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

PREQUALIFICATION

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

REQUESTS FOR AUTHORIZATION TO BID

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

WHO CAN BID ?

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

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

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

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

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

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

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

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

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

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

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

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

RETURN WITH BID

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Proposal Submitted By
Name
Address
City

Letting April 29, 2005

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

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

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

Illinois Department of Transportation

Springfield, Illinois 62764

Contract No. 87270
MCLEAN County
Section 02-00325-00-BR (Bloomington)
Route FAU 6401 (Fell Avenue)
Project BRM-5227(44)
District 3 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

☐ A Bid Bond is included.

☐ A Cashier's Check or a Certified Check is included

Prepared by

Checked by F

(Printed by authority of the State of Illinois)

INSTRUCTIONS

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

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

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

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

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond

2. Other special documentation and/or information that may be required by the contract special provisions

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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

RETURN WITH BID

PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

   _____

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

Contract No. 87270
MCLEAN County
Section 02-00325-00-BR (Bloomington)
Project BRM-5227(44)
Route FAU 6401 (Fell Avenue)
District 3 Construction Funds

Construction consists of a three span reinforced concrete slab bridge including sanitary sewer relocation, carrying FAU Route 6401, Fell Avenue over Sugar Creek in the City of Bloomington.

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

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

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 Bid			Proposal Guaranty	Amount of Bid			Proposal Guaranty
Up to		$5,000	$150	$2,000,000	to	$3,000,000	$100,000
$5,000	to	$10,000	$300	$3,000,000	to	$5,000,000	$150,000
$10,000	to	$50,000	$1,000	$5,000,000	to	$7,500,000	$250,000
$50,000	to	$100,000	$3,000	$7,500,000	to	$10,000,000	$400,000
$100,000	to	$150,000	$5,000	$10,000,000	to	$15,000,000	$500,000
$150,000	to	$250,000	$7,500	$15,000,000	to	$20,000,000	$600,000
$250,000	to	$500,000	$12,500	$20,000,000	to	$25,000,000	$700,000
$500,000	to	$1,000,000	$25,000	$25,000,000	to	$30,000,000	$800,000
$1,000,000	to	$1,500,000	$50,000	$30,000,000	to	$35,000,000	$900,000
$1,500,000	to	$2,000,000	$75,000	over		$35,000,000	$1,000,000

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

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

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

Attach Cashier's Check or Certified Check Here

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

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

Item _____

Section No. _____

County _____

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

BD 354 (Rev. 11/2001)

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

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

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

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid Dollars	Cents

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

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

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
MCLEAN	113	03	02-00325-00-BR (BLOOMINGTON)	BRM-5227/044/000	FAU 6401

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
XX000868	SELECT GRAN BACKFILL	CU YD	325.000	X			=		
XX001490	GATE VALVES 8	EACH	5.000	X			=		
XX002082	SAN SEW REMOV 24	FOOT	16.000	X			=		
XX002159	WATER SERV INSTAL 1	EACH	8.000	X			=		
XX002982	GATE VALVES 6	EACH	4.000	X			=		
XX003528	D I WAT MNF 8 PLUG	EACH	1.000	X			=		
XX003539	D I WAT MNF 8 X 6 TEE	EACH	2.000	X			=		
XX003799	COPPER SERVICE TK 1	FOOT	218.000	X			=		
XX004377	STEAMER FIRE HYDRANTS	EACH	2.000	X			=		
XX006164	HYDRANT INSTALLATIOM	EACH	1.000	X			=		
XX006165	BURY EXISTING MANHOLE	EACH	1.000	X			=		
XX006166	SUBMERS PUMPS & ACCES	L SUM	1.000	X			=		
XX006167	4" FORCE MAIN	FOOT	25.000	X			=		
XX006168	SAMPLING TAP	EACH	3.000	X			=		
XX006169	ENG GEN SET PUMP STA	L SUM	1.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
XX006170	EXC & BACKFILL FOR ST	L SUM	1.000	X			=		
XX006171	WETWELL & V V STRUCT	L SUM	1.000	X			=		
X0321430	BR APP PVT CON PCC SP	SQ YD	42.000	X			=		
X0322033	STORM SEW WM REQ 12	FOOT	129.000	X			=		
X0323172	DI WM BEND 45 8"	EACH	2.000	X			=		
X0323181	DI WAT MN RED, 6 X 4	EACH	1.000	X			=		
X0323182	DI WAT MN RED, 8 X 6	EACH	1.000	X			=		
X0323185	DI WAT MN TEE, 6 X 6	EACH	1.000	X			=		
X0487800	SAN SEW REMOV 12	FOOT	114.000	X			=		
X0539200	DROP MAN CONNECTION	EACH	2.000	X			=		
X0783300	P.S. ELECTRICAL WORK	L SUM	1.000	X			=		
X4020500	AGG SURF CSE B 6	SQ YD	133.000	X			=		
X4066424	BC SC SUPER "D" N50	TON	5.000	X			=		
X5020501	UNWAT STR EX PROT L1	EACH	2.000	X			=		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
Z0057100	SAN SEW 12	FOOT	175.000	X			=		
Z0067600	STEEL CASINGS 18	FOOT	50.000	X			=		
Z0067900	STEEL CASINGS 24	FOOT	20.000	X			=		
Z0076600	TRAINEES	HOUR	1,000.000	X	0	80	=	800	00
20100110	TREE REMOV 6-15	UNIT	78.000	X			=		
20100210	TREE REMOV OVER 15	UNIT	85.000	X			=		
20101000	TEMPORARY FENCE	FOOT	91.000	X			=		
20101400	NITROGEN FERT NUTR	POUND	19.000	X			=		
20101500	PHOSPHORUS FERT NUTR	POUND	19.000	X			=		
20101600	POTASSIUM FERT NUTR	POUND	19.000	X			=		
20200100	EARTH EXCAVATION	CU YD	1,330.000	X			=		
21101625	TOPSOIL F & P 6	SQ YD	1,025.000	X			=		
25000100	SEEDING CL 1	ACRE	0.250	X			=		
25000110	SEEDING CL 1A	ACRE	0.250	X			=		
25100105	MULCH METHOD 1	ACRE	0.610	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
28000250	TEMP EROS CONTR SEED	POUND	36.000	X			=		
28000400	PERIMETER EROS BAR	FOOT	755.000	X			=		
28000500	INLET & PIPE PROTECT	EACH	6.000	X			=		
31100300	SUB GRAN MAT A 4	SQ YD	1,385.000	X			=		
40600980	BIT SURF REM BUTT JT	SQ YD	46.000	X			=		
42000201	PCC PVT 7 JOINTED	SQ YD	1,001.000	X			=		
42001300	PROTECTIVE COAT	SQ YD	1,648.000	X			=		
42001400	BR APPROACH PAVT SPL	SQ YD	206.000	X			=		
42300200	PCC DRIVEWAY PAVT 6	SQ YD	256.000	X			=		
42400100	PC CONC SIDEWALK 4	SQ FT	2,797.000	X			=		
44000100	PAVEMENT REM	SQ YD	1,325.000	X			=		
44000200	DRIVE PAVEMENT REM	SQ YD	250.000	X			=		
44000300	CURB REM	FOOT	788.000	X			=		
44000600	SIDEWALK REM	SQ FT	1,284.000	X			=		
50100300	REM EXIST STRUCT N1	EACH	1.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
50100400	REM EXIST STRUCT N2	EACH	1.000	X			=		
50104400	CONC HDWL REM	EACH	1.000	X			=		
50200100	STRUCTURE EXCAVATION	CU YD	63.000	X			=		
50300100	FLOOR DRAINS	EACH	2.000	X			=		
50300225	CONC STRUCT	CU YD	226.000	X			=		
50300255	CONC SUP-STR	CU YD	192.000	X			=		
50300260	BR DECK GROOVING	SQ YD	264.000	X			=		
50800205	REINF BARS, EPOXY CTD	POUND	59,655.000	X			=		
50900805	PEDESTRIAN RAIL	FOOT	158.000	X			=		
51100400	SLOPE WALL SPL	SQ YD	3,214.000	X			=		
51201000	FUR MET PILE SHELL 12	FOOT	975.000	X			=		
51202600	DRIV & FILLING SHELLS	FOOT	975.000	X			=		
51203200	TEST PILE MET SHELLS	EACH	2.000	X			=		
51500100	NAME PLATES	EACH	1.000	X			=		
54215412	CIP RC END SEC 12	EACH	2.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
54215424	CIP RC END SEC 24	EACH	1.000	X		=		
54215436	CIP RC END SEC 36	EACH	1.000	X		=		
54247170	GRATING-C FL END S 36	EACH	1.000	X		=		
550A0050	STORM SEW CL A 1 12	FOOT	58.000	X		=		
550A0120	STORM SEW CL A 1 24	FOOT	40.000	X		=		
550A0160	STORM SEW CL A 1 36	FOOT	22.000	X		=		
55101200	STORM SEWER REM 24	FOOT	16.000	X		=		
56103000	D I WATER MAIN 6	FOOT	85.000	X		=		
56103100	D I WATER MAIN 8	FOOT	428.000	X		=		
56400500	FIRE HYDNTS TO BE REM	EACH	1.000	X		=		
60218400	MAN TA 4 DIA T1F CL	EACH	2.000	X		=		
60235700	INLETS TA T3F&G	EACH	2.000	X		=		
60236200	INLETS TA T8G	EACH	3.000	X		=		
60248700	VV TA 4 DIA T1F CL	EACH	1.000	X		=		
60249400	VALVE BOXES 6	EACH	4.000	X		=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
60249500	VALVE BOXES 8	EACH	3.000	X			=		
60255500	MAN ADJUST	EACH	1.000	X			=		
60257900	MAN RECONST	EACH	2.000	X			=		
60260100	INLETS ADJUST	EACH	3.000	X			=		
60260400	INLETS ADJ NEW T1F CL	EACH	1.000	X			=		
60500040	REMOV MANHOLES	EACH	1.000	X			=		
60604400	COMB CC&G TB6.18	FOOT	624.500	X			=		
60801024	FLAP GATE 24	EACH	1.000	X			=		
70101700	TRAF CONT & PROT	L SUM	1.000	X			=		
78005110	EPOXY PVT MK LINE 4	FOOT	833.000	X			=		

TOTAL $

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.

