut-down shall be repaired immediately at the Contractor's expense.

Contractor is responsible for any equipment losses during winter storage. Cost of storage shall be included in the cost of this pay item.

The Contractor shall be responsible to complete and submit to the Engineer the Chicago Department of Transportation Division of Infrastructure Management Irrigation Shut Down Form included in these Special Provisions.

<u>Irrigation Systems Spring Startup (April 1st – May 1st):</u>

The Contractor shall place the entire irrigation system(s) into operation by reinstalling and/or reactivating, testing, operating, and adjusting applicable components of the irrigation systems including manual valves, meters, backflow preventers, and water outlets. Spring start-up may be performed after April 1st and must be completed not later than May 1st. This work includes, but is not limited to, the following activities:

- 1. Coordination of the start-up with the Plumbing Inspector-In-Charge, Department of Water Management, a minimum of 48 hours in advance of start-up on each irrigation system so the Department of Water Management can witness the annual testing and recertifying of the reduced pressure backflow preventors (RPZs) and reestablish service. Such testing and recertification of the backflow preventers shall be the responsibility of the Contractor. Illinois Plumbing and Backflow Testing Licenses are required. Any permits required from the Department of Water Management, to perform this work, shall be included in the cost of this pay item.
- 2. Coordination of pick-up and /or delivery of stored RPZ units with the CDOT storage facility and reinstallation of the RPZ units in the same locations from which they were removed.
- 3. Full inspection as detailed in the "Irrigation Systems Inspection" section.
- 4. Full mainline activation and pressurization of each zone and sub-zone in each irrigation system.
- 5. Flushing each mainline system at each end of each system for a minimum of 12 minutes at each end.
- 6. Flushing and testing each water outlet.
- 7. Verifying satisfactory activation of each solenoid valve. Inspecting of all wire connections within valve boxes related to these solenoid valves.
- 8. Inspecting and adjusting (if necessary) all wire connections within each Irrigation System Controller.
- 9. Verifying satisfactory operation of all functions of each controller. Replacing any batteries each Spring. Placing the Spring program into the controller.
- 10. Testing the operation of each moisture sensor. If moisture conditions do not allow testing, a thorough soaking of the sensor area will be necessary. Placing sensor in active and then in bypass modes to test each operation.
- 11. Closing and then opening each isolation valve.
- 12. Lubricating hinges and locks on all controller and RPZ cabinets.
- 13. Testing and tagging each RPZ.
- 14. Re-compacting soil within valve box of each water outlet. Additionally, the Contractor shall verify that the concrete pads for valves or control boxes have compacted soil under them; not just mulch. If necessary, soil shall be placed completely under the pads to ensure continuing proper support and avoidance of stress loads on attached water lines or conduits.
- 15. Observing for visual evidence of water leaks.
- 16. Submitting a field report to the Engineer, the following day after each inspection/spring turn-on, as an overview of each system's operation, performance and required repairs.

Irrigation Systems Inspection: The Contractor shall perform an Irrigation System Inspection once during the spring startup between April 1st and May 1st. The inspection shall be considered included in the Contract Unit Price for Irrigation Systems Startup. The Contract shall notify the Engineer 48 hour prior to any inspections.

Inspection shall be performed while the system is in operation. Each inspection shall include the following activities:

- a. Testing all zones. Verify each manual water outlet valve's operation.
- b. Cleaning clogged manual water outlets.
- c. Trimming plants and grass around manual water outlets and valve boxes as required.
- d. Testing each entire system for overall performance.
- e. Observing for visual evidence of water leaks.
- f. Making all necessary adjustments.
- g. Submitting a written field report to the Engineer the following day after each inspection, including an overview of the system's operation and performance. Identifying any items requiring repairs.

Any damage caused by improper or inadequate irrigation systems' start-up shall be repaired immediately at the Contractor's expense.

The Contractor shall be responsible to complete and submit to the Engineer the Chicago Department of Transportation Division of Infrastructure Management Irrigation Start-Up Form included in these Special Provisions.

Syringing Plants/Flushing Beds (April 1st – May 1st):

The objective of syringing (washing) plants and flushing beds is to reduce damage from winter salt.

In early spring, when temperatures are anticipated to remain above 35 degrees Fahrenheit for a minimum of 24 hours and the threat of snowfall and road salting has diminished, the Contractor shall wash all plant material with a gentle spray of water to remove accumulated salt from stems, bark and crowns. The Contractor shall be responsible for supplying the water.

Between April 1st and May 1st, after irrigation system start-up, apply water at double the normal rate for a period of one (1) week to flush salts from mulch, beds and soil.

Syringing of plants and flushing of beds shall be included on a Median Maintenance Report (see sample form at end of this section) which shall be submitted to the Engineer. This report shall be faxed or delivered to CDOT personnel. If the Median Maintenance Report is not received, it will be assumed that no work was performed and no payment will be made.

Syringing the plants and flushing the beds at irrigated medians shall be considered incidental to IRRIGATION SYSTEMS SPRING STARTUP.

Any lane closures required to perform any of this work shall be done in accordance with Section 701 of the Standard Specifications and as stated under Traffic Control and Protection. Traffic Control and Protection shall no be paid for separately, but shall be considered incidental to this pay item.

<u>Method of Measurement</u>: Irrigation Systems Fall Shutdown and Irrigation System Spring Startup shall be measured per each for each Backflow Preventer (RPZ).

Basis of Payment:

Irrigation Systems Fall Shutdown: This item shall be paid for at the contract price per each for IRRIGATION SYSTEMS FALL SHUTDOWN which price shall include all materials, equipment, storage, and labor to complete the work specified herein for the period starting after October 1st and completing not later than October 31st.

Irrigation Systems Spring Startup: This item shall be paid for at the contract price per each for IRRIGATION SYSTEMS SPRING STARTUP which price shall include all materials, equipment, and labor to complete the work specified herein for the period starting after April 1st and completing not later than May 1st.

CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF INFRASTRUCTURE MANAGEMENT

IRRIGATION SHUT DOWN

Project Name, Location, Limits:		CDOT #:		
CDOT CONTACT	NAME	PHONE		PAGER
Project Manager				
Resident Engineer				
General	Contractor or Mainten	ance Conti	ractor (if ap	plicable)
Contractor:			Office Phone:	
Address:			Office Fax:	
Contact Person:			Phone/Pager:	
	Plumber Ir	nformation	ı	
Plumber:			Office Phone:	
Address:			Office Fax:	
Contact Person:			Phone/Pager:	
			-	
Shut-down Information:				
			C:	
No. of RPZ's to be installed/certified:		Size:		
(List individual rpz locati Dept. of Water Managem	ons and storage site on ba ent contact:	ack of form)		
Phone No.	Date contacted:			
"B" Permit No		lssue date:		
<u> </u>				

CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF INFRASTRUCTURE MANAGEMENT

IRRIGATION START-UP

Project Name, Location, Limits:		CDOT #:				
CDOT CONTACT	NAME	PHONE		PAGER		
Project Manager						
Resident Engineer						
General Contractor or Maintenance Contractor (if applicable)						
Contractor:			Office Phone:			
Address:			Office Fax:			
Contact Person:			Phone/Pager:			
	Plumber Ir	nformation				
Plumber:			Office Phone:			
Address:			Office Fax:			
Contact Person:			Phone/Pager:			
Start-Up Information:						
			Ci			
No. of RPZ's to be installed/certified:			Size:			
(List individual locations Dept. of Water Managem						
Phone No. "B" Permit No.	Date contacted:		Issue date:			
			13346 40			

RP	RPZ SERVICE AND CERTIFICATION RECORD					
Location	Install Date	Certification Date	In-Service Dat			

PLANTING PERENNIAL PLANTS

Add the following to Article 254.04 Planting Time:

No planting material shall be installed before below ground irrigation system components have been installed and are operational.

Trees must be installed prior to perennial planting to establish proper layout and to avoid damage to other plantings.

Add the following to Article 254.06 Layout of Planting:

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. The tree locations must be marked by staking and bed limits must be painted. The Engineer will contact the Roadside Development Unit at (847) 705-4171, at least 72 hours prior to planting to verify the layout.

Add the following to Article 254.07 Planting Procedures:

When planting perennials in bed areas shown on the plans or as directed by the Engineer, the following work shall be performed when planting:

- Open holes sized to accommodate roots, place perennials at finished grade and backfill with planting soil, working carefully to avoid damage to roots and to leave no voids.
- Water well immediately after planting. Do not wash soil onto crowns of plants.

Add the following to Article 254.08 Mulching:

Immediately after planting and watering, mulch shall be placed around all perennial plants to a depth of 2 inches and such that mulch covers all parts of the bed. See specification for Mulch.

Delete Article 254.09 (b) and substitute the following:

Perennial plants must undergo a Period of Establishment starting from the day the plants are planted to May 31, 2007. Additional watering shall be performed not less than twice a week during the Period of Establishment if the irrigation system is not able to provide enough water to establish the plants. Water shall be applied at the rate of 1 gallon per square foot. Should excess moisture prevail, the Engineer may delete any or all of the additional watering cycles. In severe weather, the Engineer may require additional watering.

A spray nozzle that does not damage small plants must be used when watering perennial plants. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing water to flow beyond the periphery of the bed.

During the Period of Establishment, weeds and trash shall be removed from within the mulched perennial beds. This weeding and trash removal shall be performed one (1) time per week or as directed by the Engineer until receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding or trash removal.

The weeding shall be performed in manner approved by the Engineer provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris including trash removal that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

An interim inspection of the perennials will be performed during May 1 to May 7, 2007. Any unacceptable perennials shall be replaced by the completion date May 31, 2007.

Delete the second sentence of Article 254.10 Method of Measurement and substitute the following:

Final measurement for payment of this work will be performed on the final inspection date.

Add the following to Article 254.10 Method of Measurement:

a) Mulch placement will be measured for payment as specified in special provision for MULCH.

Add the following to Article 254.11 Basis of Payment:

- a) The placement of mulch shall be paid for at the contract unit price for MULCH.
- b) The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.
- c) This work will be paid for 25% of the contract unit price per unit of perennials in a live and healthy condition on the date the perennials are planted. The remaining 75% of the contract unit price per unit will be paid for after the successful completion of all required replacement planting and clean up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The unit price shall include the cost of all material, equipment, labor, plant care, disposal and incidental work required to complete the work as specified herein and to the satisfaction of the Engineer.

PLANTING WOODY PLANTS

This work shall consist of planting woody plants as specified in Section 253 of the Standard Specifications with the following revisions:

Delete Article 253.03 (b) and substitute the following:

Fall Planting. This work shall be performed prior to October 15th. No planting material shall be installed before below ground irrigation system components have been installed and are operational. Trees and shrubs shall be installed prior to perennial plant installations.

Delete the first and second sentences of Article 253.04 and substitute the following:

All woody plant material shall be dug while dormant in the spring and properly stored until the planters are ready for planting.

Delete the first sentence of Article 253.06 and substitute the following:

All woody plant material will be allowed to remain in temporary storage over the summer if dug while dormant in the spring.

Delete the third sentence of Article 253.07 and substitute the following:

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. The tree locations must be marked by staking and bed limits must be painted. The Engineer will contact the Roadside Development Unit at (847) 705-4171, at least 72 hours prior to planting to verify the layout.

Delete Article 253.08 Excavation of Plant Holes and substitute the following:

(a) and (b) Excavation for Trees and Shrubs:

- The spacing of planting will be designated on the plans.
- Spacing shall be measured from center to center and alternate rows shall be staggered.
- Excavate with sides vertical, bottom flat but with high center for drainage.
 Deglaze and loosen bottom.
- Minimum dimensions for individual tree pits (unless prevented by planter wall):

The diameter of the hole shall be one (1) foot wider than the root spread.

The depth of the hole shall be such that the top of the root ball is 2 to 3 inches above finish grade (allow for settling).

Delete Article 253.10 (a) and substitute the following:

Balled and Burlapped Trees. Set plants in excavation with top of ball 2 to 3 inches above finished grade. Add soil as required under ball to achieve plumb. Untie all cords binding burlap to trunk. Remove all burlap and wire baskets from top 1/3 of the root ball. Place backfill in 6 inch-thick layers. Work each layer by hand to compact backfill and eliminate voids. Maintain plumb during backfilling. When backfill is approximately 2/3 complete, saturate backfill with water and repeat until no more water can be absorbed. Place and compact remainder of backfill and thoroughly water again. Approved watering equipment shall be at the work site and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED.

Add the following to Article 253.10 (b) Container Grown Plants:

Place and backfill as specified for balled and burlapped stock. Set and plumb shrub even with grade. Place backfill to thoroughly cover all roots.

Delete Article 253.11 and substitute the following:

Immediately after planting and watering, mulch shall be placed around all plants in the entire mulched bed or saucer area specified to a depth of 3 inches. See specification for Mulch.

Delete Article 253.13 and substitute the following:

Staking of trees will not be required.

Delete first paragraph of Article 253.14 and substitute the following:

Trees and shrubs must undergo a Period of Establishment starting from the day the plants are planted to April 30, 2007. Inspection for the successful completion of the Period of Establishment will be made during May 1 to May 7, 2007. To qualify for inspection, the Contractor must receive written certification from the Engineer stating that all specified plant material was in place and in a live healthy condition on or before October 15, 2006. To be acceptable, the plant must be in a live healthy condition, representative of its species. No portion of this work will be inspected until all items of work are completed.

