BID PROPOSAL INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

PREQUALIFICATION

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

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.

REQUESTS FOR AUTHORIZATION TO BID

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

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid or Not for Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS

It is the bidder'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 or revision will be included with the Electronic Plans and Proposals. 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 service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletins/transportation-bulletin before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or DOT.D&Econtracts@illlinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or <u>Timothy.Garman@illinois.gov.</u>

STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages i iii and pages a g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

BID SUBMITTAL CHECKLIST

Cover page (the sheet that has the item number on it) – This should be the first page of your bid proposal, followed by your bid (the Schedule of Prices/Pay Items). If you are using special software or CBID to generate your schedule of prices, <u>do not</u> include the blank pages of the schedule of prices that came with the proposal package.

Page 4 (Item 9) – Check "YES" if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.

After page 4 – Insert the following documents: The Illinois Office Affidavit (Not applicable to federally funded projects) followed by Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don't know where it goes, put it after page 4.

Page 10 (Paragraph J) – Check "YES" or "NO" whether your company has any business in Iran.

□ Page 10 (Paragraph K) – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.

Page 11 (Paragraph L) – A copy of your State Board of Elections certificate of registration is no longer required with your bid.

Page 11 (Paragraph M) – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.

Page 12 (Paragraph C) – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.

□ Pages 14-17 (Form A) – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification <u>signature and date must be original</u> for each letting. Do not staple the forms together. If you answered "NO" to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.

Page 18 (Form B) - If you check "YES" to having other current or pending contracts it is acceptable to use the phrase, "See Affidavit of Availability on file". **Ownership Certification** (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A.

Page 20 (Workforce Projection) – Be sure to include the Duration of the Project. It is acceptable to use the phrase "Per Contract Specifications".

□ **Proposal Bid Bond** – (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety's Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort – The last items in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation of a Good Faith Effort, it is to follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:30 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main Web page for the current letting.

QUESTIONS: pre-letting up to execution of the contract

Contractor pre-qualification	
Small Business, Disadvantaged Business Enterprise (DBE)	
Contracts, Bids, Letting process or Internet downloads	
Estimates Unit.	
Aeronautics	
IDNR (Land Reclamation, Water Resources, Natural Resources)	

QUESTIONS: following contract execution

Subcontractor documentation, payments	217-782-3413
Railroad Insurance	217-785-0275

Proposal Submitted By

30

Name

Address

City

Letting November 21, 2014

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.

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

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

Illinois Department of Transportation

Springfield, Illinois 62764

Contract No. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Route RAUPP BOULEVARD Project BHM-9003(790) District 1 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

A Bid Bond is included.

A Cashier's Check or a Certified Check is included

An Annual Bid Bond is included or is on file with IDOT.

Prepared by

Checked by

(Printed by authority of the State of Illinois)

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Page intentionally left blank



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of ______

Taxpayer Identification Number (Mandatory)

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

Contract No. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Project BHM-9003(790) Route RAUPP BOULEVARD District 1 Construction Funds

- This project consists of the removal of the existing structure and construction of a two span concrete slab structure, pavement removal, HMA pavement, curb and gutter removal and replacement, sidewalk replacement, storm sewer and water main improvements, located on Raupp Boulevard at Buffalo Creek in the Village of Buffalo Grove.
- 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 will govern performance and payments.

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

	Amount of	of Bid	Proposal <u>Guaranty</u>	An	nount c	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 bid proposals will be made payable to the Treasurer, State of Illinois.

If a combination bid is submitted, the proposal guaranties which accompany the individual bid 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 will fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty will 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 will become void or the proposal guaranty check will be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

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

The proposal guaranty check will be found in the bid proposal for:	Item	
	Section No.	
	County _	

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

6. **COMBINATION BIDS.** The undersigned bidder 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 contract 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 B	id
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 will govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
- 8. AUTHORITY TO DO BUSINESS IN ILLINOIS. Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.
- 9. EXECUTION OF CONTRACT: The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

10. The services of a subcontractor will be used.

Check box Yes Check box No

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor. (30 ILCS 500/20-120)

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NOTE:

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

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 State 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 State Toll Highway Authority.

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

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

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

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

The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

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. Information concerning the exemption process is available from the Department upon request.

B. Negotiations

Section 50-15. Negotiations.

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.

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

C. Inducements

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.

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

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

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

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

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, 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 CPO.

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

F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, 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.

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.

G. Insider Information

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.

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.

□ I acknowledge, understand and accept these terms and conditions for the above assurances.

III. CERTIFICATIONS

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

Section 50-10. Felons.

- (a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.
- (b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract or is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act provides 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.

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

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012 provides:

(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.

(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. No corporation shall be barred from contracting with any unit of section 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.

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

H. International Anti-Boycott

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

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

I. Drug Free Workplace

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.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

J. Disclosure of Business Operations in Iran

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

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

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

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

Check the appropriate statement:

/___/ Company has no business operations in Iran to disclose.

/___/ Company has business operations in Iran as disclosed the attached document.

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

In accordance with the provisions of Section 30-22 (6) of the 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 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 United States Department of 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 yot 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.

NA-FEDERAL

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.

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

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

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

The undersigned bidder certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

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

M. Lobbyist Disclosure

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

(i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,

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

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

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

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

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

Or

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

Name and address of person:

All costs, fees, compensation, reimbursements and other remuneration paid to said person:

□ I acknowledge, understand and accept these terms and conditions for the above certifications.

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form. **The current annual salary of the Governor is \$177,412.00.**

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 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 <u>NOT APPLICABLE STATEMENT</u> on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ____ NO____
- 3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES ____ NO ___
- 4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ____ NO __

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

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

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

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

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$25,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. <u>See Disclosure Form Instructions</u>.

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

DISCLOSURE OF FINANCIAL INFORMATION

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

FOR INDIVIDUAL	(type or print information)		
NAME:			
ADDRESS			
Type of own	ership/distributable income share	:	
stock	sole proprietorship	Partnership	other: (explain on separate sheet):
% or \$ value	of ownership/distributable income sh	nare:	

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

(a)	State employment, currently or in the previous 3 years, including contractua	al employ	ment of s	services.
		Yes	No	

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ____No ___
- 2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive
 (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ____ No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes <u>No</u>
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess 100% of the annual salary of the Governor? Yes ____ No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?

Yes ___ No ___

Yes No

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

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

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

(f) Relationship to anyone ho	olding appointive office o	currently or in the previous	; 2 years; s	oouse, father,	mother,
son, or daughter.			Yes	_No	

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

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes No

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes <u>No</u>

3. Communication Disclosure.

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

Name and address of person(s):

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

Name of person(s):

Nature of disclosure:

APPLICABLE STATEMENT

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

Completed by:

Signature of Individual or Authorized Representative

Date

	NOT APPLICABLE STATEMENT	
	v, I have determined that no individuals associated with this equire the completion of this Form A.	organization meet
This Disclosure Form A	is submitted on behalf of the CONTRACTOR listed on the pr	evious page.
	Signature of Authorized Representative	Date

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial Related Information Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ____No ___

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative	Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

🗌 Yes 🗌 No	□ N/A (Form A disclosure(s) established 100% ownership)
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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. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Project BHM-9003(790) Route RAUPP BOULEVARD District 1 Construction Funds

Duration of Project:

PART I. IDENTIFICATION

Dept. Human Rights #

Name of Bidder:

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract: TABLE A TABLE B

		TOTA	AL Wo	rkforce	e Projec	tion for	Contra	act						C			S
				MIN	ORITY I	EMPLC	YEES	6		TRA	AINEES				TO BE		
JOB CATEGORIES		TAL OYEES	BLA	ACK	HISP	ANIC		THER NOR.	APPF TIC		ON THE JOB TRAINEES				OTAL OYEES	MINO EMPLC	
	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							_		Г	FOF			IENT USE		
	OTAL Tra		ojectio	n for C	ontract							1 OF	ושני			IL I	
EMPLOYEES	TO	TAL					*0	THER									

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TO	TAL					*OT	HER
EMPLO	OYEES	BLA	٩CK	HISP	ANIC	MIN	IOR.
М	F	Μ	F	М	F	М	F
	TO EMPLO M	TOTAL EMPLOYEES M F	TOTAL EMPLOYEES BLA M F M	TOTAL EMPLOYEES BLACK M F M F	EMPLOYEES BLACK HISP M F M F M	TOTAL EMPLOYEES BLACK HISPANIC M F M F M F	TOTAL *OT EMPLOYEES BLACK HISPANIC MIN M F M F M

*Other minorities are defined as Asians (A) or Native Americans (N). Please specify race of each employee shown in Other Minorities column.

BC 1256 (Rev. 12/11/07)

Note: See instructions on page 2

Contract No. 61A70 **COOK County** Section 11-00101-00-BR (Buffalo Grove) **Project BHM-9003(790) Route RAUPP BOULEVARD District 1 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

office or base of operation is located.

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____

Telephone Number

Address

NOTICE REGARDING SIGNATURE			
The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.			
Signature: 🗌	Title: Date:		
Instructions:	All tables must include subcontractor personnel in addition to prime contractor personnel.		
Table A -	Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.		
Table B -	Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.		
Table C -	Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.		

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. <u>CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY</u>:
 - 1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____
 - If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

Contract No. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Project BHM-9003(790) Route RAUPP BOULEVARD 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)	Signature of Owner	
	Business Address	
	Firm Name	
(IF A CO-PARTNERSHIP)		
	Dusiness Address	
		Name and Address of All Members of the Firm:
	Ву	Signature of Authorized Representative
(IF A CORPORATION)		
		Typed or printed name and title of Authorized Representative
	Attest	
(IF A JOINT VENTURE, USE THIS SECTION		Signature
FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)	Business Address	
	Corporate Name	
	Ву	
(IF A JOINT VENTURE)		Signature of Authorized Representative
(IF A JOINT VENTURE)		Typed or printed name and title of Authorized Representative
(IF A JOINT VENTURE)	Attact	Typed or printed name and title of Authorized Representative
(IF A JOINT VENTURE)	Attest	



Return with Bid

Division of Highways Annual Proposal Bid Bond

This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on

and shall be valid until

11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We

as PRINCIPAL, and

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

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

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

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer day of A.D., .		In TESTIMONY WHEREOF, the instrument to be signed by its of day of	ne said SURETY has caused this officer A.D., .	
day of	A.D.,	day of	^.U.,	
(Coi	mpany Name)	(Comp	any Name)	
Ву		Ву		
(S	ignature and Title)	(Signature	of Attorney-in-Fact)	
Notary for PRINCIPAL		Notary for SURETY		
STATE OF		STATE OF		
Signed and attested before me on (date)		Signed and attested before me on (date)		
by		by		
(Name	of Notary Public)		Notary Public)	
(Seal)		(Seal)		
	(Signature of Notary Public)		(Signature of Notary Public)	
	(Date Commission Expires)		(Date Commission Expires)	

BDE 356A (Rev. 1/21/14)

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

Electronic Bid Bond ID #

Company/Bidder Name

Signature and Title

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.



Division of Highways Proposal Bid Bond

Item No.

Letting Date

KNOW ALL PERSONS BY THESE PRESENTS, That We

as PRINCIPAL, and

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

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

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

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

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer		In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer	
day of	A.D.,	day of A.D.,	
	(Company Name)	(Company Name)	
Ву		Ву	
	(Signature and Title)	(Signature of Attorney-in-Fact)	
Notary for PRINCIP	AL	Notary for SURETY	
STATE OF		STATE OF	
COUNTY OF		COUNTY OF	
Signed and attested before me on (date)		Signed and attested before me on (date) by	
(N	lame of Notary Public)	(Name of Notary Public)	
(Seal)		(Seal)	
	(Signature of Notary Public)	(Signature of Notary Public)	
	(Date Commission Expires)	(Date Commission Expires)	
proposal the Princip		d form, the Principal may file an Electronic Bid Bond. By signing the bond has been executed and the Principal and Surety are firmly	

bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID #

Signature and Title



(1) Policy

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

(2) Obligation

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

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

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

(4) Assurance

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

Meets or exceeds contract award goals and has provided documented participation as follows:

Disadvantaged Business Participation _____ percent

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

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

Disadvantaged Business Participation _____ percent

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

	Company	The "as read" Low Bidder is required to com	ply with the Special Provision.
Ву		Submit only one utilization plan for each pro submitted in accordance with the special pro	
Title		Bureau of Small Business Enterprises 2300 South Dirksen Parkway Springfield, Illinois 62764	Local Let Projects Submit forms to the Local Agency
Date			

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.



DBE Participation Statement

Subcontractor Registration Number	Letting
Participation Statement	Item No.
(1) Instructions	Contract No.

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form. If additional space is needed complete an additional form for the firm.

(2) Work:

Please indicat	ie: J	I/V	Manufacturer	Supplier (60%)	Subcont	ractor	Trucking
Pay Item No.			Description		Quantity	Unit Price	Total
						Total	

(3) Partial Payment Items (For any of the above items which are partial pay items) Description must be sufficient to determine a Commercially Useful Function, specifically describe the work and subcontract dollar amount:

(4) Commitment

When a DBE is to be a second-tier subcontractor, or if the first-tier DBE subcontractor is going to be subcontracting a portion of its subcontract, it must be clearly indicated on the DBE Participation Statement, and the details of the transaction fully explained.

In the event a DBE subcontractor second-tiers a portion of its subcontract to one or more subcontractors during the work of a contract, the prime must submit a DBE Participation Statement, with the details of the transaction(s) fully explained.

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor or 1st Tier subcontractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

Signature for Contractor 1 st Tier 2 nd Tier	Signature for DBE Firm1 st Tier2 nd Tier
Title	Title
Date	Date
Contact Person	Contact Person
Phone	Phone
Firm Name	Firm Name
Address	Address
City/State/Zip	City/State/Zip
	Ε
The Department of Typese dution is requesting disclosure of information that is reasonable to a	wC

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the state and federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Management Center.

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. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Project BHM-9003(790) Route RAUPP BOULEVARD District 1 Construction Funds



SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled <u>State Required Ethical Standards Governing Subcontractors</u>.

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

Section 50-10. Felons.

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

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

C. Debt Delinguency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

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

Name of Subcontracting Company	
Authorized Officer	Date

SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

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

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form. **The current annual salary of the Governor is \$177,412.00**.

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ____ NO____
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ____ NO____
- 3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ____ NO ___

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

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

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

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

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

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all openended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. <u>See Disclosure Form Instructions</u>.

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

DISCLOSURE OF FINANCIAL INFORMATION

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

FOR INDIVIDUAL	(type or print information)		
NAME:			
ADDRESS			
Type of owne	ership/distributable income share	:	
stock	sole proprietorship	Partnership	other: (explain on separate sheet):
% or \$ value of	of ownership/distributable income sh	nare:	

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

Yes No ____

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ____No ___
- 2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary.

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive
(i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?

Yes No

- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ____No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes <u>No</u>

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of of 100% of the annual salary of the Governor? Yes ____No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?

Yes <u>No</u>

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

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

- (e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ____No ___
- (f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>
- (g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ____No ___

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ____No ___
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes <u>No</u>

3 Communication Disclosure.

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

Name and address of person(s): _____

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

t

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Financial Related Information Disclosure

ail Address	Fax Number (if available)
1	ail Address

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ____No ____ If "No" is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Officer	Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

🗌 Yes	🗌 No	□ N/A (Form A disclosure(s) established 100% ownership)
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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. Electronic bids are to be submitted to the electronic bidding system (ics-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.mNovember 21, 2014. 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. 61A70 COOK County Section 11-00101-00-BR (Buffalo Grove) Project BHM-9003(790) Route RAUPP BOULEVARD District 1 Construction Funds

This project consists of the removal of the existing structure and construction of a two span concrete slab structure, pavement removal, HMA pavement, curb and gutter removal and replacement, sidewalk replacement, storm sewer and water main improvements, located on Raupp Boulevard at Buffalo Creek in the Village of Buffalo Grove.

- **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

Erica J. Borggren, Acting Secretary

CONTRACT 61A70

INDEX FOR

SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-14)

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27 28		English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	
20 29		Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01) (Rev. 1-1-13)	
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31	х	Quality Control/Quality Assurance of Concrete Mixtures (Eff. 4-1-92) (Rev. 1-1-14)	
32	~	Digital Terrain Modeling for Earthwork Calculations (Eff. 4-1-07)	
33		Pavement Marking Removal (Eff. 4-1-09)	
34		Preventive Maintenance – Bituminous Surface Treatment (Eff. 1-1-09) (Rev. 1-1-12)	
35		Preventive Maintenance – Cape Seal (Eff. 1-1-09) (Rev. 1-1-12)	
36		Preventive Maintenance – Micro-Surfacing (Eff. 1-1-09) (Rev. 1-1-12)	
37		Preventive Maintenance – Nicro-Surraging (Eff. 1-1-09) (Rev. 1-1-12)	
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39		Restoring Bridge Approach Pavements Using High-Density Foam (Eff. 1-1-09) (Rev. 1-1-12)	

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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LR SD12		H	Required Cold Milled Surface Texture	Nov. 1, 1987	Jan. 1, 2007
LR SD406		H	RESCINDED	1007. 1, 1907	Jan. 1, 2007
LR 102-2		H		lon 1 2001	lon 1 2014
LR 102-2 LR 105	131		Bidding Requirements and Conditions for Contract Proposals	Jan. 1, 2001	Jan. 1, 2014
LR 105 LR 107-2	194		Cooperation with Utilities	Jan. 1, 1999	Jan. 1, 2007
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	154		Insurance Margas of Franksusses on Duklis Marks	Feb. 1, 2007	Aug. 1, 2007
LR 107-7			Wages of Employees on Public Works	Jan. 1, 1999	Jan. 1, 2014
LR 108		닖	Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 109			Equipment Rental Rates	Jan. 1, 2012	1 4 0000
LR 212			Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1			Bituminous Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2			Bituminous Stabilized Base Course, Plant Mix	Feb. 20, 1963	Jan. 1, 2007
LR 400-1			Bituminous Treated Earth Surface	Jan. 1, 2007	Apr. 1, 2012
LR 400-2			Bituminous Surface Plant Mix (Class B)	Jan. 1, 2008	
LR 400-3			Hot In-Place Recycling (HIR) – Surface Recycling	Jan. 1, 2012	
LR 400-4			Full-Depth Reclamation (FDR) with Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-5			Cold In-Place Recycling (CIR) With Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-6			Cold In Place Recycling (CIR) with Foamed Asphalt	June 1, 2012	
LR 400-7			Full-Depth Reclamation (FDR) with Foamed Asphalt	June 1, 2012	
LR 402			Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-1		Ш	Surface Profile Milling of Existing, Recycled or Reclaimed Flexible	Apr. 1, 2012	Jun. 1, 2012
			Pavement		
LR 403-2			Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		Ц	Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	
LR 420			PCC Pavement (Special)	May 12, 1964	Jan. 2, 2007
LR 442			Bituminous Patching Mixtures for Maintenance Use	Jan. 1, 2004	Jun. 1, 2007
LR 451			Crack Filling Bituminous Pavement with Fiber-Asphalt	Oct. 1, 1991	Jan. 1, 2007
LR 503-1			Furnishing Class SI Concrete	Oct. 1, 1973	Jan. 1, 2002
LR 503-2			Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 542			Pipe Culverts, Type (Furnished)	Sep. 1, 1964	Jan. 1, 2007
LR 663			Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
LR 702			Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1000-1			Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with	Apr. 1, 2012	Jun. 1, 2012
			Emulsified Asphalt Mix Design Procedures		
LR 1000-2			Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with	June 1, 2012	
			Foamed Asphalt Mix Design Procedures		
LR 1004			Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1030			Growth Curve	Mar. 1, 2008	Jan. 1, 2010
LR 1032-1			Emulsified Asphalts	Jan. 1, 2007	Feb. 7, 2008
LR 1102			Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS For the November 21, 2014 Letting

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

<u>File Name</u>	<u>Pg.</u>		Special Provision Title	Effective	Revised
80240			Above Grade Inlet Protection	July 1, 2009	Jan. 1, 2012
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80274		Aggregate Subgrade Improvement			Jan. 1, 2013
80192			Automated Flagger Assistance Device	April 1, 2012 Jan. 1, 2008	Juli: 1, 2010
80173	Bituminous Materials Cost Adjustments			Nov. 2, 2006	Aug. 1, 2013
80241			Bridge Demolition Debris	July 1, 2009	7.ug. 1, 2010
50261			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80292	135	Х	Coarse Aggregate in Bridge Approach Slabs/Footings	April 1, 2012	April 1, 2013
80310	100		Coated Galvanized Steel Conduit	Jan. 1, 2012	Aug. 1, 2014
80341			Coilable Nonmetallic Conduit	Aug. 1, 2013	Aug. 1, 2014
80198			Completion Date (via calendar days)	April 1, 2004	
80199			Completion Date (via calendar days)	April 1, 2008	
80293			Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5	April 1, 2008	April 1, 2014
00200			Feet	April 1, 2012	Mphi 1, 2014
80294	-		Concrete Box Culverts with Skews \leq 30 Degrees Regardless of	April 1, 2012	April 1, 2014
00204			Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet		Αμπ 1, 2014
80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
80334	136	х	Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
80277	100		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
THE REPORT OF A DATA AND AND A DATA AND A DATA AND A DATA AND AND A DATA AND AND A DATA AND AND AND AND AND AND AND AND AND AN	137	Х	Construction Air Quality – Diesel Retrofit	June 1, 2012	Nov. 1, 2014
80335	140	X	Contract Claims	April 1, 2014	1107.1,2013
80029	141	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
AND A DATE OF A DESCRIPTION OF A DESCRIP	151	X	Friction Aggregate	Jan. 1, 2000	Nov. 1, 2014
80229	an Midai		Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80329			Glare Screen	Jan. 1, 2009	ouly 1, 2000
80303	155	X	Granular Materials	Nov. 1, 2012	
80304	100	<u> </u>	Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
80246	156	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2012	April 1, 2014
* 80322	100		Hot-Mix Asphalt – Mixture Design Composition and Volumetric	Nov. 1, 2013	Nov. 1, 2012
00022			Requirements	1100.1,2015	110V. 1, 2014
* 80323			Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	Nov. 1, 2014
* 80347	158	X	Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits –	Nov. 1, 2014	1,2014
			Jobsite Sampling	1007. 1, 2014	
* 80348	164	X	Hot-Mix Asphalt – Prime Coat	Nov. 1, 2014	
80315	in ta stain	Marrie de	Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
80336			Longitudinal Joint and Crack Patching	April 1, 2014	1107.1,2010
* 80324		30303	LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	Nov. 1, 2014
* 80325	169	X	LRFD Storm Sewer Burial Tables	Nov. 1, 2013	Nov. 1, 2014
80045	100		Material Transfer Device	June 15, 1999	Aug. 1, 2014
80342			Mechanical Side Tie Bar Inserter	Aug. 1, 2014	Aug. 1, 2014
80165		<u> </u>	Moisture Cured Urethane Paint System	Nov. 1, 2014	Jan. 1, 2010
80337			Paved Shoulder Removal	April 1, 2014	Jan. 1, 2010
* 80349			Pavement Marking Blackout Tape	Nov. 1, 2014	
80330		100198308	Pavement Marking for Bike Symbol	Jan. 1, 2014	
80298			Pavement Marking Tape Type IV	April 1, 2012	
00230		L		- Abiii 1, 2012	

File NamePg.Special Provision TitleEffectiveRevised80254179XPavement PatchingJan. 1, 201080331180XPayrolls and Payroll RecordsJan. 1, 201480332182XPortland Cement Concrete – Curing of Abutments and PiersJan. 1, 201480326183XPortland Cement Concrete EquipmentNov. 1, 2013	
80331 180 X Payrolls and Payroll Records Jan. 1, 2014 80332 182 X Portland Cement Concrete – Curing of Abutments and Piers Jan. 1, 2014	
80332 182 X Portland Cement Concrete – Curing of Abutments and Piers Jan. 1, 2014	
80326 183 X Portland Cement Concrete Equipment Nov. 1, 2013	
80338 Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching April 1, 2014	
80343 Precast Concrete Handhole Aug. 1, 2014	
80300 Preformed Plastic Pavement Marking Type D - Inlaid April 1, 2012	
80328 184 X Progress Payments Nov. 2, 2013	
80281 185 X Quality Control/Quality Assurance of Concrete Mixes Jan. 1, 2012 Jan. 1, 20	14
3426I Railroad Protective Liability Insurance Dec. 1, 1986 Jan. 1, 200)6
80157 Railroad Protective Liability Insurance (5 and 10) Jan. 1, 2006	
80306 Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Nov. 1, 2012 April 1, 2010	14
Shingles (RAS)	
* 80350 Retroreflective Sheeting for Highway Signs Nov. 1, 2014	
80327 186 X Reinforcement bars Nov. 1, 2013	
80283 188 X Removal and Disposal of Regulated Substances Jan. 1, 2012 Nov. 2, 20	12
80319 192 X Removal and Disposal of Surplus Materials Nov. 2, 2012	
80344 Rigid Metal Conduit Aug. 1, 2014	
80307 Seeding Nov. 1, 2012	
80340 Speed Display Trailer April 2, 2014	
80339 Stabilized Subbase April 1, 2014	
80127 Steel Cost Adjustment April 2, 2004 April 1, 20	09
80317 Surface Testing of Hot-Mix Asphalt Overlays Jan. 1, 2013	
80301 Tracking the Use of Pesticides Aug. 1, 2012	
80333 Traffic Control Setup and Removal Freeway/Expressway Jan. 1, 2014	
20338 193 X Training Special Provisions Oct. 15, 1975	
80318 Traversable Pipe Grate Jan. 1, 2013 April 1, 20	14
80345 Underpass Luminaire Aug. 1, 2014	
80346 Waterway Obstruction Warning Luminaire Aug. 1, 2014	guarsett,
* 80288 196 X Warm Mix Asphalt Jan. 1, 2012 Nov. 1, 20	14
80302 198 X Weekly DBE Trucking Reports June 2, 2012	
80289 Wet Reflective Thermoplastic Pavement Marking Jan. 1, 2012	
80071 Working Days Jan. 1, 2002	

The following special provisions are in the 2014 Supplemental Specifications and Recurring Special Provisions:

<u>File Name</u>	Special Provision Title	New Location	Effective	<u>Revised</u>
80309	Anchor Bolts	Articles 1006.09, 1070.01,	Jan. 1, 2013	
80276	Bridge Relief Joint Sealer	and 1070.03 Article 503.19 and Sections 588 and 589	Jan. 1, 2012	Aug. 1, 2012
80312	Drain Pipe, Tile, Drainage Mat, and Wall Drain	Article 101.01, 1040.03, and 1040.04	Jan. 1, 2013	
80313	Fabric Bearing Pads	Article 1082.01	Jan. 1, 2013	
80169	High Tension Cable Median Barrier	Section 644 and Article 1106.02	Jan. 1, 2007	Jan. 1, 2013
80320	Liquidated Damages	Article 108.09	April 1, 2013	
80297	Modified Urethane Pavement Marking	Section 780, Articles 1095.09 and 1105.04	April 1, 2012	
80253	Moveable Traffic Barrier	Section 707 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80231	Pavement Marking Removal	Recurring CS #33	April 1, 2009	
80321	Pavement Removal	Article 440.07	April 1, 2013	
80022	Payments to Subcontractors	Article 109.11	June 1, 2000	Jan. 1, 2006

<u>File Name</u>	Special Provision Title	New Location	<u>Effective</u>	<u>Revised</u>
80316	Placing and Consolidating Concrete	Articles 503.06, 503.07, and 516.12	Jan. 1, 2013	
80278	Planting Woody Plants	Section 253 and Article 1081.01	Jan. 1, 2012	Aug. 1, 2012
80305	Polyurea Pavement Markings	Article 780.14	Nov. 1, 2012	Jan. 1, 2013
80279	Portland Cement Concrete	Sections 312, 503, 1003, 1004, 1019, and 1020	Jan. 1, 2012	Nov. 1, 2013
80218	Preventive Maintenance – Bituminous Surface Treatment	Recurring CS #34	Jan. 1, 2009	April 1, 2012
80219	Preventive Maintenance – Cape Seal	Recurring CS #35	Jan. 1, 2009	April 1, 2012
80220	Preventive Maintenance – Micro Surfacing	Recurring CS #36	Jan. 1, 2009	April 1, 2012
80221	Preventive Maintenance – Slurry Seal	Recurring CS #37	Jan. 1, 2009	April 1, 2012
80224	Restoring Bridge Approach Pavements Using High- Density Foam	Recurring CS #39	Jan. 1, 2009	Jan. 1, 2012
80255	Stone Matrix Asphalt	Sections 406, 1003, 1004, 1030, and 1011	Jan. 1, 2010	Aug. 1, 2013
80143	Subcontractor Mobilization Payments	Article 109.12	April 2, 2005	April 1, 2011
80308	Synthetic Fibers in Concrete Gutter, Curb, Median and Paved Ditch	Articles 606.02 and 606.11	Nov. 1, 2012	•
80286	Temporary Erosion and Sediment Control	Articles 280.04 and 280.08	Jan. 1, 2012	
80225	Temporary Raised Pavement Marker	Recurring CS #38	Jan. 1, 2009	
80256	Temporary Water Filled Barrier	Section 708 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80273	Traffic Control Deficiency Deduction	Article 105.03	Aug. 1, 2011	
80270	Utility Coordination and Conflicts	Articles 105.07, 107.19, 107.31, 107.37, 107.38, 107.39 and 107.40	April 1, 2011	Jan. 1, 2012

The following special provisions require additional information from the designer. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation

- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET

Effective as of the: November 21, 2014 Letting

<u>Pg</u> #	$\overline{\mathbf{A}}$	<u>File Name</u>	Title	Effective	Revised
		GBSP 4	Polymer Modified Portland Cement Mortar	June 7, 1994	July 26, 2013
		GBSP 12	Drainage System	June 10, 1994	Jan 1, 2007
		GBSP 13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Oct 30, 2012
	1	GBSP 14	Jack and Remove Existing Bearings	April 20, 1994	Jan 1, 2007
		GBSP 15	Three Sided Precast Concrete Structure	July 12, 1994	Oct 15, 2011
		GBSP 16	Jacking Existing Superstructure	Jan 11, 1993	Jan 1, 2007
		GBSP 17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP 18	Modular Expansion Joint	May 19, 1994	April 18, 2014
		GBSP 21	Cleaning and Painting Contact Surface Areas of Existing Steel Structures	June 30, 2003	May 18, 2011
	:	GBSP 25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	April 19, 2012
		GBSP 26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	April 30, 2010
		GBSP 28	Deck Slab Repair	May 15, 1995	Oct 15, 2011
		GBSP 29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	Oct 30, 2012
		GBSP 30	Bridge Deck Latex Concrete Overlay	May 15, 1995	Jan 18, 2011
		GBSP 31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	Oct 30, 2012
		GBSP 32	Temporary Sheet Piling	Sept 2, 1994	Jan 31, 2012
		GBSP 33	Pedestrian Truss Superstructure	Jan 13, 1998	April 18, 2014
		GBSP 34	Concrete Wearing Surface	June 23, 1994	Feb 6, 2013
		GBSP 35	Silicone Bridge Joint Sealer	Aug 1, 1995	Oct 15, 2011
	<u> </u>	GBSP 38	Mechanically Stabilized Earth Retaining Walls	Feb 3, 1999	Aug 29, 2014
		GBSP 42	Drilled Soldier Pile Retaining Wall	Sept 20, 2001	Jan 3, 2014
		GBSP 43	Driven Soldier Pile Retaining Wall	Nov 13, 2002	Jan 3, 2014
		GBSP 44	Temporary Soil Retention System	Dec 30, 2002	May 11, 2009
		GBSP 45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Feb 6, 2013
	<u> </u>	GBSP 46	Geotextile Retaining Walls	Sept 19, 2003	July 26, 2013
199	<u> X</u>	Last a second seco	Pipe Underdrain for Structures	<u> May 17, 2000</u>	Jan 22, 2010
		GBSP 53	Structural Repair of Concrete	Mar 15, 2006	Aug 29, 2014
	ļ	GBSP 55	Erection of Curved Steel Structures	June 1, 2007	
	<u> </u>	GBSP 56	Setting Piles in Rock	Nov 14, 1996	April 19, 2012
	ļ	GBSP 57	Temporary Mechanically Stabilized Earth Retaining Walls	Jan 6, 2003	Aug 29 ,2014
	1	GBSP 59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	Jan 3, 2014
		GBSP 60	Containment and Disposal of Non-Lead Paint Cleaning Residues	Nov 25, 2004	Mar 6, 2009
		GBSP 61	Slipform Parapet	June 1, 2007	Aug 17, 2012
		GBSP 62	Concrete Deck Beams	June 13, 2008	Oct 9, 2009
		GBSP 64	Segmental Concrete Block Wall	Jan 7, 1999	Oct 30, 2012
		GBSP 65	Precast Modular Retaining Walls	Mar 19, 2001	Jan 3, 2014
		GBSP 67	Structural Assessment Reports for Contractor's Means and Methods	Mar 6, 2009	
		GBSP 70	Braced Excavation	Aug 9, 1995	May 18, 2011
		GBSP 71	Aggregate Column Ground Improvement	Jan 15, 2009	Oct 15, 2011

		GBSP 72	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay	Jan 18, 2011	Oct 15, 2011
200	X	GBSP 73	Cofferdams	Oct 15, 2011	
		GBSP 74	Permanent Steel Sheet Piling (LRFD)	Jan 31, 2012	Aug 17, 2012
		GBSP 75	Bond Breaker for Prestressed Concrete Bulb-T Beams	April 19, 2012	
202	X	GBSP 76	Granular Backfill for Structures	April 19, 2012	Oct 30, 2012
		GBSP 77	Weep Hole Drains for Abutments, Wingwalls, Retaining Walls And Culverts	April 19, 2012	Oct 22, 2013
204	X	GBSP 78	Bridge Deck Construction	Oct 22, 2013	April 18, 2014
		GBSP 79	Reserved		
		GBSP 80	Fabric Reinforced Elastomeric	Aug 29, 2014	

LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW

The following Guide Bridge Special Provisions have been incorporated into the 2012 Standard Specifications:

File	Title	Std Spec
Name		Location
GBSP22	Cleaning and Painting New Metal Structures	506
GBSP36	Surface Preparation and Painting Req. for Weathering Steel	506
GBSP50	Removal of Existing Non-composite Bridge Decks	501
GBSP58	Mechanical Splicers	508
GBSP63	Demolition Plans for Removal of Existing Structures	501
GBSP68	Piling	512
GBSP69	Freeze-Thaw Aggregates for Concrete Superstructures Poured on Grade	1004

The following Guide Bridge Special Provisions have been discontinued or have been superseded:

File	Title	Disposition:
Name		
GBSP37	Underwater Structure Excavation Protection	Replaced by GBSP73
GBSP11	Permanent Steel Sheet Piling	Replaced by GBSP74
GBSP47	High Performance Concrete Structures	Discontinued
GBSP52	Porous Granular Embankment (Special)	Replaced by GBSP76
GBSP66	Wave Equation Analysis of Piles	Discontinued

Raupp Boulevard over Buffalo Creek Village of Buffalo Grove Cook County

STATE OF ILLINOIS SPECIAL PROVISIONS

CONTRACT NO. 61A70

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of Raupp Boulevard Bridge Replacement; Section: 11-00101-00-BR; Project: BHM-9003(790), Job: C-91-406-11; County: Cook; and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT:

The project is located on Raupp Boulevard, from 111 feet south of Structure Number 016-8216 to 65 feet north of Structure Number 016-8216 over Buffalo Creek, in the Village of Buffalo Grove in Cook County. A location map is shown on the cover of the Plans. The gross and net length of improvements is 176 feet (0.033 miles).

DESCRIPTION OF WORK:

The work consists of the demolition of the existing bridge (Structure Number 016-6325) and replacement with a new two-span reinforced concrete slab structure on pile bent pier and abutments (Structure Number 016-8216). The Work included in this contract consists of furnishing all labor, materials, equipment, and other incidentals necessary for the completion of bridge structure removal, pavement removal, tree removal, earth excavation, two-span reinforced concrete slab structure (Structure Number 016-8216), erosion and sediment control, traffic control and protection, hot-mix asphalt pavement; parkway restoration; curb and gutter; water main, sanitary and storm sewer removal and installation; and other incidental and miscellaneous items of work in accordance with the Plans, Standard Specifications, and these Special Provisions.