RETURN WITH BID

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

I. GENERAL

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

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

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

II. ASSURANCES

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

B. Felons

1. The Illinois Procurement Code provides:

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

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

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

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

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

E. Inducements

1. The Illinois Procurement Code provides:

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

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

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

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

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

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

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

H. Confidentiality

1. The Illinois Procurement Code provides:

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

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

RETURN WITH BID

I. Insider Information

1. The Illinois Procurement Act provides:

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

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

III. CERTIFICATIONS

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

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

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

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

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

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

C. Educational Loan

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

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

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

D. Bid-Rigging/Bid Rotating

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

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

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

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

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

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

E. International Anti-Boycott

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

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

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

F. Drug Free Workplace

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

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

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

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

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

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

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

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

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

G. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

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

I. ADDENDA

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

J. Section 42 of the Environmental Protection Act

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

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

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

_____

_____

_____

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

TO BE RETURNED WITH BID

IV. DISCLOSURES

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

B. Financial Interests and Conflicts of Interest

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

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

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

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

C. Disclosure Form Instructions

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

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

CERTIFICATION STATEMENT

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

_____
(Bidding Company)

_____ _____
Name of Authorized Representative (type or print) Title of Authorized Representative (type or print)

_____ _____
Signature of Authorized Representative Date

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

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

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

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

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

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

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

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

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

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

D. Bidders Submitting More Than One Bid

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

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

_____

_____

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ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A
Financial Information & Potential Conflicts of Interest Disclosure

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

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

DISCLOSURE OF FINANCIAL INFORMATION

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

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

_____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):

% or $ value of ownership/distributable income share: _____

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

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

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

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No __

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds $90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary. _____
_____

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

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

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

Yes ___No __

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

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___No __

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name of 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 $90,420.00, (60% of the salary of the Governor as of 7/1/01) 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 the salary of the Governor? Yes ___ No __

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or 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 2 times the salary of the Governor?

Yes ___ No __

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

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

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United 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. Yes ___No __

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

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

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

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

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

APPLICABLE STATEMENT

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

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

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

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

NOT APPLICABLE STATEMENT

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

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

_____
Name of Authorized Representative (type or print)

_____
Title of Authorized Representative (type or print)

_____ _____
Signature of Authorized Representative — Date

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ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Other Contracts & Procurement Related Information Disclosure

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

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

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

THE FOLLOWING STATEMENT MUST BE SIGNED

_____
Name of Authorized Representative (type or print)

_____
Title of Authorized Representative (type or print)

_____ _____
Signature of Authorized Representative Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

(a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.

(b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.

(c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

Illinois Department of Transportation

Contract No. 87270
MCLEAN County
Section 02-00325-00-BR (Bloomington)
Project BRM-5227(44)
Route FAU 6401 (Fell Avenue)
District 3 Construction Funds

PART I. IDENTIFICATION

Dept. Human Rights # _____ Duration of Project: _____

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

TOTAL Workforce Projection for Contract													TABLE B: CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
			MINORITY EMPLOYEES						TRAINEES				TOTAL EMPLOYEES		MINORITY EMPLOYEES	
JOB CATEGORIES	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.		APPREN-TICES		ON THE JOB TRAINEES					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	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																

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	F
APPRENTICES								
ON THE JOB TRAINEES								

FOR DEPARTMENT USE ONLY

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

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

Note: See instructions on the next page

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

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

Company _____ Telephone Number _____

_____

Address _____

NOTICE REGARDING SIGNATURE

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

Signature: _____ Title: _____ Date: _____

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.

Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

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. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:

1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____

2. 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 _____

RETURN WITH BID

Contract No. 87270
MCLEAN County
Section 02-00325-00-BR (Bloomington)
Project BRM-5227(44)
Route FAU 6401 (Fell Avenue)
District 3 Construction Funds

PROPOSAL SIGNATURE SHEET

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

Firm Name _____

(IF AN INDIVIDUAL)

Signature of Owner _____

Business Address _____

_____

Firm Name _____

By _____

(IF A CO-PARTNERSHIP)

Business Address _____

_____

Name and Address of All Members of the Firm:

_____ _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A CORPORATION)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

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

Business Address _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A JOINT VENTURE)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

Business Address _____

_____

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

RETURN WITH BID

Illinois Department of Transportation

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

Item No. _____
Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

_____

as PRINCIPAL, and _____

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

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

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

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

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

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

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
COUNTY OF _____

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

_____and _____

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

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

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

My commission expires _____ _____
Notary Public

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

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

PROPOSAL ENVELOPE

Illinois Department of Transportation

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 323
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. 87270
MCLEAN County
Section 02-00325-00-BR (Bloomington)
Project BRM-5227(44)
Route FAU 6401 (Fell Avenue)
District 3 Construction Funds

Illinois Department of Transportation

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., April 29, 2005. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.

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

   Contract No. 87270
   MCLEAN County
   Section 02-00325-00-BR (Bloomington)
   Project BRM-5227(44)
   Route FAU 6401 (Fell Avenue)
   District 3 Construction Funds

Construction consists of a three span reinforced concrete slab bridge including sanitary sewer relocation, carrying FAU Route 6401, Fell Avenue over Sugar Creek in the City of Bloomington.

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

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

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

By Order of the
Illinois Department of Transportation

Timothy W. Martin, Secretary

BD 351 (Rev. 01/2003)

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

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

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

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS

SPECIAL PROVISIONS

Fell Avenue Bridge Replacement over Sugar Creek

Table of Contents

BDE SPECIAL PROVISIONS
For The April 29, 2005 Letting

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

File Name	Pg.#		Special Provision Title	Effective	Revised
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	
80141			Additional Award Criteria	June 1, 2004	
80108			Asbestos Bearing Pad Removal	Nov. 1, 2003	
7254I			Asbestos Waterproofing Membrane and Asbestos Bituminous Concrete Surface Removal	June 1, 1989	June 30,1994
80128			Authority of Railroad Engineer	July 1, 2004	
80065			Bituminous Base Course/Widening Superpave	April 1, 2002	April 1, 2004
80050			Bituminous Concrete Surface Course	April 1, 2001	April 1, 2003
80142			Bituminous Equipment, Spreading and Finishing Machine	Jan. 1, 2005	
80066	119	X	Bridge Deck Construction	April 1, 2002	April 1, 2004
5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	Aug. 1, 2001
5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	Aug. 1, 2001
5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	Aug. 1, 2001
5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	Aug. 1, 2001
* 80118	121	X	Butt Joints	April 1, 2004	April 1, 2005
80031			Calcium Chloride Accelerator for Portland Cement Concrete Patching	Jan. 1, 2001	
80077			Chair Supports	Nov. 1, 2002	Nov. 2, 2002
80051	122	X	Coarse Aggregate for Trench Backfill, Backfill and Bedding	April 1, 2001	Nov. 1, 2003
80094	129	X	Concrete Admixtures	Jan. 1, 2003	July 1, 2004
80112			Concrete Barrier	Jan. 1, 2004	April 2, 2004
80102			Corrugated Metal Pipe Culverts	Aug. 1, 2003	July 1, 2004
80113	134	X	Curb Ramps for Sidewalk	Jan. 1, 2004	
80114	137	X	Curing and Protection of Concrete Construction	Jan. 1, 2004	
80029	145	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	June 1, 2004
* 80144			Elastomeric Bearings	April 1, 2005	
31578	153	X	Epoxy Coating on Reinforcement	April 1, 1997	Jan. 1, 2003
80041			Epoxy Pavement Marking	Jan. 1, 2001	Aug. 1, 2003
80055	154	X	Erosion and Sediment Control Deficiency Deduction	Aug. 1, 2001	Nov. 1, 2001
80103	155	X	Expansion Joints	Aug. 1, 2003	
* 80101	156	X	Flagger Vests	April 1, 2003	April 1, 2005
80079	157	X	Freeze-Thaw Rating	Nov. 1, 2002	
80072			Furnished Excavation	Aug. 1, 2002	Nov. 1, 2004
80054	158	X	Hand Vibrator	Nov. 1, 2003	
80109			Impact Attenuators	Nov. 1, 2003	
80110			Impact Attenuators, Temporary	Nov. 1, 2003	April 1, 2004
80104			Inlet Filters	Aug. 1, 2003	
80080			Insertion Lining of Pipe Culverts	Nov. 1, 2002	Aug. 1, 2003
80067			Light Emitting Diode (LED) Signal Head	April 1, 2002	Aug. 1, 2003
80081			Lime Gradation Requirements	Nov. 1, 2002	
* 80133			Lime Stabilized Soil Mixture	Nov. 1, 2004	April 1, 2005
80045			Material Transfer Device	June 15, 1999	March 1, 2001
80137			Minimum Lane Width with Lane Closure	Jan. 1, 2005	
80138			Mulching Seeded Areas	Jan. 1, 2005	
80082			Multilane Pavement Patching	Nov. 1, 2002	
80129			Notched Wedge Longitudinal Joint	July 1, 2004	
80069			Organic Zinc-Rich Paint System	Nov. 1, 2001	Aug. 1, 2003
80116	159	X	Partial Payments	Sept. 1, 2003	
80013			Pavement and Shoulder Resurfacing	Feb. 1, 2000	July 1, 2004
53600			Pavement Thickness Determination for Payment	April 1, 1999	Jan. 1, 2004
80022	160	X	Payment to Subcontractors	June 1, 2000	Sept. 1, 2003
80130	161	X	Personal Protective Equipment	July 1, 2004	
80134			Plastic Blockouts for Guardrail	Nov. 1, 2004	
80073			Polymer Modified Emulsified Asphalt	Nov. 1, 2002	
80119			Polyurea Pavement Marking	April 1, 2004	
80124			Portable Changeable Message Signs	Nov. 1, 1993	April 2, 2004
80139			Portland Cement	Jan. 1, 2005	