Delete the second paragraph of Article 253.14.

Delete the second sentence of third paragraph of Article 253.14 and substitute the following:

Plants that do not meet the requirement for acceptance shall be replaced by the Contractor at his/her own expense following the date of inspection and prior to May 31, 2007.

Delete sub-paragraph (a) of Article 253.15 Plant Care and substitute the following:

Additional watering shall be performed not less than twice a week during the Period of Establishment if the irrigation system is not able to provide enough water to establish the plants. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon the weather conditions.

The water shall be applied to individual plants in such a manner that the plant hole shall be saturated without allowing the water to overflow beyond the earthen saucer. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water to flow beyond the periphery of the bed. The plants to be watered and the method of application will be approved by the Engineer. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of watering.

Delete sub-paragraph (b) of Article 253.15 Plant Care and substitute the following:

Woody plants must undergo a Period of Establishment starting from the day the plants are planted to April 30, 2007. During the Period of Establishment, weeds and trash removal shall be removed from within the earthen saucer of individual trees and from the areas within the mulched shrub beds. This weeding and trash removal shall be performed one (1) time per week or as directed by the Engineer during the Period of Establishment. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding or trash removal.

The weeding shall be performed in manner approved by the Engineer provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris including trash removal that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

At the end of period of establishment, the Contractor will be permitted to replace any unacceptable plants by May 31, 2007 and shall thoroughly weed all the beds.

Add the following to Article 253.16 Method of Measurement:

Mulch placement will be measured for payment as specified in Mulch.

Delete Article 253.17 and substitute the following:

Basis of Payment. This work will be paid for 50% of the contract unit price each for several kinds and sizes of trees, shrubs and vines found to be in a live and healthy condition by October 15, 2006, as specified in Article 253.14. The remaining 50% of the

contract unit price each will be paid for after the successful completion of all required replacement plantings and clean up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The unit price shall include the cost of all material, equipment, labor, plant care, disposal and incidental required to complete the work as specified herein and to the satisfaction of the Engineer. The placement of Mulch shall be paid for at the contract unit price for MULCH.

BITUMINOUS CONCRETE SURFACE COURSE (BDE)

Effective: April 1, 2001 Revised: April 1, 2003

Replace the fourth paragraph of Article 406.23(b) of the Standard Specifications with the following:

"Mixture for cracks, joints, flangeways, leveling binder (machine method), leveling binder (hand method) and binder course in excess of 103 percent of the quantity specified by the Engineer will not be measured for payment.

Surface course mixture in excess of 103 percent of adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures will be calculated as follows:

Adjusted Plan Quantity = C x quantity shown on the plans or as specified by the Engineer.

$$\text{where C =} \qquad \text{metric:} \quad C = \frac{G_{\rm mb} \times 24.99}{\text{U}} \qquad \qquad \text{English:} \quad C = \frac{G_{\rm mb} \times 46.8}{\text{U}}$$

and where:

 G_{mb} = average bulk specific gravity from approved mix design.

U = Unit weight of surface course shown on the plans in kg/sq m/25 mm (lb/sq yd/in.), used to estimate plan quantity.

24.99 = metric constant.

46.8 = English constant.

If project circumstances warrant a new surface course mix design, the above equations shall be used to calculate the adjusted plan quantity for each mix design using its respective average bulk specific gravity."

BITUMINOUS EQUIPMENT, SPREADING AND FINISHING MACHINE (BDE)

Effective: January 1, 2005

Revise the fourth paragraph of Article 1102.03 of the Standard Specifications to read:

"The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to uniformly place a non-segregated mixture in front of the screed. The distribution system shall

have chain curtains, deflector plates, and/or other devices designed and built by the paver manufacturer to prevent segregation during distribution of the mixture from the hopper to the paver screed. The Contractor shall submit a written certification that the devices recommended by; the paver manufacturer to prevent segregation have been installed and are operational. Prior to paving, the Contractor, in the presence of the Engineer, shall visually inspect paver parts specifically identified by the manufacturer for excessive wear and the need for replacement. The Contractor shall supply a completed check list to the Engineer noting the condition of the parts. Worn parts shall be replaced. The Engineer may require an additional inspection prior to the placement of a surface course or at other times throughout the work."

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003 Revised: July 1, 2004

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

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

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

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

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

If Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 concrete, a water-reducing or high range water-reducing admixture shall be used.

However, the cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used. In addition, an accelerator shall not be used.

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

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

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

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

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

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

When a water-reducing admixture is added, a cement factor reduction of up to 18 kg/cu m (0.30 hundredweight/cu yd), from the concrete designed for a specific slump without the admixture, will be permitted for Class PV, MS, SI, RR, SC and SH concrete. When an approved high range water-reducing admixture is used, a cement factor reduction of up to 36 kg/cu m (0.60 hundredweight/cu yd), from a specific water

cement/ratio without the admixture, will be permitted based on a 14 percent minimum water reduction. This is applicable to Class PV, MS, SI, RR, SC and SH concrete. A cement factor below 320 kg/cu m (5.35 hundredweight/cu yd) will not be permitted for Class PV, MS, SI, RR, SC and SH concrete. A cement factor reduction will not be allowed for concrete placed underwater. Cement factor reductions shall not be cumulative when using multiple admixtures.

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

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

Revise Section 1021 of the Standard Specifications to read:

"SECTION 1021. CONCRETE ADMIXTURES"

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)

Effective: January 1, 2004

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"INDEX TABLE OF	CURING AND PROTECTION OF	CONCRETE C	CONSTRUCTION
TYPE OF CONSTRUCTION	CURING METHODS	CURING PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete: 11/			
Pavement Shoulder	1020.13(a)(1)(2)(3)(4)(5) ^{3/5/}	3	1020.13(c)
Base Course Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) ^{1/2/}	3	1020.13(c)
Driveway Median Curb Gutter Curb and Gutter Sidewalk Slope Wall	1020.13(a)(1)(2)(3)(4)(5) ^{4/5/}	3	1020.13(c) ^{16/}
Paved Ditch Catch Basin Manhole Inlet Valve Vault	1020.13(a)(1)(2)(3)(4)(5) ^{4/}	3	1020.13(c)
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) ^{2/}	3 ^{12/}	1020.13(c)
Pavement Replacement	1020.13(a)(1)(2)(3)(4)(5) ^{1/2/}	3	442.06(h) and 1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles	1020.13(a)(3)(5)	7	1020.13(e)(1)(2)(3)
Footings Foundation Seals	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2)(3)
Substructure	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)(3)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5) ^{8/}	7	1020.13(e)(1)(2)
Deck	1020.13(a)(5)	7	1020.13(e)(1)(2) ^{17/}
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) ^{1/7/}	7	1020.13(e)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) ^{1/}	7	1020.13(e)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) ^{4/6/}	7	1020.13(e)(1)(2) ^{18/}
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete: 11/			
Bridge Beams Piles Bridge Slabs Nelson Type Structural Member	1020.13(a)(3)(5) 9/10/	As required. ^{13.}	⁷ 504.06(c)(6), 1020.13(e)(2) ^{19/}
All Other Precast Items	1020.13(a)(3)(4)(5) ^{2/9/10/}	As required 14	¹ 504.06(c)(6), 1020.13(e)(2) ^{19/}
Precast, Prestressed Concrete: 11/	1020.13(a)(3)(4)(3)	As required.	304.00(c)(0), 1020.13(e)(2)
All Items	1020.13(a)(3)(5) ^{9/10/}		d504.06(c)(6), 1020.13(e)(2) ^{19/} s