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.

Raupp Boulevard over Buffalo Creek Village of Buffalo Grove Cook County

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.

COMPLETION DATE PLUS WORKING DAYS:

Effective: September 30, 1985 Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on <u>July 18, 2015, except</u> as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within <u>10</u> 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 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.

The completion date for all roadway resurfacing and reconstruction, bridge construction, water main, sanitary force main and storm sewer installation; shall be <u>July 18, 2015</u>.

Article 108.09 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.

IN-STREAM WORK PLAN REQUIREMENT:

The contractor shall secure approval of a Contractor-prepared in-stream work plan from the North Cook SWCD prior to any work affecting jurisdictional waters.

The applicable Army Corp of Engineers Chicago District in-stream and side stream requirements are contained in the Army Corps permit authorization, which is a special provision of this contract.

Any fines assessed by the regulatory agencies due to the contractor's in-stream work activity are the responsibility of the contractor.

The cost of preparing the plan and BMPs needed to implement in-stream work plans, will not be measured or paid for separately, and are included in the cost of the associated contract work.

Raupp Boulevard over Buffalo Creek Village of Buffalo Grove Cook County

CONSTRUCTION DEBRIS:

Effective: October 18, 1999

Add the following to the third paragraph of Article 202.03 of the Standard Specifications:

"The Contractor shall not conduct any generation, transportation, or recycling of construction or demolition debris, clean or general or uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads that is not commingled with any waste, without the maintenance of documentation identifying the hauler, generator, place of origin of the debris or soil, the weight or volume of the debris or soil, and the location, owner, and operator of the facility where the debris or soil was transferred, disposed, recycled or treated. This documentation must be maintained by the Contractor for 3 years."

STATUS OF UTILITIES TO BE ADJUSTED:

Effective: January 30, 1987 Revised: January 24, 2013

Utilities companies involved in this project have provided the following estimated durations:

Name of Utility	Туре	Location	Estimated Duration of Time for the Completion of Relocation or Adjustments
Nicor Gas 1844 Ferry Road Naperville, IL 60563 Constance Lane 1-630-388-3830	4" gas main	West side of bridge directly under proposed watermain	5 working days
Comcast Cable 688 Industrial Drive Elmhurst, IL 60126 Ted Wyman 1-630-600-6349	Buried cable/fiber optic and aerial	Aerial lines on north side of bridge at north abutment, power pole and guy wires at sta 15+85, 40'LT Aerial lines on east side of bridge running south, power pole at sta 15+66, 33'RT and power pole at sta 14+36, 16' RT	5 working days
AT&T Distribution 1000 Commerce Dr, Oakbrook, IL 60523 Hector Garcia 1-630-573-5465	Buried cable/Aerial lines	No facilities in project limits	No anticipated conflicts

Com Ed 1500 Franklin Boulevard Libertyville, IL 60048 Terri Black 1-847-816-5239	Aerial and undergroun d cables, utility (power) poles	Aerial lines on north side of bridge at north abutment, power pole and guy wires at sta 15+85, 40'LT Aerial lines on east side of bridge running south, power pole at sta 15+66, 33'RT and power pole at sta 14+36, 16' RT	5 working days
Unite Private Networks 950 West 92 Highway Suite 203 Kearney, Missouri 64060 816-550-5189	Buried cable/fiber optic	No facilities in project limits.	No anticipated conflicts.
Northwest Water Commission 1525 North Wolf Rd Des Plaines, IL 60016 847-635-0777	water	No facilities in project limits.	No anticipated conflicts.
Level 3 Communications 1025 Eldorado Boulevard Broomfield, CO 80021 720-888-4988	Buried cable/fiber optic	No facilities in project limits.	No anticipated conflicts.
Village of Buffalo Grove Public Works 51 Raupp Boulevard Buffalo Grove, IL 60089- 2198 1-847-459-2547	Water main, force main and sanitary sewer	Water main relocation on west side of bridge. Force main relocation on east side of bridge.	Work to be completed by Contractor.

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.

In accordance with 605 ILCS 5/9-113 of the Illinois Compiled Statutes, utility companies have 90 days to complete the relocation of their facilities after receipt of written notice from the Department. The 90-day written notice will be sent to the utility companies after the following occurs:

- 1) Proposed right of way is clear for contract award.
- 2) Final plans have been sent to and received by the utility company.

3) Utility permit is received by the Department and the Department is ready to issue said permit.

4) If a permit has not been submitted, a 15 day letter is sent to the utility company notifying them they have 15 days to provide their permit application. After allowing 15 days for submission of the permit the 90 day notice is sent to the utility company.

5) Any time within the 90 day relocation period the utility company may request a waiver for additional time to complete their relocation. The Department has 1 0 days to review and respond to a waiver request.

EXPLORATION TRENCH, SPECIAL:

This work shall consist of constructing a trench for the purpose of verifying clearances and locations of existing private and public utilities and storm sewers. The exploration trench shall be constructed at the locations as directed by the Engineer and in accordance with Article 213.02 of the Standard Specifications, except as modified herein.

The depth of the trench shall be variable, but shall be deep enough to locate all potential conflicts. The width of the trench shall be sufficient to allow proper investigation of the entire trench.

Method of Measurement. This work will be measured for payment per lineal foot of actual trench constructed.

Basis of Payment. This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of depth.

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012 Revised: November 1, 2014

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3)	

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01 or CS 02 but shall not exceed 40 percent of the total product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01 or CS 02 are used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CS 01 or CS 02 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

***1004.06 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.
- (c) Gradation.

(1) The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01 or CS 02.

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
Grad No.	Sieve Size and Percent Passing				
Grau No.	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS:

Effective: April 1, 2001 Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

"402.1 0 For Temporary Access. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads

according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

- (a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.
- (b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.
- (c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03."

Add the following to Article 402.12 of the Standard Specifications:

"Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

TRAFFIC CONTROL PLAN:

Effective: September 30, 1985 Revised: January 1, 2007

Traffic Control shall be according to 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:

701001-02	Off-road Operations, 2L, 2W, more than 15' away
701006-05	Off-road Operations, 2L, 2W, 15'-24' from pavement edge
701011-04	Off-road Moving Operations, 2L, 2W, Day Only
701301-04	Lane Closure, 2L, 2W, Short Time Operations
701501-06	Urban Lane Closure, 2L, 2W, Undivided
701801-05	Sidewalk, Corner or Crosswalk Closure
701901-03	Traffic Control Devices

DETAILS:

Traffic Control and Protection for Side Roads, Intersections, and Driveways (TC-10) District One Typical Pavement Markings (TC-13) Detour Signing for Closing State Highways (TC-21) Arterial Road Information Sign (TC-22) Detour Plan

SPECIAL PROVISIONS:

Maintenance of Roadways Temporary Information Signing Traffic Control and Protection (Arterials) Public Convenience and Safety (District 1) Work Zone Traffic Control (LRS 3)

TRAFFIC CONTROL AND PROTECTION (ARTERIALS):

Effective: February 1, 1996 Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include 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.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

<u>Method of Measurement</u>: All traffic control (except Traffic Control and Protection (Expressways)) and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

CLASS D PATCHES:

This work shall be done in accordance with Section 442 of the Standard Specifications except as modified herein.

442.08 Class D Patching. Add the following to the end of this Article:

"This item shall commence only after the work for HOT-MIX ASPHALT SURFACE REMOVAL – VARIABLE DEPTH or HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4" has been completed.

442.11 Basis of Payment. Revise the second paragraph of this Article to Read:

"This work will be paid for at the contract unit price per square yard for CLASS D PATCHES, of the type and thickness specified."

HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT, 3 INCH:

This item shall consist of the removal and replacement of the existing HMA driveway surface. Replacement shall be constructed to match the existing pavement removed for thickness, however the minimum thickness shall not be less than 3 inches of HMA Surface Course, Mix "D" N50. Prior to replacement with the surface course, the exposed base course shall be shaped, compacted and primed, including the exposed edge of the HMA surface remaining, to the satisfaction of the Engineer.

Removal of the driveway surface shall be in accordance with Section 440 of the Standard Specifications and replacement shall be done in accordance with Articles 406.02, 406.03, 406.05, 406.06, 406.07, and 406.12 of the Standard Specifications, except as modified herein.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT, 3".

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH:

This work shall be done in accordance with Section 440 of the Standard Specifications except as modified herein.

440.01 <u>Description</u>. Revise this Article to read:

"440.01 Description. This work shall consist of the removal and satisfactory disposal of HMA pavement surface, 2 1/4" at curb and variable depth at centerline based on variable cross slope from the edge of pavement."

440.03 General. Add the following paragraph to the end of this Article:

"No additional compensation will be allowed because of variations from the assumed HMA surface thickness or from the HMA surface thickness shown on the Plans."

440.08 Basis of Payment. Revise this Article to read:

"440.08 Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH."

BICYCLE RAILING, SPECIAL:

This work shall be performed in accordance with Section 509 of the Standard Specifications, and the detail shown on the Plans, except as modified herein. This work shall consist of furnishing and installing a new 3'-8" height bicycle railing at the location shown on the plans or as directed by the Engineer.

The bicycle railing shall consist of a linear delineation system of 4" x 4" post with two 2" x 8" boards. The posts shall be spaced approximately 10 feet apart and encased with Portland cement concrete with washed stone at the bottom of the trench hole. The bicycle railing shall be placed at a minimum of 1' from the edge of the proposed bike path. All materials shall comply with the BICYCLE RAILING, SPECIAL detail shown in the plans and as directed by the Engineer.

<u>Method of Measurement</u>. This work shall be measured for payment in place in feet. The length measured will be the overall length along the top longitudinal railing member through all posts and gaps.

Basis of Payment. This work will be paid for at the contract unit price per foot for BICYCLE RAILING, SPECIAL DETAIL.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6 INCH:

This work shall be performed in accordance with Articles 406.02, 406.03, 406.05, 406.06, 406.07, and 406.12 of the Standard Specifications, and the detail shown on the Plans, except as modified herein. This work shall consist of placing HMA Surface Course, Mix "D" N50, to a minimum thickness of 6 inches, or to match the existing HMA thickness, whichever is greater.

The 5-inch thick Aggregate Base Course, Type B shall be performed in accordance with Section 351 of the Standard Specifications. This item will be paid for separately as Aggregate Base Course, Type B 5".

<u>Method of Measurement</u>. This work shall be measured for payment in place and the area computed in square yards.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 6".

TRENCHING, BACKFILLING AND COMPACTING FOR SANITARY SEWER, FORCE MAIN AND WATER MAIN:

<u>SUMMARY</u>: Trench, backfill, and compact shown on the plans, as specified herein and as needed for installation of water main, force main and sanitary sewer in accordance with the "Standard Specification for Water and Sewer Main Construction in Illinois".

<u>QUALITY ASSURANCE</u>: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

Use equipment adequate in size, capacity, and numbers to accomplish the work in a timely manner.

Comply with requirements of governmental agencies having jurisdiction.

<u>GRANULAR PIPE BEDDING AND COVERING MATERIALS</u>: Provide well graded, washed, mixture of gravel or crushed stone aggregate free of clay, loam, dirt, calcareous or other foreign matter conforming to the IDOT "Standard Specifications" gradation No. CA 11, or the Standard Specifications for Water and Sewer Construction in Illinois, with the following gradation:

- 1. For flexible thermoplastic pipes including sewer pipes, sewage force mains, and water mains: Comply with ASTM D2321, Class I or II as modified below.
 - a. Exclude sharp angular granular materials.
 - b. Limit maximum particle size to 1/2-inch (IDOT CA 15 or CA 16).
 - c. Do not use Class II materials in wet conditions.
- 2. For rigid pipes comply with ASTM C12, Bedding Class B.

EXCAVATED BACKFILL MATERIALS IN NON-PAVED AREAS: Provide soil materials free from organic matter, rubble, or frozen material, containing no rocks or lumps over 6 inches, and with not more than 15 percent of the rocks or lumps larger than 2 inches.

<u>GRANULAR BACKFILL MATERIALS</u>: Provide either sand, pit run gravel, granular material, or excavated granular materials.

<u>Granular Material</u>: Use 100% crushed stone or gravel complying with Section 1004 in the IDOT Standard Specifications for gradation No. CA-7.

<u>TEMPORARY AGGREGATE PAVEMENT MATERIAL</u>: Provide well graded, 100 percent crushed gravel or crushed stone aggregate free of clay, loam, dirt, calcareous or other foreign matter conforming to the IDOT "Standard Specifications" gradation No. CA-6.

<u>GEOTECHNICAL FABRIC</u>: Provide geotechnical fabric for separation of granular material and native soil in areas where trench is over excavated to remove unsuitable materials.

- 1. Acceptable manufacturers:
 - a. Mirafi: 160N.
 - b. Synthetic Industries: 601.
 - c. Amaco: 4551.

GROUT FOR FILLING OF ABANDONED SEWERS:

- 1. Cellular Grout:
 - a. Low density cellular concrete capable of being mixed on site and pumped into place through a 2-inch hose.
 - b. Foaming agent complying with ASTM C869.
 - c. Portland Cement: ASTM C150, Type I or Type II.
 - d. Contents: cement, fly ash, water and foaming agent.
 - e. Minimum net density: 80 pcf.
 - f. Acceptable manufacturers:

- i. Mearl Geofoam Liquid Concentrate.
- ii. Geofill-Lite by "MixOnSite".

WATER MAIN REPAIR:

- 1. Repair water main or water services damaged during construction utilizing products of type and manufacturers as approved by the Owner.
- 2. Pipe couplings for joining of sections of cut water main where a section of new pipe is used to replace a broken pipe.
 - a. Acceptable manufacturers:
 - (1) Dresser Style 38.
 - (2) Smith-Blair CC-441.
- 3. Repair clamps for broken or cracked pipe and sealing of existing corporation stop opening.
 - a. Use full-circle single band all stainless steel clamps.
 - b. Acceptable manufacturers:
 - (1) Dresser Style 360.
 - (2) Smith-Blair 200 Series.
 - c. Replace damaged service corporation stops by installation of full-circle single band all stainless steel clamps, with service outlet, matching manufacturer's and styles used for repair of a cracked pipe.

GENERAL CONSTRUCTION REQUIREMENTS:

- 1. Protection of existing facilities:
 - a. Unless shown to be removed, protect existing structures, conduits, active utility lines and all other facilities shown on the Plans or otherwise made known to the Contractor. If damaged, repair, replace, or restore to a condition equal to or better than the original condition at no additional cost to the Contract.
 - b. Notify all persons, firms, corporations, or agencies owning or using any existing structures, conduits, or utilities which may be affected by the Work prior to the start of construction.
 - c. Make arrangements to locate, maintain, protect, and/or relocate facilities in order to complete the Work.
 - d. Make such exploration as is necessary to determine the exact location of underground utilities.
 - e. Exercise care during the progress of work in the area to prevent damage to the utilities.
 - f. Whenever it becomes necessary to relocate underground gas mains, telephone conduit, or electrical lines or support or relocate utility poles, the utility company involved will make such relocation or provide pole support. Notify the utility company promptly.
 - g. Whenever it becomes necessary to relocate water or other pipes or conduits in direct conflict with the proposed pipe (exclusive of culverts) which are not shown on the Plans, obtain the direction from the Engineer for the relocation. Compensation will be allowed only for such quantities as determined by the Engineer.

- h. Do not obstruct accessibility of fire hydrants.
- g. Maintain access to driveways at all times except when actual trench construction is crossing a driveway.

TRENCHING:

- 1. Do not advance trench excavation more than 50 feet ahead of completed pipe installation except as approved by the Engineer.
- 2. Provide and maintain sheeting, shoring, and bracing necessary for protection of the Work, adjacent property, and for the safety of personnel.
 - a. Remove temporary sheeting and bracing after backfilling to an elevation which will prohibit caving of exposed sidebanks.
 - b. Fill voids left by the withdrawal of sheeting with compacted sand.
 - c. The Engineer may direct that supports in trenches be cut off at any specific elevation to protect adjacent facilities or property. Compensation for support left in place will be negotiated.
 - d. No extra payment will be made for the supports left in place without the direction of the Engineer.
 - e. Do not leave supports within 4 feet of the ground or pavement surface in place without the permission of the Engineer.
- 3. Provide pumping, bailing, wellpointing, and construct ditches and dikes required to dewater and drain ground water, sewage, or stormwater to keep the excavation and site dry for the completion of the Work.
- 4. Excavation:
 - a. Excavate by open cut unless otherwise indicated on the Plans.
 - b. Excavate trenches to the depths and grades necessary for the pipelines with allowances for bedding material.
 - c. Over excavate organic, soft, spongy, or otherwise unsuitable soils found at or below the bottom of the trench to meet firm subsoil or as determined by the Engineer.
 - d. Comply with the following maximum trench widths at the top of pipelines:

Nominal	
Pipe Sizes	Trench Widths
<u>(inches)</u>	<u>(inches)</u>
12 or smaller	30
14 - 18	36
20 - 24	42
27 - 30	48
33 and larger	1-1/3 times pipe OD

EXCAVATION FOR APPURTENANCES:

1. Excavate for manholes and similar structures to the depths as shown on the Plans and to a distance sufficient to leave at least 12 inches clear between outer surfaces and the embankment or shoring that may be used to hold and protect the banks.

2. Over depth excavation beyond depths indicated on the Plans that has not been directed will be considered unauthorized. Fill with sand, gravel, or lean concrete as determined by the Engineer, and at no additional cost to the Contract.

<u>BEDDING AND COVERING OF PIPE</u>: Bedding is defined as the shaped and tamped material which supports the pipes. Covering is defined as the compacted material which protects and covers the pipes. Provide continuous bedding and covering for underground pipelines, except where concrete encasement, concrete cradles, boring or jacking are indicated.

Pipe bedding:

- 1. Provide compacted granular pipe bedding and covering material with a minimum thickness of 4 inches under pipe barrels and 2 inches under bells.
- 2. Wherever the trench is over-excavated due to removal of unsuitable material, refill the trench bottom to the bottom of the pipe bedding with granular material conforming to the IDOT "Standard Specifications" gradation No. CA 11 as determined by the Engineer.
 - a. Removal and replacement of material, or unsuitable material, to a depth of one foot below pipe barrel outside diameter is considered incidental to installation of the pipe.
- 3. Wherever the trench is over excavated to remove unsuitable material, install geotechnical fabric between native soil and granular material:
 - a. Install fabric to cover bottom and sides of trench to heights as follows:
 - (1) For all flexible pipe and rigid pipe 24-inch and smaller: to envelop entire bedding and covering material and overlap 1-foot at the top.
 - (2) For rigid pipe 27-inch and larger: to cover bedding material and from sides of trench to edge of pipe.
 - (3) Where undercut is of a depth that requires more than one piece of fabric to provide envelope, provide sewn seams between sections of fabric.
- 4. Wherever two or more pipes or conduits are placed in the same trench or excavated area, backfill the trench with granular pipe bedding and covering material to support the uppermost pipe or conduit.

Pipe covering:

- 1. Following placement of pipe and inspection of joints, provide compacted granular pipe bedding and covering material for the full width of the trench to the following levels unless otherwise shown on the Plans:
 - a. For pipes sizes 24-inch and smaller, except flexible thermoplastic pipe: To 4 inches above the top of the pipe.
 - b. For pipes sizes 27-inch and larger, except flexible thermoplastic pipe: To the horizontal centerline of the pipe.
 - c. For flexible thermoplastic pipes, including ABS and PVC composite pipe, PVC plastic pipe, and other flexible type pipe: To 12 inches above the top of the pipe.
- 2. Place granular pipe bedding and covering material in uniform loose layers not exceeding 8 inches thick.

- a. Compact each layer firmly by ramming or tamping with tools approved by the Engineer in such a manner as not to disturb or injure the pipe to yield a minimum density of 95 percent of maximum dry density as determined according to ASTM D1557 or AASHTO-T180.
- 3. Where trench is widened by installation of structures or jacking pits, extend bedding and covering materials to total width of excavations.

TRENCH BACKFILLING AND COMPACTING: Backfill trench from the top of pipe cover to topsoil, paving subgrade, or foundation level.

For trench in lawns, parkways, and other improved areas not subject to vehicular traffic:

- 1. Backfill with excavated materials in uniform loose layer not exceeding 12 inches thick.
- Compact each layer of trench backfill materials to yield a minimum of 85 percent of maximum dry density as determined according to ASTM D1557 or AASHTO-T180.

For trench in streets, parking areas, driveways, sidewalks, curb and gutter, or within 2 feet of any proposed curb and gutter, sidewalk, or other paved areas:

- 1. Backfilling with granular backfill materials:
 - a. Place in uniform loose layer not exceeding 12 inches thick and compact with vibrating roller or equivalent.
 - b. Water jetting may not be used.
 - c. Fill the top of trenches with temporary aggregate pavement material to the depth(s) required to provide aggregate base and pavement base, binder and surface courses of the depths shown on the Plans.
- 2. Compacting requirements:
 - a. Compact each layer of trench backfill materials to yield a minimum density of 90 percent of maximum dry density as determined according to ASTM D1557 or AASHTO T-180.
 - b. Determine the density of compacted backfill at intervals of not more than 500 feet at locations selected by the Engineer.
 - c. Provide the services of an independent testing laboratory for the density tests.
- 3. Maintain temporary pavement level with adjoining pavement surfaces until the permanent pavement is placed.

BACKFILL AND BEDDING FOR APPURTENANCES:

- 1. Provide 6 inches of sand or granular bedding material (CA 11, CA 7 or sand if not in contact with pipe) unless otherwise shown on the Plans.
- 2. Do not backfill until new concrete has properly cured, and any required tests have been accepted.
- 3. Backfill in lawns and landscaped areas with excavated materials.
- 4. Backfill in pavement around manholes, catch basins, inlets, valve vaults, and other structures as determined by the Engineer with special granular backfill materials.

FINISH GRADING:

- 1. Provide finish grading and filling to achieve the lines and grades.
- 2. Slope grades to drain away from structures.
- 3. Replace culverts damaged during the construction with new culverts. Temporary culverts may be provided if drainage improvements are part of the Contract.
- 4. Except where mounding over trenches is specified, grade smooth areas of the Work including previously grassed areas that have been disturbed, and adjacent transition areas.
- 5. Fill and compact depressions from settlement and round tops of embankments and breaks in grade.
- 6. Protect newly graded areas from traffic and erosion. Repair settlement or washing away that may occur prior to surface restoration and re-establish grades to the required elevations at no additional cost to the Contract.
- 7. Remove unsuitable and surplus excavated materials not used for backfilling from the project site.
- 8. Do not deposit on public or private property without written permission from property owner or authorized representative of appropriate public agency.

WATER MAIN REPAIR:

- 1. Whenever existing water mains and water service pipes are damaged during construction, stop the pipe installation work and immediately repair the damaged portion of the existing piping.
- 2. Contact the Engineer and Owner immediately to report the location and extent of the damage.
- 3. Repair the water main with methods complying with the "Standards for Water and Sewer Main Construction In Illinois", and any additional requirements required by the Owner.
- 4. Utilize only materials of repair as noted in the products section of this specification or as dictated by the Owner.
- 5. Where water services have been stripped or pulled from the water main, replace the corporation stop as instructed by the Engineer , and replace the water service pipe to a point as determined by the Engineer.
- 6. Comply with disinfection requirements as dictated by the Owner.
- 7. Do not cover the repair until work is inspected and approved by Engineer.

SANITARY SEWER SYSTEM:

<u>SUMMARY</u>: Provide sanitary sewer system as shown on the Plans, specified herein, and needed for a complete and proper installation, and in accordance with the latest revision of the "Standard Specifications for Water and Sewer Main Construction in Illinois", except as revised herein.

<u>DELIVERY, STORAGE, AND HANDLING</u>: Protect flexible thermoplastic pipes from direct sunlight.

FORCE MAIN PIPE AND FITTINGS:

HDPE pipe:

- 1. Provide high density polyethylene extruded pipe that complies with ANSI/AWWA C906, Type III, Class C, Category 5, P34 material as per ASTM D3350, Minimum cell classification PE345464C, wall thickness as determined by pipe manufacturer, but with a minimum ratio of SDR 11; color of black or green striped; provide pipe with cell classification and SDR rating stamped on the pipe.
- 3. Pipe joining, provide either thermal butt-fusion method or restrained mechanical joint:
 - a. For thermal butt-fusion method, provide equipment and procedures in strict accordance with manufacturer's recommendations regarding:
 - (1) Surface temperature at heating plate.
 - (2) Pressure of pipe to heating plate.
 - (3) Soak time.
 - (4) Fusion pressure.
 - (5) Fusion cooling time.
 - (6) Allowable bead height and width.
 - (7) Utilize only personnel certified by pipe manufacturer as fusing technicians.
 - b. For mechanical joint provide ductile iron restrained joint in accordance with the PIPE AND FITTINGS section of the WATER DISTRIBUTION SYSTEM Special Provision.

VALVE VAULTS:

Comply with the VALVE VAULTS section of the WATER DISTRIBUTION SYSTEM Special Provision.

PIPE INSTALLATION:

- 1. Install sanitary sewer pipe in strict accordance with the latest revision of "Standard Specifications for Water and Sewer Main Construction in Illinois" and with this Special Provision and the Special Provision for "TRENCHING, BACKFILLING, AND COMPACTING FOR SANITARY SEWERS AND WATER MAINS.
- 2. Install pipe in accordance with pipe manufacturer's recommendations.
- 3. Lay pipe by proceeding upgrade with the spigot ends of bell-and-spigot pipe pointing in direction of flow.
- 4. Lay each pipe accurately to the indicated line and grade, aligning so the force main has a uniform invert.
- 5. Continually clear interior of the pipe free from foreign material.

- 6. Before making pipe joints, for mechanical joint connections, clean and dry all surfaces of the pipe to be joined.
- 7. Use lubricants, primers, and adhesives recommended for the purpose by the pipe manufacturer.
- 8. Comply with ASTM D2321 for flexible thermoplastic sewer pipe installation.
- 9. Comply with ASTM C-12 Bedding Class B for rigid pipe installation.

VALVE VAULT INSTALLATION

Comply with the VALVE VAULT INSTALLATION section of the WATER DISTRIBUTION SYSTEM Special Provision.

PIPE TRACER WIRE

Provide 7x19SS (T304) PVC coated stainless steel Aircraft Cable, with minimum 3/16-inch diameter.

PIPE INSTALLATION

Complete open-cut installation in strict accordance with the PIPE INSTALLATION section of the WATER DISTRIBUTION special provision.

Joints: Provide HDPE pipe assembled and jointed at the site by thermal butt-fusion welding techniques or by restrained ductile iron mechanical joints.

- 1. For thermal butt-fusion: Provide equipment and procedures in strict compliance with the pipe manufacturer's recommendations. Provide pressurized, heated fusing apparatus that meets manufacturer's requirements to provide watertight, smooth joints, and operated by personnel certified as fusion technicians by pipe manufacturer. Allow pipe cooling and relaxation time as per HDPE pipe manufacturer's recommendations, a minimum of 4 hours, prior to sealing of annular spaces at manholes or vaults. Extend pipe into structure a minimum of 4 inches beyond interior walls prior to cooling period, to allow for relaxation of pipe. Seal annular spaces at structure walls with non-shrink grout. Utilize flexible rubber gasket collars for connections to new manholes or vaults if indicated on drawing details or required in other Sections of these Specifications. Install pipe tracer wire alongside the main pipe, for the total length of pipe. Connect tracer wire to ductile or steel pipe or to tracer wire on pipe installed by other methods with a "hard" connection at each end of directional drilled pipe.
- 2. For restrained ductile iron mechanical joints, comply with JOINTS section of the WATER DISTRIBUTION special provision.

SEWAGE COMBINATION AIR RELEASE/VACUUM VALVES

Provide combination air release and air and vacuum valve designed for use with sewage industrial wastewater and stormwater. Provide valve that will release large amounts of air, gases and vapor during the filling of the system and admits large amounts of air when the system drains. Provide valve that will release small amounts of air, gases and vapor during operation of the system. Provide stainless steel body and cover, stainless steel float, stainless steel seat or Buna-N needles, and integral flanged inlet sized as shown on the Drawings. Include back-flushing hose, ½-inch shut-off valve, 1-inch blow-off valve, and quick disconnect couplings. All bolts, valves, fittings and piping to be stainless steel. Acceptable products:

- a. APCO Series 440 WA.
- b. Val-Matic 800 BW Series.

DEPTH OF PIPE COVER

Install force mains at a minimum depth of six feet below finished grade ground level unless otherwise indicated on the Drawings. Provide the minimum depth of cover shown in the Air Release Manhole detail in the Drawings, without creating intermediate high points in the force main on either side of each Air Release Manhole.

TESTING AND INSPECTING

- B. Hydrostatic tests:
 - 1. Where any section of the force main is provided with concrete thrust blocking, do not make hydrostatic tests until at least 5 days after installation of the concrete thrust blocking, unless otherwise directed by the Engineer.
 - 2. Where any section of a force main is provided with restraint joints, do not make hydrostatic tests until the trench has been backfilled.
 - 3. Devise a method for disposal of waste water from hydrostatic tests as approved in advance by the Engineer.
- C. Pressure Test:
 - 1. Subject the force mains to the following hydrostatic pressure:
 - a. Normal operating pressure of 20 psig or greater: 125 psig.
 - b. Normal operating pressure of less than 20 psig: 50 psig.
 - c. Air and gas piping: Pneumatic pressure of 15 psig.
 - 2. Hold the test pressure for a duration of 30 minutes without pressure loss or further pressure application.
 - 3. Replace or remake joints showing visible leakage.
 - 4. Remove cracked pipe, defective pipe, and cracked or defective joints, fittings, and valves. Replace with sound material and repeat the test until results are satisfactory.
 - 5. Make repair and replacement without additional cost to the Owner.
 - 6. Do not test against existing valves.
- D. Leakage test:

- 1. Conduct a metered leakage test after the pressure test has been satisfactorily completed.
- 2. Duration of each leakage test: At least 24 hours.
- 3. During the test, subject force main to a pressure equal to design total discharge head for the pump(s).
- 4. Maximum allowable leakage: As recorded by a meter approved by the Engineer, with leakage to not exceed the number of gallons per hour (gph) as determined by the following formula:
 - (1) $gph = LD (P^{\frac{1}{2}})/133,200$
- 5. in which: L = Length of pipe test, in feet
 - (1) D = Diameter of force main, in inches
 - (2) P = Average pressure, in pounds per square inch (gage)
- 6. Should test of force main disclose leakage greater than the maximum allowable amount, locate and repair the defective joint or joints and then repeat the 24-hour metered leakage test until the leakage is within the specified allowance, and at no additional cost to the Owner.

WATER DISTRIBUTION SYSTEM:

<u>SUMMARY</u>: Provide the water distribution system as shown on the Plans, specified herein, and needed for a complete and proper installation, and in accordance with the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", except as revised herein.

Provide labor, materials, tools, chemicals and equipment necessary to perform the pressure and leakage tests and disinfection.

SUBMITTALS: Furnish two (2) copies of bacteriological test reports.

<u>IRON AND STEEL MATERIALS</u>: All iron and steel materials used on this project shall be domestically manufactured or produced and fabricated in accordance with Article 106.01 of the Standard Specifications.

<u>BRASS AND BRONZE ALLOYS</u>: All brass and bronze alloys supplied with the products shall contain less than 15 percent zinc, unless otherwise specified.

- 1. Brass that will come in contact with potable water shall contain no more than 0.25% lead.
 - a. Brass fittings shall be marked with industry standard marking to indicate the amount of lead (no lead, low lead, etc.) in the brass.
 - b. Brass for service saddles may contain more than 0.25% lead to improve ductility of the saddles.

<u>PIPE AND FITTINGS</u>: Provide ductile iron, PVC plastic, or high density polyethylene (HDPE) pipe materials in size 4-inch through 24-inch unless otherwise indicated on the Plans.

HDPE pipe:

- 1. Provide high density polyethylene pipe that complies with ANSI/AWWA C906, minimum thickness SDR11 for ductile iron (DIOD) pipe sizes.
- 2. Pipe joining: the HDPE pipe shall be thermally butt fused for the straight alignment of pipe, and restrained mechanical joints shall be used at bends. Thermal butt-fusion method:
 - b. Provide equipment and procedures in strict accordance with manufacturer's recommendations regarding:
 - (1) Surface temperature at heating plate.
 - (2) Pressure of pipe to heating plate.
 - (3) Soak time.
 - (4) Fusion pressure.
 - (5) Fusion cooling time.
 - (6) Allowable bead height and width.
 - c. Utilize only personnel certified by pipe manufacturer as fusing technicians.

Fittings:

- 1. Use ductile iron fittings with mechanical joint complying with ANSI A21.10 or A21.53.
- 2. Use cement lining complying with ANSI A-21.4, standard thickness.
- 3. Bolts and nuts:
 - a. Use A-304 stainless steel bolts with nuts and washers of series 300 stainless steel per ASTM A194.
- 4. Provide restrained joint type fittings compatible with pipe system utilized, as specified by the pipe manufacturer.
 - a. Provide restrained type joints for all fittings.
- 5. For mechanical fittings at bends of HDPE pipe, use restrained joint fittings as recommended per the pipe manufacturer.

Polyethylene sheet: Comply with ANSI/AWWA C105/A 21.5-99:

- 1. Thickness: linear low-density polyethylene film (minimum 8 mils) or high density cross laminated polyethylene film (minimum 4 mils).
- 2. Install per manufacturers recommendations.

PVC or HDPE pipe tracer wire.

- 1. Provide wire to used for electronic locating of PVC and HDPE pipe installed by open cut method.
- 2. Materials:
 - a. Wire: No. 10 AWG, single strand, single conductor, insulated copper wire, colored per code requirements.
 - b. Type: PE (45 mils) or UF (60 mils), 600 volt.
 - c. Tape: Polyethylene coated duct tape.
- <u>VALVES</u>: Provide valves with clockwise closing direction. Gate valves:

- 1. Valves 4-inch to 24-inch size:
 - a. Design in accordance with AWWA C500 (cast iron body), or AWWA C504 (ductile iron body) bronze fitted, resilient wedge and seat type with non-rising stem and O-ring packing.
 - b. Provide gear operator for valves 14-inch and larger.
- 2. Provide ANSI Class 125 flange ends or mechanical joint ends for valves installed in vaults as indicated on the Plans.
 - a. Provide restrained type joints for all mechanical joint end valves.
- 3. Acceptable valve manufacturers:
 - c. American Flow Control series 2500, Resilient Wedge Gate Valve

VALVE VAULTS:

Precast:

- 1. Provide precast reinforced concrete manhole sections, bottoms, and flat top slabs complying with ASTM C478 unless otherwise indicated on the Plans.
- 2. Provide concentric cone section unless otherwise indicated on the Plans.
- 3. Provide precast reinforced concrete monolithic or separate base.
- 4. Design flat slab tops for AASHTO HS20-44 wheel loading.

Concrete: Provide 4,000 psi concrete using Type | Portland Cement complying with ASTM C150.

Mortar: Mix one part Portland Cement to three parts fine aggregate.

Joints for precast sections:

- 1. Provide joints of either flexible watertight rubber gaskets or preformed bituminous plastic gaskets consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compound reinforced with inert mineral filler.
 - a. Acceptable preformed gasket products:
 - (1) K.T. Snyder Co., RAM-NEK.
 - (2) Concrete Sealants, Type CS-208.

Steps:

- 1. Provide steps with a minimum width of 12 inches and a minimum projection of 5 inches.
- 2. Use steps consisting of copolymer polypropylene plastic with continuous one-half inch steel reinforcement as manufactured by M.A. Industries, Inc. cast iron steps, Neenah R-1980-I.

Frames and covers: Provide cast iron frames and covers with heavy duty, indented top with solid self-sealing lids and machined bearing surfaces, stamped with the words "VILLAGE OF BUFFALO GROVE" and "WATER".

- 1. Acceptable products:
 - a. Neenah R-1713;

Flexible pipe connectors: Provide flexible rubber gasket collar for connecting pipe to the manhole.

- 1. Comply with ASTM C-923
- 2. For pipe 24 inches and smaller, use PSX gasket system by Press-Seal Gasket Corporation.