	File Name	Pg.#		Special Provision Title	Effective	Revised
	80083	162	X	Portland Cement Concrete	Nov. 1, 2002	
	80036			Portland Cement Concrete Patching	Jan. 1, 2001	Jan. 1, 2004
	419	163	X	Precast Concrete Products	July 1, 1999	Nov. 1, 2004
	80120			Precast, Prestressed Concrete Members	April 1, 2004	
	80084			Preformed Recycled Rubber Joint Filler	Nov. 1, 2002	
	80015			Public Convenience and Safety	Jan. 1, 2000	
*	80121			PVC Pipeliner	April 1, 2004	April 1, 2005
	80122			Railroad, Full-Actuated Controller	April 1, 2004	
	3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	May 1, 1988
	80105			Raised Reflective Pavement Markers (Bridge)	Aug. 1, 2003	
	80011			RAP for Use in Bituminous Concrete Mixtures	Jan. 1, 2000	April 1, 2002
	80032			Remove and Re-Erect Steel Plate Beam Guardrail and Traffic Barrier Terminals	Jan. 1, 2001	Jan. 1, 2005
	80085			Sealing Abandoned Water Wells	Nov. 1, 2002	
	80131			Seeding and Sodding	July 1, 2004	Nov. 1, 2004
	80132	164	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	
	80096			Shoulder Rumble Strips	Jan. 1, 2003	
	80140			Shoulder Stabilization at Guardrail	Jan. 1, 2005	
*	80135			Soil Modification	Nov. 1, 2004	April 1, 2005
	80070			Stabilized Subbase and Bituminous Shoulders Superpave	April 1, 2002	July 1, 2004
	80127			Steel Cost Adjustment	April 2, 2004	July 1, 2004
	80086	166	X	Subgrade Preparation	Nov. 1, 2002	
	80136			Superpave Bituminous Concrete Mixture IL-4.75	Nov. 1, 2004	
	80010	167	X	Superpave Bituminous Concrete Mixtures	Jan. 1, 2000	April 1, 2004
	80039			Superpave Bituminous Concrete Mixtures (Low ESAL)	Jan. 1, 2001	April 1, 2004
	80075			Surface Testing of Pavements	April 1, 2002	July 1, 2004
*	80145			Suspension of Slipformed Parapets	June 11, 2004	
	80092			Temporary Concrete Barrier	Oct. 1, 2002	Nov. 1, 2003
	80087	174	X	Temporary Erosion Control	Nov. 1, 2002	
	80008			Temporary Module Glare Screen System	Jan. 1, 2000	
	80106			Temporary Portable Bridge Traffic Signals	Aug. 1, 2003	
	80098			Traffic Barrier Terminals	Jan. 1, 2003	
	5729I	176	X	Traffic Control Deficiency Deduction	April 1, 1992	Jan. 1, 2005
	20338	177	X	Training Special Provisions	Oct. 15, 1975	
	80107			Transient Voltage Surge Suppression	Aug. 1, 2003	
	80123	180	X	Truck Bed Release Agent	April 1, 2004	
	80048	181	X	Weight Control Deficiency Deduction	April 1, 2001	Aug. 1, 2002
	80090			Work Zone Public Information Signs	Sept. 1, 2002	Jan. 1, 2005
	80125			Work Zone Speed Limit Signs	April 2, 2004	April 15, 2004
*	80126			Work Zone Traffic Control	April 2, 2004	Jan. 2, 2005
	80097	183	X	Work Zone Traffic Control Devices	Jan. 1, 2003	Nov. 1, 2004
	80071	185	X	Working Days	Jan. 1, 2002	

The following special provisions have been **deleted** from use:

80111 Additional Bidder Responsibility — This special provision has been replaced by the BDE Special Provision, "Additional Award Criteria".

43761 Driving Guardrail Posts — This special provision has been made obsolete by revising Standard 630201 and issuing the BDE Special Provision, "Shoulder Stabilization at Guardrail".

80091 Underdrain Operations — This special provision is no longer required and has been deleted.

The following special provisions are in the 2005 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80052	Adjusting Frames and Grates	Sections 602, 603, and 1043	Aug. 1, 2001	Nov. 1, 2001
80093	Articulated Block Revetment Mat	Sections 285 and 1005	Jan. 1, 2003	
80078	Controlled Aggregate Mixing System	Sections 311, 351, and 481	Nov. 1, 2002	
80100	Epoxy Coatings for Steel Reinforcement	Section 1006	April 1, 2003	
80095	Precast Block Revetment Mat	Sections 285 and 1005	Jan. 1, 2003	
80074	Shoulder Inlets with Curb	Section 610	Aug. 1, 2002	
80117	Stone for Erosion Protection, Sediment Control, and Rockfill	Sections 281 and 1005	Jan. 1, 2004	
80088	Traffic Structures	Sections 1069 and 1077	Nov. 1, 2002	

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

SPECIAL PROVISIONS

Fell Avenue Bridge Replacement over Sugar Creek

GENERAL SPECIFICATIONS

Work to be performed under this contract shall be performed in accordance with the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2002 by the Illinois Department of Transportation, and current Supplemental Specifications and Recurring Special Provisions, except as modified by these Special Provisions. In case of conflict between the Standard Specifications and these Special Provisions, these Special Provisions shall take precedent and govern. Included by reference as Special Provisions are applicable provisions of Divisions II through V of the "Standard Specifications for Water and Sewer Main Construction in Illinois", Fifth Edition, dated May, 1996. Final clarification of any conflict shall be as directed by the Director of Engineering.

All mentions on the Plans and these Special Provisions to a section number shall refer to the portions of the above-mentioned Specifications unless otherwise noted. The fact that certain sections are specifically mentioned in these documents as an aid to the Contractor shall in no way relieve him/her of his/her responsibility to comply with all other applicable sections. In general, references by the Standard Specifications to road and bridge construction shall also apply to water and sewer main construction. In case of conflict with any part or parts of said Specifications, the Special Provisions shall take precedence and shall govern. The interpretation of these Special Provisions by the Director of Engineering will be final. Should there be unclear information on the Plans or Special Provisions, the bidder shall contact the Director of Engineering prior to his/her submission and secure a written clarification.

The work consists of the general construction work necessary for installing the improvements as per plan. The intent of contract documents including Plans, Specifications and Special Provisions is to obtain a complete job satisfactory to the Director of Engineering. It shall be understood that the bidder has satisfied himself/herself as to full requirements of the contract and has based his/her proposal upon such understanding.

The successful bidder will be required to maintain a set of Plans and a copy of the Standard Specifications on the job site at all times work is in progress, which copy shall be made available to the Director of Engineering or the Director's assigned representative.

101 DEFINITION OF TERMS

Insert the following terms and definitions:

FORCE MAIN – A pipe constructed or used to carry sewage under pressure.

MANHOLE – A vertical enclosed structure providing access to a pipe line or other structure.

OWNER – The city, sanitary district or other governmental body, corporation, partnership or individual initiating the WORK, acting through its legally constituted officials, officers, or employees.

PLUMBING – Plumbing shall be as defined in the latest adopted Illinois State Plumbing Code, copies of which are available from the Illinois Department of Public Health, Division of Engineering and Sanitation, 535 West Jefferson Street, Springfield, Illinois 62706.

SEWER, COMBINED – Any sewer constructed or used for the purpose of carrying both storm water and waterborne wastes to a treatment facility.

SEWER, SANITARY – Any sewer constructed or used for the purpose of carrying waterborne wastes to a treatment facility.

SEWER, SERVICE – A branch sanitary sewer line constructed from the main sanitary sewer line to a point described in the Special Provisions or Plans or to a point established by the ENGINEER.

SUPPLIER – Any person or organization who supplies materials or equipment for the WORK including that fabricated to a special design.

WATER MAIN – A pipe constructed or used to carry potable water under pressure.

WATER SERVICE LINE – That line connected to the water main which delivers potable water to the user's facilities.

101.1 ABBREVIATIONS

Insert the following to the list of abbreviations:

NSF - National Sanitation Test Laboratory Foundation

IDOT -Illinois Department of Transportation

OSHA - Occupational Safety and Health Act

107.20 PROTECTION AND RESTORATION OF PROPERTY

Special attention is called to this article of the Standard Specifications for Road and Bridge Construction, especially as it relates to the existing parking lot located within the temporary easement area surrounding the proposed lift station. The area located between the limits of the temporary easement and the proposed fence shall be restored to its existing condition following the Contractor's operations at this location. If the Contractor's operations damage the bituminous parking lot, any aggregate, bituminous materials, or other items necessary to repair the parking lot to its existing condition shall be the sole responsibility of the Contractor.

107.30 CONTRACTOR'S RESPONSIBILITY FOR WORK

Insert the following paragraph at the end of this section:

The CONTRACTOR shall warrant all WORK performed for a period for one (1) year from date of final acceptance in writing by the ENGINEER. In case of acceptance of a part of the WORK for use or occupancy prior to final acceptance of the entire WORK, the guarantee for the part so accepted shall be for a period of one year from the date of such partial acceptance, in writing, by the ENGINEER.