Notes-General:

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

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

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

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

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

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

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

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

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

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

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

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

Page Break—

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

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

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

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

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

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

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

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

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

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

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

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

Revise Article 1020.14 of the Standard Specifications to read:

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

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

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

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

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

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

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

Concrete shall not be placed when the air temperature is below 7 °C (45 °F) and falling or below 4 °C (40 °F), without permission of the Engineer. When placing of concrete is

authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to not less than 20 °C (70 °F) nor more than 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

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

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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

Effective: September 1, 2000 Revised: June 22, 2005

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

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

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

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

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

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 35.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

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

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

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

(a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven (7) working days after the date of letting. To meet the seven (7) day requirement, the bidder may send the Plan by certified mail or delivery service within the seven (7) working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt

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

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The name and address of each DBE to be used;
 - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
 - (3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount:
 - (4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
 - (5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).

(d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five (5) working day period in order to cure the deficiency.

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

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

- (2) 100% goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
- (3) 100% credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

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

- b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five (5) working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.

(c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five (5) working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to The request will be forwarded to the Department's extend the time for award. Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten (10) working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the

Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

- (c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty (30) calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

FLAGGER VESTS (BDE)

Effective: April 1, 2003 Revised: August 1, 2005

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

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

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

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

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

FREEZE-THAW RATING (BDE)

Effective: November 1, 2002

Revise the first sentence of Article 1004.02(f) of the Standard Specifications to read:

"When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test."

HAND VIBRATOR (BDE)

Effective: November 1, 2003

Add the following paragraph to Article 1103.17(a) of the Standard Specifications:

"The vibrator shall have a non-metallic head for areas containing epoxy coated reinforcement. The head shall be coated by the manufacturer. The hardness of the non-metallic head shall be less than the epoxy coated reinforcement, resulting in no damage to the epoxy coating. Slip-on covers will not be allowed."

PARTIAL PAYMENTS (BDE)

Effective: September 1, 2003

Revise Article 109.07 of the Standard Specifications to read:

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

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

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

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

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

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

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000 Revised: September 1, 2003

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

State law addresses the timing of payments to be made to subcontractors. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, generally requires that when a Contractor receives any payment from the Department, the Contractor is required to make corresponding, proportional

payments to each subcontractor performing work within 15 calendar days after receipt of the state payment. Section 7 of the State Prompt Payment Act further provides that interest in the amount of 2% per month, in addition to the payment due, shall be paid to any subcontractor by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors throughout the contracting chain.

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

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

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

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: July 1, 2004

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

PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 1993 Revised: April 2, 2004

<u>Description</u>. This work shall consist of furnishing, placing, and maintaining changeable message sign(s) at the locations(s) shown on the plans or as directed by the Engineer.

The sign(s) shall be trailer mounted. The message panel shall be at least 2.1 m (7 ft) above the pavement, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time. Character height shall be 450 mm (18 in.).

The message panel shall be of either a bulb matrix or disc matrix design controlled by an onboard computer capable of storing a minimum of 99 programmed messages for instant recall. The computer shall be capable of being programmed to accept messages created by the operator via an alpha-numeric keyboard and able to flash any six messages in sequence. The message panel shall also be capable of being controlled by a computer from a remote location via a cellular linkage. The Contractor shall supply the modem, the cellular phone, and the necessary software to run the sign from a remote computer at a location designated by the Engineer. The Contractor shall promptly program and/or reprogram the computer to provide the messages as directed by the Engineer.

The message panel shall be visible from 400 m (1/4 mile) under both day and night conditions. The letters shall be legible from 250 m (750 ft).

The sign shall include automatic dimming for nighttime operation and a power supply capable of providing 24 hours of uninterrupted service.

The Contractor shall provide all preventive maintenance efforts s(he) deems necessary to achieve uninterrupted service. If service is interrupted for any cause and not restored within 24 hours, the Engineer will cause such work to be performed as may be necessary to provide this service. The cost of such work shall be borne by the Contractor or deducted from current or future compensation due the Contractor.

When the sign(s) are displaying messages, they shall be considered a traffic control device. At all times when no message is displayed, they shall be considered equipment.

<u>Basis of Payment</u>. When portable changeable message signs are shown on the Standard, this work will not be paid for separately but shall be considered as included in the cost of the Standard.

For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar month for each sign as CHANGEABLE MESSAGE SIGN.

PORTLAND CEMENT (BDE)

Effective: January 1, 2005

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

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

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2002

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

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

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

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

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

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

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

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

PREFORMED RECYCLED RUBBER JOINT FILLER (BDE)

Effective: November 1, 2002

Revise Article 503.02(c) of the Standard Specifications to read:

Add the following Article to Section 1051 of the Standard Specifications:

"1051.10 Preformed Recycled Rubber Joint Filler. Preformed recycled rubber joint filler shall consist of ground tire rubber, free of steel and fabric, combined with ground scrap or waste polyethylene. It shall not have a strong hydrocarbon or rancid odor and shall meet the physical property requirements of ASTM D 1752. Water absorption by volume shall not exceed 5.0 percent."

RAP FOR USE IN BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000 Revised: April 1, 2002

Revise Article 1004.07 to read:

"1004.07 RAP Materials. RAP is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt pavement. RAP must originate from routes or airfields under federal, state or local agency jurisdiction. The Contractor shall supply documentation that the RAP meets these requirements.