FIRE HYDRANTS:

- 1. Comply with AWWA C502.
- 2. Paint hydrants in red as approved by the Village.
- 3. Match the hydrants generally installed in the Municipality's water system.
 - a. Acceptable manufacturers:
 - (1) Waterous Pacer Model WB 67-250

Materials:

- 1. Provide compression type with a 5-1/4-inch and minimum size main valve assembly, O-ring seals, two 2-1/2-inch hose nozzles, and a 4-1/2-inch pumper nozzle with National Standard threads, a National Standard operating nut, and an above-ground break flange.
- 2. Provide a 6-inch auxiliary resilient seat type gate valve with restrained type joints or bituminous coated metal tie rods between the valves and the tee fittings.
 - Provide valve boxes with cover marked with the word "WATER".
 - a. Bituminous coated carbon steel valve extension stems and 2-inch square operating nuts 2 inches below cover.
- 4. Provide valve box stabilizers on all hydrant auxiliary valves.
 - a. Acceptable manufacturers:
 - (1) Alberico
 - (2) Adaptor, Inc.
 - (3) Mueller

WATER SERVICES:

3.

- 1. Provide service saddles, corporation stops, curb stops, service boxes, and water service tubing.
- 2. 1 inch is the minimum size for new services. All taps require a saddle.
- 3. Materials:
 - a. Service lines: Type K soft temper seamless copper water tubing complying with ASTM B-88.
 - b. Service saddles:
 - (1) Ford FC202 Stainless steel band, epoxy coated saddle.
 - c. Corporation stops: Mueller No. H15000.
 - d. Curb stops: Mueller No. H15154.
 - e. Service boxes: Mueller No. H10300 for all.
 - f. Unless otherwise specified, all fittings shall be no-lead brass.

TAPPING SLEEVES AND VALVES:

Tapping sleeves:

- 1. Use two-piece bolted sleeve ductile iron or stainless steel type with mechanical joints.
- 2. Provide joint accessories.
- 3. Measure existing water main outside diameter to determine proper tapping sleeve size
- 4. Acceptable manufacturers:
 - (1) American Flow Control Series 2800-C.

Tapping valves:

- 1. Use fully ported gate valves complying with AWWA C500.
- 2. Use American Flow Control Series 2500.

CONSTRUCTION REQUIREMENTS

<u>PIPE INSPECTION, HANDLING, STORAGE, AND INSTALLATION</u>: Install in accordance with pipe manufacturer's recommendations.

<u>OPERATION OF APPURTENANCES</u>: Village of Buffalo Grove Public Works Department employees <u>only</u> shall operate any existing water distribution appurtenances (i.e. water valves, hydrants, etc.).

<u>WATER DISRUPTIONS</u>: A minimum forty-eight (48) hours advance notice to the Owner's Public Works Department is required for any water disruptions.

<u>DEPTH OF PIPE COVER</u>: Lay water mains and water service lines with a minimum depth of cover of six feet below finished grade ground level unless otherwise indicated on the Plans.

1. Where new mains cross existing mains, install new main below existing main unless otherwise indicated on the Plans.

CONNECTIONS TO EXISTING WATER MAINS:

- 1. Make connections to existing mains.
- 2. Use non-pressure connections, except where pressure connections are shown on the Plans or required by conditions at the time of construction.
- 3. Make one connection at a time except as approved by the Engineer.

PIPE RESTRAINING SYSTEMS:

General:

- 1. Provide protection from movement of water main piping, plugs, caps, tees, valves, hydrants, and bends of 11-1/4 degrees or greater.
- 2. Provide concrete thrust blocks at all locations unless restrained joint type fittings are utilized.
- 3. Where restrained joint type fittings are called for on the Plans, but cannot be utilized, provide concrete thrust blocks.

Concrete thrust blocks:

- 1. Provide precast or cast-in-place concrete thrust blocking with a compressive strength of 3000 psi in 28 days.
- 2. Locate thrust blocking between solid ground and the fitting to be anchored.
- 3. Unless otherwise shown or directed by the Engineer, place the base and thrust bearing sides of thrust blocking directly against undisturbed earth.
- 4. Sides of thrust blocking not subject to thrust may be placed against forms.
- 5. Place thrust blocking so the fitting joints will be accessible for repair.
- 6. When conditions prevent the use of concrete thrust blocks, use restrained joints of an approved type.
- 7. Minimum width of thrust block shall be 12 inches.

Restrained type pipe, fittings, and valves:

- 1. Provide restrained system as outlined in this Section or utilize metal tie rods, clamps, and lugs to prevent pipe and appurtenances from movement.
 - a. Protect tie rods and clamps with epoxy or bituminous paint.
 - b. Only restrained joint pipe indicated on the Plans will be paid for as a separate Pay Item.
 - c. Restraining gaskets or locking systems utilized on straight runs of push pipe are not considered as fittings, and are paid for as part of the Pay Item for restrained joint type pipe.

<u>SEWER CROSSING</u>: Separate water mains and water service lines from sanitary sewer, storm sewers, combined sewers, house sewer service connections, and drains in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois".

Water mains:

- 1. Wherever water mains cross storm sewers, sanitary sewers, or sewer service connections:
 - a. Lay the water main so that it's invert is at least 18 inches above the top of the sewer.
 - b. Maintain this vertical separation for that portion of the water main located within 10 feet horizontally of any sewer or drain crossed.
 - c. Center a length of water main pipe over the sewer to be crossed with joints equidistant from the sewer or drain.
- 2. When it is impossible to obtain the minimum 18 inches vertical separation, or when it is necessary for the water main to pass under a sewer or drain:
 - a. Construct the sewer or drain of pressure pipe, conforming to the specification for water main materials.
 - b. Extend the sewer construction on each side of the crossing until the normal distance from the water main to the sewer or drain is at least 10 feet.
 - c. As an alternate, install either the water main or sewer inside a casing or carrier pipe for a distance of 10 feet measured perpendicular to the sewer on each side of the crossing.
- 3. Where a water main must cross under a sewer:
 - a. Maintain a vertical separation of 18 inches between the invert of the sewer and the crown of the water main.

b. Support the sewer or drain line to prevent settling and breaking the water main.

Water service lines: Comply with the requirement of water main separation.

Sewer manholes: Do not install water line through sewer manhole.

VALVE VAULTS:

General:

- 1. Install pipe through valve vault as shown on the Detail.
- 2. Make vault watertight with use of flexible manhole connectors as per the Detail.

Steps:

- 1. Provide each manhole over 3 feet deep with individual wall-mounted steps as shown on the manhole detail.
- 2. Comply with the requirements of governmental agencies having jurisdiction.

Jointing:

- 1. Use flexible watertight gaskets for each joint.
- 2. Trim smooth and free from surplus gaskets.

Frames and covers: Unless otherwise shown on the Plans or as determined by the Engineer, set frames and covers:

- 1. In paved areas: So that the top of the solid cover will be flush with the finished pavement; or
- 2. In unpaved areas: To drain away from the valve vault.
- 3. With flexible watertight gaskets.
- 4. With grade rings not to exceed 6 inches.

HYDRANT INSTALLATION:

- 1. Install hydrants plumb with the lowest hose connection at least 18 inches but not more than 26 inches above the finished grade ground level. Set hydrant bases and auxiliary valve on a precast concrete block to provide firm support for the base.
- 2. Brace the bases with solid concrete blocking between the base and undisturbed trench wall to counteract the reaction thrust of water pressure at the base. Provide mechanical joint anchoring fittings or approved restrained joints.
- 3. Brace the hydrant barrels during backfilling. Do not block the drain hole in hydrant.
- 4. Place a minimum of 1 cubic yards of washed coarse stone at and around the base for proper drainage. Cover stone with plastic before backfilling.
- 5. Place and compact backfill materials in 6-inch layers around the hydrant and auxiliary gate valve.

WATER SERVICE CONNECTION:

1. Make service connections at locations shown on the Plans or determined by the Engineer at the time of construction.

- 2. Install water service pipe, corporation stop, curb stop, and service box as shown on the water service installation detail in the Plans.
- 3. Set curb stop on a precast concrete block.
- 4. Do not splice the water service pipe.
- 5. See TESTING AND INSPECTION for sequence of service line construction.

Service boxes:

- 1. Install service box over curb stop in a truly vertical position.
- 2. Set the top of box flush with the surrounding finished grade.

Direct tapping of polyethylene-encased D.I.P.:

- 1. Wrap two or three layers of polyethylene adhesive tape completely around the pipe to cover the tapping machine and chain mounting area.
- 2. Make the tap and install the corporation stop directly through the tap and polyethylene.
- 3. After making the direct service connection, inspect the entire circumferential area for damage and make any necessary repairs.
- 4. Wrap the corporation stop and a minimum distance of 3 feet of the copper service pipe with polyethylene.

PRESSURE CONNECTION:

- 1. Support the exposed existing water main on concrete pedestals at sufficient intervals to properly carry its own weight, plus the weight of the tapping machinery and fitting. Provide thrust blocking.
- 2. Minimum tap hole diameter for pipe 12-inch or smaller will be 1/2-inch less than the nominal pipe diameter. For pipe 14-inch through 20-inch will be 1-1/2-inch less than the pipe diameter.
- 3. Open valve to flush any foreign material after completion of the pressure tapping.

POLYETHYLENE WRAPPING OF DUCTILE IRON PIPE AND APPURTENANCES:

- 1. Comply with requirements of ANSI/AWWA C105/A21.5-99.
 - a. b. Wrap all water mains, fittings, valves, fire hydrant leaders, fire hydrants, and service lines.

(1) Wrap copper service lines to a point 3 feet from center of water main.

(2) Do not block fire hydrant weep hole.

TESTING AND INSPECTING:

Sequence of installation: Install new water main but do not install corporation stops, services lines, curb stops, or service boxes until after: conducting pressure test, leakage test, disinfection of new water main, flush main, and acceptance for putting new main into service. Finish by installing corporation stops, service lines, curb stops and service boxes, and test and disinfect prior to connection to existing service lines.

Hydrostatic tests:

1. Devise a method for disposal of waste water from hydrostatic tests, and for disinfection, as approved in advance by the Engineer.

Pressure tests:

- 1. Subject the new water mains and service lines, including valves and hydrants, to a hydrostatic pressure of 150 psi.
- 2. Hold the test pressure for a duration of one hour without pressure loss or further pressure application.
- 3. Carefully examine exposed pipe, joints, fittings, and valves.
- 4. Replace or remake joints showing visible leakage.
- 5. Remove cracked pipe, defective pipe, and cracked or defective joints, fittings and valves. Replace with sound material and repeat the test until results are satisfactory.
- 6. Make repair and replacement without additional cost to the Village.
- 7. Use only solid stainless full-body repair clamps as approved by the Engineer.

Leakage test:

- 1. Conduct a metered leakage test after the pressure test has been satisfactorily completed.
- 2. Duration of each leakage test: At least 24 hours.
- 3. During the test, subject water lines to a normal water pressure of the Municipality's water system.
- 4. Install water meter approved by the Engineer. Provide double check valve assembly between water meter and existing water main.
- 5. Maximum allowable leakage: As recorded by a meter approved by the Engineer, with leakage to not exceed the number of gallons per hour (gph) as determined by the following formula:
 - $gph = LD (P^{1/2})/133,200$

in which:

- L = Length of pipe tested, in feet D = Diameter of water main, in inches
- P = Average pressure, in pounds per square inch (gage)
- 6. Should any test of pipe disclose leakage greater than the maximum allowable amount, locate and repair the defective joint or joints and then repeat the 24-hour metered leakage test until the leakage is within the specified allowance, and at no additional cost to the Contract.

Time for making test:

- 1. Except for joint material setting and curing time for thrust blocks, pipelines jointed with rubber gaskets, mechanical, or push-on joints, or couplings may be subjected to hydrostatic pressure, inspected, and tested for leakage any time after partial completion of backfill.
- 2. Perform the pressure and leakage tests satisfactorily prior to requesting the Engineer to witness the official tests.
- 3. Notify the Engineer at least 48 hours prior to the time of the requested official tests.
- 4. Depending on traffic conditions, public hazard, or other reasons, the Engineer may direct when to conduct the tests, and may order the tests to be made in relatively short sections of water mains.

PRELIMINARY FLUSHING:

- 1. Prior to disinfection, flush main as thoroughly as possible.
 - a. Flush main until water runs clear.
 - b. Provide a minimum flushing velocity of 2.5 fps in the water main.
- 2. Coordinate time of flushing with Owner and Engineer, at least 72 hours in advance of flushing.
 - a. Do not initiate flush without Owner's permission.

<u>DISINFECTION</u>: After the water main work has been satisfactorily completed and tested, disinfect the work in accordance with AWWA C651, and "Standard Specifications for Water and Sewer Main Construction in Illinois".

Forms of applied chlorine:

- 1. Apply chlorine by gas feed or solution feed chlorinator, as approved by the Owner.
 - a. Provide effective diffusion of the gas or solution into the water within the water main.
 - b. Provide means for preventing the backflow of water into the feeder.

Requirement of chlorine:

- 1. Initial chlorine solution in pipe: At least 50 mg/l, but not more than 100 mg/l.
- 2. Retain the disinfecting solutions in the work for at least 24 hours
- 3. Chlorine residual after the retention period: At least 25 mg/l.

Flushing and testing:

- 1. Following chlorination, flush treated water thoroughly from the water mains until the chlorine concentration in the water flowing from the main is no higher than generally prevailing in the Municipality's system, or less than 1 mg/l.
- 2. After flushing, collect two water samples on successive days at least 24 hours apart in sterile bottles treated with sodium thiosulfate. Notify the Engineer and the Owner to witness sample collection.
- 3. Deliver the samples to a State approved laboratory for bacteriological analysis.
- 4. Should the initial disinfection result in an unsatisfactory bacterial test, repeat the chlorination procedure until satisfactory results are obtained.
- 5. The Owner will provide the water for initial flushing and testing only. Compensate the Owner for water used in subsequent flushing and testing.

Swabbing:

- 1. Flush and swab the piping, valves, and fittings that must be placed in service immediately and cannot be disinfected by the above specified methods, with 5 percent solution of calcium hypochlorite prior to assembly.
 - a. Secure the Engineer's approval before applying this method of disinfection.

DECHLORINATION

1. Comply with AWWA C651-05 requirements to neutralize the residual chlorine in new water mains.

2. After new water mains have passed disinfection requirements, utilize portable diffusing dechlorinators that utilize sulfur dioxide or other chemicals listed in Appendix C of AWWA C651 to lower chlorine residuals prior to discharge to the drainage system. Lower concentration to 1 mg/l or less.

ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES:

- 1. Abandon water mains indicated on the Drawings as "to be abandoned" only after all requirements for testing and disinfection have been satisfied and all existing services have been connected to new water mains.
- 2. Provide concrete plugs in all water main pipes to be abandoned at the limits of the trench excavations, or at other locations if so indicated by the Plans. Provide ductile iron plugs or caps to abandon water main pipes where the location os under pavement.
- 3. Provide ductile iron plugs, caps, or other necessary fittings, and thrust blocking, on ends of portions of existing water mains that are to remain in service.
- 4. Close existing water valves only with the permission of the Engineer.
- 5. Remove top section of existing valve boxes at the top of the existing valve, and fill excavation with compacted special granular material.
- 6. Remove valves, and valve vaults to top of lowest pipe, and backfill with compacted special granular backfill material.
- 7. Remove fire hydrants in total, including auxiliary box, and backfill excavation with compacted special granular backfill material.
- 8. Deliver valves, valve boxes, fire hydrants, and frames and grates to the Municipality's Public Works Department.
- 9. Removal of existing water mains that are being replaced by new water mains in the same location is considered incidental to the installation of the new water main and no additional compensation will be allowed.

WATER DISTRIBUTION SYSTEM PAY ITEMS

HIGH DENSITY POLYETHYLENE WATER MAIN 12 INCH RESTRAINED JOINT TYPE :

<u>Description</u>: This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM", and "TRENCHING BACKFILLING AND COMPACTING FOR WATER MAIN AND SANITARY SEWERS", and shall consist of restrained joint high density polyethylene water main complete in place, including excavation; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; providing and installing casing spacers and end seals for water main to be installed in a casing; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of pipe; joining of pipe sections by thermal butt fusion; polyethylene wrapping of all iron fittings; bracing; bedding and covering of pipe; trench backfilling with and compaction of excavated materials; providing and installing tracer wire; testing; disinfection; flushing; and finish grading; but not including backfilling with trench backfill material.

Installing new water mains in excess of 6 feet of cover to cross existing water mains, to provide for future improvements, or to cross below the Creek is to be included in the cost of installation of the water main, and no addition to the contract will be allowed.

<u>Method of Measurement</u>. This work will be measured in lineal feet along the centerline of the pipe, and the measurement shall extend through fittings and valves.

Basis of Payment. This work will be paid for at the Contract Unit Price per lineal foot for HIGH DENSITY POLYETHYLENE WATER MAIN 12" RESTRAINED JOINT TYPE, regardless of depth.

The work to install the HDPE pipe with a casing, including casing spacers and end seals, will be paid for at the Contract Unit Price per lineal foot for HIGH DENSITY POLYETHYLENE WATER MAIN 12" RESTRAINED JOINT TYPE IN CASING, regardless of depth.

Trench backfill with granular backfill materials shall be paid for separately as TRENCH BACKFILL, SPECIAL.

DUCTILE IRON WATER MAIN FITTINGS:

<u>Description</u>. This work shall be done in accordance with the Special Provision for the "WATER DISTRIBUTION SYSTEM" and shall consist of furnishing and installing restrained joint type water main fittings and concrete thrust blocks complete in place in the new water main, at locations indicated on the plans.

Basis of Payment. This work will be paid for at the Contract Unit Price per pound for DUCTILE IRON WATER MAIN FITTINGS as shown on the Drawings. Installation of thrust blocking at all connections to existing pipe and at all bends, wyes, and tees are included in the cost of this Pay Item. The weight of mechanical fittings for the HDPE pipes will also be included in the cost of this Pay Item.

SANITARY SEWER SYSTEM PAY ITEMS

HIGH DENSITY POLYETHYLENE FORCE MAIN 12 INCH RESTRAINED JOINT TYPE:

<u>Description</u>: This work shall be done in accordance with the Special Provision for "SANITARY SEWER SYSTEM", and "TRENCHING BACKFILLING AND COMPACTING FOR WATER MAIN AND SANITARY SEWERS", and shall consist of restrained joint high density polyethylene force main complete in place, including excavation; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; providing and installing casing spacers and end seals for force main to be installed in a casing; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of pipe; polyethylene wrapping of all ductile iron fittings; bracing; bedding and covering of pipe; providing and installing tracer wire; trench backfilling with and compaction of excavated materials; testing; disinfection; flushing; and finish grading; but not including backfilling with trench backfill material.

Installing new force mains in excess of 6 feet of cover to cross existing water mains, to provide for future improvements, or to cross below the Creek is to be included in the cost of installation of the water main, and no addition to the contract will be allowed.

<u>Method of Measurement</u>. This work will be measured in lineal feet along the centerline of the pipe, and the measurement shall extend through fittings and valves.

<u>Basis of Payment</u>. This work will be paid for at the Contract Unit Price per lineal foot for HIGH DENSITY POLYETHYLENE FORCE MAIN 12" RESTRAINED JOINT TYPE, regardless of depth.

The to install the HDPE pipe with a casing, including casing spacers and end seals, will be paid for at the Contract Unit Price per lineal foot for HIGH DENSITY POLYETHYLENE FORCE MAIN 12" RESTRAINED JOINT TYPE IN CASING, regardless of depth.

Trench backfill with granular backfill materials shall be paid for separately as TRENCH BACKFILL, SPECIAL.

ABANDON EXISTING FORCE MAIN, FILL WITH CLSM: ABANDONED EXISTING WATER MAIN, FILL WITH CLSM :

This work shall be completed in accordance with the applicable portions of the Special Provisions for SANITARY SEWER SYSTEM and shall consist of installing low density cellular concrete into sewer pipes to be abandoned.

The work shall include concrete and brick plugs at each end of the pipe being abandoned, pumping of the cellular grout into the pipe until it is completely full of grout, mortar and grout finishing of manhole wall sewer opening and manhole invert, and cleanup of spilled mortar or cellular grout.

<u>Method of Measurement:</u> This work shall be measured in lineal feet, along the ground surface, directly over the sewer or water main pipe being abandoned, from inside wall of manhole to inside wall of manhole or at termination points of the sewer or water main.

<u>Basis of Payment:</u> This work will be paid for at the Contract Unit Price per lineal foot for sewer pipe being abandoned as ABANDON EXISTING FORCE MAIN FILL WITH CLSM, and ABANDON EXISTING WATER MAIN FILL WITH CLSM, at locations shown in the plans.

REMOVE FIRE HYDRANT AND VALVE ASSEMBLY:

<u>Description</u>. This work shall be in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM", and shall consist of the abandonment of existing valve vaults, water valves and fire hydrants. This work shall include pavement removal and disposal; excavation; removing valve vaults, water valves and fire hydrants; and backfilling with and compacting of trench backfill material.

Basis of Payment. The work to remove the fire hydrant and valve assembly will be paid for at the contract unit price each for REMOVE FIRE HYDRANT AND VALVE ASSEMBLY.

CONNECTION TO EXISTING WATER MAIN 10 INCH : CONNECTION TO EXISTING FORCE MAIN 10 INCH :

<u>Description</u>. This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of non-pressure connections to existing water mains or force mains complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering, including erosion and siltation control for discharge resulting from all pumping operations; protection, replacement, or repair of utilities; removal of existing plugs or caps; cutting and removal of the pipe if necessary; bracing; polyethylene wrapping of pipe and valves; bedding and covering of pipe; testing; disinfection; finish grading; including backfilling and compacting excavated material or trench backfill material, but not including the valve vault or fittings.

The maximum time allowable per each connection for water pressure shut off is two (2) hours. Each connection must be made within two (2) hours.

The maximum time allowable per each connection for force main is 30 minutes and both connections must be completed simultaneously within the same 30 minute period of time.

Basis of Payment. This work will be paid for at the contract unit price each for CONNECTION TO EXISTING WATER MAIN 10", for connections to existing water mains of the size noted, and CONNECTION TO EXISTING FORCE MAIN 10", for connections to existing 10" force mains of the size noted, and shall include coordination with the Village and making the force main connections during non-working hours when the flows are lowest.

CUT AND CAP EXISTING WATER MAIN :

<u>Description</u>. This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of cutting the existing water mains and installing a ductile iron cap complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering, including erosion and siltation control for discharge resulting from all pumping operations; protection, replacement, or repair of utilities; cutting and removal of the pipe if necessary; bracing; polyethylene wrapping of pipe and valves; bedding and covering of pipe; finish grading; including backfilling and compacting excavated material or trench backfill material.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price each for CUT AND CAP EXISTING WATER MAIN, for the size noted.

PRESSURE CONNECTION TO EXISTING WATER MAIN:

<u>Description</u>. This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of pressure connections to existing water mains complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering, including erosion and siltation control for discharge resulting from all pumping operations; protection, replacement, or repair of utilities; tapping of pipe; tapping valves and tapping sleeves; valve box and valve box stabilizer; bracing; polyethylene wrapping of pipe and valves; bedding and covering of pipe; testing; disinfection; finish grading; including backfilling with and compacting of trench backfill material.

Basis of Payment. This work will be paid for at the contract unit price each for PRESSURE CONNECTION TO EXISTING WATER MAIN of the pipe and valve size shown.

FIRE HYDRANTS:

The work of this pay item shall be in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of furnishing and installing fire hydrants with auxiliary valve and valve box complete in place at the locations shown on the drawings, including sawcutting, removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering; thrust blocking; hydrant barrel drain washed stone pocket; support; testing; disinfection; and backfilling with and compacting of trench backfill material. This work includes polyethylene wrapping of connecting pipe, auxiliary valve, and hydrant.

<u>Method of measurement</u>. This work will be measured for payment for each fire hydrant installed, which shall include five (5) feet of 6-inch leader pipe, measured from the center of the main to the center of the hydrant.

Basis of Payment. This work will be paid for at the contract unit price each for FIRE HYDRANTS.

WATER VALVES:

<u>Description</u>. This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of the installation of a gate valve, complete in place, installed as a part of the water main installation, at locations indicated on the Plans. This work shall include excavation; removal and disposal of waste excavated materials; protection, repair, or replacement of utilities; trench dewatering, erosion and sedimentation control methods and devices to protect the environment; backfilling with and compacting with trench backfill material around the new box; and finish grading.

<u>Basis of Payment</u>. This work will be paid for at the Contract Unit Price each for WATER VALVE of the size indicated.

Fire hydrant auxiliary valves will be paid for separately as part of the pay item for FIRE HYDRANTS.

AIR RELEASE VALVE:

This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of work of this Pay Item consists of the installation of sewage air release/vacuum valve and valve vault during open cut pipe installation complete in place including sawcutting, removal and disposal of existing pavements; excavation in excess of that required for standard pipeline trench construction; bracing, sheeting, and shoring; protection, replacement, or repair of utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; vault bedding; monolithic type vault base with watertight flexible pipe connectors where pipes enter vault wall; manhole risers as required to provide proper depth; removal and disposal of waste excavated material, flat top cover; frame and cover adjusting rings; frame and cover; steps; backfilling with compacted excavated materials in parkways, and compacted granular materials under pavements; air release/vacuum valve, PVC or D.I. pipe tee; reducing flange; stainless steel sleeve, valve appurtenances; and all other fittings and flanges as indicated on plan detail and needed for a complete installation; and including frame and cover adjustment to final grade at time of street or parkway restoration.

Basis of Payment. This work will be paid for at the Contract Unit Price each for AIR RELEASE VALVE.

TRENCH BACKFILL, SPECIAL:

<u>Description</u>. Trench backfill for water main and force main shall be placed in all trenches where the inner edge of the trench is within 2 feet of the edge of pavement, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk. Installation of the trench backfill shall be in accordance with Special Provision for "TRENCHING, BACKFILLING AND COMPACTING FOR SANITARY SEWER, FORCE MAIN AND WATER MAIN" and the detail shown on the Plans. The material for the top 12 inches shall be CA-6, 100% crushed gravel or crushed stone.

<u>Method of Measurement</u>. Trench backfill for water main and force main will be measured in accordance with Article 208.03 of the Standard Specifications

Basis of Payment. This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, SPECIAL.

VALVE VAULTS:

<u>Description.</u> This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of installing valve vaults complete in place, including steps as shown in the detail on the Plans. This work shall include excavation; removal and disposal of waste excavated materials; protection, repair, or replacement of utilities; frames and lids; final adjustment of the frame to meet finished grade; joint protection; trench dewatering; erosion and siltation control methods and devices to protect the environment; backfilling with and compacting trench backfill material around the new vault; finish grading; and all other appurtenances listed in the MANHOLES section of the SANITARY SEWER SYSTEM Special Provision

<u>Basis of Payment</u>. This work will be paid for at the contract unit price each for VALVE VAULTS, of the valve vault size and frame and lid type indicated.

WATER SERVICE CONNECTION:

<u>Description.</u> This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of connecting water service lines to the new main complete in place, including service saddles, corporation stops; curb stops, and service boxes. This work also includes all required fittings or adaptors necessary to connect to existing service lines, and backfilling with and compacting of trench backfill material.

Method of Measurement. Water service connections will be measured as a per each item.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price each for WATER SERVICE CONNECTION, regardless of the size required.

WATER SERVICE LINE, SPECIAL:

<u>Description.</u> This work shall be done in accordance with the Special Provision for "WATER DISTRIBUTION SYSTEM" and shall consist of water service pipe complete in place by open cut methods, including excavation, sawing, removal and disposal of existing pavements, shoring, bracing; protection repair, or replacement of utilities; installation of service pipe; bedding and covering of pipe; granular trench backfill of the pipe with 2 feet of pavement areas, and backfilling with and compacting of excavated materials in non-pavement areas. The size of the new service pipe shall match existing service pipe, except that the new size shall be 1 inch minimum.

Water service pipe may be installed by the directional drilling method, at Contractors option, at no additional cost to the contract.

<u>Method of Measurement</u>. This work will be measured in lineal feet along the centerline of the pipe, from the centerline of the water main to the termination of the service pipe at the b-box.

Basis of Payment. This work will be paid for at the contract unit price per lineal foot for WATER SERVICE LINE, SPECIAL.

CURED IN PLACE LINER:

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This work shall consist of the lining of sewer by the installation of cured-in-place-pipe (CIPP) and shall be performed in accordance with ASTM F1216-05 and the following.

Materials used for SANITARY SEWER LINING, shall conform to Section 40-2 of the ASTM F1216-09 Standards. The materials shall be approved by the Engineer prior to their installation.

The tube shall have sufficient strength to bridge missing pipe, stretch to fit irregular pipe sections, and negotiate bends. The tube shall consist of one or more layers of flexible, needled felt or an equivalent non-woven material. The material shall be capable of carrying resin, be able to withstand installation pressures and curing temperatures, and be compatible with the resin used. The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system. The tube used shall be fabricated to a size that, when installed, will tightly fit the internal circumference and the length of the original pipe. The minimum structural requirements shall be as follows:

Property	Test Method	Value
Modulus of Elasticity	ASTM	250,000
	D790	psi
Flexural Stress	ASTM	4,500 psi
	D790	

The design parameters shall be as follows:

Pipe Condition	Fully deteriorated
Depth to pipe invert	Per Plans
Design life (years)	50
Safety factor	2
Groundwater level	At surface
Ovality circumference	5%
Soil modulus	1000 psi
Soil density	120 lbs/cu.ft.
Poisson's Ration	0.3

Final structural properties shall be determined by basis of design. Thickness shall comply with ASTM F-1216-09, Appendix X1. Minimum pre-cured thickness shall be 6mm for all CIPP installed regardless of calculations showing a thinner wall thickness is adequate. Post-cured thickness shall at least 85% of the pre-cured thickness, or the minimum required thickness based on the design parameters, whichever is greater.

Acceptable manufacturers:

Insituform Inliner National Liner Premier CIPP

CONSTRUCTION REQUIREMENTS

Cleaning and Inspection: The Contractor shall comply with state, local, and federal safety and health regulations applicable to the work being performed, including traffic control and OSHA approved confined space entry procedures. Prior to entering access areas such as manholes, and performing inspection or cleaning operations, an evaluation of the atmosphere to determine the presence of toxic or flammable vapors or lack of oxygen must be undertaken in accordance with local, state, or federal safety regulations.

Gravity pipes shall be cleaned with hydraulically powered equipment, high velocity jet cleaners, or mechanically powered equipment (see NASSCO Recommended Specifications for

Sewer Collection System Rehabilitation). All internal grease, debris, tree roots and other obstructions shall be removed from the original pipeline. Remove all mineral deposits to within ¹/₄-inch of the pipe wall. Trim protruding service laterals to within ¹/₂-inch of the pipe wall. The Contractor shall intercept all debris from the cleaning process at a point within the work zone so that no debris is allowed to travel downstream through the sewer system. Debris captured and removed from the sewer system shall be transported and disposed of in a lawful manner. The Village will not provide a location for disposal of sewer system debris. Cleaning, including capture, removal, transportation and disposal of debris shall be included in the base unit price, and shall be performed at no additional cost to the VILLAGE.

Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles, and service connections by closed circuit television or man entry. The camera shall stop at all service connections, pan and look up service, and note condition and material of service pipe. Location of live service connections and stubs shall be recorded for use when liner is installed. Camera operator shall maintain continuous verbal commentary of the sewer inspection for the entire length of the inspection. The interior of the pipeline shall be carefully inspected to determine the location of any conditions that may prevent proper installation of the impregnated tube, such as protruding service taps, collapsed or crushed pipe, and reductions in ovality of more than 10%. These conditions shall be noted and brought to the attention of the ENGINEER so that they can be corrected. Copies of CCTV inspection DVD's and related reports shall be made available to the ENGINEER as soon as possible, at no additional charge, for review and approval prior to commencement of billable corrective work. The VILLAGE shall have the right to make corrective repairs using in-house staff or a third-party contractor if it is deemed to be in the Village's best interest to do so.

The original pipeline shall be clear of obstructions such as solids, dropped joints, protruding service connections, crushed or collapsed pipe, and reductions in ovality of more than 10% that will prevent insertion of the resin impregnated tube. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then a point repair excavation shall be made to uncover and remove or repair the obstruction. Such point repair shall be performed prior to insertion of the liner.

Resin: The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy system including all required catalysts, initiators or hardeners that when cured within the tube create a composite that satisfies the requirements of ASTM F1216 and ASTM F1743, the physical properties herein, and those which are to be utilized in the design of the CIPP for this project. The resin shall produce a CIPP that will comply with the structural and chemical resistance requirements of this specification.

General: Construction requirements will be in accordance with ASTM F1216 with the following inclusions. Prior to liner installation, the sewer line must be sufficiently cleaned of grease, roots and other debris to provide for proper installation of product. Removal or repair of 1) offset joints, 2) protruding services, 3) collapsed pipes or 4) any situation that will prevent insertion of liner, will be required. Provisions must be made for flow of sewage around sections of pipe to be lined. Pump or bypass lines shall be of adequate size and capacity to handle flow. Initial cure shall be complete when inspection of exposed portions of liner prove to be hard and sound. Remote temperature sensor should indicate that temperature is of magnitude to realize an exotherm. After installation is complete, suitable heat source and water recirculation

equipment are required to circulate heated water throughout the section to uniformly raise the water temperature above the temperature required to effect a cure of the resin. The heat source should be fitted with suitable monitors to gage the temperature of the incoming and outgoing water supply. Another such gage should be placed between the impregnated tube and the pipe invert at the termination to determine the temperature during cure. The new pipe shall be cooled to a temperature below 100°F for water cure and 113°F for steam cure before relieving the pressure in the pipe. Cool-down may be accomplished by the introduction of cool water into the section to replace water being drained from a small hole made in the downstream end. After the new pipe has been cured in place, the existing active service connections must be reconnected. This should be done without excavation, and in the case of non-man entry pipes, from the interior of the pipeline by means of a television camera and a remote-control cutting device. Finished liner shall be continuous over entire length of insertion run and be free from visual defects such as foreign inclusions, dry spots, pinholes, and delaminations. Upon acceptance of the installed work and testing, the project area affected by the operations shall be restored. The CONTRACTOR shall provide a video recording inspection of the entire project upon completion which shall indicate all stubs to the Engineer for review and approval prior to payment of the work.

Curing: Curing shall be done by hot water, or steam.

The Contractor shall submit a brief description of the curing process to the Engineer. The Engineer will evaluate the submittal to determine whether the process meets the requirements.

After installation is completed, a suitable heat source and water recirculation or steam generation equipment are required to circulate heated water or steam throughout the pipe. The equipment shall be capable of delivering hot water or steam throughout the section to uniformly raise the water temperature above the temperature required to effect a cure of the resin. Water or steam temperature in the line during the cure period shall be as recommended by the resin manufacturer.

The heat source shall be fitted with monitors to gauge the temperature of the incoming and outgoing water or steam supply. Another such gauge shall be placed between the impregnated tube and the pipe invert at the termination to determine the temperatures during cure.

Initial cure shall occur during temperature heat-up and be completed when exposed portions of the new pipe appear to be hard and sound and the remote temperature sensor indicates that the temperature is of a magnitude to realize an exotherm or cure in the resin. After initial cure is reached, the temperature shall be raised to the post-cure temperature recommended by the resin manufacturer. The post-cure temperature shall be held for a period as recommended by the resin manufacturer, during which time the recirculation of the water or steam and cycling of the boiler to maintain the temperature continues. The curing of the CIPP must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of soil).

Cool Down: The CIPP shall be cooled to a temperature below 100 degrees before relieving the hydrostatic head. Cool-down may be accomplished by the introduction of cool water into the CIPP to replace steam or water being drained from a small hole in the

downstream end. Care shall be taken in the release of the static head so that a vacuum will not be developed that could damage the newly installed pipe.

Testing: Testing shall be done in accordance with ASTM F-1216.