108.03 PROSECUTION OF THE WORK

Insert the following paragraph at the beginning of this section:

Unless the need for a preconstruction conference is waived by the ENGINEER, the CONTRACTOR shall make himself and his representatives available to meet with the ENGINEER and other representatives of the OWNER, prior to the start of construction to discuss scheduling, handling of materials, payments, etc.

205.05 COMPACTION

Change the third paragraph to show that the top 2 ft of all embankments shall not contain more that 110 percent of the optimum moisture determined according to AASHTO T 99 (Method C).

MAINTENANCE OF TRAFFIC AND CLOSING OF STREETS

Traffic Control shall be maintained throughout the project in accordance with the various City, State and Federal regulations and agreements attached hereto. The procedures and guidelines set forth in Chapter 6: "Traffic Controls for Highway Construction and Maintenance Operations" of the Manual of Uniform Traffic Control Devices for Streets and Highways shall be followed to the fullest extent. Articles 701.01 through 701.06 of the Standard Specifications for Road and Bridge Construction shall apply to this work. The Contractor shall coordinate all lane closures and detours with the Department of Engineering and Water so that public news releases can be initiated before the work begins.

All temporary pavement markings, traffic signs, barricades and maintenance of these items are included in this item.

At the pre-construction meeting, the Contractor shall furnish the name of the individual(s) in his direct employ who shall be responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by a Subcontractor, consent shall be requested of the City at the time of the pre-construction meeting in accordance with Article 108.01 of the Standard Specifications. Such consent shall not relieve the Contractor of the foregoing requirement for a responsible individual in his direct employ. The City will provide the Contractor with the name of its representative who will be responsible for the administration of Traffic Control. The attached form "Traffic Control Authorization Request" which furnishes the name of the individual(s) in the Contractor's direct employ who shall be responsible for the installation and maintenance of the traffic control should be furnished at the pre-construction meeting.

This work shall include furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic. Traffic control shall be provided as called for in the Plans, applicable Highway Standards, these Special Provisions, or as directed by the Engineer. The Contractor shall be responsible for the proper locations, installation and arrangement of all traffic control devices.

To ensure a prompt response to incidents involving the integrity of the work zone traffic control devices, the Contractor shall provide Form BT 725 which includes a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis. When the Engineer is notified or determines a deficiency exists, he shall be the sole judge to whether the deficiency is an immediate safety hazard. The Contractor shall dispatch sufficient resources within 2 hours of notification to make needed corrections of deficiencies that constitute an immediate safety hazard. Other deficiencies shall be corrected within 12 hours. If the Contractor fails to restore the required traffic control and protection within the time limits specified above, the Engineer shall impose a daily monetary deduction for each 24-hour period, or portion thereof, the deficiency exists. This time period will begin at the time of notification to the Contractor and end with the Engineer's acceptance of the corrections. For this project, the daily deduction will be $1000.00. In addition, if the Contractor fails to respond, the Engineer may correct the deficiencies or have the deficiencies corrected by a qualified party and the cost thereof will be deducted from moneys due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his contractual requirements or responsibilities.

The Contractor shall maintain access to residents located along Fell Avenue for as long as reasonably possible, until the construction of the roadway embankment and roadway pavement prohibits local traffic movement. The Contractor shall give residences two working days notice before prohibiting local traffic into the construction zone and shall coordinate temporary parking for the duration of the work. The Contractor shall minimize this closure period.

This work shall be measured as one (1) lump sum for the entirety of the project, including all locations requiring traffic control.

This work shall be paid for at the contract unit price per LUMP SUM for TRAFFIC CONTROL AND PROTECTION, which price shall include all materials, equipment and labor to erect and maintain traffic control as specified.

WASTE MATERIAL

All waste material shall be hauled offsite. Cost of disposal of same will be included in the contract cost and not paid for by the City as separate items.

EARTH EXCAVATION

The Contractor must assume the risk of meeting sand, rubbish, buried pavements, and all other unforeseen obstacles. No claim for any amount of money beyond the Contract price of the work will be entertained or allowed on account of the nature of the ground in which the excavation is made.

EXPLORATORY EXCAVATION PAYMENT

The cost of exploratory excavations shall be considered incidental. All exploratory excavations shall be done at the Contractor's own risk.

SHORT TUNNELS

The Contractor may utilize short tunnels to avoid obstructions such as trees, fire hydrants, sidewalks and curbs. The Contractor shall physically verify the site and make his own judgment if such short tunnels will be required for any obstructions shown or not shown on the plan. No compensation shall be made for such omissions or for conclusions of the Contractor.

UTILITIES

In addition to the requirements of Sections 20-2.15 and 20-2.16 of the Standard Specifications for Water and Sewer Main Construction in Illinois, the Contractor shall, prior to starting operations, ascertain from all utilities companies/owners the exact location of their facilities whether these are indicated on the Plans or not. Any such facility disturbed by the Contractor's operations shall be restored by the Contractor at the Contractor's expense. Property owners/consumers shall be notified prior to any disconnection to their facility; however, no property owner/consumer shall be left without service overnight except with the written permission of the Director of Engineering.

The location of all existing utilities shown on the Construction Plans is both a horizontal and vertical approximation based upon record documents and limited field observations. The Engineer has made every effort to avoid conflict between the existing utilities and proposed improvements. However, the Contractor shall be responsible for field locating all utility crossings/conflicts shown on the Construction Plans. Any conflict that can be avoided by altering the grade of the proposed improvement, slightly altering a proposed structure or slightly altering the horizontal location of the proposed improvement shall be the responsibility of the Contractor with no additional compensation provided. Utility conflicts that require additional

Contract Materials shall be solely paid for at the contract unit price for the additional materials. Utility conflicts that require additional non-Contract Materials shall be paid for on a time and materials basis.

Utilities that conflict with the proposed construction are anticipated to be relocated prior to construction.

STATUS OF UTILITIES TO BE ADJUSTED

Name and Address of Utility	Type	Location	Estimated Date Relocation Completed
AmerenIP 501 East Lafayette Street Bloomington, IL 61701	Overhead Electric	Sta. 10+00 to Sta. 15+00	Prior to construction
Insight Communications 1202 West Division Street Normal, IL 61761	Overhead Cable	Sta. 10+00 to Sta. 15+00	Prior to construction

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provision of Articles 105.07 and 107.31 of the Standard Specifications for Road and Bridge Construction shall apply.

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

BRACING AND SHEETING

It shall be the Contractor's responsibility to protect open cut trenches as may be required by State or Federal law, as may be necessary to protect life, property or the work. Sheeting may be removed after backfilling has been completed to such elevations as to permit safe removal. The cost of furnishing, placing and removing sheeting and bracing shall be incidental to construction, and included in the contract unit price per ft for water main.

BRIDGE APPROACH PAVEMENT (SPECIAL)

Bridge Approach Pavement shall be constructed in accordance with Section 420 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction and Highway Standard 420401, except as modified herein:

Cross slope of Bridge Approach Pavement shall be 2.0%.

Manholes within the Bridge Approach Pavement shall have special reinforcement as shown in the Plans.

The Bridge Approach Pavement curb shall be modified to match the depressed curb for the driveway, as noted in the Plans.

BITUMINOUS CONCRETE SURFACE COURSE

Bituminous Concrete Surface Course, Superpave, Mix "D", N50 mixture requirements shall be as follows:

Location:	Fell Avenue
Mixture Use:	Surface Mixture
PG:	PG 64-22
RAP %: (Max)	15%
Design Air Voids:	$N_{DES}50$ @ 4.0% Voids
Mixture Composition: (Gradation Mixture)	IL 9.5 / IL 12.5
Friction Aggregate:	Mixture D
Mixture Weight:	112 LB/SY/IN.

Prime Coat shall be considered incidental to Bituminous Surface. The Bituminous Surface shall be placed in one 2-in. lift.

PORTLAND CEMENT CONCRETE PAVEMENT, 7" (JOINTED)

PCC Pavement shall be constructed in accordance with Section 420 of the Standard Specifications for Road and Bridge Construction with the following modifications.

The distance between sawed transverse joints shall not be greater than 30 times the thickness of the pavement apart or a maximum of 20 feet and shall conform with the details in the plans. All equipment and labor required to perform the necessary jointing operation shall be available to begin sawing no later than four (4)hours after the paving operation begins, unless excess raveling occurs. The contractor shall provide the necessary equipment and labor needed to complete the sawing at the same rate per longitudinal foot as the paving operation.

The contractor shall stop the paving operation at 4:30 p.m. unless approved otherwise by the Director of Engineering. Sawing shall continue at the same rate as stated above until the sawing is completed or the pavement has stopped curing.

Trucks and mixer trucks will be allowed to operate on the sub grade; however, should the sub grade show any signs of distress, all operations will cease until these items are corrected to the satisfaction of the Director of Engineering. Curb and gutter shall be formed in a separate operation from the pavement. Monolithic curb will not be permitted.

Final finish shall be Type B (artificial turn drag) as described in the Standard Specifications.

PCC DRIVEWAY PAVEMENT

Portland Cement Concrete Driveway Pavement 6 Inch shall be as specified in Section 423 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction

with the following addition. Sawed transverse and longitudinal joints shall conform to the following table:

Driveway Width at Widest Point	No. of Longitudinal Saw Cuts
0 – 12 ft	0
12 ft – 24 ft	1
24 ft – 36 ft	2

Maximum Driveway Length	No. of Transverse Saw Cuts
0 – 12 ft	0
12 ft – 24 ft	1
24 ft – 36 ft	2

The sawed joints shall be spaced evenly throughout the driveway. The joints shall be 1/8 inch wide with a minimum depth of one-fourth the depth of the pavement and sealed with the same material and in the same manner as PCC Pavement.