- (a) Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP will be allowed on top of the pile after the pile has been sealed.
 - (1) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only and represent the same aggregate quality, but shall be at least C quality or better, the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag), similar gradation and similar AC content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous", with a quality rating dictated by the lowest coarse aggregate quality present in the mixture. Homogenous stockpiles shall meet the requirements of Article 1004.07(d). Homogeneous RAP stockpiles not meeting these requirements may be processed (crushing and screening) and retested.
 - (2) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only. The coarse aggregate in this RAP shall be crushed aggregate only and may represent more than one aggregate type and/or quality but shall be at least C quality or better. This RAP may have an inconsistent gradation and/or asphalt cement content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 16 mm (5/8 in.) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate RAP stockpiles shall meet the requirements of Article 1004.07(d).
 - (3) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP containing coarse aggregate (crushed or round) that is at least D quality or better. This RAP may have an inconsistent gradation and/or asphalt content.

Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate DQ RAP shall meet the requirements of Article 1004.07(d).

Reclaimed Superpave Low ESAL IL-9.5L surface mixtures shall only be placed in conglomerate DQ RAP stockpiles due to the potential for rounded aggregate.

- (4) Other. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Other". "Other" RAP stockpiles shall not be used in any of the Department's bituminous mixtures.
- (b) Use. The allowable use of a RAP stockpile shall be set by the lowest quality of coarse aggregate in the RAP stockpile. Class I/Superpave surface mixtures are designated as containing Class B quality coarse aggregate only. Superpave Low ESAL IL-19.0L binder and IL-9.5L surface mixtures are designated as Class C quality coarse aggregate only. Class I/Superpave binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate only. Bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate only. Any mixture not listed above shall have the designated quality determined by the Department.

RAP containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in Class I/Superpave (including Low ESAL) surface mixtures only. RAP stockpiles for use in Class I/Superpave mixtures (including Low ESAL), base course, base course widening and Class B mixtures shall be either homogeneous or conglomerate RAP stockpiles except conglomerate RAP stockpiles shall not be used in Superpave surface mixture Ndesign 50 or greater. RAP for use in bituminous aggregate mixtures (BAM) shoulders and BAM stabilized subbase shall be from homogeneous, conglomerate, or conglomerate DQ stockpiles.

Additionally, RAP used in Class I/Superpave surface mixtures shall originate from milled or crushed mixtures only, in which the coarse aggregate is of Class B quality or better. RAP stockpiles for use in Class I/Superpave (including Low ESAL) binder mixes as well as base course, base course widening and Class B mixtures shall originate from milled or processed surface mixture, binder mixture, or a combination of both mixtures uniformly blended to the satisfaction of the Engineer, in which the coarse aggregate is of Class C quality or better.

- (c) Contaminants. RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.
- (d) Testing. All RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 450 metric tons (500 tons) for the first 1800 metric tons (2,000 tons) and one sample per 1800 metric tons (2,000 tons) thereafter. A minimum of five tests shall be required for stockpiles less than 3600 metric tons (4,000 tons).

For testing existing stockpiles, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either insitu or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to extract representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

All of the extraction results shall be compiled and averaged for asphalt content and gradation. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
25 mm (1 in.)		± 5%
12.5 mm (1/2 in.)	± 8%	± 15%
4.75 mm (No. 4)	± 6%	± 13%
2.36 mm (No. 8)	± 5%	
1.18 mm (No. 16)		± 15%
600 μm (No. 30)	± 5%	
75 μm (No. 200)	± 2.0%	± 4.0%
AC	± 0.4%	± 0.5%

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt content test results fall outside the appropriate tolerances, the RAP will not be allowed to be used in the Department's bituminous concrete mixtures unless the RAP representing the failing tests is removed from the stockpile to the satisfaction of the Engineer. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

(e) Designs. At the Contractor's option, bituminous concrete mixtures may be constructed utilizing RAP material meeting the above detailed requirements. The amount of RAP included in the mixture shall not exceed the percentages specified in the plans.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

(f) Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the bituminous mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

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

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

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

SUBGRADE PREPARATION (BDE)

Effective: November 1, 2002

Revise the tenth paragraph of Article 301.03 of the Standard Specifications to read:

"Equipment of such weight, or used in such a way as to cause a rut in the finished subgrade of 13 mm (1/2 in.) or more in depth, shall be removed from the work or the rutting otherwise prevented."

SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000 Revised: April 1, 2004

<u>Description</u>. This work shall consist of designing, producing and constructing Superpave bituminous concrete mixtures using Illinois Modified Strategic Highway Research Program (SHRP) Superpave criteria. This work shall be according to Sections 406 and 407 of the Standard Specifications and the special provision, "Quality Control/Quality Assurance of Bituminous Concrete Mixtures", except as follows.

Materials.

- (a) Fine Aggregate Blend Requirement. The Contractor may be required to provide FA 20 manufactured sand to meet the design requirements. For mixtures with Ndesign ≥ 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation.
- (b) Reclaimed Asphalt Pavement (RAP). If the Contractor is allowed to use more than 15 percent RAP, as specified in the plans, a softer performance-graded binder may be required as determined by the Engineer.

RAP shall meet the requirements of the special provision, "RAP for Use in Bituminous Concrete Mixtures".

RAP will not be permitted in mixtures containing polymer modifiers.

RAP containing steel slag will be permitted for use in top-lift surface mixtures only.

(c) Bituminous Material. The asphalt cement (AC) shall be performance-graded (PG) or polymer modified performance-graded (SBS-PG or SBR-PG) meeting the requirements of Article 1009.05 of the Standard Specifications for the grade specified on the plans.

The following additional guidelines shall be used if a polymer modified asphalt is specified:

- (1) The polymer modified asphalt cement shall be shipped, maintained, and stored at the mix plant according to the manufacturer's requirements. Polymer modified asphalt cement shall be placed in an empty tank and shall not be blended with other asphalt cements.
- (2) The mixture shall be designed using a mixing temperature of 163 ± 3 °C (325 ± 5 °F) and a gyratory compaction temperature of 152 ± 3 °C (305 ± 5 °F).

(3) Pneumatic-tired rollers will not be allowed unless otherwise specified by the Engineer. A vibratory roller meeting the requirements of Article 406.16 of the Standard Specifications shall be required in the absence of the pneumatic-tired roller.

Laboratory Equipment.

- (a) Superpave Gyratory Compactor. The superpave gyratory compactor (SGC) shall be used for all QC/QA testing.
- (b) Ignition Oven. The ignition oven shall be used to determine the AC content. The ignition oven shall also be used to recover aggregates for all required washed gradations.

The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

<u>Mixture Design</u>. The Contractor shall submit mix designs, for approval, for each required mixture. Mix designs shall be developed by Level III personnel who have successfully completed the course, "Superpave Mix Design Upgrade". Articles 406.10 and 406.13 of the Standard Specifications shall not apply. The mixtures shall be designed according to the respective Illinois Modified AASHTO references listed below.