CIPP Field Samples - The Contractor shall obtain a representative restrained sample from each liner installed.. Use a minimum one foot long piece of PVC pipe of the same size as the host pipe in the downstream manhole. Cure the samples along with the liner. Mark each sample with the date taken and the manhole to manhole section using a permanent marker. Cut and store each sample as directed by the Engineer. Send samples selected by the Engineer to a State certified laboratory approved by the Engineer. These test results must verify that the CIPP physical properties specified in Section 5.5 have been achieved. Samples for this project shall be made and tested as described in ASTM F-1216. Test for Modulus of Elasticity, Flexural Strength, and thickness. Contractor shall direct the laboratory to send test results directly to the Engineer. All samples that fail to meet structural requirements will require an additional sample to be submitted and tested at no additional cost to the Owner.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per linear foot for CURED IN PLACE LINER of the type and diameter specified and includes laboratory testing of the samples and providing the lab testing results to the engineer.

TELEVISION INSPECTION OF SEWER:

This work shall consist of providing color closed circuit television video of each sanitary or storm sewer indicated on the drawings pre and post construction. Televising before construction will be for the purpose of identifying limits of excavation and replacements and to identify the location of laterals. Televising after completion of construction will be for final inspection.

Submit two copies of discs and written logs to the Engineer, and additional copies of final accepted discs for distribution as required by Owner. Use a high resolution color-chip camera and monitor capable of producing a minimum of 650 lines of resolution, adequate and adjustable directional lighting to allow a clear picture of the entire periphery of the pipe, operable in 100 percent humidity conditions, a 360 degree radial by 270 degree pan-and-tilt viewing field, remote or manually propelled, and electric footage counters accurate to less than 1 percent error over the length of the particular sewer being inspected. Provide a total audio-video recording system and procedures as required to produce a high quality digital video and audio production of bright, sharp, clear pictures with accurate colors, free from distortion. The audio portion shall have proper volume and clarity and shall be free from distortion. Use digital recording equipment and provide the documentation of the inspection on DVD format discs and VHS tapes.

Perform cleaning and root removal with High-Velocity Jet or power rodding equipment to flush the entire sewer section, if necessary and as directed by the Engineer, to allow televising. Remove debris resulting from the cleaning operation from the downstream manhole of the

sewer section. Passing of debris through subsequent sections is not permitted. Dispose of debris from the cleaning operation at an approved landfill. The high-velocity jetting machine will not be allowed to operate directly in front of the camera during the inspection. Begin each digital video with the current date, project name, and Owner; followed by the general locations, manhole segment and direction of viewing superimposed on the video monitor. Professionally label all DVD discs showing the Owner's name, the sewer lines recorded on the tape, the date and Contractor's name. Move the camera, at a speed no greater than 30 feet per minute and stopping when necessary to permit proper documentation of the sewer's condition. Inspect the entire length of the sewer section. Stop at all service connections, and pan and look up service. Provide inspection logs with the following information:

Owner's Name; Crew Chief's Name; Date; From MH No._____located at ______; To MH No._____located at ______; Direction of Flow; Type of Pipe; Cleanliness; Manhole Conditions; Section Length; Pipe Size; and Direction of Inspection (camera movement). Document the footage and clock orientation of all pipe defects, service connections, and any other abnormal conditions. Use terminology generally accepted by the industry. Provide legible entries on inspection logs. Complete inspection log in the field. Provide an audio track recorded by the inspection technician during the actual inspection describing all information documented in the Inspection Log. Provide digital video to Engineer for review. Re-televise sewers found to be deficient during initial television inspection, after repairs are completed, for as many times as required to obtain final acceptance. Re-televise any sewer section where final inspection videos are of insufficient quality as determined by Engineer, Owner, or District.

Basis of Payment. This work shall be measured along the centerline of the sewer from centerline of manhole to centerline of manhole and be paid for at the contract unit price per lineal foot for TELEVISION INSPECTION OF SEWER, of sanitary sewer pipe diameters ranging from 10-inchs to 16-inches. The per lineal foot payment will include the work for the pre and post construction televising, i.e. the Contractor will not get paid twice for this work.

COMBINATION CONCRETE CURB AND GUTTER, TYPE M (SPECIAL):

This work shall be done in accordance with Section 606 of the Standard Specifications and the Detail provided in the Plans, except as modified herein.

606.01 Description. Revise the Article to read:

"606.01 Description. This work shall consist of constructing combination concrete curb and gutter; type M (Special) with a 9 inch minimum flag depth, 3 inch curb height, and a 12 inch gutter and shall include installation of two No. 4 (1/2-inch) continuous reinforcing bars."

606.04 Excavation. Add the following paragraphs to the end of this Article:

"Where adjacent roadway is not to be reconstructed, a 4-inch thick CA-11 granular subbase (crushed material) shall be placed and compacted under the proposed curb and gutter as shown on the Detail provided in the Plans and shall be included in the cost of this pay item. The aggregate subgrade improvement for combination concrete curb and gutter in areas of

reconstruction shall be placed and compacted as shown on the typical sections in the Plans and shall be paid for separately as AGGREGATE SUBGRADE IMPROVEMENT 12".

606.07 <u>Concrete Gutter and Curb and Gutter</u>. Add following to the fourth paragraph of this Article:

"Contraction joints shall be provided at uniform intervals not to exceed 15 feet. Construction joints with dowel bars shall be provided at the end of a day's work. Expansion joints shall be 1-inch thick with two No. 6 (3/4") smooth epoxy coated bars with greased cap and shall be constructed at intervals not to exceed 60 feet. Two No. 4 (1/2-inch diameter) reinforcing bars shall be placed continuously in the curb and gutter as shown in the Detail provided in the Plans. The curb shall be tapered to the gutter in a five-foot length wherever the curb and gutter terminates."

606.15 Basis of Payment. Revise the first paragraph of this Article to read:

"606.15 Basis of Payment. This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE M (SPECIAL).

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL):

This work shall be done in accordance with Section 606 of the Standard Specifications and the Detail provided in the Plans, except as modified herein.

606.01 Description. Revise the Article to read:

"606.01 Description. This work shall consist of constructing combination concrete curb and gutter; type B-6.12 (Special) which shall include installation of two No. 4 (1/2-inch) continuous reinforcing bars."

606.04 Excavation. Add the following paragraphs to the end of this Article:

"Where adjacent roadway is not to be reconstructed, a 4-inch thick CA-11 granular subbase (crushed material) shall be placed and compacted under the proposed curb and gutter as shown on the Detail provided in the Plans and shall be included in the cost of this pay item. The aggregate subgrade improvement for combination concrete curb and gutter in areas of reconstruction shall be placed and compacted as shown on the typical sections in the Plans and shall be paid for separately as AGGREGATE SUBGRADE IMPROVEMENT 12".

606.07 <u>Concrete Gutter and Curb and Gutter</u>. Add following to the fourth paragraph of this Article:

"Contraction joints shall be provided at uniform intervals not to exceed 15 feet. Construction joints with dowel bars shall be provided at the end of a day's work. Expansion joints shall be 1-inch thick with two No. 6 (3/4") smooth epoxy coated bars with greased cap and shall be constructed at intervals not to exceed 60 feet. Two No. 4 (1/2-inch diameter)

reinforcing bars shall be placed continuously in the curb and gutter as shown in the Detail provided in the Plans. The curb shall be tapered to the gutter in a five-foot length wherever the curb and gutter terminates."

606.15 Basis of Payment. Revise the first paragraph of this Article to read:

"606.15 Basis of Payment. This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE M-3.12 (SPECIAL).

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12 (SPECIAL):

This work shall be done in accordance with Section 606 of the Standard Specifications and the Detail provided in the Plans, except as modified herein.

606.01 Description. Revise the Article to read:

"606.01 Description. This work shall consist of constructing combination concrete curb and gutter; type B-6.12 which shall include installation of two No. 4 (1/2-inch) continuous reinforcing bars."

606.04 Excavation. Add the following paragraphs to the end of this Article:

"A 6-inch thick aggregate subgrade improvement shall be placed and compacted under the proposed curb and gutter as shown on the Detail provided in the Plans and shall be paid for separately as AGGREGATE BASE COURSE, TYPE B 6".

606.07 <u>Concrete Gutter and Curb and Gutter</u>. Add following to the fourth paragraph of this Article:

"Contraction joints shall be provided at uniform intervals not to exceed 15 feet. Construction joints with dowel bars shall be provided at the end of a day's work. Expansion joints shall be 1-inch thick with two No. 6 (3/4") smooth epoxy coated bars with greased cap and shall be constructed at intervals not to exceed 60 feet. Two No. 4 (1/2-inch diameter) reinforcing bars shall be placed continuously in the curb and gutter as shown in the Detail provided in the Plans. The curb shall be tapered to the gutter in a five-foot length wherever the curb and gutter terminates."

606.15 Basis of Payment. Revise the first paragraph of this Article to read:

"606.15 Basis of Payment. This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12 (SPECIAL).

REVETMENT MAT REMOVAL:

Description. This work shall consist of removing concrete revetment mat at the locations shown in the plans or as where directed by the Engineer. The resulting space shall be filled with

materials meeting the requirements of Article 205.04. All work shall otherwise be performed in accordance with the applicable portions of Section 440 of the Standard Specifications.

Method of Measurement. This work will be measured for payment in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for REVETMENT MAT REMOVAL, which payment shall constitute full compensation for all labor, equipment, tools and incidentals necessary to complete the work as specified.

CHAIN LINK FENCE REMOVAL:

<u>Description</u>. This work shall consist of the complete removal and disposal of fence to the limits as shown on the plans or as determined by the Engineer. Removal shall include fence, posts, cross members, and foundations. Disposal shall be in accordance with Article 202.03. Removal shall be from post to post, unless otherwise directed by the Engineer. Fence removal shall be regardless of type, material, size, foundation or condition.

Fence post foundation holes shall be backfilled with granular material and included in the cost of this work.

<u>Method of Measurement</u>. This work will be measured for payment in feet along the top of the fence to be removed from center to center of posts to remain.

Basis of Payment. This work will be paid for at the contract unit price per foot for CHAIN LINK FENCE REMOVAL, regardless of type or size.

LETTERING:

This work consists of providing embossed lettering on the east and west edges of the bridge slab in accordance with the details shown in the plans and as described herein.

Forms shall be constructed so that the completed concrete structures conform to the shape, lines and dimensions of the members as shown on the plans. Forms shall be properly braced or tied together to maintain position and shape. Forms shall be made sufficiently tight to prevent leakage of mortar.

Formliners shall be used to emboss the lettering on the exterior edges of the slab. Formwork shall have the strength and stability to ensure finished concrete dimensions within the tolerances specified herein. The quality of the formwork shall be maintained throughout the entire project.

Variations in dimensions for the locations with a lettered finish shall be within the following tolerances: the width and depth of lettering shall be within 1/8 inch \pm of what is shown on the plans or of what is approved by the Engineer.

The Contractor shall submit proposed construction procedures for the lettering and surface finishes on the outside edges of the slab. The Contractor's method of obtaining the lettering specified on the plans shall be subject to approval by the Engineer.

Upon approval of the construction procedures by the Engineer, the Contractor shall prepare a full-scale prototype of the intended lettering printed on paper.

Upon approval of the construction procedures and exhibit by the Engineer, the Contractor shall construct a model test section of concrete showing the letter "F". The test section shall be cast at the project site under similar conditions under which the bridge slab would be constructed, The Engineer will evaluate the test section of the parapet and approve the lettering model if acceptable or provide guidance if modifications are required. If necessary, the Contractor shall pour additional test sections until the lettering finish meets with the Engineer's approval. The lettered finish of the installed slab shall match the approved test section. All deviations from the approved lettering finish shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the contract.

The Contractor shall notify the Engineer at least 40 hours prior to placing concrete. Concrete shall not be placed until the Engineer has inspected the formwork and the placement of reinforcing bars for compliance with the plans.

<u>Method of Measurement.</u> The lettering and all associated work as described herein will be measured for payment in units of Lump Sum.

Basis of Payment. Lettering furnished and installed, along with all associated work described herein, will be paid for at the Lump Sum price for LETTERING.

TEMPORARY INFORMATION SIGNING:

Effective: November 13, 1996 Revised: January 1, 2012

<u>Description</u>. This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

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

	<u>ltem</u>	<u>Article</u>
a)	Sign Base (Notes 1 & 2)	1090
b)	Sign Face (Note 3)	1091
c)	Sign Legends	1091.02
d)	Sign Supports	1093
e)	Overlay Panels (Note 4)	1090.02

Note 1: The Contractor may use 5/8-inch (16 mm) instead of 3/4-inch (19 mm) 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 in Article 1106.01
- Note 4: The overlay panels shall be 0.08-inch (2 mm) thick.

CONSTRUCTION REQUIREMENTS

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

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to 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.

<u>Method of Measurement</u>. This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

RESET BENCH MONUMENT):

This work shall be done in accordance with Section 667 of the Standard Specifications.

667.04 Permanent Survey Markers. Add the following to the end of this Article:

"The existing U.S.G.S. Benchmark in the Northeast corner of the Raupp Boulevard bridge over Buffalo Creek shall be reset by a Licensed Professional Land Surveyor or agent as directed by the Engineer. The relocation shall be coordinated with the Village of Buffalo Grove. The benchmark shall be brass cap type monument with a diameter matching the existing monument and the elevation shall be established at a minimum of 3rd Order standard.. Relocation of the benchmark shall be in accordance with the Bench Mark Reset Procedures as published by the National Geodetic Survey." "This work of furnish and installing bench monument will be paid for at the contract unit price per each for RESET BENCH MONUMENT.

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013

Revised: November 1, 2014

1) Design Composition and Volumetric Requirements

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

" The minimum compacted thickness of each lift shall be according to Article 406.06(d)."

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

" The mixture composition used shall be IL-19.0."

Revise Article 355.05(a) of the Standard Specifications to read:

" (a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0."

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder						
Nominal, Compacted, Leveling Binder Mixture Composition Thickness, in. (mm)						
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L					
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L					

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures."

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS					
Mixture Composition	Thickness, in. (mm)				
IL-4.75	3/4 (19)				
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)				
SMA-12.5	2 (50)				
IL-19.0, IL-19.0L	2 1/4 (57)"				

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

"Test strip mixture will be evaluated at the contract unit price according to the following."

Revise Article 406.14(a) of the Standard Specifications to read:

" (a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price."

Revise Article 406.14(b) of the Standard Specifications to read:

" (b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department's test results, the mixture will not be paid for and shall be removed at the Contractor's expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read:

" (c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department's test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

Delete the second paragraph of Article 482.02 of the Standard Specifications.

with the same Ndesign as that specified for the mainline pavement."

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

" The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

" The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise Article 1003.03(c) of the Standard Specifications to read:

" (c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an Ndesign = 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, Ndesign = 90 the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, Ndesign = 50 or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

Size/Application	Gradation No.
3/8 in. (10 mm) Seal	CA 16
1/2 in. (13 mm) Seal	CA 15
Cover	CA 14
IL-19.0	CA 11 ^{1/}
IL-9.5	CA 16, CA 13 ^{3/}
IL-19.0L	CA 11 1/
IL-9.5L	CA 16
Stabilized Subbase	
or Shoulders	
1/2 in. (12.5mm)	CA13 ^{3/} , CA14 or CA16
Binder & Surface	
1L 9.5	CA16, CA 13 ^{3/}
Surface	
	3/8 in. (10 mm) Seal 1/2 in. (13 mm) Seal Cover IL-19.0 IL-9.5 IL-9.5L Stabilized Subbase or Shoulders 1/2 in. (12.5mm) Binder & Surface IL 9.5

1/ CA 16 or CA 13 may be blended with the gradations listed.

- 2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.
- 3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption

 \leq 2.0 percent."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder;
	IL-9.5 surface; IL-4.75; SMA-12.5, SMA- 9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface;
	Stabilized Subbase (HMA) ^{1/} ;
	HMA Shoulders ^{2/}

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"1030.02 Materials. Materials shall be according to the following.

	ItemArticle/Section
(a)	Coarse Aggregate1004.03
(b)	Fine Aggregate1003.03
(c)	RAP Material1031
(d)	Mineral Filler
(e)	Hydrated Lime1012.01
(f)	Slaked Quicklime (Note 1)
(g)	Performance Graded Asphalt Binder (Note 2)1032

- (h) Fibers (Note 3)
- (i) Warm Mix Asphalt (WMA) Technologies (Note 4)

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

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High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}										
Sieve	IL-19.	0 mm	SMA	4/	SM	4 ^{4/}	IL-9.5	mm	IL-4.75	mm
Size			IL-12.5	mm	IL-9.5	mm				
	min	max	nin	max	min	max	min	max	min	max
1 1/2 in										
(37.5 mm)										
1 in.										
(25 mm)		100								
3/4 in.		100		100						
(19 mm)	90	100								
1/2 in.	75	89	80	100		100		100		100
(12.5 mm)	/5	69						100		
3/8 in.				65	90	100	90	100		100
(9.5 mm)							90	100		
#4	40	60	20	30	36	50	34	69	90	100
(4.75 mm)	40	60					34	69		
#8	20	42	16	24 ^{5/}	16	325/	34 ^{6/}	52 ² ⁄	70	90
(2.36 mm)	20	42					54	52		
#16	1.5	10					10	22	50	65
(1.18 mm)	15	30					10	32		
#30			12	16	12	18				
(600 µm)										
#50	-	1	1			1		45	15	30
(300 µm)	6	15					4	15		
#100	<u> </u>		1			1			10	18
(150 µm)	4	9					3	10		
#200	<u> </u>		7.0	9.0 3/	7.5	9.5 3/			7	9 ^{3/}
(75 µm)	3	6					4	6		

					 	 	. –
Ratio Dust/Asphalt Binder	1.0	1.5		1.5	1.0	1.0	
		1	1	. 1			1

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ The maximum percent passing the #635 (20 μ m) sieve shall be \leq 3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.
- 6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 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 following requirements.

VOLUMETRIC REQUIREMENTS							
	High ESAL						
	Voids i	n the Mineral Agg	regate	Voids Filled			
		(VMA),		with Asphalt Binder (VFA),			
			%				
Ndesign			IL-4.75 ^{1/}				
	IL-19.0	IL-9.5					
50			18.5	65 - 78 ^{2/}			
70	13.5	65 - 75					
90							

- 1/ Maximum Draindown for IL-4.75 shall be 0.3 percent
- 2/ VFA for IL-4.75 shall be 72-85 percent"

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS					
		Low ESAL			
Mixture	Design	Design	VMA (Voids	VFA (Voids	
Composition	Compactive Effort	Air Voids	in the Mineral	Filled with Asphalt	
		Target %	Aggregate),	Binder),	
			% min.	%	
IL-9.5L	N _{DES} =30	4.0	15.0	65-78	
IL-19.0L	N _{DES} =30	4.0	13.5	N/A"	

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements					
	SM/	<i>م</i> 1/			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %		
80 ^{4/}	3.5	17.0 ^{2/} 16.0 ^{3/}	75 - 83		

- 1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.
- 2/ Applies when specific gravity of coarse aggregate is \geq 2.760.
- 3/ Applies when specific gravity of coarse aggregate is < 2.760.
- 4/ Blending of different types of aggregate will not be permitted. For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Delete last sentence of the second paragraph of Article 1102.01(a) (13) a.

Add to second paragraph in Article 1102.01 (a) (13) a.:

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"As an option, collected bag-house dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough available for the production of the SMA mix for the entire project and 2) a mix design was prepared with collected bag-house dust."

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

	Frequency of Tests	Test Method
"Parameter	High ESAL Mixture Low ESAL Mixture	See Manual of Test Procedures for Materials
Aggregate Gradation		
	1 washed ignition oven test on the mix per half day of production	Illinois Procedure
% passing sieves: 1/2 in. (12.5 mm),	Note 3.	
No. 4 (4.75 mm),		
No. 8 (2.36 mm),		
No. 30 (600 µm)		
No. 200 (75 μm)		
Asphalt Binder		······
Content by Ignition Oven	1 per half day of production	Illinois-Modified AASHTO T 308
Note 1.		
	Day's production	Illinois-Modified
	≥ 1200 tons:	AASHTO R 35
Note 2.	1 per half day of production	

	Frequency of Tests	Test Method
		See Manual of Test Procedures
"Parameter	High ESAL Mixture	for Materials
	Low ESAL Mixture	
-	Day's production < 1200 tons:	
	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
Air Voids	Day's production	
	≥ 1200 tons:	
Bulk Specific Gravity	-	Illinois-Modified AASHTO T 312
of Gyratory Sample	1 per half day of production	
Note 4.		
	Day's production < 1200 tons:	
	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
	Day's production	
Maximum Specific Gravity of Mixture	≥ 1200 tons:	Illinois-Modified AASHTO T 209
	1 per half day of	

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	Frequency of Tests	Test Method
		See Manual of
		Test Procedures
"Parameter	High ESAL Mixture	for Materials
	Low ESAL Mixture	
	Day's production	
	< 1200 tons:	
	1 per half day of	
	production for first	
	2 days and 1 per day	
	thereafter (first	
	sample of the day)	

- Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder 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 asphalt binder content.
- Note 2. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.
- Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.
- Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270 \pm 5 °F (132 \pm 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 \pm 5 °F (132 \pm 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

High ESAL Mixture	
Low ESAL Mixture	
0.61.1.7	
0.6 to 1.2	
0.3 %"	

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

" (4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

		"CONTR	OL LIMITS			
	High ESAL		SMA		IL-4.75	
Parameter	Individual Test	Moving Avg. of 4	Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: ^{1/}						
1/2 in. (12.5 mm)	±6%	±4%	±6%	±4%		
3/8 in. (9.5mm)			±4%	±3%		
No. 4 (4.75 mm)	± 5 %	±4%	±5%	±4%	<u> </u>	
No. 8 (2.36 mm)	± 5 %	±3%	±4%	±2%		
No. 16 (1.18 mm)			±4%	±2%	±4%	±3%
No. 30 (600 μm)	±4%	± 2.5 %	±4%	± 2.5 %		-
Total Dust Content No. 200 (75 μm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	±0.1%	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % ^{2/}	-0.5 % ^{2/}	-0.7 % ^{2/}	-0.5 % 2/	-0.7 % 2/	-0.5 % ^{2/}

1/ Based on washed ignition oven

2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS			
Mixture Composition	Parameter	Individual Test	
IL-4.75	Ndesign = 50	93.0 - 97.4 % ^{1/}	
IL-9.5	Ndesign = 90	92.0 - 96.0 %	
IL-9.5,IL-9.5L	Ndesign < 90	92.5 - 97.4 %	
IL-19.0	Ndesign = 90	93.0 - 96.0 %	
IL-19.0, IL-19.0L	Ndesign < 90	93.0 ^{2/} -97.4%	
SMA	Ndesign = 80	93.5 - 97.4 %	

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART	High ESAL,
REQUIREMENTS	Low ESAL, SMA
	& IL-4.75
	% Passing Sieves:
	1/2 in. (12.5 mm) ^{2/}
Gradation 1/3/	No. 4 (4.75 mm)
	No. 8 (2.36 mm)
	No. 30 (600 μm)
Total Dust Content 1/	No. 200 (75 μm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific
	Gravity of Mixture
	Voids
	Density
	VMA

- 1/ Based on washed ignition oven.
- 2/ Does not apply to IL-4.75.
- 3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

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Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

2) Design Verification and Production

<u>Description</u>. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production.

<u>Mix Design Testing</u>. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324 Hamburg Wheel Test

AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

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(1)Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements ^{1/}

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

1/ When produced at temperatures of 275 \pm 5 °F (135 \pm 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 \pm 5 °F (132 \pm 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.

For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 μm)	*
No. 200 (75 μm)	*
Asphalt Binder Content	± 0.3 %

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL Mixtures."

Add the following to Article 1030.06 of the Standard Specifications:

" (c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Wheel test. All prior produced material may be paved out provided all other mixture criteria are being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's G_{mb}."

Basis of Payment.

Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For all mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

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<u>GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1):</u> Effective: June 26, 2006

Revised: January 1, 2013

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μm)	95 ± 5
No. 50 (300 μm)	> 20

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of \pm 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 3)1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 3. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

HEAT OF HYDRATION CONTROL FOR CONCRETE STRUCTURES (D-1) :

Effective: November 1, 2013

Article 1020.15 shall not apply.

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1):

Effective: November 1, 2011 Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of \pm 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

ADJUSTMENTS AND RECONSTRUCTIONS :

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"602.04 Concrete. Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"603.05 Replacement of Existing Flexible Pavement. After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface

or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"603.06 Replacement of Existing Rigid Pavement. After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

PUBLIC CONVENIENCE AND SAFETY (DIST 1):

Effective: May 1, 2012 Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

"If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

"The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

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

EMBANKMENT I:

Effective: March 1, 2011 Revised: November 1, 2013

<u>Description</u>. This work shall be according to Section 205 of the Standard Specifications except for the following.

<u>Material</u>. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

- a) The laboratory Standard Dry Density shall be a minimum of 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).
- b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).
- c) Soils which demonstrate the following properties shall be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 3 ft (900 mm) of soil not considered detrimental in terms of erosion potential or excess volume change.
 - 1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.
 - 2) A plasticity index (PI) of less than 12.
 - 3) A liquid limit (LL) in excess of 50.
- d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.
- e) The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

CONSTRUCTION REQUIREMENTS

<u>Samples</u>. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

<u>Placing Material</u>. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than

3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

<u>Compaction</u>. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

<u>Stability.</u> The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

<u>Basis of Payment.</u> This work will not be paid separately but will be considered as included in the various items of excavation.

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1) :

Effective: November 1, 2012 Revise: August 15, 2014

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve . RAS shall meet the testing requirements

specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

- (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
- (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

- (a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non-Quality, FRAP -#4 or Type 2 RAS", etc...).
 - (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.
 - (2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.
 - (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
 - (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low

ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP or FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present. However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. FRAP and RAS testing shall be according to the following.

- (a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.
 - (1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
 - (2) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

(3) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample of FRAP, shall be split to obtain two samples of 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.

- (b) RAS Testing. RAS shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.
 - (1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.
 - (2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

Before extraction, each field sample shall be split to obtain two samples of 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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm}. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	±6%
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.3 %
G _{mm}	± 0.03 ^{1/}

 For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity".

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

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)" or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	±4%
No. 200 (75 μm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Lin	nits of Precision
% Passing:1/	FRAP	RAS
1 / 2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	3.0%
No. 200	2.2%	2.5%
Asphalt Binder Content	0.3%	1.0%
G _{mm}	0.030	· · · · · · · · · · · · · · · · · · ·

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse

aggregate in the RAP stockpile and are designated as follows.

- (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
- (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
- (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
- (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

- (a) FRAP. The use of FRAP in HMA shall be as follows.
 - (1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
 - (2) Steel Slag Stockpiles. FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.
 - (3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in

HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

HMA Mixtures 1/2/	Ma	aximum % ABF	ર
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified ^{3/}
30L	50	40	10
50	40	35	10
70	40	30	10
90	40	30	104/
4.75 mm N-50			30
SMA N-80			20

Max Asphalt Binder Replacement for FRAP with RAS Combination

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.
- 2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the

ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

- 3/ When the ABR for SMA or IL-4.75 is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.
- 4/ For polymerized surface mix used for overlays, with up to 10 percent ABR, a SBS PG70-22 will be required. However, if used in full depth HMA, a SBS PG70-28 will be required.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

- (a) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. HMA production utilizing FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS and FRAP 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 during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

- (b) HMA Plant Requirements. HMA plants utilizing FRAP and/or RAS shall be capable of automatically recording and printing the following information.
 - (1) Dryer Drum Plants.
 - a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - d. Accumulated dry weight of RAS and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
 - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
 - g. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)
 - i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
 - j. Accumulated mixture tonnage.
 - k. Dust Removed (accumulated to the nearest 0.1 ton)
 - (2) Batch Plants.
 - a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
 - d. Mineral filler weight to the nearest pound (kilogram).
 - f. RAS and FRAP weight to the nearest pound (kilogram).

- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications"
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

SLIPFORM PAVING (D-1) Effective: November 1, 2014

Revise Article 1020.04 Table 1, Note (5) of Standard Specifications to read:

"The slump range for slipform construction shall be 1/2 to 1 1/2 in."

Revise Article 1020.04 Table 1 (metric), Note (5) of Standard Specifications to read:

"The slump range for slipform construction shall be 13 to 40 mm."

HOT MIX ASPHALT - QUANTITY CORRECTION (BMPR)

Effective: October 1, 2014 Revised: October 2, 2014

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Revise the fifth paragraph of Article 406.13(b) of the Standard Specifications to read as follows:

"HMA and Stone Matrix Asphalt (SMA) mixture in excess of 103 percent of the quantity shown on the plans or the plan quantity as specified by the Engineer will not be measured for payment. The "adjusted quantity to be placed" and the "adjusted pay quantity" for HMA and SMA mixtures will be calculated as follows.

Adjusted Quantity To Be Placed = C x quantity shown on the plans or the plan quantity as specified by the Engineer

where: C = English: $C = \frac{G_{mb} \times 46.8}{U}$ Metric: $C = \frac{G_{mb} \times 24.99}{U}$ and where: G_{mb} = average bulk specific gravity from approved mix design U = unit weight of HMA shown on the plans in lb/sq yd/in. (kg/sq m/25 mm), used to estimate plan quantity 46.8 = English constant 24.99 = metric constant

Adjusted Pay Quantity (not to exceed 103 percent of the quantity shown on the plans or the plan quantity as specified by the Engineer) = B x HMA tons actually placed

where: $B = \frac{1}{C}$

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

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012

Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of \$15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journey worker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is one (1). During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

STATE OF
Permit No.: DIL-12-009
Department of Transportation
Division of Highways 2300 South Dirksen Parkway Springfield, IL 62764
REGULATED FLOODWAY CONSTRUCTION PERMIT RIVERS, LAKES AND STREAMS ACT "615 ILCS 5"
PERMISSION IS HEREBY GRANTED TO: Village of Buffalo Grove 50 Raupp Boulevard Buffalo Grove, IL 60089
FOR CONSTRUCTION OF : A new bridge along Raupp Boulevard over Buffalo Creek, which will replace the existing bridge at the same location. The proposed bridge will be a two-span reinforced concrete slab bridge with pile bent abutments. The proposed bridge will have a length of 53'-6" back of abutments. Each span will be 26'-9". The clear roadway width will be 33'-0". The proposed lo beam elevation will be 673.00'. The project is located in Section 5, Township 42 North, Range 11 Eas of 3 rd Principal Meridian, Cook County, as part of Section Number 11-00101-00-BR, Structure 016-821
IN ACCORDANCE WITH THE Application and Plan
DATED November 28, 2012 AND MADE A PART HEREOF, AND SUBJECT TO THE
TERMS SHOWN ON THE BACK HEREOF AND THE SPECIAL CONDITIONS ATTACHED
HERETO AS EXHIBIT.
EXAMINED AND APPROVED A Fortman REGIÓNAL ENGINEER/CENTRAL BUREAU CHIEF DATE
inted 11/28/2012 Page 1 of 2 D1 PD0026 (Rev.

THIS PERMIT is subject to the following conditions:

(a) This permit is granted in accordance with Rivers, Lakes And Streams Act "615 ILCS 5".

(b) This permit does not convey title to the permittee or recognize title of the permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the project or any part thereof will be located, or otherwise grant to the permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.

(c) This permitee does not release the permitee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.

(d) This permit does not relieve the permitee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permitee is required by law to obtain approval from any federal agency to do the work, this permit is not effective until the federal approval is obtained.

(e) The permitee shall, at his own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project, from floodway, river, stream or lake in which the work is done. If the permittee fails to remove such structures or materials, the state may have removal made at the expense of the permittee. If future need for public navigation or public interest of any character, by the state or federal government, necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or his successors as required by the Department of Transportation or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.

(f) The execution and details of the work authorized shall be subject to the supervision and approval of the Department. Department personnel shall have right of access to accomplish this purpose.

(g) Starting work on the construction authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.

(h) The Department in issuing this permit has relied upon the statements and representations made by the permittee; if any statement or representation made by the permittee is found to be false, the permit may be revoked at the option of the Department; and when a permit is revoked all rights of the permittee under the permit are voided.

(i) If the project authorized by this permit is located in or along Lake Michigan or a meandered lake, the permittee and his successors shall make no claim whatsoever to any interest in any accretions caused by the project.

(j) In issuing this permit, the Department does not approve the adequacy of the design or structural strength or the structure or improvement.

(k) Noncompliance with the conditions stated herein will make this permit void.

(I) If the work permitted is not initiated on or before six years from the date of issuance as shown on the front of this form, this permit shall be void.



DEPARTMENT OF THE ARMY

CHICAGO DISTRICT, CORPS OF ENGINEERS 231 SOUTH LA SALLE STREET CHICAGO, ILLINOIS 60604-1437

REPLY TO ATTENTION OF:

July 22, 2014

Technical Services Division Regulatory Branch LRC-2014-00396

SUBJECT: Authorization for the Replacement of Raupp Boulevard Bridge over Buffalo Creek in the Village of Buffalo Grove, Cook County, Illinois

Mr. Darren Monico Village of Buffalo Grove 51 Raupp Boulevard Buffalo Grove, Illinois 60089

Dear Mr. Monico:

The U.S. Army Corps of Engineers, Chicago District, has completed its review of your notification for authorization under the Regional Permit Program (RPP), submitted on your behalf by Baxter & Woodman Consulting Engineers. This office has verified that your proposed activity complies with the terms and conditions of Regional Permit RP3 (Transportation Projects), RP7 (Temporary Construction Activities) and the overall RPP under Category I of the Regional Permit Program. The activity may be performed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP.

This verification expires three (3) years from the date of this letter and covers only your activity as described in your notification and as shown on the plans entitled "Raupp Road over Buffalo Creek Structure Replacement" dated February 24, 2014, prepared by Baxter & Woodman Consulting Engineers. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the North Cook County Soil and Water Conservation District's (SWCD) written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site. You shall notify this office and the SWCD of any changes or modifications to the approved plan set. Please be aware that field conditions during project construction may require the implementation of additional SESC measures for further protection of aquatic resources. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.

You shall complete the following requirements:

1. You shall schedule a preconstruction meeting with SWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site.

2. You shall notify the SWCD of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.

This verification does not obviate the need to obtain all other required Federal, state, or local approvals before starting work. Please note that Section 401 Water Quality Certification has been issued by IEPA for this RP. Enclosed are the IEPA Section 401 Water Quality Certification conditions. If you have any questions regarding Section 401 certification, please contact Mr. Dan Heacock at IEPA Division of Water Pollution Control, Permit Section #15, by telephone at (217) 782-3362.

Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Stasi Brown of my staff by telephone at 312-846-5544, or email at stasi.f.brown@usace.army.mil.

Sincerely, Digitally signed by CHERNICH.KATHLEEN.G.12303 65616 Date: 2014.07.28 12:09:53 -05'00' Kathleen G. Chernich Chief, East Section Regulatory Branch

Enclosures

Copy Furnished:

Cook County Building and Zoning (Donald Wlodarski) Baxter & Woodman Consulting Engineers (Tara Orbon)

PERMIT COMPLIANCE



CERTIFICATION

Permit Number:	LRC-2014-00396
Permittee:	Darren Monico Village of Buffalo Grove
Date:	July 22, 2014

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of said permit and if applicable, compensatory wetland mitigation was completed in accordance with the approved mitigation plan.¹

PERMITTEE

DATE

Upon completion of the activity authorized by this permit and any mitigation required by the permit, this certification must be signed and returned to the following address:

U.S. Army Corps of Engineers Chicago District, Regulatory Branch 231 South LaSalle Street, Suite 1500 Chicago, Illinois 60604-1437

Please note that your permitted activity is subject to compliance inspections by Corps of Engineers representatives. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

¹ If compensatory mitigation was required as part of your authorization, you are certifying that the mitigation area has been graded and planted in accordance with the approved plan. You are acknowledging that the maintenance and monitoring period will begin after a site inspection by a Corps of Engineers representative or after thirty days of the Corps' receipt of this certification. You agree to comply with all permit terms and conditions, including additional reporting requirements, for the duration of the maintenance and monitoring period.