¾ inch thick expansion joints shall be placed between driveway pavement and dsidewalks and between driveway pavement and curb and gutter.

COMBINATION CONCRETE CURB AND GUTTER

Concrete curb and gutter shall be constructed in accordance with Section 606 of the Standard Specifications for Road and Bridge Construction with the following additions.

Concrete curb and gutter shall be sawed or scored at intervals coinciding with the joint intervals of the adjoining pavement. The minimum joint depth for the gutter shall be 2 inches, and 1 inch for the curb. The curb and gutter may be jointed instead of sawed provided the stated joint depths are obtained. If the curb and gutter is adjacent to bituminous pavement it shall be jointed at 15 foot intervals.

The sawing of the curb and gutter shall commence within four (4) hours of the start of the pour unless otherwise directed by the Director of Engineering. Sawing shall continue until all joints are completed.

Asphaltic type expansion joints 1 inch thick shall be placed at all P.C.'s, P.T.'s, and R.P.C.'s and at maximum 500 foot intervals.

UNDERWATER STRUCTURE EXCAVATION PROTECTION

Description. This work shall include all labor, materials, and equipment necessary for the protection of any excavations in water that may be needed for construction at the locations shown on the Plans and as required by the Specifications. The protection may consist of diverting the water for the excavation by the uses of timbers, sheet piling, approved granular embankment material or other structural elements adequate to support the excavation and need not be water-tight. All concrete placement below the waterline shall be tremied underwater into

forms according to Article 503.08 of the Standard Specifications. Tremied concrete shall be placed to an elevation 300 mm (1 ft) above the water level at the time of construction.

The Contractor's plan for the subject protection must be approved by the Engineer before excavation protection and construction may begin. Any system selected by the Contractor in which safe design and construction requires that loads and stresses be computed and the size and strength of parts determined by mathematical calculations based upon scientific principles and engineering data shall be prepared and sealed by an Illinois Licensed Structural Engineer. When the excavation protection is no longer required, it shall be removed unless otherwise specified by the Engineer. All materials removed will become the property of the Contractor.

Basis of Payment. Excavation protection for structures will be paid for at the contract unit price each, for UNDERWATER STRUCTURE EXCAVATION PROTECTION at the locations specified.

REMOVAL OF EXISTING STRUCTURES

Removal of existing structures shall be in accordance with Section 501 of the Standard Specifications. Trenches and voids resulting from the removal of the existing structures shall be backfilled according to the applicable requirements of Article 550.07.

Removal of Existing Structures No. 1 shall consist of the complete removal of the existing single span, concrete, closed spandrel/arch structure. The structure is approximately 44 ft back-to-back of abutments and 29 ft out-to-out of deck. The bridge roadway, which is supported by spandrel fill, is a brick pavement with a bituminous overlay.

Removal of Existing Structures No. 2 shall consist of the complete removal of the existing wood retaining wall along the south side of Sugar Creek. The structure is approximately 130 ft long and 12 in. wide. Removal shall include foundations, tie-backs and all other items needed to install the slope wall paving as shown on the Plans. The Contractor is responsible for any damage to the adjacent sewer, parking lot, or other structures resulting from the removal of this existing structure.

Pavement removal and aggregate base removal will not be paid for separately, but will be included in this work. This work will be paid for at the contract unit price per EACH for Removal of Existing Structures No. 1 and No. 2, which price shall include all excavation, backfilling (including trench backfill, where required), removing and disposing of structure.

SLOPE WALL (SPECIAL)

Description.

This work shall consist of the removal of the existing channel lining and construction of the slope wall in accordance with the details and dimensions shown on the Plans, as specified herein and as directed by the Engineer.

Materials.

Materials shall meet the requirements of the following sections of the Standard Specifications:

Portland Cement Concrete	Section 1020
Fabric Reinforcement and Reinforcement Bars	Article 1006.10
CA 6	Section 1004
Dowel Bars	Article 1006.11
Poured Joint Sealer	Section 1050
Preformed Expansion Joint Filler	Articles 1051.08 and 1051.09

Construction Requirements.

The Contractor shall be responsible for diverting the water flow using a method meeting the approval of the Engineer.

Preparation of the subgrade outside of embankment areas shall meet the requirements of Section 301 of the Standard Specifications.

The CA6 shall be compacted to the satisfaction of the Engineer. The manner of placing and compacting the material shall be approved by the Engineer prior to starting this work. Concrete placement and construction shall be performed in accordance with the applicable portions of Section 503 of the Standard Specifications.

Joints shall be constructed per the Plans and shall conform to the applicable portions of Article 420.10 of the Standard Specifications. Construction of the slope wall shall be constructed to minimize construction joints. All construction joints shall be bonded.

Submittals.

No later than one month prior to constructing the slope wall, the Contractor shall submit an installation plan for review by the Engineer. This plan shall provide information on the overall construction operation sequence the sequence of slope wall placement, and anticipated locations of all contraction, construction and expansion joints. The overall construction operation and sequence of slope wall placement shall be such that minimizes construction joints.

The Engineer will evaluate the installation plan for conformance of the Plans, Specifications and Special Provisions. The Engineer will notify the Contractor of any additional information required and/or changes necessary to meet the contract requirements. No work or ordering of materials for the Slope Wall (Special) shall be done until the installation plan has been approved by the Engineer.

Method of Measurement.

Slope Wall (Special) will be measured for payment in place and the area computed in sq. yards. Anchor and cut-off walls will not be measured for payment, but shall be considered as included

in the contract unit price bid for Slope Wall (Special). The removal of the existing channel lining will not be measured for payment, but shall be considered as included in the contract unit price bid for Slope Wall (Special).

Basis of Payment.

This work will be paid for at the contract unit price per sq. yard of Slope Wall (Special) of the thickness specified, which price shall include payment for removing the existing channel lining, preparation of earth bed, diverting water flow, excavation, backfilling, disposal of surplus material, and furnishing and placing all materials.

BURY EXISTING MANHOLE

Manholes designated on the Plans to be buried shall have the castings removed and the existing manhole barrel to the nearest joint, or a minimum of one ft, removed. The remaining manhole material shall then be leveled and cleaned and then covered with a flat slab and provided with a water-tight seal to the existing masonry using a full bituminous mastic bed or rubber gasket seal. The new joint shall be encased with a concrete collar. The excavated void shall then be filled with select granular backfill and compacted in accordance with the Specifications.

This work shall be paid for at the contract unit price per EACH for BURY EXISTING MANHOLE and shall be full payment for all materials, labor, tools, and equipment necessary to complete the item as specified.

STEEL CASING AND SPACERS

This item of work shall consist of the placement of steel casing, of the size specified in the Plans, and the locations specified in the Plans in accordance with Section 20-2.19C of the Standard Specifications for Water and Sewer Main Construction in Illinois. This item of work shall also consist of placing spacers between the carrier pipe and casing pipe.

The Contractor shall use RACI polyethylene spacers or an approved equal. RACI spacers are distributed by:

Public Works Marketing Inc.
Representative:

Ray Tauser & Associates
2311 Blue Hill Road
Chesterfield, Missouri 63017
Tel: (636) 391-1230

These spacers will be used between the casing pipe and water main or sanitary sewer. The type and spacing shall be as required by the manufacturer and approved by the Engineer. The cost to install the spacers shall be included in the unit price bid per foot for Steel Casing.

This work shall be paid for at the contract unit price per FOOT for STEEL CASING of the size specified and shall be full payment for all materials, labor, tools, and equipment necessary to complete the item as specified.

60-IN. COMBINED SEWER ENCASEMENT

Description

This work shall consist of the construction of the encasement in accordance with the details and dimensions shown on the Plans, as herein specified and as directed by the Engineer. The encasement shall be completed prior to the start of any other construction activities. Construction equipment will not be allowed over the combined sewer until completion of the concrete encasement. **Construction equipment will not be allowed over the 60-in. combined sewer outside the limits of encasement.**

Materials

The following materials shall meet the requirements of the following sections of the Standard Specifications for Road and Bridge Construction (hereafter refer to as Standard Specifications):

Class SI Concrete	Section 1020
Reinforcement Bars	Section 508

The following material shall meet the requirements of the following sections of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Selected Granular Backfill	20-2.21

Construction Requirements

Excavation shall be performed in accordance with Section 20 of the Standard Specifications for Water and Sewer Main Construction in Illinois. Excavation for the encasement shall be included in the cost of Selected Granular Backfill.

Concrete forming, placement, and construction shall be performed in accordance with the applicable portions of Section 503 of the Standard Specifications for Road and Bridge Construction and shall be paid for at the contract unit price per CUBIC YARD for CONCRETE STRUCTURES.

Reinforcement shall be handled and installed in accordance with the applicable portions of Section 508 of the Standard Specifications for Road and Bridge Construction and shall be paid for at the contract unit price per POUND for REINFORCEMENT BARS,EPOXY-COATED.

Backfill shall be placed in accordance with Section 20-2.21 of the Standard Specifications for Water and Sewer Main Construction in Illinois and shall be paid for at the contract unit price per CUBIC YARD for SELECTED GRANULAR BACKFILL.

Submittals

No later than one month prior to constructing the encasement, the Contractor shall submit an installation plan for review by the Engineer. This plan shall provide information on the overall construction operation sequence of the encasement, details of reinforcement placement and details of concrete placement.

The Engineer will evaluate the installation plan for conformance with the Plans, Specifications and Special Provisions. The Engineer will notify the Contractor of any additional information required and for changes necessary to meet the contract requirements. No work or ordering of materials for the encasement shall be done until the installation plan has been approved by the Engineer.