AASHTO MP 2	Standard Specification for Superpave Volumetric Mix Design
AASHTO R 30	Standard Practice for Mixture Conditioning of Hot-Mix Asphalt (HMA)
AASHTO PP 28	Standard Practice for Designing Superpave HMA
AASHTO T 209	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
AASHTO T 312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor
AASHTO T 308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method

(a) Mixture Composition. The ingredients of the bituminous mixture shall be combined in such proportions as to produce a mixture conforming to the composition limits by weight. The gradation mixture specified on the plans shall produce a mixture falling within the limits specified in Table 1.

TABLE 1. MIXTURE COMPOSITION (% PASSING) ^{1/}									
Sieve	IL-25.	0 mm	IL-19.	0 mm	IL-12.	5 mm ^{4/}	IL-9.5 mm ^{4/}		
Size	min			min max		max	min	max	
37.5 mm (1 1/2 in.)		100							
25 mm (1 in.)	90	100		100					
19 mm (3/4 in.)		90	82	100		100			
12.5 mm (1/2 in.)	45	75	50	85	90	100		100	
9.5 mm (3/8 in.)						89	90	100	
4.75 mm (#4)	24	42 ^{2/}	24	50 ^{2/}	28	65	28	65	
2.36 mm (#8)	16	31	20	36	28 48 ^{3/}		28	48 ^{3/}	
1.18 mm (#16)	10	22	10	25	10	32	10	32	
600 μm (#30)									
300 μm (#50)	4	12	4	12	4	15	4	15	
150 μm (#100)	3	9	3	9	3	10	3	10	
75 μm (#200)	3	6	3	6	4	6	4	6	

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 40 percent passing the 4.75 mm (#4) sieve for binder courses with Ndesign ≥ 90.
- 3/ The mixture composition shall not exceed 40 percent passing the 2.36 mm (#8) sieve for surface courses with Ndesign \geq 90.
- 4/ The mixture composition for surface courses shall be according to IL-12.5 mm or IL-9.5 mm, unless otherwise specified by the Engineer.

One of the above gradations shall be used for leveling binder as specified in the plans and according to Article 406.04 of the Standard Specifications.

It is recommended that the selected combined aggregate gradation not pass through the restricted zones specified in Illinois Modified AASHTO MP 2.

- (b) Dust/AC Ratio for Superpave. The ratio of material passing the 75 μ m (#200) sieve to total asphalt cement shall not exceed 1.0 for mixture design (based on total weight of mixture).
- (c) Volumetric Requirements. The target value for the air voids of the hot mix asphalt (HMA) shall be 4.0 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the requirements listed in Table 2.

	TABLE 2. VOLUMETRIC REQUIREMENTS									
	V	oids in the M (V % m	Voids Filled with Asphalt (VFA),							
Ndesign	IL-25.0	IL-19.0	IL-9.5	%						
50					65 - 78					
70	12.0	13.0	14.0	15						
90	12.0	13.0	14.0	15	65 - 75					
105										

(d) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified T 283 using 4 in. Marshall bricks. To be considered acceptable by the Department as a mixture not susceptible to stripping, the ratio of conditioned to unconditioned split tensile strengths (TSRs) shall be equal to or greater than 0.75. Mixtures, either with or without an additive, with TSRs less than 0.75 will be considered unacceptable.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option. The liquid additive shall be selected from the Department's list of approved additives and may be limited to those which have exhibited satisfactory performance in similar mixes.

Dry hydrated lime shall be added at a rate of 1.0 to 1.5 percent by weight of total dry aggregate. Slurry shall be added in such quantity as to provide the required amount of hydrated lime solids by weight of total dry aggregate. The exact rate of application for all anti-stripping additives will be determined by the Department. The method of application shall be according to Article 406.12 of the Standard Specifications.

<u>Personnel</u>. The QC Manager and Level I Technician shall have successfully completed the Department's "Superpave Field Control Course".

Required Plant Tests. Testing shall be conducted to control the production of the bituminous mixture. The Contractor shall use the test methods identified to perform the following mixture tests at a frequency not less than that indicated in Table 3.

	TABLE 3. REQUIRED PLANT TESTS for SUPERPAVE								
Pa	arameter	Frequency of Tests	Test Method						
Hot	ate Gradation bins for batch and tinuous plants	dry gradation per day of production (either morning or afternoon sample). And	Illinois Procedure (See Manual of Test Procedures for Materials).						
com	vidual cold-feeds or abined belt-feed for r drum plants.	1 washed ignition oven test on the mix per day of production (conduct in afternoon if dry gradation is conducted in the morning or vice versa).							
12.5 mm 4.75 mm 2.36 mm 600 µm	sing sieves: n (1/2 in.), n (No. 4), n (No. 8), (No. 30), No. 200))	NOTE. The order in which the above tests are conducted shall alternate from the previous production day (example: a dry gradation conducted in the morning will be conducted in the afternoon on the next production day and so forth).							
		The dry gradation and washed ignition oven test results shall be plotted on the same control chart.							
Asphalt Oven (I	Content by Ignition Note 1.)	1 per half day of production	Illinois Modified AASHTO T 308						
Air Voids	Bulk Specific Gravity of Gyratory Sample	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois Modified AASHTO T 312						
	Maximum Specific Gravity of Mixture	, , , , , , , , , , , , , , , , , , , ,	Illinois Modified AASHTO T 209						

Note 1. The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

During production, the ratio of minus 75 μ m (#200) sieve material to total asphalt cement shall be not less than 0.6 nor more than 1.2 and the moisture content of the mixture at discharge from the mixer shall not exceed 0.5 percent. If at any time the ratio of minus 75 μ m (#200) material to asphalt or moisture content of the mixture falls outside the stated limits, production of the mix shall cease. The cause shall be determined and corrective action satisfactory to the Engineer shall be initiated prior to resuming production.

During production, mixtures containing an anti-stripping additive will be tested by the Department for stripping according to Illinois Modified T 283. If the mixture fails to meet the TSR criteria for acceptance, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria.

Construction Requirements

Lift Thickness.

(a) Binder and Surface Courses. The minimum compacted lift thickness for constructing bituminous concrete binder and surface courses shall be according to Table 4:

TABLE 4 – MINIMUM COMPACTED LIFT THICKNESS							
Mixture	Thickness, mm (in.)						
IL-9.5	32 (1 1/4)						
IL-12.5	38 (1 1/2)						
IL-19.0	57 (2 1/4)						
IL-25.0	76 (3)						

(b) Leveling Binder. Mixtures used for leveling binder shall be as follows:

TABLE 5 – LEVELING BINDER									
Nominal, Compacted, Leveling	Mixture								
Binder Thickness, mm (in.)									
≤ 32 (1 1/4)	IL-9.5								
32 (1 1/4) to 50 (2)	IL 9.5 or IL-12.5								

Density requirements shall apply for leveling binder when the nominal, compacted thickness is 32 mm (1 1/4 in.) or greater for IL-9.5 mixtures and 38 mm (1 1/2 in.) or greater for IL-12.5 mixtures.