Chicago District

US Army Corps of Engineers®

GENERAL CONDITIONS APPLICABLE TO THE 2012 REGIONAL PERMIT PROGRAM

The permittee shall comply with the terms and conditions of the Regional Permits and the following general conditions for all activities authorized under the RPP:

1. <u>State 401 Water Quality Certification</u> - Water quality certification under Section 401 of the Clean Water Act may be required from the Illinois Environmental Protection Agency (IEPA). The District may consider water quality, among other factors, in determining whether to exercise discretionary authority and require an Individual Permit. Please note that Section 401 Water Quality Certification is a requirement for projects carried out in accordance with Section 404 of the Clean Water Act. Projects carried out in accordance with Section 10 of the Rivers and Harbors Act of 1899 do not require Section 401 Water Quality Certification

On March 2, 2012, the IEPA granted Section 401 certification, with conditions, for all Regional Permits, except for activities in certain waterways noted under RPs 4 and 8. The following conditions of the certification are hereby made conditions of the RPP:

- 1. The applicant shall not cause:
 - a) a violation of applicable water quality standards of the Illinois Pollution Control Board Title 35, Subtitle C: Water Pollution Rules and Regulations;
 - b) water pollution defined and prohibited by the Illinois Environmental Protection Act;
 - c) interference with water use practices near public recreation areas or water supply intakes;
 - d) a violation of applicable provisions of the Illinois Environmental Protection Act.
- 2. The applicant shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.
- 3. Except as allowed under condition 9, any spoil material excavated, dredged or otherwise produced must not be returned to the waterway but must be deposited in a self-contained area in compliance with all State statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by the Illinois EPA. Any backfilling must be done with clean material placed in a manner to prevent violation of applicable water quality standards.
- 4. All areas affected by construction shall be mulched and seeded as soon after construction as possible. The applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent soil erosion during construction shall be taken and may include the installation of sedimentation basins and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions. The applicant shall be responsible for obtaining a NPDES Stormwater Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of (1) one or more acres, total land area. A NPDES Stormwater Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Illinois EPA's Division of Water Pollution Control, Permit Section.
- 5. The applicant shall implement erosion control measures consistent with the Illinois Urban Manual (IEPA/USDA, NRCS; 2011, http://aiswcd.org/IUM/index.html).
- 6. The applicant is advised that the following permits(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.
- 7. Backfill used in the stream-crossing trench shall be predominantly sand or larger size material, with less than 20% passing a #230 U.S. sieve.
- 8. Any channel relocation shall be constructed under dry conditions and stabilized to prevent erosion prior to the diversion of flow.
- 9. Backfill used within trenches passing through surface waters of the State, except wetland areas, shall be clean course aggregate, gravel or other material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material may be used only if:
 - a) particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using #230 U.S. sieve; or
 - b) excavation and backfilling are done under dry conditions.
- 10. Backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.
- 11. Any applicant proposing activities in a mined area or previously mined area shall provide to the IEPA a written determination regarding the sediment and materials used which are considered "acid-producing material" as defined in 35 Il. Adm. Code,

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Subtitle D. If considered "acid-producing material," the applicant shall obtain a permit to construct pursuant to 35 Il. Adm. Code 404.101.

- 12. Asphalt, bituminous material and concrete with protruding material such as reinforcing bar or mesh shall not be 1) used for backfill, 2) placed on shorelines/stream banks, or 3) placed in waters of the State.
- 13. Applicants that use site dewatering techniques in order to perform work in waterways for construction activities approved under Regional Permits 1 (Residential, Commercial and Institutional Developments), 2 (Recreation Projects), 3 (Transportation Projects), 7 (Temporary Construction Activities), 9 (Maintenance) or 12 (Bridge Scour Protection) shall maintain flow in the stream during such construction activity by utilizing dam and pumping, fluming, culverts or other such techniques.
- 14. In addition to any action required of the Regional Permit 13 (Cleanup of Toxic and Hazardous Materials Projects) applicant with respect to the "Notification" General Condition 22, the applicant shall notify the Illinois EPA Bureau of Water, of the specific activity. This notification shall include information concerning the orders and approvals that have been or will be obtained from the Illinois EPA Bureau of Land (BOL) for all cleanup activities under BOL jurisdiction, or for which authorization or approval is sought from BOL for no further remediation. This Regional Permit is not valid for activities that do not require or will not receive authorization or approval from the BOL.

2. <u>Threatened and Endangered Species</u> - If the District determines that the activity may affect Federally listed species or critical habitat, the District will initiate section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) in accordance with the Endangered Species Act of 1973, as amended (Act). Applicants shall provide additional information that would enable the District to conclude that the proposed action will have no effect on federally listed species.

The application packet shall indicate whether resources (species, their suitable habitats, or critical habitat) listed or designated under the Act, may be present within areas affected (directly or indirectly) by the proposed project. Applicants shall provide a section 7 species list for the action area using the on-line process at the USFWS website. You can access "U.S. Fish and Wildlife Service Endangered Species Program of the Upper Midwest" website at www.fws.gov/midwest/Endangered. Click on the section 7 Technical Assistance green shaded box in the lower right portion of the screen and follow the instructions to completion. Review all documentation pertaining to the species list, provide the rationale for your effects determination for each species, and send the information to this office for review.

If no species, their suitable habitats, or critical habitat are listed, then a "no effect" determination can be made, and section 7 consultation is not warranted. If species or critical habitat appear on the list or suitable habitat is present within the action area, then a biological assessment or biological evaluation will need to be completed to determine if the proposed action will have "no effect" or "may effect" the species or suitable habitat. The District will request initiation of section 7 consultation with the USFWS upon agreement with the applicant on the effect determinations in the biological assessment or biological evaluation. If the issues are not resolved, the analysis of the situation is complicated, or impacts to listed species or critical habitat are found to be greater than minimal, the District will consider reviewing the project under the Individual Permit process.

Projects in Will, DuPage, or Cook Counties that are located in the recharge zones for Hine's emerald dragonfly critical habitat units may be reviewed under the RPP, with careful consideration due to the potential impacts to the species. All projects reviewed that are located within 3.25 miles of a critical habitat unit will be reviewed under Category II of the RPP. Please visit the following website for the locations of the Hine's emerald dragonfly critical habitat units in Illinois. http://www.fws.gov/midwest/endangered/insects/hed/FRHinesFinalRevisedCH.html

3. <u>Historic Properties</u> - In cases where the District determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity may require an Individual Permit. A determination of whether the activity may be authorized under the RPP instead of an Individual Permit will not be made until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the District with the appropriate documentation to demonstrate compliance with those requirements.

Non-Federal permittees must include notification to the District if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the permit application must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing permit submittals, the District will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. Based on the information submitted and these efforts, the District shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity until notified by the District either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

The District will take into account the effects on such properties in accordance with 33 CFR Part 325, Appendix C, and 36 CFR 800. If all issues pertaining to historic properties have been resolved through the consultation process to the satisfaction of the District, Illinois Historic Preservation Agency (IHPA) and Advisory Council on Historic Preservation, the District may, at its discretion, authorize the activity under the RPP instead of an Individual Permit.

Applicants are encouraged to obtain information on historic properties from the IHPA and the National Register of Historic Places at the earliest stages of project planning. For information, contact:

Illinois Historic Preservation Agency 1 Old State Capitol Plaza Springfield, IL 62701-1507 (217) 782-4836 www.illinoishistory.gov

If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity, you must immediately notify this office of what you have found, and to the maximum extent practicable, stop activities that would adversely affect those remains and artifacts until the required coordination has been completed. We will initiate the Federal, Tribal and State coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. <u>Soil Erosion and Sediment Control</u> - Measures shall be taken to control soil erosion and sedimentation at the project site to ensure that sediment is not transported to waters of the U.S. during construction. Soil erosion and sediment control measures shall be implemented before initiating any clearing, grading, excavating or filling activities. All temporary and permanent soil erosion and sediment control measures shall be maintained throughout the construction period and until the site is stabilized. All exposed soil and other fills, and any work below the ordinary high water mark shall be permanently stabilized at the earliest practicable date.

Applicants are required to prepare a soil erosion and sediment control (SESC) plan including temporary BMPs. The plan shall be designed in accordance with the Illinois Urban Manual, 2011 (http://aiswcd.org/IUM/index.html). Practice standards and specifications for measures outlined in the soil erosion and sediment control plans will follow the latest edition of the "Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement." Additional Soil Erosion and Sediment Control (SESC) measures not identified in the Illinois Urban Manual may also be utilized upon District approval.

At the District's discretion, an applicant may be required to submit the SESC plan to the local Soil and Water Conservation District (SWCD), or the Lake County Stormwater Management Commission (SMC) for review. When the District requires submission of an SESC plan, the following applies: An activity may not commence until the SESC plan for the project site has been approved; The SWCD/SMC will review the plan and provide a written evaluation of its adequacy; A SESC plan is considered acceptable when the SWCD/SMC has found that it meets technical standards. Once a determination has been made, the authorized work may commence unless the SWCD/SMC has requested that they be notified prior to commencement of the approved plans. The SWCD/SMC may attend pre-construction meetings with the permittee and conduct inspections during construction to determine compliance with the plans. Applicants are encouraged to begin coordinating with the appropriate SWCD/SMC office at the earliest stages of project planning. For information, contact:

Kane-DuPage SWCD	McHenry-Lake County SWCD
2315 Dean Street, Suite 100	1648 South Eastwood Dr.
St. Charles, IL 60174	Woodstock, IL 60098
(630) 584-7961 ext.3	(815) 338-0099 ext.3
www.kanedupageswcd.org	www.mchenryswcd.org
North Cook SWCD	Lake County SMC
899 Jay Street	500 W. Winchester Rd, Suite 201
Elgin, IL 60120	Libertyville, IL 60048
(847) 468-0071	(847) 377-7700
www.northcookswcd.org	www.lakecountyil.gov/stormwater

5. <u>Total Maximum Daily Load</u> - For projects that include a discharge of pollutant(s) to waters for which there is an approved Total Maximum Daily Load (TMDL) allocation for any parameter, the applicant shall develop plans and BMPs that are consistent with the assumptions and requirements in the approved TMDL. The applicant must incorporate into their plans and BMPs any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. The applicant must carefully document the justifications for all BMPs and plans, and install, implement and maintain practices and BMPs that are consistent with all relevant TMDL allocations and with all relevant conditions in an implementation plan. Information regarding the TMDL program, including approved TMDL allocations, can be found at the following website: www.epa.state.il.us/water/tmdl/

6. <u>Floodplain</u> - Discharges of dredged or fill material into waters of the United States within the 100-year floodplain (as defined by the Federal Emergency Management Agency) resulting in permanent above-grade fills shall be avoided and minimized to the maximum extent practicable. When such an above-grade fill would occur, the applicant may need to obtain approval from the Illinois

Department of Natural Resources, Office of Water Resources, (IDNR-OWR) which regulates activities affecting the floodway and the local governing agency (e.g., Village or County) with jurisdiction over activities in the floodplain. Compensatory storage may be required for fill within the floodplain. Applicants are encouraged to obtain information from the IDNR-OWR and the local governing agency with jurisdiction at the earliest stages of project planning. For information on floodway construction, contact:

IDNR/OWR 2050 Stearns Road Bartlett, IL 60103 (847) 608-3100 http://dnr.state.il.us/owr/

For information on floodplain construction, please contact the local government and/or the Federal Emergency Management Agency. Pursuant to 33 CFR 320.4(j), the District will consider the likelihood of the applicant obtaining approval for above-ground permanent fills in floodplains in determining whether to issue authorization under the RPP.

7. <u>Navigation</u> - No activity may cause more than a minimal adverse effect on navigation. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

8. Proper Maintenance - Any authorized structure or fill shall be properly maintained, including that necessary to ensure public safety.

9. <u>Aquatic Life Movements</u> - No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including species that normally migrate through the area, unless the activity's primary purpose is to impound water.

10. <u>Equipment</u> - Soil disturbance and compaction shall be minimized through the use of matting for heavy equipment, low ground pressure equipment, or other measures as approved by the District.

11. <u>Wild and Scenic Rivers</u> - No activity may occur in a component of the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status. Information on Wild and Scenic Rivers may be obtained from the appropriate land management agency in the area, such as the National Park Service and the U.S. Forest Service.

12. <u>Tribal Rights</u> - No activity or its operation may impair reserved tribal rights, such as reserved water rights, treaty fishing and hunting rights.

13. <u>Water Supply Intakes</u> - No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

14. Shellfish Production - No discharge of dredged or fill material may occur in areas of concentrated shellfish production.

15. <u>Suitable Material</u> - No discharge of dredged or fill material may consist of unsuitable material and material discharged shall be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act). Unsuitable material includes trash, debris, car bodies, asphalt, and creosote treated wood.

16. Spawning Areas - Discharges in spawning areas during spawning seasons shall be avoided to the maximum extent practicable.

17. <u>Obstruction of High Flows</u> - Discharges shall not permanently restrict or impede the passage of normal or expected high flows. All crossings shall be culverted, bridged or otherwise designed to prevent the restriction of expected high water flows, and shall be designed so as not to impede low water flows or the movement of aquatic organisms.

18. <u>Impacts From Impoundments</u> - If the discharge creates an impoundment of water, adverse impacts on aquatic resources caused by the accelerated passage of water and/or the restriction of its flow shall be avoided to the maximum extent practicable.

19. <u>Waterfowl Breeding Areas</u> - Discharges into breeding areas for migratory waterfowl shall be avoided to the maximum extent practicable.

20. <u>Removal of Temporary Fills</u> - Any temporary fill material shall be removed in its entirety and the affected area returned to its preexisting condition.

21. <u>Mitigation</u> - All appropriate and practicable steps must first be taken to avoid and minimize impacts to aquatic resources. For unavoidable impacts, compensatory mitigation is required to replace the loss of wetland, stream, and/or other aquatic resource functions (33 CFR 332). The proposed compensatory mitigation shall utilize a watershed approach and fully consider the ecological needs of the watershed. Where an appropriate watershed plan is available, mitigation site selection should consider recommendations in the plan. The applicant shall describe in detail how the mitigation site was chosen and will be developed, based on the specific

resource need of the impacted watershed. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts. However, the District is responsible for determining the appropriate form and amount of compensatory mitigation required when evaluating compensatory mitigation options, and determining the type of mitigation that would be environmentally preferable. In making this determination, the District will assess the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed. Methods of providing compensatory mitigation include aquatic resource restoration, establishment, enhancement, and in certain circumstances, preservation. Compensatory mitigation will be accomplished by establishing a minimum ratio of 1.5 acres of mitigation for every 1.0 acre of impact to waters of the U.S. Furthermore, the District has the discretion to require additional mitigation to ensure that the impacts are no more than minimal. Further information is available at www.lrc.usace.army.mil/Missions/Regulatory/Illinois/Mitigation.aspx

22. Notification - The applicant shall provide written notification (i.e., a complete application) for a proposed activity to be authorized under the RPP prior to commencing a proposed activity. The District's receipt of the complete application is the date when the District receives all required notification information from the applicant (see below). If the District informs the applicant within 60 calendar days that the notification is incomplete (i.e., not a complete application), the applicant shall submit to the District, in writing, the requested information to be considered for review under the Regional Permit Program. A new 60 day review period will commence when the District receives the requested information. Applications that involve unauthorized activities that are completed or partially completed by the applicant are not subject to the 60-day review period.

For all activities, notification shall include:

- a. A cover letter providing a detailed narrative of the proposed activity describing all work to be performed, a clear project purpose and need statement, the Regional Permit(s) to be used for the activity, the area (in acres) of waters of the U.S. to be impacted (be sure to specify if the impact is permanent or temporary, and identify which area it affects), and a statement that the terms and conditions of the RPP will be followed.
- b. A completed joint application form for Illinois signed by the applicant or agent. The application form is available at www.lrc.usace.army.mil/Portals/36/docs/regulatory/forms/appform.pdf. If the applicant does not sign the joint application form, notification shall include a signed, written statement from the applicant designating the agent as their representative.
- c. A delineation of waters of the U.S., including wetlands, for the project area, and for areas adjacent to the project site (off-site wetlands shall be identified through the use of reference materials including review of local wetland inventories, soil surveys and the most recent available aerial photography), shall be prepared in accordance with the current U.S. Army Corps of Engineers methodology (www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/reg_supp.aspx) and generally conducted during the growing season.^{*} Our wetland delineation standards are available at www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/Delineations.pdf. For sites supporting wetlands, the delineation shall include a Floristic Quality Assessment (Swink and Wilhelm. 1994, latest edition, Plants of the Chicago Region). The delineation shall also include information on the occurrence of any high-quality aquatic resources (see Appendix A), and a listing of waterfowl, reptile and amphibian species observed while at the project area. The District reserves the right to exercise judgment when reviewing submitted wetland delineations. Flexibility of the requirements may be determined by the District on a case-by-case basis only.
- d. A street map showing the location of the project area.
- e. Latitude and longitude for the project in decimal degrees format (i.e. 41.88377N, -87.63960W).
- f. Preliminary engineering drawings sized 11" by 17" (full-sized may be requested by the project manager and you may also submit plans in PDF format on a disc) showing all aspects of the proposed activity and the location of waters of the U.S. to be impacted and not impacted. The plans shall include grading contours, proposed and existing structures such as buildings footprints, roadways, road crossings, stormwater management facilities, utilities, construction access areas and details of water conveyance structures. The plans shall also depict buffer areas, outlots or open space designations, best management practices, deed restricted areas and restoration areas, if required under the specific RP.
- g. Submittal of soil erosion and sediment control (SESC) plans that identify all SESC measures to be utilized during construction of the project.
- h. The application packet shall indicate whether resources (species, their suitable habitats, or critical habitat) listed or designated under the Endangered Species Act of 1973, as amended, may be present within areas affected (directly or indirectly) by the proposed project. Applicants shall provide a section 7 species list for the action area using the on-line process at the USFWS website. You can access "U.S. Fish and Wildlife Service Endangered Species Program of the Upper Midwest" website at www.fws.gov/midwest/Endangered. Click on the section 7 Technical Assistance green shaded box in the lower right portion of the screen and follow the instructions to completion. Print all documentation pertaining to the species list, include the rationale for your effects determination for each species, and forward the information to this office for review.

^{*} If a wetland delineation is conducted outside of the growing season, the District will determine on a case-by-case basis whether sufficient evidence is available to make an accurate determination. If the District finds that the delineation lacks sufficient evidence, the application will not be considered complete until the information is provided. This may involve re-delineating the project site during the growing season.

In the event there are no species, their suitable habitats, or critical habitat, then a "no effect" determination can be made and section 7 consultation is not warranted. If species or critical habitat appear on the list, or suitable habitat is present within the action area, then a biological assessment or biological evaluation will need to be completed to determine if the proposed action will have "no effect" or "may effect" on the species or suitable habitat. The District will request initiation of section 7 consultation with the USFWS upon agreement with the applicant on the effect determinations in the biological assessment or biological evaluation. If the issues are not resolved, the analysis of the situation is complicated, or impacts to listed species or critical habitat are found to be greater than minimal, the District will consider reviewing the project under the Individual Permit process.

- i. A determination of the presence or absence of any State threatened or endangered species. Please contact the Illinois Department of Natural Resources (IDNR) to determine if any State threatened and endangered species could be in the project area. You can access the IDNR's Ecological Compliance Assessment Tool (EcoCAT) at the following website: http://dnrecocat.state.il.us/ecopublic/. Once you complete the EcoCAT and consultation process, forward all resulting information to this office for consideration. The report shall also include recommended methods as required by the IDNR for minimizing potential adverse effects of the project.
- j. A statement about the knowledge of the presence or absence of Historic Properties, which includes properties listed, or properties eligible to be listed in the National Register of Historic Places. A letter from the Illinois Historic Preservation Agency (IHPA) can be obtained indicating whether your project is in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. The permittee shall provide all pertinent correspondence with the IHPA documenting compliance. The IHPA has a checklist of documentation required for their review located here: www.illinoishistory.gov/PS/rcdocument.htm.
- k. Where an appropriate watershed plan is available, the applicant shall address in writing how the proposed activity is aligned with the relevant water quality, hydrologic, and aquatic resource protection recommendations in the watershed plan.
- 1. A discussion of measures taken to avoid and/or minimize impacts to aquatic resources on the project site.
- m. A compensatory mitigation plan for all impacts to waters of the U.S. (if compensatory mitigation is required under the specific RP).
- n. A written narrative addressing all items listed under the specific RP.

For Category II activities, the District will provide an Agency Request for Comments (ARC) which describes the proposed activity. The ARC will be sent to the following agencies: United States Fish & Wildlife Service (USFWS), United States Environmental Protection Agency (USEPA), Illinois Department of Natural Resources (IDNR), Illinois Department of Natural Resources (IDNR/OWR), Illinois Environmental Protection Agency (IEPA), Illinois Historic Preservation Agency (IHPA), Illinois Nature Preserves Commission (INPC) and U.S. Coast Guard (Section 10 activities only). Additional entities may also be notified as needed. These agencies have ten (10) calendar days from the date of the ARC to contact the District and either provide comments or request an extension not to exceed fifteen (15) calendar days. The District will fully consider agency comments received within the specified time frame. If the District determines the activity complies with the terms and conditions of the RPP and impacts on aquatic resources are minimal, the District will notify the applicant in writing and include special conditions if deemed necessary. If the District determines that the impacts of the proposed activity are more than minimal, the District will notify the applicant that the project does not qualify for authorization under the RPP and instruct the applicant on the procedures to seek authorization under an Individual Permit.

23. <u>Compliance Certification</u> - Any permittee who has received authorization under the RPP from the District shall submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the District with the authorization letter and will include: a) a statement that the authorized work was done in accordance with the District's authorization, including any general or specific conditions; b) a statement that any required mitigation was completed in accordance with the permit conditions and; c) the signature of the permittee certifying the completion of the work and mitigation.

24. <u>Multiple use of Regional Permits</u> - In any case where a Regional Permit is combined with any other Regional Permit to cover a single and complete project (except where prohibited under specific Regional Permits), the applicant shall notify the District in accordance with General Condition 22. If multiple Regional Permits are used, the total impact may not exceed the maximum allowed by the Regional Permit with the greatest impact threshold.

25. <u>Other Restrictions</u> - Authorization under the RPP does not obviate the need to obtain other Federal, State or local permits, approvals, or authorizations required by law nor does it grant any property rights or exclusive privileges, authorize any injury to the property or rights of others or authorize interference with any existing or proposed Federal project.

Approved by:

//ORIGINAL SIGNED// Frederic A. Drummond, Jr. Colonel, U.S. Army District Commander February 24, 2012 Date

North Cook County Soil & Water Conservation District

2358 Hassell Road, Suite B, Hoffman Estates, Illinois 60169 Phone: 847-885-8830, Fax: 847-885-8843, email: r.mcandless@northcookswcd.org

June 18, 2014

Tara Orbon, P.E. Baxter & Woodman,Inc. 8840 W. 192nd Street Mokena, II. 60448

Re: Soil Erosion & Sediment Control (SE/SC) Plan Review for the Raupp Boulevard Bridge Replacement Project in Buffalo Grove, U.S. Army Corps of Engineers Permit # Pending.

Dear Ms. Orbon,

I have completed my review of the Soil Erosion & Sediment Control (SE/SC) Plan for the Raupp Boulevard Bridge Replacement Project in Buffalo Grove, U.S. Army Corps of Engineers Permit # To Be Determined. Pending the submittal to this office for review and approval of an In-Stream Work Plan by the Contractor selected for this project, this letter is to be considered a **Conditional Approval** of the Soil Erosion & Sediment Control Plan for the

conditional Approval of the Soll Erosion & Sediment Control Plan for the project. A letter of Final SE/SC Plan Approval will be issued after I have completed my review of, and approved, the In-Stream Work Plan.

Regards,

Rick McAndless, CPESC

Cc: Stasi Brown, Project Manager, U.S. Army Corps of Engineers



TONI PRECKWINKLE PRESIDENT Cook County Board of Commissioners

> EARLEAN COLLINS 1st District

ROBERT STEELE 2nd District

JERRY BUTLER 3rd District

STANLEY MODRE 4th District

DEBORAH SIMS 5th District

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GREGG GOSLIN 14th District

TIMOTHY O. SCHNEIDER 15th District

JEFFREY R. TOBOLSKI 16th District

ELIZABETH ANN DOODY GORMAN 17th District Department of Transportation and Highways John Yonan, P.E. Superintendent 69 West Washington Street, 23rd Floor • Chicago, Illinois 60602-3007 • (312) 603-1601

July 14, 2014

Village of Buffalo Grove 51 Raupp Blvd. Buffalo Grove, IL 60089

Attn: Mr. Darren Monico

RE:

JUL 1 6 2014

Permit Number: 14-03-4547-C County Highway: Lake Cook Rd. Section Number: A50-1414 Location: Raupp Blvd. Customer Ref. #: 11-00101-00-BR PERMIT FOR WORK

Please have the enclosed "**Permit for Work**" properly executed (Kindly Affix Corporate Seal, where necessary) by PRINCIPAL/MUNICIPALITY.

IF APPLICABLE PERMIT MUST BE SIGNED BY THE MAYOR or VILLAGE PRESIDENT and returned to this office within 30 days for further processing and issuance of the permit.

No construction permit shall be issued without receipt and approval of Bond & Insurance papers and permit for work fee if applicable.

Return permit applications to:

Cook County Department of Transportation & Highways 69 West Washington - Permits (Room 2354) Chicago, Illinois 60602 Attention: Mr. Michael D. Sterr, P.E.

If you have any questions, please feel free to contact my office, 312-603-1670.

Very truly yours,

Michael D. Sterr, P.E. Permit Engineer For: John Yonan, P.E. Superintendent of Transportation and Highways Cook County, Illinois

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COUNTY OF COOK DEPARTMENT OF TRANSPORTATION AND HIGHWAYS PERMIT DIVISION

BOND AND INSURANCE REQUIREMENTS

BEFORE BOND AND INSURANCE REQUIREMENTS ARE ISSUED, THE GENERAL CONTRACTOR MUST SUBMIT A SIGNED LETTER ON COMPANY STATIONARY STATING THE FOLLOWING:

"(Name of Contractor) is the contractor responsible for all work performed in Permit (#00-00-0000)." I understand that if there is an open cut in the pavement the bond shall remain with the Cook County Transportation and Highways Department for one year after the construction work is completed.

Upon receipt of the "CONTRACTOR LETTER," bond forms and insurance requirements will be forwarded by the Permit Office.

GENERAL CONTRACTOR SHOULD SUBMIT INSURANCE SPECIFIED FOR PERMIT.

IN THE EVENT THE INSURANCE EXPIRES OR IS CANCELED PRIOR TO THE COMPLETION OF THE PERMIT, THE PROJECT WILL BE STOPPED UNTIL INSURANCE COVERAGE IS SUFFICIENT.

Insurance coverage shall be with insurance companies licensed to do business in the State of Illinois and are subject to approval by the County Insurance Coordinator.

Contractor and/or Insurance Companies must notify this office when there is a change of address, and/or change of Insurance Company. The Permit number must always be on all correspondence.

CURRENT CERTIFICATE OF INSURANCE MUST REMAIN ON FILE UNTIL RELEASE OF BOND.

BOND FORMS

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Must be properly executed with signature of officers of company and have corporate seal. If contractor is sole beneficiary, it should be stated on the bond.

BONDS WILL NOT BE RELEASED UNTIL INSURANCE REQUIREMENTS ARE MET.

If you have any questions, please contact the Permit Office, at 312-603-1670.

FORM20

T COOK CO	For Office Use Only Issue Date:
	Permit Number: <u>14-03-4547-C</u>
	Expiration Date:
LINOL	Bond Number:
Cook County De	partment of Transportation and Highways Permit For Work
1 Pormittoo(o);	

1. Permittee(s):	VILLAGE OF BUFFALO GROVE
2. Project Description:	MUNICIPAL
3. Type of Permit:	A. Construction Permit B. Individual Maintenance and Repair Permit C. Annual Maintenance and Repair Permit D. Tree Trimming Permit
4. Emergency Permit	(check only if emergency as described in the PWO, e.g. hazards in the public way)
5. Pavement Breaks	⊡yes ⊠no
6. Permission:	
The Cook County Transp	ortation and Highways Department hereby grants permission and authority to: install, construct, and operate the following described facilities; or

 \boxtimes

maintain and repair the following described facilities; or trim trees in the following geographical area

in Cook County, Illinois; on County Highway known as LAKE COOK ROAD State Aid Road No. A50 Section 1414 Township Cross Road RAUPP BLVD., subject to the general conditions and any special conditions attached to this permit, and subject to the Public Way Ordinance, as well as all laws defined therein and in conformance with all submittals made pursuant to the application process, as modified at the request of the Cook County Department of Transportation and Highways, per plans prepared by BAXTER & WOODMAN, TITLED "SUGGESTED MAINTENANCE OF TRAFFIC DETOUR" SECTION #11-00101-00-BR dated 03-11-14 and final revision date of (REC) 06-27-2014, and as finally approved:

Permitted Work	Level #	Fee
DETOUR, SIGNAGE	2	\$0.00
	Total Fee	\$0.00

This Permit will not be issued until receipt of all applicable fees is confirmed by the Cook County Department of Revenue



Issue Date:	For Office Use Only
15540 5400	
Permit Number:	<u>14-03-4547-C</u>
Expiration Date:	
Bond Number:	
	Expiration Date:

This permit includes and is subject to the "General Conditions for Permit For Work" attached hereto and incorporated into this Permit.

NOTE:

- 1. The contractor has to coordinate with CCDOTH'S contractor if any CCDOTH'S improvements have been going on at the same time.
- 2. The general contractor, before starting the job, will deposit with the Cook County Transportation and Highways Department, Permit Office, insurance as required on Form <u>"A"</u>.
- 3. Upon awarding a contract for the above mentioned installations, the applicant must direct its contractor to appear in the Cook County Transportation and Highways Department Permit Office, Room 2354 County Building, 69 W. Washington Street, Chicago, to deposit a Performance and Right Of Way Restoration Bond in the amount of <u>\$20,000.00</u>, with said Permit Office prior to the start of work within the County Right Of Way.

Other Rules/Special Conditions as Follows:

- 1. THE DETOUR ROUTE SHALL BE CONSPICUOUSLY MARKED AND ALL SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- 2. NOTIFICATION HAS BEEN GIVEN TO ANY AND ALL MUNICIPALITIES INVOLVED IN THIS PERMIT. PERMITTEE MUST NOTIFY LOCAL FIRE AND POLICE DEPARTMENTS, AS WELL AS LOCAL HOSPITALS OF THIS DETOUR.
- 3. SIGNS ARE TO BE ERECTED, MAINTAINED AND REMOVED BY THE PERMITTEE.
- 4. ALL CLEANING OF PAVEMENT AND RIGHT OF WAY SHALL BE THE RESPONSIBILITY OF THE PERMITTEE.
- 5. NOTIFY MOTORISTS OF ROAD CLOSURE 10 DAYS IN ADVANCE.

The Permittee assumes all responsibility and acknowledges the County of Cook is free from any liabilities that may occur during or as a result of this installation.

	For Office Use Only
1 COOK C	Issue Date:
	Permit Number: <u>14-03-4547-C</u>
	Expiration Date:
ILINO 15	Bond Number:

The work authorized by this Permit shall be completed by the expiration date as shown on page 1 or above; otherwise this Permit becomes null and void.

appen!	. Da.	8/11/14
Applicant Signatur	e (Village of Buffalo Grove) Jeffrey S. Braiman	Bate Village President
Print Name		

Fee received. Application approved and Permit granted this:

_____day of ______, 20_____

For Cook County Superintendent of Transportation and Highways

A COPY OF THIS PERMIT MUST BE KEPT ON THE JOB SITE DURING CONSTRUCTION

This Permit is not effective unless and until the Cook County Superintendent of Transportation and Highways has signed this Permit. If, per the Cook County Transportation and Highways Department, municipal acceptance is required, then this Permit is not effective unless and until the municipality has signed this Permit.

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COUNTY OF COOK

TRANSPORTATION AND HIGHWAYS DEPARTMENT GENERAL CONDITIONS FOR PERMIT FOR WORK

- 1. Capitalized terms used in this Permit and not otherwise defined herein shall have the meanings ascribed to them in the Public Way Regulatory Ordinance (the "Ordinance"), Chapter 66, Article III, and Sections 50 et seq. of the Cook County Code. Requirements set forth in these General Conditions are in addition to and not in limitation of the requirements of the Ordinance.
- 2. No lane closures or traffic detours relating to Permitted Work will be allowed between the hours of 6 a.m. to 9 a.m. and 3 p.m. to 6:30 p.m., (other than as allowed for emergency maintenance per the Ordinance). All traffic control devices must conform to the latest edition of the State of Illinois "Manual on Uniform Traffic Control Devices for Streets and Highways."
- 3. Permittee shall furnish all material to do all work required, and pay all costs which may be incurred in connection with such work, and shall prosecute the same diligently and without delay to completion. See Ordinance for additional requirements as to work in the Public Way.
- 4. Permittee shall perform all Permitted Work in accordance with the current Standard Specifications for Road and Bridge Construction of the Illinois Department of Transportation including the Supplemental Specifications thereto of the County of Cook, and as detailed in the Permit and the Ordinance, and all submittals made pursuant to the application process, as modified at the request of the Cook County Transportation and Highways Department and as finally approved by the Cook County Transportation and Highways Department.
- 5. Upon completion of the Permitted Work, Permittee shall, at its own cost, and in a timely manner, (but in no event more than 30 days unless another time frame is directed by the Cook County Transportation and Highways Department) restore the Public Way substantially to the same condition in which it was before the Permitted Work was commenced and shall remove all debris, rubbish, materials, apparatus, tools, and equipment, as well as all excess excavated materials, from the Public Way, all to the satisfaction of the Cook County Superintendent of Transportation and Highways.
- 6. Should future construction and operation of the highways by the County of Cook require alteration or relocation of the Permittee's Facilities, such change shall be made by the Permittee, its successor or assigns upon the written request of the Cook County Superintendent of Transportation and Highways without expense to said County or State. Requirements for any such requested alteration or relocation are further detailed in the Ordinance.
- 7. Permittee, its successor and assigns assume all risk and liability for accidents and damages that may accrue to persons and property, during the prosecution of the work or any time thereafter, by reason of the location, construction, installation, operation, maintenance, repair and work referred to herein, and Permittee, by acceptance of this Permit, agrees to indemnify and save harmless the County of Cook from any such claims for damages and from all costs and expenses incurred on account thereof and in connection therewith.
- 8. No changes, alterations, or revisions to the Permitted Work are allowed unless approved in writing by the Cook County Superintendent of Transportation and Highways or his designee. See Ordinance for detailed requirements and fees relating to permit modifications.
- 9. In accordance with Ordinances of the County, and agreement by the Permittee, the Permittee acknowledges and agrees that this Permit is null and void if the Permittee is delinquent in the payment of any tax or fee administered by the County of Cook.

Construction Permit GC's August 8, 2007

- 10. The pavement, parkway, and all drainage systems shall be kept clean and free of debris at all times.
- 11. Unless particularly specified in the Permit, no equipment other than pneumatic-tired equipment used during the installation shall be permitted to stop or operate on the pavement nor shall any excavated materials be stored temporarily or otherwise on the County Highway pavement.
- 12. Access to driveways, houses, buildings or other property abutting the site of the Permitted Work shall not be blocked.
- 13. The Permittee shall conduct its operations in a manner so as to insure the minimum hindrance to traffic.
- 14. The use of flagmen and the number, type, color, size and placement of all traffic control devices shall conform to the latest edition of the State of Illinois "Manual on Uniform Traffic Control Devices for Streets and Highways."
- 15. All aerial lines crossings or parallel must have a minimum clearance of 18'3".
- The grant of this Permit by the County of Cook and the performance by Permittee of work 16. authorized by the Permit do not include authorization by the County under local, state, or federal law, including 55 ILCS 5/5-1095, or under 47 U.S.C. section 541 for the use of these facilities for video programming regardless of the delivery technology. Unless the Permittee holds a stateissued authorization by the Illinois Commerce Commission pursuant to P.A. 095-0009, the County reserves the right to require authorization pursuant to 55 ILCS 5/5-1095 in the form of a franchise as defined by 47 U.S.C. section 522(9) from the Permittee prior to Permittee providing video programming through any facilities authorized by this Permit, which franchise may include the imposition of franchise fees. Permittee shall provide the County with thirty (30) calendar days written notice of its intention to utilize any facilities authorized by this Permit to provide video programming within any unincorporated area of Cook County or within any incorporated area of the County where the Permittee is installing its plant and equipment in County rights-of-way in order to provide its video service. Upon written certification provided to the County by either the Permittee or the Illinois Commerce Commission that a state-issued authorization to provide video service has been granted to the Permittee, the limitations on the use of these facilities that exclude the provision of video service shall be released.
- 17. This Permit covers only the Permitted Work and does not release the Permittee from fulfilling the requirements of any other Laws relating to the Permitted Work. Fulfillment by Permittee of all requirements set forth in the Permit For Work Application and its instructions, including without limitation, insurance and bonding requirements ("Application Requirements") are a condition of this Permit. Issuance of this Permit, without the fulfillment of all Application Requirements by Permittee shall not act as a waiver of Permittee's obligation to comply with such Application Requirements, unless approval in writing of such change is given by the Cook County Superintendent of Transportation and Highways.
- 18. At least two (2) days advance notice prior to the start of work shall be given to the Cook County Transportation and Highways Department Permit Office, (312) 603-1670.
- 19. This Permit can be revoked pursuant to the terms of the Ordinance or at the discretion of the Cook County Superintendent of Transportation and Highways.
- 20. All trenches and openings made in the Public Way shall be backfilled with sand or limestone screening adequately compacted in accordance with Method 1 specified in Article 550.07 of the State Standard Specifications.