EMERGENCY RESPONSE PLAN

This Emergency Response Plan has been prepared to provide the Contractor with a procedure to follow in case of accidental damage or failure of the 60-in. combined sewer that follows the south bank of Sugar Creek. The Contractor shall exercise extreme care and caution when working in the vicinity of the combined sewer to prevent any damage from occurring; however, in the event that damage does occur the following procedures shall be followed.

Any damage to the 60-in. combined sewer shall be reported immediately to the following agencies.

Bloomington-Normal Water Reclamation District
ATTN: Mike Callahan
Bloomington-Normal Water Reclamation District
Work Phone: (309) 827-4396

Bloomington Public Service Department
ATTN: Gary Poland
Superintendent of Streets and Sewers
Office Phone: (309) 434-2384
Cell Phone: (309) 275-1718

City of Bloomington Engineering Department
ATTN: Russ Waller
Civil Engineer
Phone: (309) 434-2225

City of Bloomington Engineering Department
ATTN: Doug Grovesteen
Director of Engineering
Phone: (309) 434-2225

Prior to commencing any work in the vicinity of the 60-in. combined sewer, the following materials shall be stored at the site ready for their use:

a. Sandbags, pumps, and hoses shall be available for immediate use during all excavation activities.
b. Sufficient sandbags to form an emergency dam and/or dam the 60-in. sewer.
c. Portable pumps with their own power supply or with sufficient generator capability. The pumps shall be tested and ready for immediate use. Pumps shall be capable of handling raw sewage and gritty sewage sludge and shall be capable of passing 3-in. spherical solids. Pumps shall have a capacity of 4000 gpm for the worst case head and pressure drop.
d. Sufficient sizes and lengths of hose shall be at the job site considering the worst case emergency scenario.

IN THE EVENT OF MAJOR DAMAGE to the 60-in. combined sewer allowing sewage to overflow the sewer, the following procedure shall be followed.

Place sandbags immediately to form a dam around the area of the sewer main break to contain the sewage and prevent the release of sewage into Sugar Creek.

Use portable pumps to by-pass pump sewage from the dammed area to the downstream manhole located on the south side of Sugar Creek approximately 700 ft west of Fell Avenue.

Notify City crews to have a sewage vacuum truck on site to assist in the clean-up of spilled sewage.

Place sandbags in the upstream manhole located at Clinton Boulevard to create a dam within the 60-in. combined sewer and prevent sewage from continuing downstream towards the damaged section.

Use portable pumps and/or City's vacuum truck to by-pass pump sewage from the upstream manhole located at Clinton Boulevard to the downstream manhole located 700 ft west of Fell Avenue, a total distance of approximately 1,230 ft.

Notify households located between the upstream manhole and the break to cease use of household facilities.

Repair broken section of 60-in. combined sewer per the Engineer's and the Bloomington-Normal Water Reclamation District's approved design.

Notify households that repair has been made and allow use of household facilities.

Remove sandbags from upstream manhole to allow flow through the 60-in. combined sewer.

Remove all sewage from dammed area at break location.

Remove sandbags at the break location.

Clean and disinfect the dammed area.

IN THE EVENT OF MINOR DAMAGE to the 60-in. combined sewer allowing sewage to overflow the sewer, the following procedure shall be followed.

Place sandbags immediately to form a dam around the area of the sewer main leak to contain the sewage and prevent the release of sewage into Sugar Creek.

Notify City crews to have a sewage vacuum truck on site to assist in the clean-up of spilled sewage.

Use concrete to place a collar around the area of minor damage.

Remove all sewage from dammed area at leak location.

Remove sandbags at the break location.

Clean and disinfect the dammed area.

Any work conducted or materials used under the Emergency Response Plan special provision will not be paid for separately, but shall be considered incidental to the contract.

FINAL BACKFILL

Selected Granular Backfill shall be placed in accordance with Section 20-2.21 of the Standard Specifications for Water and Sewer Main Construction in Illinois and shall be as follows:

1. Select Granular Backfill shall be compacted using method 2.

2. Revise the paragraphs to reflect that measurement and payment shall be paid at the contract unit price per cubic yard of conduit requiring Select Granular Backfill. Measurement will be computed by multiplying the length of the selected granular material pipe section times the average thickness of the selected granular material times a maximum trench width of (4/3) * Pipe Diameter (in) + 8 (in).

3. Gradations for Select Granular Backfill used in this work shall conform to gradation FA1, FA2, FA6, CA6, CA10, CA13 or CA16, as defined in Section 1003 of the Standard Specifications for Road and Bridge Construction, with the exception that maximum size shall be 3 in. and that no material over 1 in. in size shall be used below 12 in. over the conduit requiring backfill.

All trenches under another sewer or water main, or under or within 2 feet of existing or proposed streets, sidewalks and driveways shall be backfilled with trench backfill material. All sewer

trenches under streets, driveways or sidewalks shall be compacted by jetting, mechanical compactor or as directed by the Director of Engineering.

Where excavated material can be used as final backfill, the backfill shall be compacted using Method 3 in accordance with Section 20-2.21B of the Standard Specifications for Water and Sewer Main Construction in Illinois. Excavated material used as final backfill will be considered incidental to the contract unit price per foot for the various pipe items.

TEMPORARY SURFACE OVER TRENCH

Temporary surface over trench shall be constructed in accordance with Section 21-2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois and shall meet the requirements of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction for coarse aggregate. The gradation shall be CA-6. All trenches between edge-to-edge of pavement shall be capped with temporary surface over trench.

Temporary Surface over Trench will not be paid for separately, but shall be considered incidental to the construction of the various pipe items.

Selected Granular Backfill shall be paid for at the contract unit price per CUBIC YARD for SELECTED GRANULAR BACKFILL which price shall include all materials, equipment and labor to complete this item.

SANITARY SEWERS

Sanitary sewers shall be constructed in accordance with Division III of the Standard Specifications for Water and Sewer Main Construction in Illinois, Fifth Edition, dated May, 1996, and the following special provisions.

Sanitary Sewer shall be Ductile Iron Pipe Class 150 conforming to ANSI/AWWA C151/A21.51, with single gasket joints meeting ANSI/AWWA C111/A21.11, with standard cement lining as per ANSI/AWWA C104/A21.3 and with bituminous coating as per Section 51-8.1 of ANSI/AWWA C151/A21.51.

All sections of the sewer shall be tested, except for those designated portions of the sewer that are placed into service during the construction process.

Payment for testing shall not be paid for separately, but shall be considered incidental to the cost of the Sanitary Sewer.

A granular cradle (bedding and haunching) will be required for all sanitary sewers as shown in the Standard Details and in accordance with Section 20-2.20B of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Sewer bedding material will be at least six in. in depth at a maximum trench width of (4/3) * Pipe Diameter (in) + 8 (in).

Bedding and haunching shall not be measured for separate payment, but shall be incidental to the pipe.

Sanitary sewer shall be paid for at the contract unit price per FOOT for SANITARY SEWER of the size specified, which price shall include all materials, equipment and labor to complete this item.

MANHOLES FOR SANITARY SEWERS

Manholes for sanitary sewers shall be constructed in accordance with Section 32 of the Standard Specifications for Water and Sewer Main Construction in Illinois with the following modifications.

Covers shall be Neenah, East Jordan or equal. Neenah numbers are given as examples.

Standard Type 1 Frame and Cover shall be Neenah R-1772 B (or approved equal) with Type "B" Lid and NF-9204 pick hole. All lids for sanitary manholes shall be self-sealing.

No bitumastic material shall be used on the inside of precast manholes. The inside of all joints shall be finished with non-shrink type grout and rubber gaskets.

Castings placed on concrete or masonry surfaces shall be set in a full mortar bed or on approved solid bituminous gaskets.

Bituminous material used for pipe connections to manholes shall be placed on the outside of the manhole only.

Manhole testing shall be required for all proposed manholes and shall conform to the most current version of ASTM Standard Designation: C 1244. All manholes shall pass this test prior to the Engineer's acceptance. Payment for testing shall not be paid for separately, but shall be considered incidental to the cost of the Manhole.

Additional Depth of Manhole will not be paid for separately but shall be included in the price for Manholes, Type A, 4'-Diameter, Type 1 Frame, Closed Lid.

STORM SEWERS

Storm sewer materials shall be in accordance with Section 550 of the Standard Specifications for Road and Bridge Construction and shall conform to one of the following:

A. Reinforced Concrete Arch Culvert, Storm Drain and Sewer Pipe.

B. Reinforced Concrete culvert, Storm Drain and Sewer Pipe.

C. Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe.

D. Ductile Iron Pipe Class 150 conforming to ANSI/AWWA C151/A21.51, with single gasket joints meeting ANSI/AWWA C111/A21.11, with standard cement lining as per ANSI/AWWA C104/A21.3 and with bituminous coating as per Section 51-8.1 of ANSI/AWWA C151/A21.51.

STORM SEWERS (WATER MAIN REQUIREMENTS)

Storm sewers (water main requirements) shall be constructed in accordance with Sections 40 and 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois except that plastic pipe and fittings will not be allowed.

TYPE 3 FRAME AND GRATE

Frame and Grate Type 3 shall be equal to Neenah No. 3010. The curb box shall be of the open type and the grate shall be Type A. Only cast iron grates shall be used.

CONCRETE COLLARS

Concrete collars used to join dissimilar pipes shall be constructed as shown on the Standard Detail contained in the Plans.

Concrete collars shall not be paid for separately but shall be included in the price for the various pipe items.