(c) Full-Depth Pavement. The compacted thickness of the initial lift of binder course shall be 100 mm (4 in.). The compacted thickness of succeeding lifts shall meet the minimums specified in Table 4 but not exceed 100 mm (4 in.).

If a vibratory roller is used for breakdown, the compacted thickness of the binder lifts, excluding the top lift, may be increased to 150 mm (6 in.) provided the required density is obtained.

(d) Bituminous Patching. The minimum compacted lift thickness for constructing bituminous patches shall be according to Table 4.

<u>Control Charts/Limits</u>. Control charts/limits shall be according to QC/QA Class I requirements, except density shall be plotted on the control charts within the following control limits:

TABLE 6. DENSITY CONTROL LIMITS								
Mixture	Parameter	Individual Test						
12.5 mm / 9.5 mm	Ndesign ≥ 90	92.0 – 96.0%						
12.5 mm / 9.5 mm	Ndesign < 90	92.5 – 97.4%						
19.0 mm / 25.0 mm	Ndesign ≥ 90	93.0 – 96.0%						
19.0 mm / 25.0 mm	Ndesign < 90	93.0 – 97.4%						

<u>Basis of Payment</u>. On resurfacing projects, this work will be paid for at the contract unit price per metric ton (ton) for BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On resurfacing projects in which polymer modifiers are required, this work will be paid for at the contract unit price per metric ton (ton) for POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, POLYMERIZED LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On full-depth pavement projects, this work will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE PAVEMENT, (FULL-DEPTH), SUPERPAVE, of the thickness specified.

On projects where widening is constructed and the entire pavement is then resurfaced, the binder for the widening will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition, Ndesign, and thickness specified. The surface and binder used to resurface the entire pavement will be paid for according to the paragraphs above for resurfacing projects.

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 1992 Revised: January 1, 2005

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

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

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

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The

calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option this monetary deduction will be immediate.

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

TRUCK BED RELEASE AGENT (BDE)

Effective: April 1, 2004

Add the following sentence after the third sentence of the first paragraph of Article 406.14 of the Standard Specifications.

"In addition to the release agent, the Contractor may use a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle."

WEIGHT CONTROL DEFICIENCY DEDUCTION

Effective: April 1, 2001 Revised: August 1, 2002

The Contractor shall provide accurate weights of materials delivered to the contract for incorporation into the work (whether temporary or permanent) and for which the basis of payment is by weight. These weights shall be documented on delivery tickets which shall identify the source of the material, type of material, the date and time the material was loaded, the contract number, the net weight, the tare weight when applicable and the identification of the transporting vehicle. For aggregates, the Contractor shall have the driver of the vehicle furnish or establish an acceptable alternative to provide the contract number and a copy of the material order to the source for each load. The source is defined as that facility that produces the final material product that is to be incorporated into the contract pay items.

The Department will conduct random, independent vehicle weight checks for material sources according to the procedures outlined in the Documentation Section Policy Statement of the Department's Construction Manual and hereby incorporated by reference. The results of the independent weight checks shall be applicable to all contracts containing this Special Provision. Should the vehicle weight check for a source result in the net weight of material on the vehicle exceeding the net weight of material shown on the delivery ticket by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. No adjustment in pay quantity will be made. Should the vehicle weight check for a source result in the net weight of material shown on the delivery ticket exceeding the net weight of material on the vehicle by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. The Engineer will adjust the net weight shown on the delivery ticket to the checked delivered net weight as determined by the independent vehicle weight check.

The Engineer will also adjust the method of measurement for all contracts for subsequent deliveries of all materials from the source based on the independent weight check. The net weight of all materials delivered to all contracts containing this Special Provision from this source, for which the basis of payment is by weight, will be adjusted by applying a correction factor "A" as determined by the following formula:

$$A=1.0-\left(\frac{B-C}{B}\right); \mbox{ Where } \ A\leq 1.0 \ ; \ \left(\frac{B-C}{C}\right)>0.50\% \ \ (0.70\% \ for \ aggregates)$$

Where A = Adjustment factor

B = Net weight shown on delivery ticket

C = Net weight determined from independent weight check

The adjustment factor will be applied as follows:

Adjusted Net Weight = A x Delivery Ticket Net Weight

The adjustment factor will be imposed until the cause of the deficient weight is identified and corrected by the Contractor to the satisfaction of the Engineer. If the cause of the deficient weight is not identified and corrected within seven (7) calendar days, the source shall cease delivery of all materials to all contracts containing this Special Provision for which the basis of payment is by weight.

Should the Contractor elect to challenge the results of the independent weight check, the Engineer will continue to document the weight of material for which the adjustment factor would be applied. However, provided the Contractor furnishes the Engineer with written documentation that the source scale has been calibrated within seven (7) calendar days after the date of the independent weight check, adjustments in the weight of material paid for will not be applied unless the scale calibration demonstrates that the source scale was not within the specified Department of Agriculture tolerance.

At the Contractor's option, the vehicle may be weighed on a second independent Department of Agriculture certified scale to verify the accuracy of the scale used for the independent weight check.

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: January 1, 2003 Revised: November 1, 2004

Add the following to Article 702.01 of the Standard Specifications:

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

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

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

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

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

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

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

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

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

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

Add the following to Article 702.03 of the Standard Specifications:

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

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

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

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

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

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR COOK COUNTY EFFECTIVE JUNE 2005