ADDITIONAL GENERAL CONDITIONS THAT PERTAIN TO CONSTRUCTION PERMITS

Construction Permit GC's August 8, 2007

- 21. All pavement openings and curb cuts shall be saw cut full depth.
- 22. All pavement openings shall be immediately surfaced with a temporary bituminous patch at least three inches in thickness. This patch then must be inspected daily and additional bituminous patch material must be placed, daily if necessary, to maintain the patched area at the same elevation as the adjacent undisturbed pavement for a period of not less than 30 days. After 30 days, permanent replacement in kind shall be made to the base course and pavement surface.
- 23. All auger pits shall be a minimum of 10 feet from the edge of pavement or back of curb, and wood or steel sheeting shall be used, and auger pits left open overnight shall be protected with concrete barrier walls.
- 24. All casings shall be pressure grouted both inside and outside of the casing.
- 25. That a minimum depth of 42 inches will be maintained from the ground surface to the top of the conduit, cable, or pipe and a minimum depth of 36 inches from the true flow line of the drainage ditch to the top of the conduit, cable or pipe.
- 26. That all excavation work within three (3) feet of the pavement edge will be done manually.
- 27. If Permittee discovers during the progress of the Permitted Work that subterranean conditions prohibit the construction of said improvement in and along the alignment as outlined in the plans, it is expressly understood that all Permitted Work shall cease until a proposed revised alignment has been approved by the Cook County Transportation and Highways Department and the Permit has been modified.
- 28. Without further action, the Cook County Transportation and Highways Department reserves the right to make connections to the proposed storm sewer for the purpose of draining the highway.
- 29. The Permittee shall be responsible for providing positive drainage.
- 30. In the removal of sidewalks, curb, gutter or pavement, the use of any type of concrete breaker that will damage the underground structures will not be permitted.
- 31. Permittee shall provide and maintain at its own expense, such temporary roads and approaches, as may be necessary to provide access to driveways, houses, buildings or other property abutting the site of the Permitted Work.
- 32. For driveway installations, the Permittee shall remove earth to its full depth, starting at the edge of the pavement, for the full dimensions of the proposed driveway, and replace with materials to be used in the construction of the driveway.
- 33. When existing traffic control signs such as stop signs, stop ahead signs, and crossroad signs are removed in the progress of the Permitted Work, said signs shall be immediately reset as close as possible to their original location. After the construction of the Facility or the completion of the Permitted Work has been approved, said traffic control signs shall be restored to their original position and condition or as directed by the Cook County Transportation and Highways Department Permit Engineer.
- 34. The Permittee shall conduct its operations in a manner so as to insure the minimum hindrance to traffic, using the pavement and at no time shall its operations obstruct more than one half (1/2) of the available pavement width.
- 35. This Permit is issued with the express understanding that the Permittee has obtained the proper authority for the said installation from the "Illinois Environmental Protection Agency Division of Public Water Supplies.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY 1021 North Grand Avenue, East; Post Office Box 19276; Springfield, IL 62794-9276

Division of Public Water Supplies

Telephone 217/782-1724

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: BUFFALO GROVE (Cook County-0314180)

Permit Issued to: Village President and Board of Trustees 51 Raupp Boulevard Buffalo Grove, IL 60089

PERMIT NUMBER: 1232-FY2014

DATE ISSUED: July 11, 2014 PERMIT TYPE: Water Main

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated, and are identified as follows. This permit is issued for the construction and/or installation of the public water supply improvements described in this document, in accordance with the provisions of the "Environmental Protection Act", Title IV, Sections 14 through 17, and Title X, Sections 39 and 40, and is subject to the conditions printed on the last page of this permit and the ADDITIONAL CONDITIONS listed below.

FIRM: Baxter & Woodman, Inc. NUMBER OF PLAN SHEETS: 5 TITLE OF PLANS: "Raupp Boulevard over Buffalo Creek Structure Replacement"

PROPOSED IMPROVEMENTS:

Install 190 lineal feet of 14-inch water main

ADDITIONAL CONDITIONS:

1. There are no further conditions to this permit.

DCC:ECA: dsa

cc: Baxter & Woodman, Inc. Elgin Region Cook County Health Department

David Č. Cook, P.E. Acting Manager Permit Section Division of Public Water Supplies

REPORT OF GEOTECHNICAL INVESTIGATION

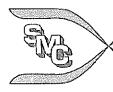
Raupp Boulevard Bridge over Buffalo Creek

Existing Structure #016-6325 Proposed Structure #016-8216

Cook County, Illinois

Prepared for:

BAXTER & WOODMAN, INC. 1788 Sycamore Drive DeKalb, Illinois 60115



SOIL AND MATERIAL CONSULTANTS, INC.

office: 1-847-870-0544 fax: 1-847-870-0661 www.soilandmaterialconsultants.com us@soilandmaterialconsultants.com

> June 11, 2012 File No. 20374

Mr. Brandon Buzzell, P.E., S.E. Baxter & Woodman, Inc. 1788 Sycamore Road DeKalb, IL 60115

> Re: Geotechnical Investigation Raupp Boulevard Bridge over Buffalo Creek SN 016-6325 Buffalo Grove, Illinois

Dear Mr. Buzzell:

The following is our report of findings for the geotechnical investigation completed for the proposed replacement of the Raupp Boulevard Bridge over Buffalo Creek in Buffalo Grove, Illinois. The project is located within the northwest quarter of section 4 and the northeast quarter of section 5.

The investigation was requested to determine current subsurface soil and water conditions at select boring locations. The findings of the field investigation and the results of laboratory testing are intended to assist in the planning, design and construction of proposed site improvements.

RAUPP BOULEVARD BRIDGE

The existing structure is a single-span PPC Deck Beam structure supported by closed concrete abutments, founded on spread footings. The bridge is to be removed and replaced with a two-span reinforced concrete slab structure, on pile bent piers and abutments.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 4 borings at the locations requested and as indicated on the enclosed sketches. The boring locations were established using field taping methods with the surface elevations provided by Baxter & Woodman, Inc.

The 2 abutment structure borings were auger drilled to depths of 60.0 feet to 65.0 feet below existing surface elevations. Soil samples were obtained using a split barrel sampler advanced utilizing an automatic SPT hammer. The 2 pavement area borings were drilled and sampled in a similar manner to depths of 10.0 feet.

Soil profiles were determined in the field and soil samples returned to our laboratory for additional testing including determination of moisture content. Cohesive soils obtained by split barrel sampling were tested further to determine dry unit weight and unconfined compressive strength. Additional laboratory testing included Atterberg Limits and hydrometer analysis.

8 WEST COLLEGE DRIVE · ARLINGTON HEIGHTS, IL 60004

The pavement materials were cored at 4 locations to determine the material types and thicknesses.

SITE GEOLOGY/USDA SOIL TYPING

Enclosed is a map indicating the pedological characteristics of the site as determined by the USDA Soil Conservation Service. The soils indicated are a generalization of soil types and conditions anticipated to exist at or near existing surface elevations. Typically, these maps were developed without benefit of a direct on-site soil investigation. The soil typing map is presented for general information only.

Symbol Soil Types

232

Ashkum Silty Clay Loam

CLIMATIC CONDITIONS

Climatic conditions for the period prior to obtaining site soil borings include the following information recorded at O'Hare International Airport in Chicago, Illinois:

<u>Month</u>	Ē	Total Precipitation	Departure <u>From Normal</u>	Average <u>Temperature</u>	Departure <u>From Normal</u>
May	2011	7.27 in.	3.89 in.	57.9° F.	-0.8° F.
June	2011	3.39 in.	-0.24 in.	69.4° F.	1.2° F.
July	2011	11.15 in.	7.64 in.	79.0° F.	5.7° F.
August	2011	4.54 in.	-0.36 in.	73.5° F.	1.1° F.

The above information has been considered in our analysis of the site soil conditions.

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the soil conditions encountered at each location. Borings 1 and 2 were performed in the area of the new abutments. Fill soil conditions were encountered underlying the pavement materials at each of these boring locations. The composition of the fill includes the presence of sand/gravel and clay/silt mixtures. The apparent natural topsoil, classified as a black silt/clay mixture, was encountered underlying the fill soils at boring location B-1. The limits of fill placement were not determined within the scope of this investigation.

The underlying natural soils include the presence of cohesive soils. These are classified as tough to hard clay/silt mixtures with lesser portions of sand and gravel. Non-cohesive soil conditions are also present as indicated. These include medium dense to very dense silt/clay, sand, and silt mixtures. The non-cohesive granular soils are often in a very damp to saturated condition. Cobbles and boulders may be present within the site soils at any elevation, although none were encountered while drilling.

The following table summarizes depth ranges below existing grade, the magnitude of soil strength within these ranges and other information:

Boring	Surface Elevation <u>(feet)</u>	Depth Range Below Existing Surface <u>(feet)</u>	Soil Strength <u>(Ibs./sq.ft.)</u>	Recorded Water Levels, W.D./A.D. <u>(feet)</u>
1	674.6	1.0 to 3.0 3.0 to 6.5 6.5 to 11.5 11.5 to 19.0 19.0 to 29.5 29.5 to 57.0	*2,000 *500 3,000 8,000 4,000 5,000	25.5/38.0
2	675.1	1.0 to 9.0 9.0 to 10.5 10.5 to 17.0 17.0 to 21.0 21.0 to 26.0 26.0 to 32.0 32.0 to 54.5 54.5 to 59.0 59.0 to 62.0	*3,000 4,000 7,000 6,000 3,000 8,000 5,000 8,000 4,000	8.0 & 25.5/30.0

* Not recommended for support of foundations.

It is expected that foundations can be supported on undisturbed natural soils located at any elevation within the depth ranges indicated in the above table, except as noted. Above these depth ranges the soils are not considered able to support foundations, even at reduced design bearing values, due to long-term settlement considerations.

SUBSURFACE WATER

The boring logs and the above table indicate the depth at which subsurface water was encountered in the bore holes at the time of the drilling operations and during the period of these readings. It is expected that fluctuations from the water levels recorded will occur over a period of time due to variations in rainfall, temperature, subsurface soil conditions, soil permeability and other factors not evident at the time of the water level measurements.

Fill soils, organic soils, cohesive soils and others can be unstable when saturated. These soils tend to cave or run when submerged or disturbed. The stability of exposed embankments is minimal to non-existent as confining soil pressures are removed. Proper drainage within excavations is necessary at all times, particularly when excavations extend below anticipated water levels and below saturated soils.

The contractor should be made responsible for designing and constructing stable temporary excavations. Also, the contractor should shore, slope, bench or restrain the sides of the excavations as required to maintain stability of both the excavation sides and bottom. In no

case, should the slope, slope heights, or excavation depth exceed those in local, state, and federal safety regulations.

FOUNDATIONS

Based on the results of this investigation it is our opinion that a pile foundation system can be considered for support of the new bridge abutments, center pier and wing walls. The design engineer can consider using 14 inch metal shell piles with .312" walls or H-Piles for support of the new structure. The following are our estimated pile lengths based upon the Modified IDOT Static Method of Estimating Pile Length using a geotechnical resistance factor (Φ_G) of 0.55, modified August, 2011.

Table of Estimated Lengths for Metal Shell 14" with .312" walls

Location	<u>R_n (kips) ⁽¹⁾</u>	R _f (kips) ⁽²⁾	Length (ft.) (3)
South Abutment (B-1)	255	140	24
. ,	291	160	25
	328	180	44
	364	200	48
Center Pier	255	140	26
(using B-1 data)	291	160	47
	328	180	50
	364	200	52
North Abutment (B-2)	255	140	28
	291	160	30
	328	180	32
	364	200	46

Table of Estimated Lengths for Steel HP 12 X 53

Location	<u>R_n (kips) ⁽¹⁾</u>	R <u>((kips) ⁽²⁾</u>	Length (ft.) (3)
South Abutment (B-1)	255	140	51
Center Pier (using B-1 data)	218	120	52
North Abutment (B-2)	255	140	50

Table of Estimated Lengths for Steel HP 14 X 73				
Location	<u>R_n (kips) ⁽¹⁾</u>	<u>R_f(kips) ⁽²⁾</u>	Length (ft.) ⁽³⁾	
South Abutment (B-1)	255 291	140 160	49 50	
Center Pier (using B-1 data)	255	140	52	
North Abutment (B-2)	255 291	140 160	48 50	

Table of Fatherated Law star for Otable 100 44 X 70

⁽¹⁾ R_n: Nominal Required Bearing

- ⁽²⁾ R_f: Factored Resistance Available
- ⁽³⁾ Pile Lengths were estimated using bottom of abutment and pier encasement elevations of 669.9 feet (N. Abutment), 664.0 feet (Pier), and 669.6 feet (S. Abutment) with pile cutoff elevations of 670,9 feet (N. Abutment), 671,2 feet (Pier) and 670.6 feet (S. Abutment).

Downdrag and liquefaction are not expected to affect the design of the new bridge foundations. Design scour elevations of 669.9 feet (North Abutment), 662.3 feet (Pier), and 669.6 feet (South Abutment) were provided to us by Baxter and Woodman, Inc. and used in estimating the design pile lengths.

We recommend that one test pile be performed at each substructure location. The piles should be driven until the required driving resistance is developed as determined using the appropriate pile driving formula. The test piles should be driven to not less than 110% of the Nominal Required Bearing. We would also recommend that the WSDOT formula be used in the field as the construction verification. The designer should also consider the use of metal shell pile shoes as the piles may encounter cobbles, boulders and thin dense layers of material during driving.

The bridge is located in Seismic Performance Zone (SPZ) 1. Based on the soil conditions encountered and using the LRFD Seismic Soil Site Class Definition, Site Class D is applicable to the entire bridge. The design spectral acceleration at 1.0 sec (S_{D1}) = 0.091g and the design spectral acceleration at 0.2 sec $(S_{Ds}) = 0.173g$.

DRAINAGE OF WING WALLS AND ABUTMENTS

Drainage should be provided behind the new wing walls. We recommend that the open excavation behind wing walls be backfilled with open graded, free-draining materials such as CA05 or CA07. These materials have unit weights of 100 lbs/ft³ with an internal friction angle (Φ) of 32°. For yielding walls, a lateral active earth pressure of 45 psf per foot of depth can be used for design for granular backfill above the water table. For non-yielding walls, with drained granular backfill, a lateral at-rest pressure of 60 psf can be used.

EXISTING PAVEMENT SECTION

Four cores were performed in the pavement approximately 10 feet and 50 feet north and south of the existing abutments. The existing pavement section includes 6.5 inches to 9.75 inches of bituminous concrete over variable depths of a sand and gravel base.

APPROACH PAVEMENT

Subgrade preparation will be needed for the new approach pavement section. This should include the removal of any unsuitable surface conditions including the existing bituminous materials, vegetation, high organic content topsoil, debris and other deleterious conditions which may be encountered. The unsuitable soil should be removed to a distance of at least 1.0 foot behind the edge of the improvement. Additional overdigging equal to the depth of fill required below the edge of the improvements should be considered. The soils in cut areas should be excavated to establish design subgrade elevations. After removal has been completed the exposed subgrade soils should be proof-rolled and the soils compacted to a minimum of 95% compaction based on the standard proctor, AASHTO T-99 or ASTM D-698, within 1.0 foot of the surface.

We anticipate the need for remedial treatment quantities in the area of boring R-1 due to the presence of buried topsoil. We recommend that 1.0 foot of PGES and Geotechnical Fabric for Ground Stabilization be considered for this area.

Areas where fill is required to establish the design subgrade elevation should be prepared as indicated above. Properly prepared areas can then be filled using the suitable onsite soils. The fill soil should be placed in lifts not to exceed 8.0 inches when uncompacted. Each lift should exceed the minimum compaction requirement prior to placement of the next lift. The compaction requirements also apply to backfill placement around the new structures and within trench excavations located beneath pavement areas. For further reference, IDOT specifications for subgrade preparation are given in Section 301 of the Standard Specifications.

If the Mechanistic Pavement Design method is used for the design of the improvements, we would recommend a Subgrade Support Rating (SSR) of POOR be used based on the grainsize analysis performed on sample 2 from boring R-1.

SETTLEMENT

The existing soils are expected to undergo some small degree of long-term settlement as the soils consolidate under loading. We estimate settlements of less than 0.25 inches, in addition to the elastic compression of the pile itself. Minimal settlement is expected for any new embankments constructed near the abutments provided they are constructed in accordance with the IDOT Standard Specifications.

CONCLUSION

The information within this report is intended to provide initial information concerning subsurface soil and water conditions on the site. Variations in subsurface conditions are expected to be present between boring locations due to naturally changing and filled soil

conditions. Our understanding of the proposed improvements is based on information available to us at the writing of this report.

If you have any questions concerning the findings or recommendations presented in this report, please let us know.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

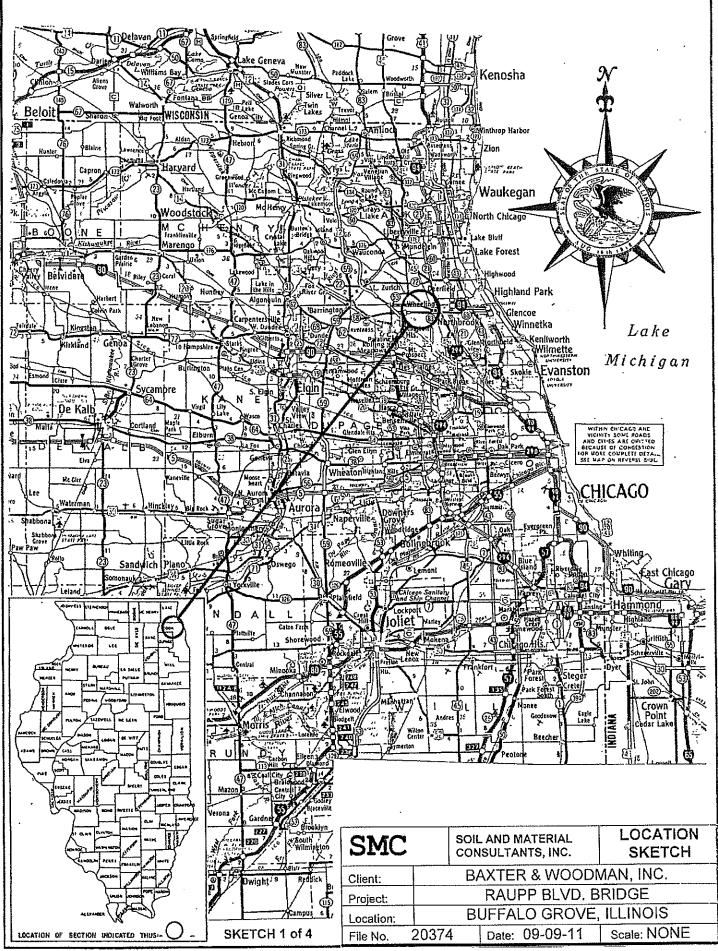
X. , Sh to

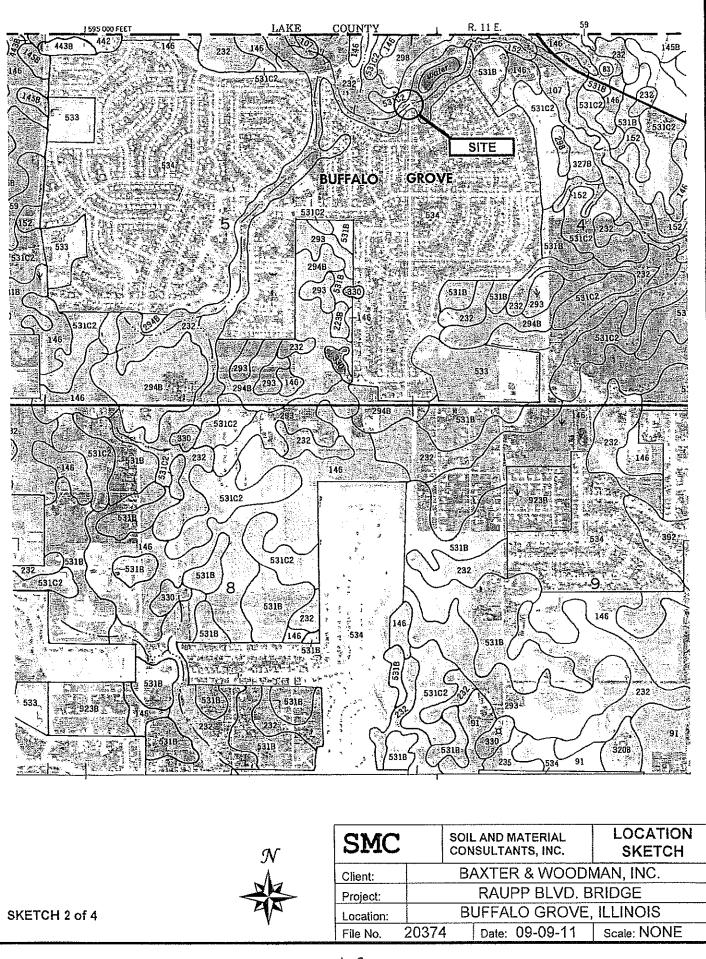
Joseph A. Klawitter, P.E. Project Engineer

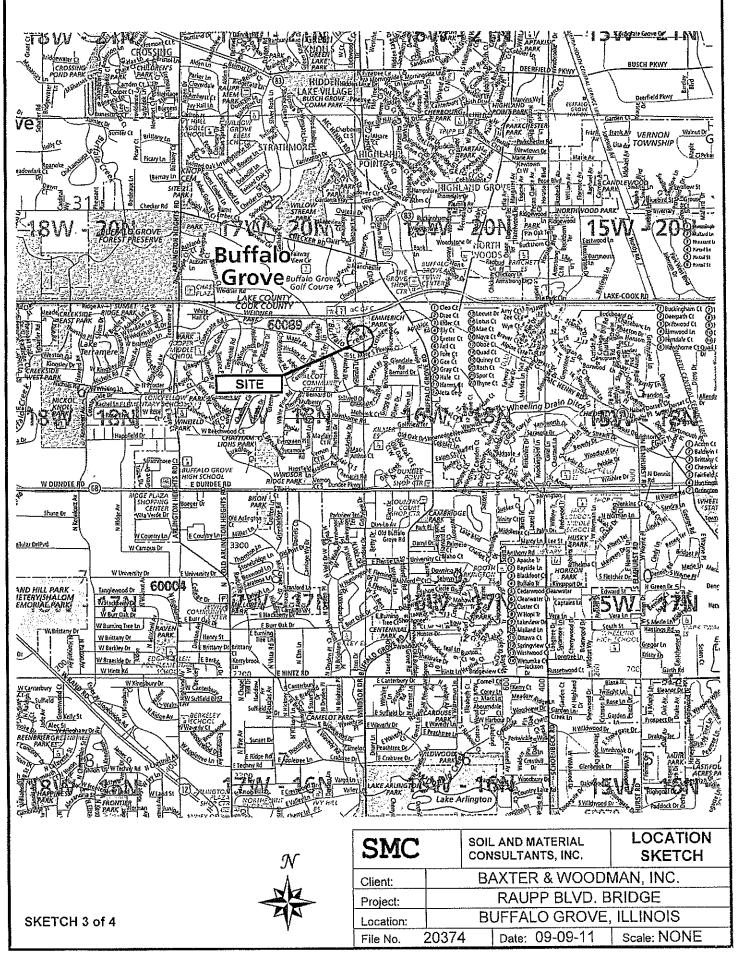
Totom OG

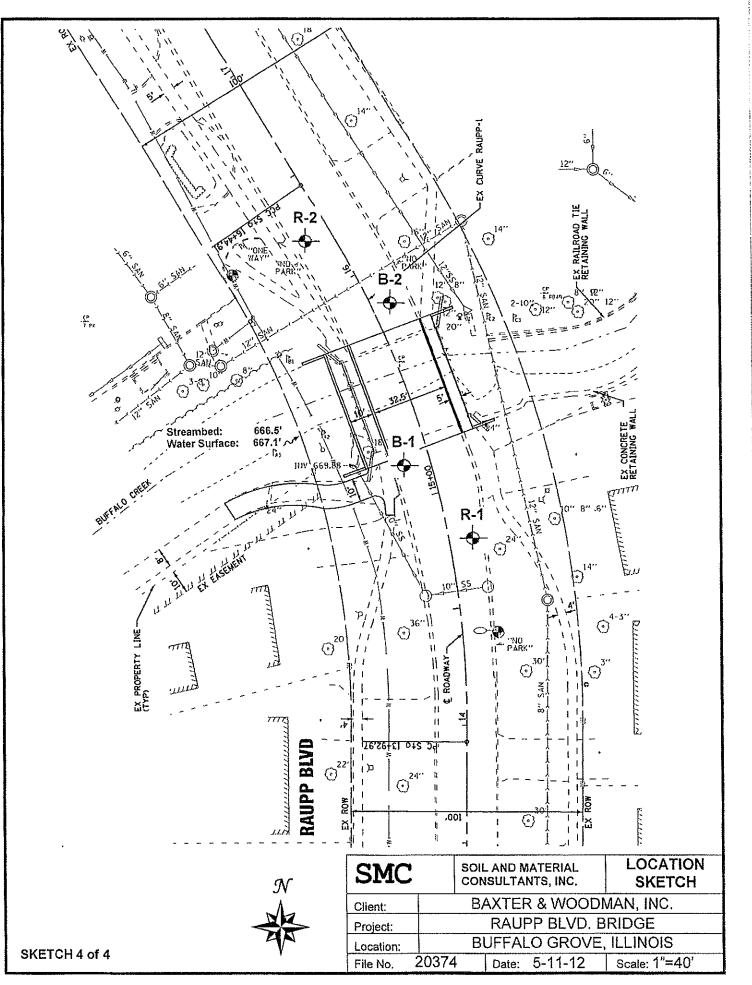
Thomas P. Johnson, P.E. President

JAK/TPJ:jk Enc.









SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE OFFICE: (847) 870-0544 ARLINGTON HEIGHTS, IL 60004 FAX: (847) 870-0661 Date: 8/17/11 File No.: 20374

CORE LOG

Client: <u>Baxter &</u>	Woodman, Inc.	_Reference_	Raupp	Blvd.	Bridge,	Buffalo	Grove,	IL
Core No:B	-1 Work Done By:	AC & DA						-
Location of Core:	(see sketch)				<u> </u>			-

Comments:

(De	epth, In.)		
		Type of Material	<u>Recovery</u>
0		1-3/4" Bituminous concrete - surface	Full
2		PETROMAT 0-3/4" Bituminous concrete - binder	Full
3		0-3/4" Bituminous concrete - surface	Full
4		1-1/4" Bituminous concrete - surface	Full
5		2-0" Bituminous concrete - binder	Full
6		Total 6-1/2"	
7	E.O.C.	ICCAL O 1/2	
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

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SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE OFFICE: (847) 870-0544 ARLINGTON HEIGHTS, IL 60004 FAX: (847) 870-0661 Date:_____8/17/11 File No.:_____20374

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CORE LOG

Client:	& Woodman	, Inc.	_Reference_	Raupp	Blvd.	Bridge,	Buffalo	Grove,	IL
Core No:	в-2	_ Work Done By:_	AC & DA						
Location of Cor	e:	(see sketch)			<u> </u>				

Comments:_____

	epth, In.)	Type of Material	Recovery
0 [
1		2-3/4" Bituminous concrete - surface	Full
2			
3			
4		3-0" Bituminous concrete - binder	Fu11
5			
6			
7			
8		4-0" BBC	Full
9			
10	E.O.C.	Total 9-3/4"	
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

SOIL AND MATERIAL CONSULTANTS, INC. 8 WEST COLLEGE DRIVE OFFICE: (847) 870-0544	Date:8/17/11 File No.:20374	
ARLINGTON HEIGHTS, IL 60004 FAX: (847) 870-0661 Client:Baxter & Woodman, IncReference	Raupp Blvd. Bridge, Buffalo Grove,	IL
Core No: R-1 Work Done By: AC & DA Location of Core: (see sketch)		
Comments:		

(De	epth, In.)	Type of Material	Recovery
0 r			
1		2-0" Bituminous concrete - surface	Full
2		PETROMAT	
3			
4		2-0" Bituminous concrete - surface	Fu11
5		1-0" Bituminous concrete - surface	Full
6		2-3/4" Bituminous concrete - binder	Full
7			
8	E.O.C.	Total 7-3/4"	
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

SOIL AND M		ONSULTANTS, IN		Date: File No.:	8/17/11 20374
8 WEST COLLEC		OFFICE: (847) 870-054 FAX: (847) 870-064			
		COR	E LOG		
Client: Baxter	& Woodman,	Inc. Ref	erence <u>Raupp</u>	Blvd. Bridg	e, Buffalo Grove, IL
Core No:	R-2	Nork Done By: <u>AC</u>	& DA		
		(see sketch)			
Comments:					
					<u></u>
(De	epth, in.)	Туре с	of Material		Recovery
0 [1-3/4" Bituminor	us concrete -	surface	Fu11
1					
2				1	(1.d) Dential
3 4		3-1/4" Bitumino	us concrete -	binder (fal	lleu) raitiai
5					
6					
7		4-3/4" BBC			Full
8					
9					
10	E.O.C.	Total 9-3/4"			
11					
12					
13					
14					
15					
16					
17					
18 19					
20					
20					



SOIL AND MATERIAL CONSULTANTS, INC.	, 	File No. 20374 BORING LOG B-1									
	• Client								heet		
Comments			Raupp	> B1v	vd. Bi	idge		0	Date9/9	/11	
Station 15+15, 11' L. of CL					Grove				i ByA		
S.N. 016-6325											
	Equipi	ment		VE 45	58 []H	-l.Α. ∟]Other	Logged	d By		
Elev., fl. 674.6' Description Depth	n, ft. 0	S	T	R	В	Ν	Pen.	W	Uw	Qu	
(SEE CORE LOG)		$\left \right $									
Brown fine-medium sand, some coarse sand & gravel, damp, med dense - Fill 671.6'	ium		SS	<u>7</u> "	8 15 10	25		3.2			
Brown-gray-black clay & silt, sand & gravel,damp,tough - Fi	.11	- 2	SS	6"	4 3 4	7	1,0	14.2			
Black silt,some clay,trace sa 668,6' damp (topsoil)	ind,	3			3			30.3			
Dark brown to brown clay & si trace sand,damp,very tough 666.6'		4	SS	15"	<u>4</u> 5	9	1.25	22.2	99.7	2.2	
 Brown clay,some silt,trace sa & gravel,damp,very tough 	ınd	5	SS	14"	1 2 3	5	1.5	16.5	112.8	3.0	
6 <u>63.6</u> Gray clay,some silt,trace san & gravel,damp,hard	nd	6	SS	18"	4 6 8	14	4.0	14.5	118.7	5.4	
			SS	18"	4 6 8	14	4.5+	15.3	117.4	5.9	
	 	. 8		18'	5	15	4.0-	15.7	120.7	4.3	
 		9	SS	18'	5		4.0	18.0	114.4		
Water Level depth, ft. elev., ft. - while drilling: 25.5 - after drilling: 38.0 - hrs. after drilling:	S - sai B - Sta	indard T, blov sket pe	Penetr vs/ foot	ation T to driv neter re	ar), SS(s Test (SP Ve 2" O.E Rading, to	T), blows). split-sj ons/ sq.	t U	ıl. Ier with 140	R - recover W - water co Ib. hammer weight of sol	ontent, %. r falling 30"	

SVL V	SOIL AND MATERIAL CONSULTANT	S, INC.	File No. 20374 BORING LOG B-1										
			Client	I	Baxte	r &	Woodm	an, I	inc.	s	heet 2	_ of <u>3</u>	
Comments			Projec	at	Raupp	Blv	d. Br	idge			Date	/9/11	
			Locati	on _	Buffs	10 (Grove,	IL		Drille	d By	AC	
			Equip	ment		ME 4	5B 🗍 I	Η.Α. []Other	Logge	ed By	DA	
Elev., ft.	Description	Depth, f	. 20	S	T	R	В	N	Pen.	W	Uw	Qu	
	y clay,some silt,trac vel,damp,damp,very to		·				4						

		10	SS	18"	5	12	3.5	19.7	111.4	3.5
		110	55	70	/	14	<u></u>	17.1	1.1.1.9	
]								
		4			5					
	25	11	90	18"	6	13	2.25	14.7	123.3	2.1
 649.1' ♥			00							
Gray silt,some clay,trace sand 😤]								
& gravel,damp-very damp,medium		-			6					
dense		112	SS	12"	7	14		13.5		
			1							
],,						11.8		
645.6']13		ļ	12 15	4		11.0		
Gray clay, some silt, trace sand &	30	14	SS	18"	16	31	4.5+	12.9	126.7	6.6
gravel,damp,hard		1								
		_				-				
642.6'	<u></u>	-								
Gray silt, some clay, trace fine						1				
sand, damp-very damp, medium dense	<u> </u>	H			ļ	-				
					7	-				
		Н		1	10	1				
·	35	15	SS	18"	14	24		14.3		
		Ц				4				
	<u></u>	H				┥				
		H				1				
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		H				4				
		$\left\{ \cdot \right\}$			6	-				
		Ħ			7					
634.6'	40		5 SS	18"		17		14.9		<u> </u>
								elby tube)		ory length, in
Water Level — depth, ft. elev., ft.							s/ 6" interv	aı. pler with 140	W - water () Ib. hamme	
					reading, t			Jw - dry unit		
- hrs. after drilling:	•				ive stren			·	-	

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SOIL AND MATERIAL CONSULTANTS, INC.	File	No BORIN	G LOG	B-1
	Client	Baxter & Woodman, Inc.	Sheet	3 of 3
Comments	Project _	Raupp Blvd. Bridge	Date	9/9/11
	-	Buffalo Grove, IL	Drilled By	AC
	Equipme	nt ⊠CME 45B □H.A. □Other	Logged By	DA

Elev., ft.	Description	Depth, ft.	40	S	т	R	В	N	Pen.	W	Uw	Qu
		<u> </u>										
	Gray silt, some clay, trace											
	sand, damp-very damp, media	ım aense										
			-				7					
							11					
			45	17	SS	18"	13	24		14.7		
				-								
				1		ł						
627.6				-								
	Gray clay, some silt, trace	e sand		-								
	& gravel, damp, very tough		_]			<u>,</u>					
				-{			4					
 			50	18	SS	18"	10	19	3.75	15.3	119.6	2.6
				-				1			1	
622.6'												
_	0 11	- El		-	<u> </u>		<u> </u>					
	Gray silt, some clay, trac sand, damp, very dense	e line		1								
]			9]				
<u> </u>				19	ce	18"	10 16	26	4.5+	14.4	127.2	2.8
			55	1.7	00	10	1 10	20	4, 57	1 14.4	167.6	2.0
]								
<u> </u>			_					-				
 				-			\vdash	1				
				_								
							1.6	-				
				H			46	-		1		
614.6'			60	20	SS	9"		50+		14.4		
	End of Boring	~	S - sar	-					n), ST(she		R - recover	
Water Le		v., ft.							:/ 6" interva 2000 samo		W - water co lb. hammer	
	hile drilling: <u>25.5</u> fter drilling: <u>38.0</u>	Pe					ading, to				weight of sol	
-	hrs. after drilling:						ve streng					