MANHOLE AND INLET ADJUSTMENT AND RECONSTRUCTION

Manholes to be Adjusted, Manholes to be Reconstructed, and Inlets to be Adjusted shall be as specified in Section 602 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction except for the following:

Final grade for all manhole castings will be determined after the curb and gutter have been poured and the subgrade and/or base have been constructed. Final adjustment of the frame and grate shall be made in the following manner: After the curb and gutter has been poured and the base constructed the final elevation will be determined by the Director of Engineering. The frame and grate will be adjusted to this elevation in accordance with the Standard Specifications. Any material disturbed while adjusting the frame and grate will be disposed of and all fill made with lean concrete. A maximum of 18 in. of adjusting rings shall be allowed for manholes and a maximum of 8 in. of adjusting rings shall be allowed for inlets.

WATER MAIN AND FORCE MAIN

Water main, force main, water services, fittings, valves, hydrants, and other ancillary items shall be constructed in accordance with Division IV of the Standard Specifications for Water and Sewer Main Construction in Illinois, Fifth Edition, dated May, 1996, with the following modifications.

All water main and force main shall meet City of Bloomington Standards and the following:

1. Material: pipe shall be ductile iron conforming to ANSI/AWWA C151/A21.51, effective 8/1/02, Special Thickness Class 52 as given in table 51-6 and 51-7 of said Specification with restrained joints.

2. Lining: shall be standard cement lining as per ANSI/AWWA C104/A21.3.

3. Outside Coating: shall be bituminous as per Sec 51-8.1 of ANSI/AWWA C151/A21.51.

4. Restrained Joints shall meet one of the following:

   a. U.S. Pipe: TR Flex Joint.
   b. American Ductile Iron Pipe: Flex-Ring Joint .
   c. McWane Inc. (Clow): Titon or Fastite Joint
   d. Griffin Pipe Products: Snap-Lok or Bolt-Lok Joint.
   e. Standard retainer glands from approved manufacturers
   f. or approved equal.

Bedding material shall not be required under any water mains or force mains installed for this project.

PIPE FITTINGS

Water main fittings incorporated into this work shall conform to ANSI/AWWA C110/A21.10 or ANSI/AWWA C153and ANSI/AWWA C111/A21.11, 250 psi rated pressure. All fittings shall have the same linings and coatings as the pipe supplied. All fittings (including but not limited to bends, tees, reducers and plugs) shall be restrained with retainer glands or a manufactured joint restraining system approved by the Director of Engineering.

Whenever a fitting is called out upon the Plans, the designation following indicates the type of joints to be provided on the branch/ run of that fitting. If no separate designation is provided for both the branch and the run, then the designation shall apply to both.

EXAMPLES:

8 in. x 8 in. x 6 in. Restrained/Standard Fitting:
Conforms to a 8 in. x 8 in. x 6 in. tee fitting with the 6 in. branch being a restrained joint and the 8 in. run being of the unrestrained (standard joint) provided. 8-in. - 45 degree Restrained Fitting:

Conforms to an 8-in. - 45 degree fitting with restrained joints on both ends.

All fittings shall be paid for at the Unit Item installed rather than by pounds.

Anchoring of fittings shall be included in the unit price bid for the various fittings.

STOPS AND FITTINGS

Stops and fittings shall be constructed in accordance with Section 40-2.06C of the Standard Specifications for Water and Sewer Main Construction in Illinois and the Standard Details.

Corporation Stops, Curb Stops and Curb Boxes shall be as follows or approved equals:

Service Size	Corp. Stop	Curb Stop	Curb Box
¾" – 1"	Mueller H-15000	Mueller H-15200 or A.Y. McDonald 4T13	Mueller H-10314 or A.Y. McDonald 5601
1-1/4"	Mueller H-15000	Mueller H-15200 or A.Y. McDonald 6100	A.Y. McDonald 5603
1-1/2" – 2"	Ford, Mueller, or A.Y. McDonald Ball Valve	Ford, Mueller, or A.Y. McDonald Ball Valve	A.Y. McDonald 5603

PRESSURE TESTING OF WATER MAINS

Testing per Section 41-2.13 of the Standard Specifications for Water and Sewer Main Construction in Illinois shall be done by the Contractor. The Contractor shall have a representative present during testing to assist and to record any faults found by the inspection crew.

A minimum hydrostatic pressure of 150 psi shall be used if the hydrostatic pressure equal to fifty percent more than the operating pressure at the lowest elevation of the pipe section is less than 150 psi.

The minimum duration for each pressure test shall be for a period of not less than two (2) hours.

DISINFECTION OF WATER MAINS

The Contractor shall disinfect and flush water mains constructed under this contract in accordance with Article 41-2.14 of the Standard Specifications for Water and Sewer Main Construction in Illinois and the regulations of the City of Bloomington. The Contractor shall have a representative present during the disinfecting to render assistance and record any defects found during sterilization. The Contractor shall notify the Engineer 24 hours prior to disinfection operations. Water for the initial flushing and chlorination of the water main shall be supplied by the City of Bloomington. Should additional flushing(s) or rechlorination(s) be required to obtain a satisfactory bacterial test, the City of Bloomington reserves the right to meter and charge for the additional water used by the Contractor. Flush water may be used for the jetting of trenches. Any potable (non-flush) water drawn from the City of Bloomington system shall be properly metered and paid for by the Contractor.

No additional compensation shall be provided to the Contractor for compliance with this provision.

VALVES AND BOXES

All valves and boxes must be approved by the Water Resources Manager before installation. Valves 12 in. diameter or less shall be Resilient Wedge Gate Valves meeting ANSI/AWWA C509, such as Clow F-6100, Mueller, or approved equal. All valves shall be restrained with retainer glands or a manufactured pipe restraint system approved by the Director of Engineering.

All Valve Boxes shall have not less than a 5¼-in. shaft. Valve Boxes shall be Tyler Pipe two piece, screw type, #6850 series with the word "water" cast on lid or an approved equal. Should a box require more than one extension piece to reach the surface, the top section of the box shall be removed and section of 6-in. C-900 PVC water main pipe, cut to length, shall be inserted over the bottom section of the box and the upper box section installed on top of the PVC extension. The valve box and extensions necessary to reach the ground elevation shall be included in the unit price per each for the Valve.

The 8-in. Gate Valve and Valve Vault shall include a corporation stop located on each side of the gate valve. This shall not be paid for separately, but shall be considered as included in the cost of the 8-in. Gate Valve and Valve Vault.

SAMPLING TAP

This work shall consist of installing a 1-in. service piping tap as per section 41-2.12 of the Standard Specifications for Water and Sewer Main Construction in Illinois and the Sampling & Chlorination Service Piping Tap detail shown on the Plans. The Contractor shall use the service to draw samples from the new water main for bacterial contamination testing. When all test samples have passed and the new water main has been placed in service, the Contractor shall close the corporation stop at the main and remove the copper pipe.

This work shall be paid for at the contract unit price per EACH for SAMPLING TAP, which price shall include all materials (including the corporation stop, copper pipe, shut off valve and other fittings), equipment and labor to complete this item.

WATER SERVICE INSTALLATION, 1-IN.

This work shall consist of installing a water service connection as per Section 41-2.12 of the Standard Specifications for Water and Sewer Main Construction in Illinois and the detail shown on the Plans. If sidewalks are not present in the project area, curb boxes shall be located 2 ft from the Property or Easement Line.

One in. (1-in.) water service tapped into ductile iron pipe shall utilize a 1-in. corporation stop.

Payment shall be made at the contract unit price per EACH for WATER SERVICE INSTALLATION, 1-IN., which price shall include all materials (corporation stops, curb stops, curb box, clamps and fittings), equipment and labor (including excavation) to complete this item. Copper service pipe shall not be included in this item but shall be measured separately for payment.

COPPER SERVICE, TYPE K 1-IN.

This item shall consist of placing Water Service pipe in conformance with Sections 40-2.06A, 41-2.01D, and 41-2.11 of the Standard Specifications for Water and Sewer Main Construction in Illinois.

This item shall be measured in ft and paid for at the contract unit price per FOOT for COPPER SERVICE, TYPE K 1-IN.

HYDRANT INSTALLATION

This item shall consist of installing a Woodford Model S3 or S4h (or approved equal) freeze-proof and pollution-proof yard hydrant at the location shown on the Plans. This hydrant will not require a backflow preventer.

This item shall be measured for each and paid for at the contract unit price per EACH for HYDRANT INSTALLATION.

CONNECTIONS TO EXISTING WATER MAINS

It will be the responsibility of the Contractor to determine the exact location of the existing water main in the field.

All tees required to connect mains, all reducers required to connect different-sized mains, and all fittings required to change direction either horizontally or vertically in order to achieve the proposed alignment shall be included in the cost of the water main being constructed.

Before making any connection to existing water mains, the Contractor shall have all necessary tools, materials, pipe, and fittings on hand and sufficient experienced workmen available to preclude an unnecessary delay in making the connection due to adverse conditions or mishap. The actual work of cutting into a main or removal of a fitting shall not be done until all measurements, necessary pipe assembly, and other specified provisions have been completed.

If the connection requires shutting down the existing main, the Contractor shall make the necessary arrangements with the City of Bloomington to accomplish same. In addition, all users to be affected shall be notified 48 hours in advance of water main shutdown.

Temporary blocking capable of withstanding the service pressure shall be provided for all existing valves, fittings and pipe that could be affected by the new connection.

The Contractor shall re-chlorinate that portion of the existing water main which is shutdown before it is put back into service.

This work will not be paid for separately, but shall be considered incidental to the construction of the water main.

SLIPFORMED PARAPETS
Effective June 11, 2004

The slipforming option, as stated in Article 503.17(e)(1) of the Standard Specifications will not be allowed on this project.