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

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

Cook County Prevailing Wage for September 2005

Trade Name				Base	FRMAN *M-F>8				Pensn	Vac	Trng
AGDEGEOG ADE GEN	==		=		====== ===============================				2 040		0.170
ASBESTOS ABT-GEN ASBESTOS ABT-MEC		ALL BLD			30.900 1.5 24.800 1.5	1.5 1.5	2.0		3.940 5.520		0.170
BOILERMAKER		BLD			40.140 2.0	2.0			6.260		
BRICK MASON		BLD			36.580 1.5	1.5	2.0		7.020		
CARPENTER		ALL			37.320 1.5	1.5	2.0			0.000	
CEMENT MASON		ALL			37.850 2.0	1.5				0.000	
CERAMIC TILE FNSHER		BLD		27.200	0.000 2.0	1.5			5.200		
COMM. ELECT.		BLD		31.440	33.940 1.5	1.5	2.0	6.300	5.290	0.000	0.700
ELECTRIC PWR EQMT OP		ALL		34.950	40.720 1.5	1.5	2.0	7.420	8.730	0.000	0.260
ELECTRIC PWR GRNDMAN		ALL		27.260	40.720 1.5	1.5	2.0	5.790	6.820	0.000	0.210
ELECTRIC PWR LINEMAN		ALL			40.720 1.5	1.5	2.0		8.730		0.260
ELECTRICIAN		ALL			37.750 1.5	1.5	2.0		6.850		0.750
ELEVATOR CONSTRUCTOR		BLD			43.870 2.0	2.0	2.0	7.275	3.420	2.340	0.370
FENCE ERECTOR		ALL			26.090 1.5 31.000 1.5	1.5	2.0		6.740 8.450	0.000	
GLAZIER HT/FROST INSULATOR		BLD BLD			34.550 1.5	1.5			8.610		
IRON WORKER		ALL			37.750 2.0	2.0	2.0			0.000	
LABORER		ALL			30.900 1.5	1.5	2.0		3.940		0.170
LATHER		BLD			37.320 1.5	1.5				0.000	
MACHINIST		BLD			37.630 2.0	2.0			4.750		0.000
MARBLE FINISHERS		ALL		25.750	0.000 1.5	1.5	2.0	6.070	7.020	0.000	0.580
MARBLE MASON		BLD		33.250	36.580 1.5	1.5	2.0	6.450	7.020	0.000	0.580
MILLWRIGHT		ALL		35.320	37.320 1.5	1.5	2.0	6.760	5.310	0.000	0.490
OPERATING ENGINEER					43.550 2.0	2.0		6.450	5.150	1.800	0.650
OPERATING ENGINEER					43.550 2.0	2.0				1.800	0.650
OPERATING ENGINEER					43.550 2.0	2.0	2.0		5.150		0.650
OPERATING ENGINEER					43.550 2.0	2.0	2.0		5.150		0.650
OPERATING ENGINEER			1		42.700 1.5	1.5			4.850		0.000
OPERATING ENGINEER				41.200		1.5			4.850		0.000
OPERATING ENGINEER OPERATING ENGINEER					42.700 1.5 42.700 1.5	1.5 1.5	2.0			1.800	
OPERATING ENGINEER OPERATING ENGINEER					41.750 1.5	1.5	2.0			1.800	
OPERATING ENGINEER				37.730		1.5	2.0			1.800	
OPERATING ENGINEER		HWY :			41.750 1.5	1.5				1.800	
OPERATING ENGINEER				33.750	41.750 1.5	1.5	2.0		5.150		0.650
OPERATING ENGINEER		HWY !	5	32.550	41.750 1.5	1.5	2.0	6.450	5.150	1.800	0.650
ORNAMNTL IRON WORKER		ALL		32.300	34.050 2.0	2.0	2.0	6.650	9.690	0.000	0.750
PAINTER		ALL		32.100	36.110 1.5	1.5	1.5	5.550	4.900	0.000	0.340
PAINTER SIGNS		BLD		25.530	28.660 1.5	1.5	1.5	2.600	2.040	0.000	0.000
PILEDRIVER		ALL			37.320 1.5					0.000	
PIPEFITTER		BLD			38.100 1.5					0.000	
PLASTERER		BLD			33.600 1.5					0.000	
PLUMBER		BLD			40.400 1.5					0.000	
ROOFER		BLD			34.800 1.5					0.000	
SHEETMETAL WORKER SIGN HANGER		BLD BLD			36.070 1.5 24.600 1.5					0.000	
SPRINKLER FITTER		BLD			36.500 1.5					0.000	
STEEL ERECTOR		ALL			37.750 2.0					0.000	
STONE MASON		BLD			36.580 1.5					0.000	
TERRAZZO FINISHER		BLD		27.950	0.000 1.5					0.000	
TERRAZZO MASON		BLD			35.050 1.5					0.000	
TILE MASON		BLD			37.000 2.0					0.000	
TRAFFIC SAFETY WRKR		HWY		22.800	24.400 1.5					0.000	
TRUCK DRIVER	E				29.350 1.5					0.000	
TRUCK DRIVER	E				29.350 1.5					0.000	
TRUCK DRIVER	E				29.350 1.5					0.000	
TRUCK DRIVER	Ε				29.350 1.5					0.000	
TRUCK DRIVER	W	ALL :	L	28.700	29.250 1.5	1.5	2.0	5.900	3.300	0.000	0.000

TRUCK DRIVER	W	ALL 2	28.850	29.250	1.5	1.5	2.0	5.900	3.300	0.000	0.000
TRUCK DRIVER	W	ALL 3	29.050	29.250	1.5	1.5	2.0	5.900	3.300	0.000	0.000
TRUCK DRIVER	W	ALL 4	29.250	29.250	1.5	1.5	2.0	5.900	3.300	0.000	0.000
TUCKPOINTER		BLD	34.500	35.500	1.5	1.5	2.0	4.710	6.340	0.000	0.400

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

COOK COUNTY

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

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

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

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor

surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN - Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all mateiral that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installatin of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and experiors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and experior which sare installed in a similar manner.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

- Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; TEamsters Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.
- Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.
- Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.
- Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

OPERATING ENGINEERS - BUILDING

Class 1. Mechanic; Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson attachment; Batch Plant; Benoto; Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, one, two and three Drum; Hoists, Two

Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes; Squeeze Cretes-screw Type Pumps; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

- Class 2. Bobcat (over 3/4 cu. yd.); Boilers; Brick Forklift; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Greaser Engineer; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, inside Freight Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (self-propelled); Rock Drill (truck mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.
- Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 small Electric Drill Winches; Bobcat (up to and including 3/4 cu. yd.).
- Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

OPERATING ENGINEERS - FLOATING

- Class 1. Craft foreman (Master Mechanic), diver/wet tender, engineer (hydraulic dredge).
- Class 2. Crane/backhoe operator, mechanic/welder, assistant engineer (hydraulic dredge), leverman (hydraulic dredge), and diver tender.
- Class 3. Deck equipment operator (machineryman), maintenance of crane (over 50 ton capacity) or backhoe (96,000 pounds or more), tug/launch operator, loader, dozer and like equipment on barge, breakwater wall, slip/dock or scow, deck machinery, etc.
- Class 4. Deck equipment operator (machineryman/fireman), (4 equipment units or more) and crane maintenance 50 ton capacity and under or backhoe weighing 96,000 pounds or less, assistant tug operator.

OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION Class 1. Craft Foreman; Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted): Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Hammerhead, Linden, Peco & Machines of a like nature; Crete Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell machine with Air Compressor; Dredges; Field Mechanic-Welder; Formless Curb and Gutter Machine; Gradall and Machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with

shear attachments; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole; Drills (Tunnel Shaft); Underground Boring and/or Mining Machines; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine -Concrete; Greaser Engineer; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Pump Cretes; Squeeze Cretes-Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotory Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops -Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper - Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro-Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts, Oilers.

Other Classifications of Work:

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

LANDSCAPING

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