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	File No BORING LOG												
SOIL AND MATERIAL CONSULTANTS, INC.	Client Baxter & Woodman, Inc Sheet of												
Comments	Project		Raupp	o Blv	vd. Br	idge			Date				
	Locatio								d ByA				
Station 15+85, 9' R. of CL	Locatio	n											
S.N. 016-6325	Equipn	nent	XCI	ME 49	58 🗍 H	Η.Α. [_]Other	Logge	d By	A			
Elev., ft. 675.1' Description Depth, f	t. 0	s	T	R	В	N	Pen.	W	Uw	Qu			
(SEE CORE LOG)													
Brown fine-medium sand, some coarse sand & gravel, damp, mediu 672.6' dense - Fill	m	1	SS	16"	10 9 7	16		13.5					
Brown-dark brown-black clay,som silt & gravel,trace sand,damp- very damp,very tough - Fill	e	2	SS	14"	<u>4</u> <u>6</u> 9	15	2.5	17.0	114.3	2.0			
 		3	SS	811	56	12	2.0	13.5					
666.6' Brown clay,some silt,trace sand & gravel,damp,very tough 665.1'		4	SS	18"	3 4 5	9	2.5	21.4	107.9	2.1			
Gray clay,some silt,trace sand & gravel,damp,very tough to har	-db-	5	SS	18"	6 7 10	17	4.5+	13.4	124.4	3.0			
		6	SS	18"	4 7 11	1.8	4.5+	15.3	118.0	4.5			
		- 7	SS	18'	6 10 12	22	4.5+	15.0	123.1	4.6			
Gray clay, some silt, trace sand & gravel, damp, very tough 655.1'		- 8	SS	18'	7 5 6		4.0	14.1	120.5	3.4			
Water Level — depth, ft. elev., ft. - while drilling: 8.0 / 25.5	S - sam B - Star N - SPT Pen pock Qu - unce	ndard F blov ket pe	Peneti vs/ fool	ration 1 t to driv neter re	est (SPT /e 2" O.D eading, to	T), blows), split-s ons/ sq.	ft 'U	1. Ier with 140	R - recover W - water co) Ib. hammed weight of sol	ontent, %. r falling 30			

S.			F	ile N	lo	2037	4	B	ORIN	IG L	DG	3-2
	L AND MATERIAL CONSULTANTS, INC.	► c	lient _	в			Woodm		nc.	s	heet	of
omments					aupp	B1v	d. Br	idge			Date	
											d By	
		_ Е	quipm	nent	[X]C	ME 49	58 🛛 H	Ι.Α. [¯]Other	Logge	d By)A
Elev., ft.	Description Dep	th, ft.	20	s	Т	R	В	N	Pen.	. W	Uw	Qu
Gray c & grav	lay,some silt,trace san el,damp,very tough to t	ıd :ough					4					
				9	SS	18"	8	14	3.0	18.3	114.0	3.4
		-	25	10	SS	18"	3 4 5	9	2.0	13.4	124.8	1.6
48. <u>6' sand</u> ,v	ine sand,trace medium-c ery damp-saturated,med.	dens	e	11			<u>12</u> 16			15.1		
- sand,d	ilt,some clay,trace fin amp,dense	ne -		12	ss	18"		31		16.5	-	
	lay,some silt,trace same el,damp,hard	nd		13	SS	18"	9 11 12	23	4.5+	13.0	128.5	5.7
		-		-								
		-		14			8			14.6	118.9	3.2
	silt,trace fine sand,da	mp,	35	15	SS	1.8''	18 26	44		18.8		<u> </u>
638.1'									4 2			
- Gray s	silt,some clay,trace fi damp,medium dense	ne					9					
635.1'				· · · · ·	SS	18"	10 10	20		15.5		
Water Level — - while dri - after drilli - hrs.		t. - Pei	B - Sta N - SP n poc	ndaro T, blo sket p	d Pene ws/fo enetro	dration ot to dri meter i	Test (SP	T), blow D. split-s ons/ sq.	s/ 6" interv poon sam ft	pler with 14	R - recove W - water o Ю lb, hamme It weight of so	content, ' er falling

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₩.	SOIL AND MATERIAL CONSULTANTS, INC.	File No. 20374 BORING LOG B-2 Client Baxter & Woodman, Inc. Sheet 3 of 4												
comments			R		Date8/24/11									
		Location Buffalo Grove, IL Drilled By												
		Equipr	nent	⊠ci	ME 49	58 🗍	Η.Α. []Other	Logge	d By	A(
Elev., ft.	Description Depth, ft	. 40	S	Т	R	В	N	Pen.	W	Uw	Qu			
	Gray silt,some clay,trace fine sand,damp,medium dense													
630.1		45	17	SS	18''	10 12 14	26		17.5					
	Gray clay, some silt, trace sand & gravel, damp, tough													
			1.8	SS	18"	7 8 10	18	2.5	17.9	122.0	1.7			
- 623.1'														
621.1'	Gray fine sand,trace medium- coarse sand,very damp-saturated medium dense	,	-			9 14			18.6					
	Gray clay,some silt,trace sand & gravel,damp,hard		20	SS	18"		30	4.5+	14.9	132.4	6.3			
<u>617.1'</u>	Gray fine sand,very damp,very dense			-		14								
	evel — depth, ft. elev., ft. hile drilling: 8.0 / 25.5 fter drilling: Po		ndard F, biov ket pe	Peneti vs/ fool	ration 1 t to driv neter re	41 ar), SS(s est (SP) e 2" O.C eading, to	F), blows). split-sj ons/ sq.	ft U	l. Ier with 140	R · recover W - water c b b. hamme weight of so	ontent, % r falling 3			

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Soil and material consultants, inc.		ClientBaxter & Woodman, Inc Sheet									
omments				_ Date <u>8/24/11</u> led By <u>AC</u>							
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Elev., ft. Description	Depth, f	t. 60	S	Т	R	В	N	Pen.	W	Uw	Qu
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Water Level — depth, ft. - while drilling: 8.0 / 25.5 - after drilling: <u>30.0</u> - hrs. after drilling:	elev., ft. 	N - SP Pen poo	indaro T, blo oket p	l Pene ws/ fo enetro	tration ot to dr meter i	Test (SP ive 2" O. reading, I	'T), blov D. split-: :ons/ sq	/s/ 6" inten spoon sam	telby tube) val. pler with 140 Uw - dry unit		r content ner fallin

SOIL AND MATERIAL CONSULTANTS, INC.	File No BORING LOG												
	Client <u>Baxter & Woodman, Inc.</u> Sheet <u>1</u>												
omments	Project	l I	Raupi	o Blv	vd. Bi	idge		i	Date <u>8/2</u>	4/11			
tation 14+80, 10' R. of CL	•	Project <u>Raupp Blvd. Bridge</u> Date <u>8</u> Location <u>Buffalo Grove, IL</u> Drilled By											
.N. 016-6325									Ε	A			
.N. 010-0325	Equipn	nent	[x]Cl	ME 4	5B 🗍	H.A. []Other	Logge	d By				
Elev., ft. 674.5' Description Depth, ft	. 0	S	Т	R	В	N	Pen.	W	Uw	Qu			
(SEE CORE LOG)													
673.01 (a) see below 672.51 (b) see below		1 2			16 5		2.25	11.1 20.8	106.8	2.5			
_ Black silt, some clay, trace sand damp, loose (topsoil)	×	3	SS	<u>16"</u>	3	8		25.5					
671.0' Brown clay,some silt,trace sand					3					,			
& gravel,damp,hard to very toug	n <u>5</u>	4	<u>SS</u>	18"	5	10	4.0	16.3	111.5	4.7			
					5								
		5	SS	18"		11	2.75	21.2	108.5	3.7			
665.5' Gray clay,some silt,trace sand	 &				4								
664.5' gravel,damp,very tough End of Boring	10	6	SS	18'	7	13	2.25	16.8	122.0	2.6			
(a) Brown fine-medium sand,some coarse sand & gravel,trace asphalt,damp,medium dense - Fill													
 (b) Brown-dark brown-black clay some silt,trace sand & grav damp,very tough - Fill 													
		-											
Water Level — depth, ft. elev., ft. - while drilling: <u>6.5</u> - after drilling: <u>6.0</u> F - hrs. after drilling:		ndard I', blov ket pe	Penet ws/ foc enetror	ration It to dri neter r	Test (SP ve 2" O.I eading, t	T), blow D. split-s ons/ sq.	ft ' U	al. pler with 14	R - recove W - water o D lb. hamme weight of so	content, er failing			

SOIL AND MATERIAL CONSULTANTS, INC.	File No. 20374 BORING LOG										
	Client		Baxto	axter & Woodman, Inc Sheet 1_ of							
Comments			Date <u>8/24/11</u>								
Station 16+24, 11' L. of CL	Locati	on						Drille	d ByA	7C	
S.N. 016-6325						_]Other		d By		
			- [] -						,		
Elev., ft. 675.5' Description Depth, ft	t. O	S	Т	R	В	N	Pen.	W	Uw	Qu	
(SEE CORE LOG)		$\frac{1}{2}$									
674.0' (a) see below		1			14						
Black-dark brown-brown clay & s: trace sand & gravel, damp, very 673.0' tough - Fill	i <u>lt</u> ,	2	SS	<u>15"</u>	5 4	9	2.25	16,9			
 Brown-dark brown clay,some silt trace sand & gravel,damp,very tough - Fill 	,	-			3						
	5	3	SS	18"	4	9	2.25	28.4	97.6	2.7	
670.0'		1									
Black silt, some clay, trace sand, damp, loose (topsoil)		-			3			07 0			
668.5' Dark gray to brown-gray clay,som	e	4	SS	18"	3	6	1.25	27.2 28.5	94.3	1.0	
silt,trace sand & gravel,damp,to 667.0'											
Brown clay & silt,trace sand & gravel,damp,tough		-			4						
665.5'	10	6	SS	18"		12	2.5	15.5	114.8	1.9	
End of Boring]								ĺ	
(a) Brown fine-medium sand, some						{					
coarse sand & gravel,trace asphalt,damp,medium dense		-									
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	S - san	nple	T - ty	pe: J(J	ar), SS(s	plit-spor	on), ST(she	lby tube)	R - recover	y length, i	
Water Level — depth, ft. elev., ft.			Penet	ration 7	est (SP	r), blow	s/ 6" interva	al.	W - water co	-	
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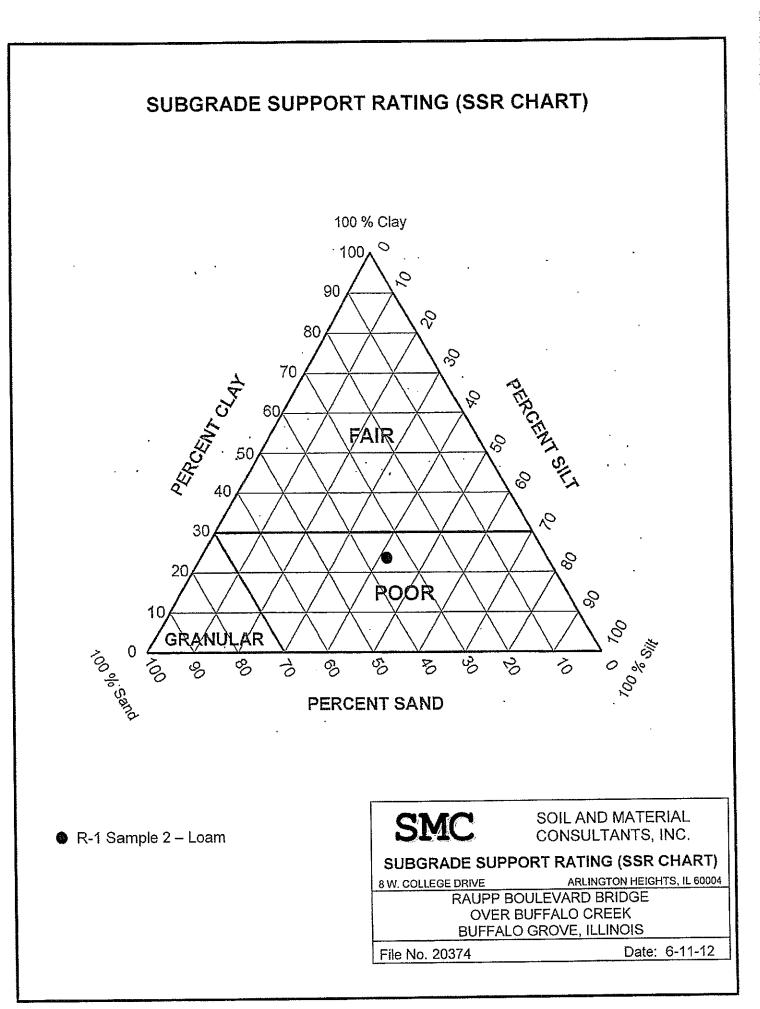


SAMPLE CLASSIFICATION

Soil sample classification is based on the Unified Soil Classification System, the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), ASTM D-2488, the Standard Test Method for Classification of Soils for Engineering Purposes, ASTM D-2487(when applicable), and the modifiers noted below.

CONSISTENCY OF COHESIVE SOILS			SOILS	RELATIVE.DENS	ITY OF GRANULAR SOILS
Term	Qu	<u>ı -tons/sq. ft</u> .	N (unreliable)	Term	N - blows/foot
Very Soft		0.00 - 0.25	0-2	Very Loose	0-4
Soft		0,26 - 0,49	3 - 4	Loose	5-9
Stiff		0.50 - 0.99	5 - 8	Medium Dense	10 - 29
Tough		1.00 - 1.99	9 - 15	Dense	30 - 49
Very Tou		2.00 - 3.99	16 - 30	Very Dense	50 +
Hard	-	4.00 - 7.99	30 +	,	
Very Har		8.00 +			
IDENTIFI	ICATION A		OLOGY	DRILLING, SAMP	LING & SOIL PROPERTY SYMBOLS
Term		Siz	e Range	CF - Continuous	
Boulder		~	ver 8 in.	HS - Hollow Ster HA - Hand Auge	
Cobble			. to 8 in.	RD - Rotary Drilli	
Gravel	-coarse		. to 3 in,	-	1-3/16 in. diameter
Ciavor	-medium		. to 1 in.		1-5/8 in. diameter
	-fine		e to 3/8 in.		2-1/8 in. diameter
Sand	-coarse		e to #4 sieve	S - Sample Nu	
	-medium		e to #10 sieve	T - Type of Sal	
	-fine		e to #40 sieve	J - Jar	b.o
Silt			n to #200 sieve	AS - Auger Sam	nle
Clay			nan 0.002 mm		(2 in, O.D. with 1-3/8 in. I.D.)
,				8° •	be (2 in. O.D. with 1-7/8 in. 1.D.)
Modifying Term Percent by Weight		R - Recovery L			
					. interval, Standard Penetration Test (SPT)
Trac	ce		1 - 10		to drive 2 in. O.D. split-spoon sampler
Little 11-		1 - 20	with 140 lb	b. hammer falling 30 in., (STP)	
Son	ne	2	1 - 35	Pen Pocket Per	netrometer reading, tons/ sq. ft.
And	1	3	6 - 50	W - Water Con	tent, % of dry weight
				Uw - Dry Unit W	leight of soil, lbs./ cu. ft.
	Moist	ure Condition			d Compressive Strength, tons/ sq. ft.
				Str - % Strain a	
Dry				WL - Water Lev	
Damp.				WD - While Drilli	-
Very Damp		AD - After Drillir	-		
, Saturated		DCI - Dry Cave-i			
		WCI - Wet Cave-			
		LL - Liquid Lim			
				PL - Plastic lim	-
					ndex (LL-PL)
				Ll - Liquidity Ir	ndex [(W-PL)/PI]

APPENDIX



SOIL AND MATERIAL CONSULTANTS, INC.

File No. 20374

8 WEST COLLEGE DRIVE OFFICE: (847) 870-0544 ARLINGTON HEIGHTS, IL 60004 FAX: (847) 870-0661

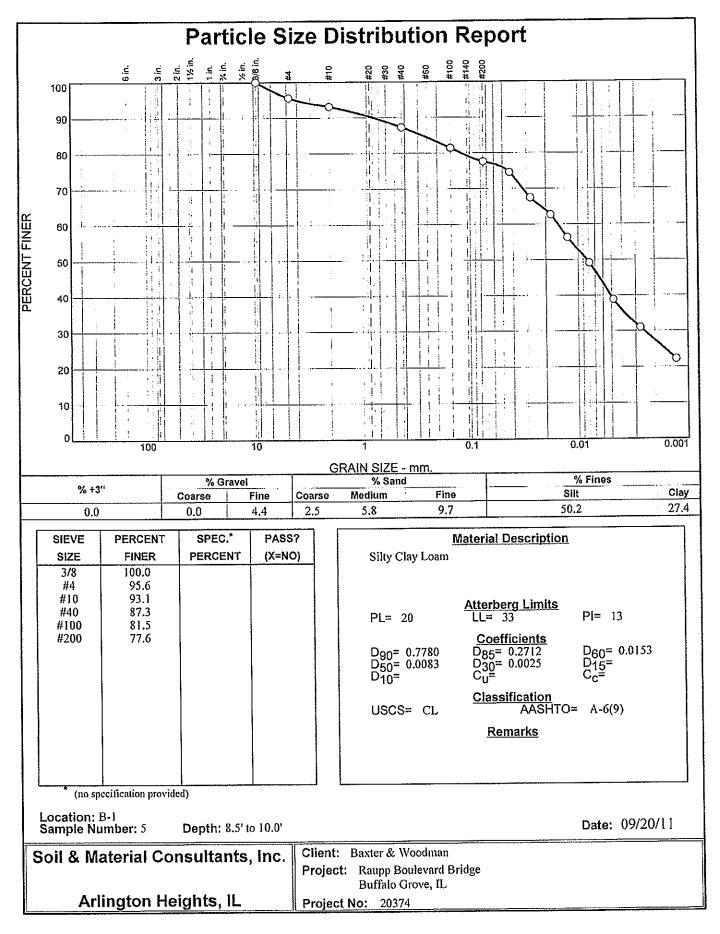
SOIL TEST DATA

CLIENT: Baxter & Woodman, Inc.

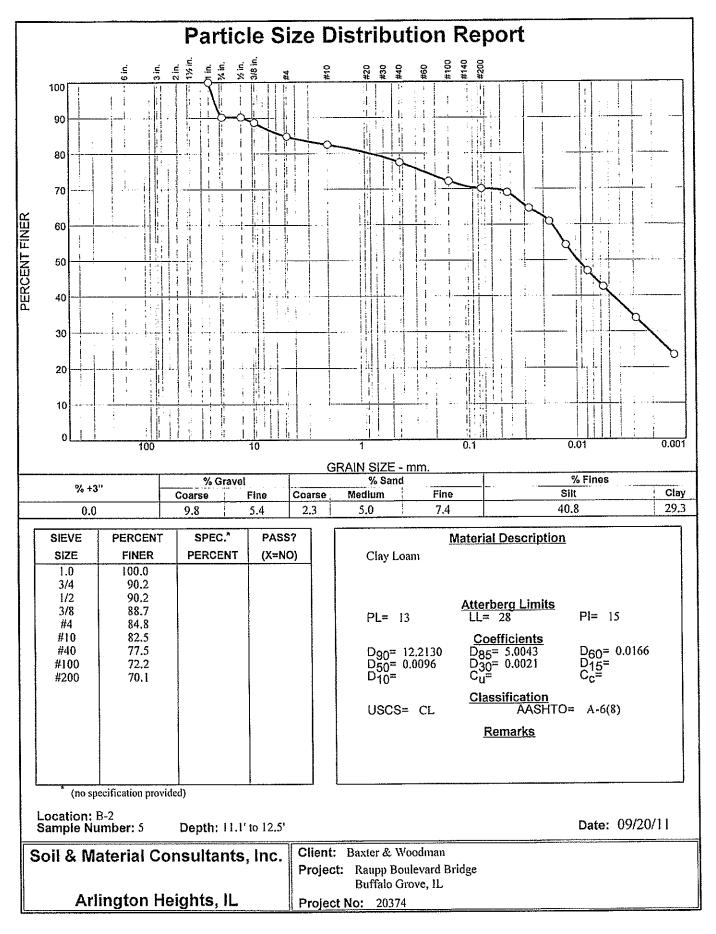
PROJECT: Raupp Boulevard Bridge over Buffalo Creek

BORING NO.			B-1	B-2	R-2
SAMPLE NO.			5	5	2
ELEVATION			665.1' – 663.6'	662.2' - 660 <i>.</i> 7'	674.0' – 673.0'
GRAIN SIZE CLASSIFICATION			Silty Clay Loam	Clay Loam	Loam
AASHTO CLAS	SSIFICATION		A-6(9)	A-6(8)	A-6(11)
GRADATION-	PASSING 1" SIEVE	%	100	100	100
16	3/4" "	%	100	90	100
ţi .	1/2" "	%	100	90	100
t i	3/8" "	%	100	89	100
(1	No. 4 "	%	96	85	100
ti	No. 10 "	%	93	83	96
st	No. 40 "	%	87	78	85
65	No. 100 "	%	82	72	74
<i>ŧ</i> ŧ	No. 200 "	%	78	70	66
GRAVEL	99 MIL	%	4	15	0
SAND		%	18	15	34
SILT		%	50	41	42
CLAY %			27	29	23
LIQUID LIMIT %			33	28	38
PLASTICITY II	NDEX	%	13	15	20

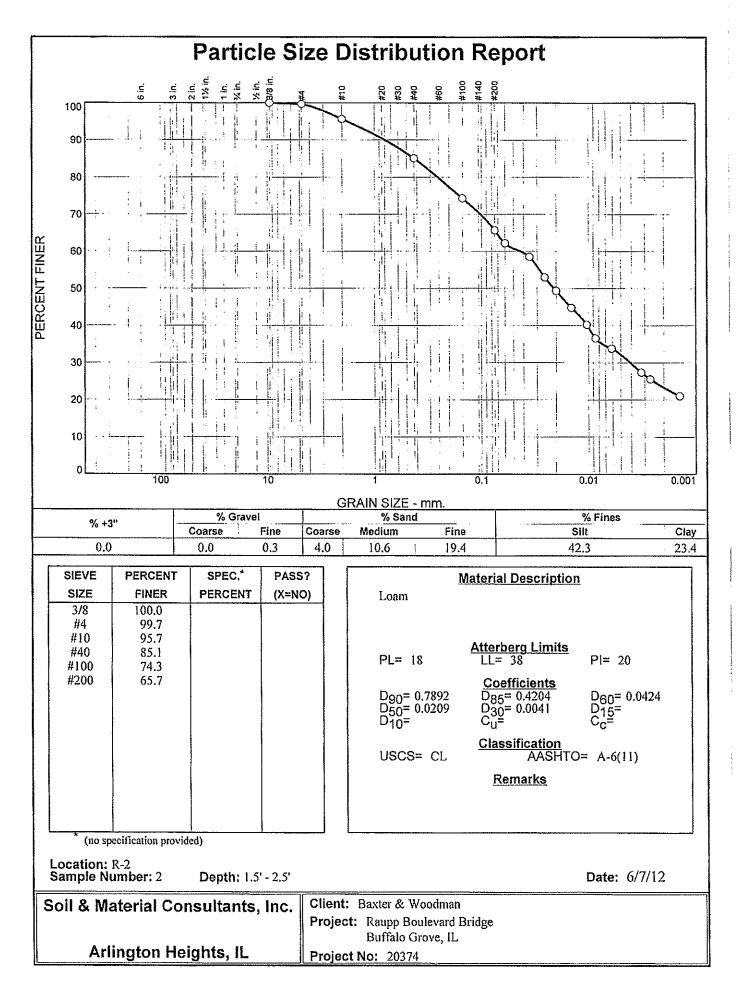
REMARKS:



Tested By: JC



Tested By: JC



State of Illinois Department of Transportation Bureau of Local Roads and Streets

SPECIAL PROVISION FOR COOPERATION WITH UTILITIES

Effective: January 1, 1999 Revised: January 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 105.07 of the Standard Specifications with the following:

"105.07 Cooperation with Utilities. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation or altering of an existing utility facility in any manner.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of the underground utility facilities.

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

When the Contractor discovers a utility has not been adjusted by the owner or the owner's representative as indicated in the contract documents, or the utility is not shown on the plans or described in the Special Provisions as to be adjusted in conjunction with construction, the Contractor shall not interfere with said utility, and shall take proper precautions to prevent damage or interruption of the utility and shall promptly notify the Engineer of the nature and location of said utility.

All necessary adjustments, as determined by the Engineer, of utilities not shown on the plans or not identified by markers, will be made at no cost to the Contractor except traffic structures, light poles, etc., that are normally located within the proposed construction limits as hereinafter defined will not be adjusted unless required by the proposed improvement.

- (a) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:
 - (1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits.
 - In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.
 - (2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
 - (3) The lower vertical limits shall be the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.
- (b) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:
 - (1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.
 - (2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

The Contractor may make arrangements for adjustment of utilities outside of the limits of proposed construction provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction shall be the responsibility of the Contractor unless otherwise provided.

The Contractor shall request all utility owners to field locate their facilities according to Article 107.31. The Engineer may make the request for location from the utility after receipt of notice from the Contractor. On request, the Engineer will make an inspection to verify that the utility company has field located its facilities, but will not assume responsibility for the accuracy of such work. The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners. This field location procedure may be waived if the utility owner has stated in writing to the Department it is satisfied the construction plans are sufficiently accurate. If the utility owner does not submit such statement to the Department, and they do not field locate their facilities in both horizontal and vertical alignment, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

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

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

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions.

No additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from the said utility facilities or the operation of relocating the said utility facilities.

State of Illinois Department of Transportation Bureau of Local Roads and Streets

SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007 Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

Village of Buffalo Grove

Buffalo Grove Park District

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE)

Effective: April 1, 2012 Revised: April 1, 2013

Revise the third paragraph of Article 1004.01(b) of the Standard Specifications to read:

"Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (bridge superstructure products only, excluding the approach slab) shall contain no more than two percent by weight (mass) of deleterious materials. Deleterious materials shall include substances whose disintegration is accompanied by an increase in volume which may cause spalling of the concrete."

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

"(f) Freeze-Thaw Rating. When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement (including precast), driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on subgrade such as bridge approach slabs (excluding precast), concrete structures on subgrade such as bridge approach footings, or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test (Illinois Modified AASHTO T 161)."

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: April 1, 2014 Revised: August 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

Revise the fifth paragraph of Article 606.07 of the Standard Specifications to read:

"Transverse contraction and longitudinal construction joints shall be sealed according to Article 420.12, except transverse joints in concrete curb and gutter shall be sealed with polysulfide or polyurethane joint sealant."

Add the following to Section 1050 of the Standard Specifications:

"1050.04 Polyurethane Joint Sealant. The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25 or better, Use T (T_1 or T_2), according to ASTM C 920."

CONSTRUCTION AIR QUALITY - DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 ^{1/}	600-749	2002
	750 and up	2006
June 1, 2011 ^{2/}	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 ^{2/}	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (<u>http://www.epa.gov/cleandiesel/verification/verif-list.htm</u>), or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm</u>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

CONTRACT CLAIMS (BDE)

Effective: April 1, 2014

Revise the first paragraph of Article 109.09(a) of the Standard Specifications to read:

"(a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. As a minimum, the following information must accompany each claim submitted."

Revise Article 109.09(e) of the Standard Specifications to read:

"(e) Procedure. The Department provides two administrative levels for claims review.

Level I Engineer of Construction Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.
- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim."

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: August 2, 2011

<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 Illinois Unified Certification Program (IL UCP) DBE Directory.

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

<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.

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

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. 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. The 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 16.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal: or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.
- <u>DBE LOCATOR REFERENCES</u>. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's website at <u>www.dot.il.gov</u>.

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

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The names and addresses of DBE firms that will participate in the contract;

- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) if the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal if not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere pro forma efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

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

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
 - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, 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.

<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 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owneroperator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

<u>CONTRACT COMPLIANCE</u>. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the 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 be come the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

- (a) <u>NO AMENDMENT</u>. 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) <u>TERMINATION OR REPLACEMENT</u>. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.
- (c) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
- (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
- (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;

- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal.

(f) <u>PAYMENT RECORDS</u>. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the BDE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

- (g) <u>ENFORCEMENT</u>. 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.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

80029

FRICTION AGGREGATE (BDE)

Effective: January 1, 2011 Revised: November 1, 2014

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

- "(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
 - a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
 - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following.

(a)	Description.	The coarse aggregate for HMA shall be according to the following table.
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Mixture	Aggregates Allowed
Seal or Cover	Allowed Alone or in Combination ^{5/} :
	Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag

Use	Mixture	Aggregates Allowed	· · · · · · · · · · · · · · · · · · ·
HMA Low ESAL	Stabilized Subbase or Shoulders	Allowed Alone or in Con Gravel Crushed Gravel Carbonate Crushed Sto Crystalline Crushed Sto Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete	ne
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	Allowed Alone or in Cor Crushed Gravel Carbonate Crushed Sto Crystalline Crushed Sto Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/}	ne ^{2/}
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	Allowed Alone or in Cor Crushed Gravel Carbonate Crushed Sto Crystalline Crushed Sto Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}	one ^{2/}
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	Allowed Alone or in Co Crushed Gravel Carbonate Crushed Sto Limestone) ^{2/} Crystalline Crushed Sto Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}	one (other than
		Other Combinations Al	lowed: With
		25% Limestone	Dolomite

	50% Limestone	Any Mixture D aggregate other than Dolomite		
	75% Limestone	Crushed Slag (ACBF) or Crushe Sandstone		
E Surface IL-9.5 SMA Ndesign 80 Surface	Crushed Gravel Crystalline Crushed Crushed Sandstone Crushed Slag (ACBF Crushed Steel Slag Crushed Concrete ^{3/} No Limestone.	Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete ^{3/}		
	Up to	With		
	50% Dolomite ^{2/}	Any Mixture E aggregate		
	75% Dolomite ^{2/}	Crushed Sandstor Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushe Stone		
	75% Crushed Gravel or Crushed Concrete ^{3/}	Crushed Sandstor Crystalline Crushe Stone, Crushed Sl (ACBF), or Crushe Steel Slag		
F Surface IL-9.5 SMA Ndesign 80 Surface	Crystalline Crushed Crushed Sandstone Crushed Slag (ACB	Stone F)		
	IL-9.5 SMA Ndesign 80 Surface F Surface IL-9.5 SMA Ndesign 80	F Surface Allowed Alone or in C IL-9.5 Crushed Gravel Crushed Gravel SMA Crushed Sandstone Crushed Slag (ACBF Ndesign 80 Crushed Slag (ACBF Crushed Slag (ACBF Surface Other Combinations Up to No Limestone. Other Combinations Up to 50% Dolomite ²¹ 75% Dolomite ²¹ 75% Crushed Gravel or Crushed Concrete ³¹ Concrete ³¹ F Surface Allowed Alone or in IL-9.5 Crushed Sandstone SMA Crushed Sandstone Value Crushed Gravel or Crushed Concrete ³¹ Crushed Sandstone Kanage Crushed Sandstone Crushed Sandstone Crushed Sandstone Crushed Sandstone Crushed Sandstone SMA Crushed Sandstone Ndesign 80 Crushed Sandstone Surface Crushed Slag (ACB		

Use	Mixture	Aggregates Allowed	1
		Up to	With
		50% Crushed Gravel, Crushed Concrete ^{3/} , or Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.

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- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as leveling binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

Revise the title of Article 1003.04 of the Standard Specifications to read:

"1003.04 Fine Aggregate for Bedding, Trench Backfill, Embankment, Porous Granular Backfill, Sand Backfill for Underdrains, and French Drains."

Revise Article 1003.04(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradations for granular embankment, granular backfill, bedding, and trench backfill for pipe culverts and storm sewers shall be FA 1, FA 2, or FA 6 through FA 21.

The fine aggregate gradation for porous granular embankment, porous granular backfill, french drains, and sand backfill for underdrains shall be FA 1, FA 2, or FA 20, except the percent passing the No. 200 (75 μ m) sieve shall be 2±2."

CA 18"

CA 7, CA 8, CA 11, CA 15, CA 16 and

Revise Article 1004.05(c) of the Standard Specifications to read:

Culverts and Storm Sewers

Porous Granular Embankment, Porous Granular Backfill, and French Drains

1	Application	Gradation
Blotter	a na ann an an an an Tar Ia ann an	CA 15
Granula	Embankment, Granular Backfill,	CA 6, CA 9, CA 10, CA 12, CA17, CA18,
Beddina	and Trench Backfill for Pipe	and CA 19

"(c) Gradation. The coarse aggregate gradations shall be as follows.

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010 Revised: April 1, 2012

<u>Description</u>. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

<u>Quality Control/Quality Assurance (QC/QA)</u>. Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. Confined Edge. Each confined edge density shall be represented by a oneminute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

	"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
lļ	IL-4.75	Ndesign = 50	93.0 - 97.4%	91.0%
' [IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 - 96.0%	90.0%
	IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 - 97.4%	90.0%
Ī	IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 - 96.0%	90.0%
	IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 - 97.4%	90.0%

SMA	Ndesign = 50 & 80	93.5 - 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

HOT MIX ASPHALT - PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS - JOBSITE SAMPLING (BDE)

Effective: November 1, 2014

<u>Description</u>. This special provision describes the procedures used for production, placement and payment for hot-mix asphalt (HMA). This special provision shall apply to all pay items as specified in the plans. This work shall be according to the Standard Specifications except as specified herein.

Delete Articles:	406.06(e), 3 rd paragraph 406.07 1030.04, last two sentences 1030.05(a)(4, 5, 7, 8, 9, & 10 1030.05(d)(2)a. 1030.05(d)(2)b. 1030.05(d)(2)d. 1030.05(d)(2)f. 1030.05(d)(2)f. 1030.05(d)(3) 1030.05(d)(3) 1030.05(d)(5) 1030.05(d)(5) 1030.05(d)(7) 1030.05(e) 1030.05(f) 1030.06(a), 3 rd paragraph 1030.06(a), 8 th paragraph 1030.06(a), 8 th paragraph	(Temperature requirements) (Paver speed requirements) (Compaction) of first paragraph (Mix design verification))(QC/QA Documents) (Plant Tests) (Dust-to-Asphalt and Moisture Content) (Small Tonnage) (HMA Sampling) (Required Field Tests) (Control Limits) (Control Charts) (Corrective Action for Required Plant Tests) (Corrective Action for Field Tests (Density)) (Quality Assurance by the Engineer) (Acceptance by the Engineer) (Before start-up) (After an acceptable) (If a mixture)
	1030.06(a), 8 [™] paragraph 1030.06(a), 9 th paragraph	(If a mixture) (A nuclear/core)

Definitions.

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- (c) Percent Within Limits (PWL): The percentage of material within the quality limits for a given quality characteristic.
- (d) Quality Characteristic: The characteristics that are evaluated by the Department for payment using PWL. The quality characteristics for this project are field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined Aggregates Bulk Specific Gravity (G_{sb}) from the mix design.

- (e) Quality Level Analysis (QLA): QLA is a statistical procedure for estimating the amount of product within specification limits.
- (f) Sublot: A sublot for field VMA, and voids, will be 1000 tons (910 metric tons). If the quantity is less than 8000 tons (7260 metric tons), the sublot size will be adjusted to achieve a minimum of 8 tests. If the last sublot consists of less than 200 tons (180 metric tons), it will be combined with the previous sublot.
- (g) Density Testing Interval: The interval for density testing will be 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm). If a density testing interval is less than 200 ft (60 m), it will be combined with the previous test interval.
- (h) Lot: A lot consists of 8 sublots or 30 density intervals. If seven or less sublots or 19 or less density intervals remain at the end of production of a mixture, the test results for these sublots will be combined with the previous lot for evaluation of percent within limits and pay factors. Lots for mixture testing are independent of lots for density testing.
- (i) Density Test: A density test consists of a core taken at a random longitudinal and transverse offset within each density testing interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four including the current day of production. Initial G_{mm} will be based on the average of the first four test results. The random transverse offset excludes the outer 1.0 ft (300 mm) from an unconfined edge. For confined edges, the random transverse offset excludes a distance from the outer edge equal to the lift thickness or a minimum of 4 in. (100 mm).
- (j) Unconfined Edge Density: The outer 1.0 ft (300 mm) of an unconfined edge will be excluded from the effective pavement width used for calculating random transverse density location. The unconfined edge density will be randomly selected within each 1/2 mile (800 m) section for each unconfined edge. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4.0 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the core barrel shall be within 5.0 in. (125 mm) from the edge of pavement.)

<u>Pre-production Meeting</u>. The Engineer will schedule a pre-production meeting a minimum of seven calendar days prior to the start of production. The HMA QC Plan, test frequencies, random test locations, and responsibilities of all parties involved in testing and determining the PWL will be addressed. Personnel attending the meetings will include the following:

- (a) Resident Engineer
- (b) District Mixture Control Representative
- (c) QC Manager

- (d) Contractor Paving Superintendent
- (e) Any consultant involved in any part of the HMA sampling or testing on this project

<u>Quality Control (QC) by the Contractor</u>. The Contractor's quality control plan shall include the schedule of testing for both quality characteristics and non-quality characteristics required to control the product such as asphalt binder content and mixture gradation. The schedule shall include sample location. The minimum test frequency shall not be less than outlined in the Minimum Quality Control Sampling and Testing Requirements table below.

Minimum Quality Control Sampling and Testing Requirements		
Quality Characteristic	Minimum Test Frequency	Sampling Location
Mixture Gradation		
Binder Content	1/day	per QC Plan
G _{mm}	Trudy	
G _{mb}		
Density	per QC plan	per QC Plan

Table 1 Ainimum Quality Control Sampling and Testing Requirements

The Contractor shall submit QC test results to the Engineer within 48 hours of the time of sampling.

<u>Initial Production Testing</u>. The Contractor shall split and test the first two samples with the Department for comparison purposes. The Contractor shall complete all tests and report all results to the Engineer within two working days of sampling. The Engineer will make Department test results of the initial production testing available to the Contractor within two working days from the receipt of the samples.

<u>Quality Assurance (QA) by the Engineer</u>. The Engineer will test each sublot for field VMA, voids, and dust/AC ratio; and each density interval for density to determine payment for each lot. A sublot shall begin once an acceptable test-strip has been completed and the AJMF has been determined. All Department testing will be performed in a qualified laboratory by personnel who have successfully completed the Department HMA Level I training.

<u>Voids, field VMA, and Dust/AC ratio</u>. For each sublot, the Engineer will determine the random tonnage for the sample and the Contractor shall be responsible for obtaining the sample according to the "PFP and QCP Hot-Mix Asphalt Random Jobsite Sampling" procedure. The Engineer will not disclose the random location of the sample until after the truck containing the random tonnage has been loaded and en-route to the project.

<u>Density</u>. The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the 4 in. (100 mm) diameter cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP and QCP Random Density Procedure". The locations will not be disclosed to the Contractor until after final rolling. The cores shall be obtained under the supervision of the

Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 in. (6 mm) at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

<u>Test Results</u>. The Department's test results for the first sublot, or density testing interval, of every lot will be available to the Contractor within three working days from the time the secured sample was delivered, by the Contractor, to the Department's testing facility or a location designated by the Engineer. Test results for a completed lot will be available to the Contractor within ten working days from the time the secured sample from the last sublot or density testing interval was delivered to the Department's testing facility or a location designated by the Engineer.

The Engineer will maintain a complete record of all Department test results. Copies will be furnished upon request. The records will contain, at a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

<u>Dispute Resolution</u>. Dispute resolution testing will only be permitted when the Contractor submits their split sample test results prior to receiving Department split sample test results and: 1) the difference between the Contractor and Department split test results exceed the precision limits shown in Table 2 below; or 2) the Department's test results are outside the acceptable limits shown in Table 4. For density disputes, the Contractor shall use the Department's running average for G_{mm} when determining compliance with the Limits of Precision.

Test Parameter Limits of Precision	
Voids	1.0 %
VMA	1.0 %
Ratio - Dust / Asphalt Binder	0.2
Core Density	1.0 %

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If dispute resolution is necessary, the Contractor shall submit a request in writing within four working days of receipt of the results of the quality index analysis for the lot. The Engineer will document receipt of the request. The Bureau of Materials and Physical Research (BMPR) laboratory will be used for dispute resolution testing.

Density cores for dispute resolution testing shall be taken at the same time as the random density core. The density core for dispute resolution testing shall be taken within 1 ft (300 mm) longitudinally of the random density core and at the same transverse offset. Density dispute resolution will replace original density test results.

If three or more consecutive mix sublots are contested, corresponding density results will be recalculated with the new G_{mm} .

Test results from the dispute resolution testing will replace voids, VMA and Dust/AC results from the original quality assurance testing. The lot pay factor for the lot under dispute resolution will be recalculated. If the recalculated lot pay factor is less than or equal to the original lot pay factor, laboratory costs listed below will be borne by the Contractor.

Table 3	
Test Cost	
Mix Testing	\$1000.00 / sublot
Core Density \$300.00 / core	

<u>Acceptance by the Engineer</u>. All of the Department's tests shall be within the acceptable limits listed below:

Table	4	
Acceptable Limits		
Parameter	Acceptable Range	
Field VMA	-1.0 - +3.0 % ¹	
Voids	2.0 - 6.0 %	
Density: IL-19.0, IL-25.0, IL-9.5 IL-4.75, SMA	90.0 – 98.0 % 92.0 – 98.0 %	
Dust / AC Ratio	0.4 – 1.6 ^{2/}	

- 1/ Based on minimum required VMA from mix design
- 2/ Does not apply to SMA

In addition, the PWL for any quality characteristic shall be 50 percent or above for any lot. No visible pavement distress shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

<u>Basis of Payment</u>. Payment will be based on the calculation of the Composite Pay Factor for each mix according to the "PFP Quality Level Analysis" document. Payment for full depth pavement will be based on the calculation of the Full Depth Pay Factor according to the "PFP Quality Level Analysis" document.

<u>Additional Pay Adjustments</u>. In addition to the Composite Pay Factor for each mix, monetary deductions will be made for dust/AC ratios and unconfined edge densities as shown in Tables 5 and 6 as follows.

Table	5
Dust / AC Pay Ad	justment Table ^{1/}
Range	Deduct / sublot
0.6 ≤ X ≤ 1.2	\$0
$0.5 \le X < 0.6$ or $1.2 < X \le 1.4$	\$1000
0.4 ≤ X < 0.5 or 1.4 < X ≤ 1.6	\$3000
X < 0.4 or X > 1.6	Shall be removed and replaced

1/ Does not apply to SMA.

Table	6
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Unconfined Edge Density Adjustment Table	
Density Deduct / 0.5 mile (800	
≥ 90%	\$0
89.0% to 89.9%	\$1000
88.0% to 88.9%	\$3000
< 88.0%	Outer 1.0 ft (300 mm) will require remedial action acceptable to the Engineer

HOT MIX ASPHALT - PRIME COAT (BDE)

Effective: November 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read:

"Note 1. The bituminous material used for prime coat shall be one of the types listed in the following table.

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion.

Application	Bituminous Material Types
Prime Coat on Brick, Concrete, or HMA Bases	SS-1, SS-1h, SS-1hP, SS-1vh, RS-1, RS-2, CSS-1, CSS-1h, CSS-1hp, CRS-1, CRS-2, HFE-90, RC-70
Prime Coat on Aggregate Bases	MC-30, PEP"

Add the following to Article 406.03 of the Standard Specifications.

Revise Article 406.05(b) of the Standard Specifications to read:

- "(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60 °F (15 °C).
 - (1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternative to air blasting, a vacuum sweeper may be used to accomplish the dust removal. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

Type of Surface to be Primed	Residual Asphalt Rate Ib/sq ft (kg/sq m)
Milled HMA, Aged Non-Milled HMA, Milled Concrete, Non-Milled Concrete & Tined Concrete	0.05 (0.244)
Fog Coat between HMA Lifts, IL-4.75 & Brick	0.025 (0.122)

The bituminous material for the prime coat shall be placed one lane at a time. If a spray paver is not used, the primed lane shall remain closed until the prime coat is

fully cured and does not pickup under traffic. When placing prime coat through an intersection where it is not possible to keep the lane closed, the prime coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m).

(2) Aggregate Bases. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of 0.25 lb/sq ft ± 0.01 (1.21 kg/sq m ±0.05).

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or four hours for PEP. Pools of prime occurring in the depressions shall be broomed or squeegeed over the surrounding surface the same day the prime coat is applied.

The base shall be primed 1/2 width at a time. The prime coat on the second half/width shall not be applied until the prime coat on the first half/width has cured so that it will not pickup under traffic.

The residual asphalt rate will be verified a minimum of once per type of surface to be primed as specified herein for which at least 2000 tons (1800 metric tons) of HMA will be placed. The test will be according to the "Determination of Residual Asphalt in Prime and Tack Coat Materials" test procedure.

Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, and all areas where the pickup occurred shall be repaired.

If after five days, loss of prime coat is evident prior to covering with HMA, additional prime coat shall be placed as determined by the Engineer at no additional cost to the Department."

Revise the last sentence of the first paragraph of Article 406.13(b) of the Standard Specifications to read:

"Water added to emulsified asphalt, as allowed in Article 406.02, will not be included in the quantities measured for payment."

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

"Aggregate for covering prime coat will not be measured for payment."

Revise the first paragraph of Article 406.14 of the Standard Specifications to read:

"406.14 Basis of Payment. Prime Coat will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)."

Revise Article 407.02 of the Standard Specifications to read:

"407.02 Materials. Materials shall be according to Article 406.02, except as follows.

ltem	Article/Section
(a) Packaged Rapid Hardening Mortar or Concrete	

Revise Article 407.06(b) of the Standard Specifications to read:

"(b) A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b)."

Delete the second paragraph of Article 407.12 of the Standard Specifications.

Revise the first paragraph of Article 408.04 of the Standard Specifications to read:

"408.04 Method of Measurement. Bituminous priming material will be measured for payment according to Article 406.13."

Revise the first paragraph of Article 408.05 of the Standard Specifications to read:

"408.05 Basis of Payment. This work will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT) or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) and at the contract unit price per ton (metric ton) for INCIDENTAL HOT-MIX ASPHALT SURFACING."

Revise Article 1032.02 of the Standard Specifications to read:

"1032.02 Measurement. Asphalt binders, emulsified asphalts, rapid curing liquid asphalt, medium curing liquid asphalts, slow curing liquid asphalts, asphalt fillers, and road oils will be measured by weight.

A weight ticket for each truck load shall be furnished to the inspector. The truck shall be weighed at a location approved by the Engineer. The ticket shall show the weight of the empty truck (the truck being weighed each time before it is loaded), the weight of the loaded truck, and the net weight of the bituminous material.

When an emulsion or cutback is used for prime coat, the percentage of asphalt residue of the actual certified product shall be shown on the producer's bill of lading or attached certificate of analysis. If the producer adds extra water to an emulsion at the request of the purchaser, the amount of water shall also be shown on the bill of lading.

Payment will not be made for bituminous materials in excess of 105 percent of the amount specified by the Engineer."

Add the following to the table in Article 1032.04 of the Standard Specifications.

"SS-1vh	160-180	70-80
RS-1, CRS-1	75-130	25-55"

Add the following to Article 1032.06 of the Standard Specifications.

"(g) Non Tracking Emulsified Asphalt SS-1vh shall be according to the following.

R	lequirement	ts for SS-1vh	
Test		SPEC	AASHTO Test Method
Saybolt Viscosity @ 25C,	SFS	20-200	T 72
Storage Stability, 24hr.,	%	1 max.	T 59
Residue by Evaporation,	%	50 min.	T 59
Sieve Test,	%	0.3 max.	Т 59
Tests	on Residue	from Evapora	ation
Penetration @25°C, 100g., 5 s	sec., dmm	20 max.	T 49
Softening Point,	°C	65 min.	Т 53
Solubility,	%	97.5 min.	Т 44
Orig. DSR @ 82°C,	kPa	1.00 min.	T 315"

Revise the last table in Article 1032.06(f)(2)d. of the Standard Specifications to read:

"Grade	Use
SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, SS-1vh	Prime or fog seal
PEP	Bituminous surface treatment prime
RS-2, HFE-90, HFE-150, HFE- 300, CRSP, HFP, CRS-2, HFRS-2	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing"

Add the following to Article 1101 of the Standard Specifications.

"1101.19 Vacuum Sweeper. The vacuum sweeper shall have a minimum sweeping path of 52 in. (1.3 m) and a minimum blower rating of 20,000 cu ft per minute (566 cu m per minute)."

Add the following to Article 1102 of the Standard Specifications:

"1102.06 Spray Paver. The spreading and finishing machine shall be capable of spraying a rapid setting emulsion tack coat, paving a layer of HMA, and providing a smooth HMA mat in one pass. The HMA shall be spread over the tack coat in less than five seconds after the

application of the tack coat during normal paving speeds. No wheel or other part of the paving machine shall come into contact with the tack coat before the HMA is applied. In addition to meeting the requirements of Article 1102.03, the spray paver shall also meet the requirements of Article 1102.05 for the tank, heating system, pump, thermometer, tachometer or synchronizer, and calibration. The spray bar shall be equipped with properly sized and spaced nozzles to apply a uniform application of tack coat at the specified rate for the full width of the mat being placed."

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013 Revised: November 1, 2014

Revise Article 550.02 of the Standard Specifications to read as follows:

"Item Article Se	ection
(a) Clay Sewer Pipe	40.02
(b) Extra Strength Clay Pipe 104	
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe104	
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	40.07
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	
(k) Mastic Joint Sealer for Pipe	1055
(I) External Sealing Band	1057
(m) Fine Aggregate (Note 2) 10	03.04
(n) Coarse Aggregate (Note 3)10	04.05
(o) Reinforcement Bars and Welded Wire Fabric10	
(p) Handling Hole Plugs10	
(q) Polyethylene (PE) Pipe with a Smooth Interior10	
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior10	40.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
Α	Rigid Pipes:
	Clay Sewer Pipe
	Extra Strength Clay Pipe
	Concrete Sewer, Storm Drain, and Culvert Pipe
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
В	Rigid Pipes:
	Clay Sewer Pipe
	Extra Strength Clay Pipe
	Concrete Sewer, Storm Drain, and Culvert Pipe
	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe
	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
	Flexible Pipes:
1	Polyvinyl Chloride (PVC) Pipe
	Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior
	Polyethylene (PE) Pipe with a Smooth Interior
	Corrugated Polyethylene (PE) Pipe with a Smooth Interior
	Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

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33		٩N	٩N	AA	٩N	AN	AN	AN	=	NA	×	AN	NA	NA	AN	AA
36	Ξ	NA	٩N	×	×	×	×	×	=	AN	×	×	×	×	×	×
4	:=	AN	×	×	AN	×	×	AN	=	AN	×	×	AN	×	A	AN
48	: =	AN	×	×	٩Z	×	×	×	=	NA	×	×	NA	×	A	AN
54	=	NA	AN	NA	AN	AN	AN	NA	=	NA	NA	NA	NA	AN	AN	ΨN
909	= =	A	٩N	AA	AN	NA	AN	×	=	NA	AN	AN	NA	AN	AN	×
99	: =	NA	٩N	ΝA	AN	AA	NA	NA	=	NA	NA	AN	AN	AN	AA	AN
72		AN	AN	NA	AN	AN	AN	NA	=	AN	AN	AN	AN	AZ	AN	ΨN
78	=	AN	٩N	NA	٩Z	AN	AN	AN	=	NA	M	¥Z	AN	AN	AN	AN N
84	=	AN	AN	NA	AN	NA	AN	AA	=	AN	AN	¥	A	AN	AA I	A
06	=	AN	AN	ΥA	AN	AN	AN	NA	=	AN	AN	ΨZ	AN	AN N	AN	¥2
96	=	NA	٩N	AA	٩Z	AN	AN	NA	=	AN	AN	AN	AN	¥2	AA Z	A Z
102	=	AN	٩N	AN	AN	NA	NA	NA	≡	ΑN	ΨN	AN	AN	A N	A S	AN S
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RCCP Reinfo	prced Cond	crete Culvi	Reinforced Concrete Culvert, Storm Drain,		and Sewer Pipe	þe										
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	Polyvinyl Chloride Pipe	Je Pipe														
CPVC Corruc	Corrugated Polyvinyl Chlonde	vinyi Chia	nde Hipe													

Polyethylene Pipe with a Smooth Interior Corrugated Polyethylene Pipe with a Smooth Interior Corrugated Polypropylene Pipe with a Smooth Interior

This material may be used for the given pipe diameter and fill height. This material is Not Acceptable for the given pipe diameter and fill height. May also use Standard Strength Clay Pipe NA CCP NA

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Concrete Sewer, Storm drain, and Curvert ripe
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 Corrugated Polyvinyl Chloride Pipe
 Extra Strength Clay Pipe
 Polyethylene Pipe with a Smooth Interior
 Corrugated Polyethylene Pipe with a Smooth Interior
 Corrugated Polypropylene pipe with a Smooth Interior
 This material may be used for the given pipe diameter and fill height.
 This material is Not Acceptable for the given pipe diameter and fill height.
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STORM SEWERS (meiric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED VEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE	Type 4	Fill Height: Greater than 4.5 m not exceeding 6 m	PE CPE CPP RCCP CSP ESCP PVC CPVC PE CPP	X NA NA 3 X X X X	NA X IV NA NA X X X	NA X IV NA NA X X NA	NA X IV NA NA X X X	NA NA IV NA NA X X NA	NA NA NA NA NA X X X	NA NA IV NA NA NA NA NA	NA X IV NA NA X X X	NA NA IV NA NA NA NA NA	NA NA IV NA NA X X X	NA NA IV NA NA X NA X	NA IV NA NA X NA X	NA NA NA NA NA NA NA	NA NA IV NA NA NA NA NA	NA NA IV NA NA NA NA NA	NA NA NA NA NA NA NA NA	NA NA IV NA NA NA NA NA NA	NA NA IV NA NA NA NA NA NA	NA NA 80 NA NA NA NA NA NA	NA NA 80 NA NA NA NA NA	NA 80 NA NA NA NA NA	NA NA 80 NA NA NA NA NA
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Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Concrete Sewer, Storm drain, and Culvert Pipe Polyvinyl Chloride Pipe Extra Strength Clay Pipe Extra Strength Clay Pipe Corrugated Polyethylene Pipe with a Smooth Interior Corrugated Polyethylene Pipe with a Smooth Interior Corrugated Polyethylene Pipe with a Smooth Interior This material may be used for the given pipe diameter and fill height. This material is Not Acceptable for the given pipe diameter and fill height. May also use Standard Strength Clay Pipe RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack. N * N X C C P C C C P C C C P C C C P C C

Е	Type 7	Fill Height: Greater than 30' not exceeding 35'	CPVC	×	×	×	×	×	×	AN	×	AN	×	AN	NA	AN	AN	NA	AN	AN	NA	AN	AN	AN	NA	
STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE	Ty	Fill Height: G not exce	RCCP	NA	>	>	٨	>	>	>	>	^	>	>	>	>	>	>	>	2730	2740	2750	2750	2760	2770	
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Q		Nominal Diameter	<u> </u>	10	12	<u>υ</u>	18	21	24	27	30	33	36	42	48	54	60	66	72	78	84	06	96	102	108	RCCP Reinford

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PVC ESCP Note Note

Polyniany Choride Pipe Corrugated Polyvinyl Chloride Pipe Extra Strength Clay Pipe This material may be used for the given pipe diameter and fill height. This material is Not Acceptable for the given pipe diameter and fill height. RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

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RCCP Reinfo	prced Concre	ite Culvert,	Storm Dre	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	er Pipe			
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rougving cumule rupe Corrugated Polyvinyl Chloride Pipe Extra Strength Olay Pipe This material may be used for the given pipe diameter and fill height. This material is Not Acceptable for the given pipe diameter and fill height. RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

***550.08 Deflection Testing for Storm Sewers.** All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise the fifth paragraph of Article 550.08 to read as follows.

"The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

- "(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.
- (d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written

certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

"1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: January 1, 2014

<u>FEDERAL AID CONTRACTS</u>. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"STATEMENTS AND PAYROLLS

The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

- Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
- Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll

records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

PORTLAND CEMENT CONCRETE - CURING OF ABUTMENTS AND PIERS (BDE)

Effective: January 1, 2014

Revise Note 7/ of the Index Table of Curing and Protection of Concrete Construction of Article 1020.13 of the Standard Specifications to read:

"7/ Asphalt emulsion for waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18. The top surfaces of abutments and piers shall be cured according to Article 1020.13(a)(3) or (5)."

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)

Effective: November 1, 2013

Add the following to the first paragraph of Article 1103.03(a)(5) of the Standard Specifications to read:

"As an alternative to a locking key, the start and finish time for mixing may be automatically printed on the batch ticket. The start and finish time shall be reported to the nearest second."

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity 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.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor's or subcontractor's obligation to pay the subcontractor, and the Contractor's or subcontractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

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."

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012 Revised: January 1, 2014

Revise Note 7/ of Schedule B of Recurring Special Provision Check Sheet #31 of the Standard Specifications to read:

7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm).

REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

"508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted or precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum "Quality Control / Quality Assurance Program for Precast Concrete Products", and for precast prestressed concrete products as indicated in the Department's current "Manual for Fabrication of Precast Prestressed Concrete Products". Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage."

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

"Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of colddrawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer."

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

"Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed."

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

"In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns)."

Revise Article 1042.03(d) of the Standard Specifications to read:

"(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within ±1/4 in. (±6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site."

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2012 Revised: November 2, 2012

Revise Article 669.01 of the Standard Specifications to read:

"669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities."

Revise Article 669.08 of the Standard Specifications to read:

"669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
 - (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

- (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
- (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.
- (c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10⁻⁷ cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer."

Revise Article 669.14 of the Standard Specifications to read:

"669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic

and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site investigation (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site investigation (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site investigation (PESA) site number) for non-special waste disposal."

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

"The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL."

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

"202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 1 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

<u>BASIS OF PAYMENT</u> This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: November 1, 2014

<u>Description</u>. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"1102.01 Hot-Mix Asphalt Plant. The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(13) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

- "(e) Warm Mix Technologies.
 - (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
 - (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

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WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

The Contractor shall provide a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

80302

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000 Revised: January 22, 2010

<u>Description</u>. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

<u>Construction Requirements.</u> All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

<u>Method of Measurement.</u> Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

COFFERDAMS Effective: October 15, 2011

Replace Article 502.06 with the following.

502.06 Cofferdams. A Cofferdam shall be defined as a temporary structure, consisting of engineered components, designed to isolate the work area from water to enable construction under dry conditions based on either the Estimated Water Surface Elevation (EWSE) or Cofferdam Design Water Elevation (CDWE) shown on the contract plans as specified below. When cofferdams are not specified in the contract documents and conditions are encountered where the excavation for the structure cannot be kept free of water for prosecuting the work by pumping and/or diverting water, the Contractor, with the written permission of the Engineer, will be permitted to construct a cofferdam.

The Contractor shall submit a cofferdam plan for each cofferdam to the Engineer for approval prior to the start of construction. Cofferdams shall not be installed or removed without the Engineer's approval. Work shall not be performed in flowing water except for the installation and removal of the cofferdam. The cofferdam plan shall address the following:

- (a) Cofferdam (Type 1). The Contractor shall submit a cofferdam plan which addresses the proposed methods of construction and removal; the construction sequence including staging; dewatering methods; erosion and sediment control measures; disposal of excavated material; effluent water control measures; backfilling; and the best management practices to prevent reintroduction of excavated material into the aquatic environment. The design and method of construction shall provide, within the measurement limits specified in Article 502.12, necessary clearance for forms, inspection of exterior of the forms, pumping, and protection of fresh concrete from water. For Type 1 cofferdams, it is anticipated the design will be based on the EWSE shown on the contract plans. The Contractor shall assume all liability, financial or otherwise for a Type 1 cofferdam designed for an elevation lower than the EWSE.
- (b) Cofferdam (Type 2). In addition to the requirements of Article 502.06(a), the Contractor's submittal shall include detailed drawings and design calculations, prepared and sealed by an Illinois Licensed Structural Engineer. For Type 2 cofferdams it is anticipated the design will be based on the CDWE shown on the contract plans. The Contractor shall assume all liability, financial or otherwise for a Type 2 cofferdam designed for an elevation lower than the CDWE.
- (c) Seal Coat. The seal coat concrete, when shown on the plans, is based on design assumptions in order to establish an estimated quantity. When seal coat is indeed utilized, it shall be considered an integral part of the overall cofferdam system and, therefore, its design shall be included in the overall cofferdam design submittal. If a seal coat was not specified but determined to be necessary, it shall be added to the contract by written permission of the Engineer. The seal coat concrete shall be constructed according to Article

503.14. After the excavation within the cofferdam has been completed and the piles have been driven (if applicable), and prior to placing the seal coat, the elevation of the bottom of the proposed seal coat shall be verified by soundings. The equipment and methods used to conduct the soundings shall meet the approval of the Engineer. Any material within the cofferdam above the approved bottom of the seal coat elevation shall be removed.

No component of the cofferdam shall extend into the substructure concrete or remain in place without written permission of the Engineer. Removal shall be according to the previously approved procedure. Unless otherwise approved in writing by the Engineer, all components of the cofferdam shall be removed.

Revise the first paragraph of 502.12(b) to read as follows.

(b) Measured Quantities. Structure excavation, when specified, will be measured for payment in its original position and the volume computed in cubic yards (cubic meters). Horizontal dimensions will not extend beyond vertical planes 2 ft (600 mm) outside of the edges of footings of bridges, walls, and corrugated steel plate arches. The vertical dimension for structure excavation will be the average depth from the surface of the material to be excavated to the bottom of the footing as shown on the plans or ordered in writing by the Engineer. The volume of any unstable and/or unsuitable material removed within the structure excavation will be measured for payment in cubic yards (cubic meters).

Revise the last paragraph of 502.12(b) to read as follows.

Cofferdam excavation will be measured for payment in cubic yards (cubic meters) in its original position within the cofferdam. Unless otherwise shown on the plans, the horizontal dimensions used in computing the volume will not extend beyond vertical planes 2 ft (600 mm) outside of the edges of the substructure footings or 4 ft (1.2 m) outside of the faces of the substructure stem wall, whichever is greater. The vertical dimensions will be the average depth from the surface of the material to be excavated to the elevation shown on the plans for bottom of the footing, stem wall, or seal coat, or as otherwise determined by the Engineer as the bottom of the excavation.

Revise the first sentence of the sixth paragraph of 502.13 to read as follows.

Cofferdams, when specified, will be paid for at the contract unit price per each for COFFERDAM (TYPE 1) or COFFERDAM (TYPE 2), at the locations specified.

GRANULAR BACKFILL FOR STRUCTURES

Effective: April 19, 2012 Revised: October 30, 2012

Revise Section 586 of the Standard Specifications to read:

SECTION 586. GRANULAR BACKFILL FOR STRUCTURES

586.01 Description. This work shall consist of furnishing, transporting and placing granular backfill for abutment structures.

586.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Fine Aggregate	
(b) Coarse Aggregates	

CONSTRUCTION REQUIREMENTS

586.03 General. This work shall be done according to Article 502.10 except as modified below. The backfill volume shall be backfilled, with granular material as specified in Article 586.02, to the required elevation as shown in the contract plans. The backfill volume shall be placed in convenient lifts for the full width to be backfilled. Unless otherwise specified in the contract plans, mechanical compaction will not be required. A deposit of gravel or crushed stone placed behind drain holes shall not be required. All drains not covered by geocomposite wall drains or other devices to prevent loss of backfill material shall be covered by sufficient filter fabric material meeting the requirements of Section 1080 and Section 282 with either 6 or 8 oz/sq yd (200 or 270 g/sq m) material allowed, with free edges overlapping the drain hole by at least 12 in. (300 mm) in all directions.

The granular backfill shall be brought to the finished grade as shown in the contract plans. When concrete is to be cast on top of the granular backfill, the Contractor, subject to approval of the Engineer, may prepare the top surface of the fill to receive the concrete as he/she deems necessary for satisfactory placement at no additional cost to the Department.

586.04 Method of Measurement. This work will be measured for payment as follows.

- (a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a).
- (b) Measured Quantities. This work will be measured for payment in place and the volume computed in cubic yards (cubic meters). The volume will be determined by the method of average end areas behind the abutment.

586.05 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for GRANULAR BACKFILL FOR STRUCTURES.

BRIDGE DECK CONSTRUCTION

Effective: October 22, 2013 Revised: April 18, 2014

Revise the Second Paragraph of Article 503.06(b) to read as follows.

"When the Contractor uses cantilever forming brackets on exterior beams or girders, additional requirements shall be as follows."

Revise Article 503.06(b)(1) to read as follows.

"(1) Bracket Placement. The spacing of brackets shall be per the manufacturer's published design specifications for the size of the overhang and the construction loads anticipated. The resulting force of the leg brace of the cantilever bracket shall bear on the web within 6 inches (150 mm) of the bottom flange of the beam or girder."

Revise Article 503.06(b)(2) to read as follows.

"(2) Beam Ties. The top flange of exterior steel beams or girders supporting the cantilever forming brackets shall be tied to the bottom flange of the next interior beam. The top flange of exterior concrete beams supporting the cantilever forming brackets shall be tied to the top flange of the next interior beam. The ties shall be spaced at 4 ft (1.2 m) centers. Permanent cross frames on steel girders may be considered a tie. Ties shall be a minimum of 1/2 inch (13 mm) diameter threaded rod with an adjusting mechanism for drawing the tie taut. The ties shall utilize hanger brackets or clips which hook onto the flange of steel beams. No welding will be permitted to the structural steel or stud shear connectors, or to reinforcement bars of concrete beams, for the installation of the tie bar system. After installation of the ties and blocking, the tie shall be drawn taut until the tie does not vary from a straight line from beam to beam. The tie system shall be approved by the Engineer."

Revise Article 503.06(b)(3) to read as follows.

"(3) Beam Blocks. Suitable beam blocks of 4 in x 4 in (100 x 100 mm) timbers or metal structural shapes of equivalent strength or better, acceptable to the Engineer, shall be wedged between the webs of the two beams tied together, within 6 inches (150 mm) of the bottom flange at each location where they are tied. When it is not feasible to have the resulting force from the leg brace of the cantilever brackets transmitted to the web within 6 inches (150 mm) of the bottom flange, then additional blocking shall be placed at each bracket to transmit the resulting force to within 6 inches (150 mm) of the bottom flange of the next interior beam or girder."

Delete the last paragraph of Article 503.06(b).

Revise the third paragraph of Article 503.16 to read as follows.

"Fogging equipment shall be in operation unless the evaporation rate is less than 0.1 lb/sq ft/hour (0.5kg/sq m/hour) and the Engineer gives permission to stop. The evaporation rate shall be determined according to the following formula.

$$E = (T_c^{2.5} - rT_a^{2.5})(1 + 0.4V)x10^{-6} (English)$$

$$E = 5[(T_c + 18)^{2.5} - r(T_a + 18)^{2.5}](V + 4)x10^{-6} (Metric)$$

Where:

 $E = \text{Evaporation Rate, lb/ft}^2/\text{h (kg/sq m/h)}$

 $T_c = \text{Concrete Temperature, } ^{\circ} F(^{\circ} C)$

 $T_a = \text{Air Temperature, } ^{\circ} F(^{\circ} C)$

r = Relative Humidity in percent/100

V = Wind Velocity, mph (km/h)

The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment. Fogging equipment shall be adequate to reach or cover the entire pour from behind the finishing machine or vibrating screed to the point of curing covering application, and shall be operated in a manner which shall not accumulate water on the deck until the curing covering has been placed."

Revise the third paragraph of Article 503.16(a)(1) to read as follows.

"At the Contractor's option, a vibrating screed may be used in lieu of a finishing machine for superstructures with a pour width less than or equal to 24 ft (7.3 m). After the concrete is placed and consolidated, it shall be struck off with a vibrating screed allowing for camber, if required. The vibrating screed shall be of a type approved by the Engineer. A slight excess of concrete shall be kept in front of the cutting edge at all times during the striking off operation. After screeding, the entire surface shall be finished with hand-operated longitudinal floats having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. Decks so finished need not be straightedge tested as specified in 503.16(a)(2)."

Delete the fifth paragraph of 503.16(a)(1).

Revise Article 503.16(a)(2) to read as follows.

"(2) Straightedge Testing and Surface Correction. After the finishing has been completed and while the concrete is still plastic, the surface shall be tested for trueness with a 10 ft (3 m) straightedge, or a hand-operated longitudinal float having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. The Contractor shall furnish and use an accurate 10 ft (3 m) straightedge or float which has a handle not less than 3 ft (1 m) longer than 1/2 the pour width. The straightedge or float shall be held in contact with the surface and passed gradually from one side of the superstructure to the other. Advance along the surface

shall be in successive stages of not more than 1/2 the length of the straightedge or float. Any depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished."

Replace the second sentence of the first paragraph of Article 1020.13(a)(5) with the following sentences.

"Cotton mats in poor condition will not be allowed. The cotton mats shall be placed in a manner which will not create indentations greater than 1/4 inch (6 mm) in the concrete surface. Minor marring of the surface is tolerable and is secondary to the importance of timely curing."

Revise Article 1020.14(b) to read as follows.

- "(b) Concrete in Structures. Concrete may be placed when the air temperature is above 40 °F (4 °C) and rising, and concrete placement shall stop when the falling temperature reaches 45 °F (7 °C) or below, unless otherwise approved by the Engineer.
 - (1) Bridge Deck Concrete. For concrete in bridge decks, slabs, and bridge approach slabs the Contractor shall schedule placing and finishing of the concrete during hours in which the ambient air temperature is forecast to be lower than 85 °F (30 °C). It shall be understood this may require scheduling the deck pour at night in order to utilize the temperature window available. The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 85 °F (30 °C).
 - (2) Non-Bridge Deck Concrete. Except as noted above, the temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

If concrete is pumped, the temperature restrictions above shall be considered at point of placement. When insulated forms are used according to Article 1020.13(d)(1), the maximum temperature of the concrete mixture immediately before placement shall be 80 °F (25 °C). When concrete is placed in contact with previously placed concrete, the temperature of the freshly mixed concrete may be increased by the Contractor to offset anticipated heat loss, but in no case shall the maximum concrete temperature be permitted to exceed the limits stated in this Article."

Revise Article 1103.13(a) to read as follows.

"(a) Bridge Deck. The finishing machine shall be equipped with: (1) a mechanical strike off device; (2) either a rotating cylinder(s) or a longitudinal oscillating screed which transversely finishes the surface of the concrete. The Contractor may attach other equipment to the finishing machine to enhance the final finish when approved by the Engineer. The finishing machine shall produce a deck surface of uniform texture, free from porous areas, and with the required surface smoothness.

The finishing machine shall be operated on rails or other supports that will not deflect under the applied loads. The maximum length of rail segments supported on top of beams and within the pour shall be 10 ft (3 m). The supports shall be adjustable for elevation and shall be completely in place to allow the finishing machine to be used for the full length of the area to be finished. The supports shall be approved by the Engineer before placing of the concrete is started."

Revise Article 1103.17(k) to read as follows.

"(k) Fogging Equipment. Fogging equipment shall be hand held fogging equipment for humidity control. The equipment shall be capable of atomizing water to produce a fog blanket by the use of pressure 2500 psi minimum (17.24 MPa) and an industrial fire hose fogging nozzle or equivalent. Fogging equipment attached to the finishing machine will not be permitted."

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or onthe-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If

the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 DOT-assisted contracts. 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 contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

 $\ensuremath{\text{(ii)}}$ The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federallyassisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(1) The contractor shall submit weekly for each week in which b. any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose Wage and Hour Division Web from the site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such

contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<u>https://www.epls.gov/</u>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with

commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<u>https://www.epls.gov/</u>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.