STEAMER FIRE HYDRANTS

Revise all conflicting portions of Section 45 of the Standard Specifications for Water and Sewer Main Construction in Illinois to reflect the following:

The specific type of hydrants used must be approved by the Water Resources Manager prior to installation. Hydrants shall be Waterous Pacer, Clow F-2500, Mueller Modern Centurion, or Kennedy Guardian. Hydrants shall be set as shown on the Plans, conforming to the City of Bloomington's Standard "4.9 Feet bury", except that extensions required to meet existing grade shall be installed in such a manner that future adjustments shall conform to the plan elevations by removal of the extension. Hydrant extensions shall be included in the cost for installing the hydrant.

In Section 45-3 (13), hydrant blocking shall consist of masonry blocks and no poured-in-place concrete shall be used.

In Section 45-3 (16), change "1/3 cubic yard" to read "1/2 cubic yard."

Fire hydrants shall have a 6 inch restrained joint opening. Fire hydrants shall open counterclockwise and close with pressure.

PUMP STATION

General

The Contractor shall construct a new pump station, valve vault and associated site work at the locations shown on the Plans. The new pump station shall be fully operational as described below.

Payment for the pumping station shall be at the contract lump sum prices for the items listed in the proposal and as described in these Specifications.

Excavation And Backfill For Structures

Excavation and backfill for the pumping station and valve vault shall be according to Section 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois and the requirements herein. The excavation shall be furnished to prevent injury to people.

A 60-in. combined sewer crosses the construction site. Extreme care and caution should be used when working in the vicinity of the combined sewer. All costs resulting from a failure of the combined sewer, including but not limited to repair, pumping, cleanup, and fines will be paid by the Contractor. See the Emergency Response Plan in these Specifications for additional requirements.

It is anticipated that a braced excavation will be required to construct components of the pump station. If a braced excavation is selected by the Contractor, then the Contractor shall submit drawings and design calculations sealed by a Licensed Structural Engineer in the State of Illinois

to the Engineer for review and approval. Soil borings associated with the design of the bridge are included in the Plans. However, the information in the borings may not be representative of the soil conditions at the pump station. Additional borings by the Contractor for design of a braced excavation will not be paid for separately, but will be considered incidental to this item.

Topsoil at the site shall be stripped and stockpiled for later use. The excavation shall extend to the elevation shown on the drawings. The excavation shall be dewatered by pumping, if water is present in the excavation. It shall be the responsibility of the Contractor to prevent flotation of the structure prior to backfill and to maintain a dry excavation during construction of the structure.

A 9-in. layer of granular material shall be installed prior to installing the base slab of the pumping station. The material shall be CA-7 according to Section 1004.04 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction. The granular material shall be compacted to 98% of the Standard Proctor Test.

The excavation shall be backfilled following completion of the structure with granular material meeting the requirements of Selected Granular Backfill specified elsewhere in the Special Provisions. The material shall be mechanically compacted in 8-in. lifts to 98% of the Standard Proctor Test from the bottom of the excavation to the top of the discharge piping.

Above the top of the discharge piping, earth backfill may be used. Earth backfill above the discharge piping shall be compacted to 90% of Standard Proctor Test by successive passes of earthmoving equipment.

Final site grading for the pump station will be completed as shown on the Plans. This includes installation of the chain link fence, placement of the aggregate surface course, grading the site to existing ground, and seeding any disturbed areas around the site.

Payment for this item shall include saving the topsoil, excavation, sheeting and bracing (if required), dewatering, base preparation, backfilling (including selected granular backfill), removal of surplus material, final site grading, placement of aggregate base course and installation of fence as described herein and in the Specifications. Payment shall be made at the contract lump sum price for Excavation and Backfill for Structures.

Reinforced Concrete Pump Station And Valve Vault

The pumping station wet well and valve vault structures shall be furnished and installed in accordance with Section 20 of the Standard Specifications for Water & Sewer Main Construction in Illinois, as shown on the Plans and as specified herein.

The lift station structure shall be cast-in-place reinforced concrete. The valve vault may be cast-in-place reinforced concrete or precast reinforced concrete meeting ASTM C478 (latest revision). The structures shall be water-tight.

The valve vault structure shall include steps which are one of the types specified under Section 32-2.02 of the Standard Specifications for Water & Sewer Main Construction in Illinois. All pipes through the walls of the structures shall be sealed water-tight with a flexible resilient type gasket such as A-Lok, Inc., or equal.

Non-shrink grout shall be used under the pump base plate. Concrete or grout fillet shall be formed in the base of the wet well structure. A sump hole shall be cast in the base of the valve vault as shown on the Plans.

Payment for this item shall be at the contract lump sum price for Wet Well and Valve Vault Structures.

Submersible Pumps And Accessories

Pumping Station Equipment

The Contractor shall furnish and install totally submersible electric operated sewage pumps of the sizes, number, and capacities shown below. The motors shall be non-overloading at any point on the pump curve, from shut-off to zero head conditions, and shall be of the specified horsepower, operating at 200 volt, 3 phase. The pumps, discharge elbows, and associated mounting hardware shall be as manufactured by the Flygt Corporation, or equal.

The services of a manufacturer's representative are required at the time of start-up.

Pump Design

The pump shall be capable of handling raw sewage and gritty sewage sludge and shall be capable of passing 3-in. spherical solids. The design shall be such that the pump unit will be automatically connected to the discharge piping when lowered into place on its mating discharge connection, permanently installed in the wet well. The pump shall be easily removable for inspection or services, requiring no bolts, nuts, or other fastenings to be disconnected. For this purpose, there shall be no need for personnel to enter the wet well. It shall be fitted with a lifting hoop of adequate strength to permit raising and lowering the pump for inspection or removal. A stainless steel chain or cable shall be attached to this lifting hoop and extended to the top of the manhole. A stainless steel hook rack shall be installed just below the manhole and shall have at least three hooks per pump (min. 6 hooks). The pump, with its appurtenances and cable, shall be capable of continuous submergence underwater without loss of water-tight integrity to a depth of 50 ft.

Pump Construction

All major parts, such as the stator casing, oil casing, sliding bracket, volute and impeller shall be gray iron. All surfaces coming into contact with sewage shall be protected by a coating resistant to sewage. All exposed bolts and nuts shall be of stainless steel.

A wear ring system shall be installed to provide efficient sealing between the volute and impeller. The impeller shall be gray cast iron of non-clogging design coated with acrylic

dispersion zinc phosphate primer, capable of handling solids, fibrous material, heavy sludge, and other matter found in normal sewage applications. The impeller shall be dynamically balanced. Static and dynamic balancing operations shall not deform or weaken it. The impeller shall be retained with a non-corroding Allen head bolt.

The pump shall be provided with a mechanical rotating shaft seal system running in an oil reservoir having separate lubricated seal faces. No seal damage shall result from operating the pumping unit out of its liquid environment. The seal system shall not rely upon the pumped media for lubrication. Provision for determining the condition of the lower seal unit without disassembly of the pump shall be provided. Pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, water-tight chamber. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. Pump motor shaft shall be of 431 Stainless Steel.

Pump shall be a standard production pump with attached rail guides and discharge elbow. Rail guides shall be fastened to pump so that all lifting loads will come on the guide supports and not on the pump or motor housing.

Installation of the pump unit to the discharge connection shall be the result of a simple linear downward motion of the pump unit guided by no less than two guide bars. No other motion of the pump unit, such as tilting or rotating, shall be required.

The discharge flange of each pump shall be designed to automatically seal with the discharge elbow when the pump is lowered into place and the pump is in operation. The seal shall be capable of remaining reliable for water-tightness in the raw sewage environment into which it will be located. Discharge elbow shall have 125 lb. standard flanges.

If a pump mounting base is furnished, these plates shall include adjustable guide rail supports and discharge elbow with flange to align the pumps with the flange. Plates and fitting shall be coated with tar base epoxy paint.

The motor cable entry water seal design shall be such that it precludes specified torque requirements to insure a water-tight and submersible seal. Pump motor cable shall be suitable for submersible pump applications and this shall be indicated by a code or legend permanently embossed on the cable. Cable sizing shall conform to NEC Specifications for pump motors and shall be of adequate size to allow motor voltage conversion without replacing the cable. Pump power cable shall be continuous without splices from the pump to the control cabinet. The cable shall be at least 60 ft in length.

All mating surfaces of major parts shall be machined and fitted with nitrile O-rings where water-tight sealing is required. Not other sealing compounds shall be required nor used.

Each pump shall be a Flygt D-3085(X), or approved equal, and have a capacity of 155 GPM at a total head of 22 ft when operating at 1700 RPM. Pump efficiency shall be 43% or greater. Pump motor shall be a minimum of 3 horsepower operating at 1700 RPM, 3 phase, 200 volts and

60 Hz. The pump and motor shall be UL-listed, FM-listed, or ETL-listed suitable for Class I Division 1 Group D hazardous location.

The valve vault shall be supplied with a Myers WHR, or approved equal, sump pump. The pump motor shall be ½ HP sump pump, 120 VAC, 1 phase, 60 HZ. The pump shall be automatically operated from the sump. The pump and motor shall be UL-listed, FM-listed, or ETL-listed suitable for Class I Division 2 Group D hazardous location.

Pump Test

The pump manufacturer shall perform the following inspections and tests on the pump before shipment from factory.

1. Impeller motor rating and electrical connections shall first be checked for compliance to the customer's purchase order.

2. A motor and cable insulation test for moisture content or insulation defects.

3. Prior to submergence, the pump shall be run dry to establish correct rotation and mechanical integrity.

4. The pump shall be run for 30 minutes submerged, a minimum of 6 ft under water.

5. After operational test No. 4, the insulation test (No. 2) is to be performed again.

A written report stating the foregoing items have been done shall be supplied with the pump at the time of shipment.

Seal Failure Sensor

If required by package pump station manufacturer, an electrode probe-mounted in the motor seal chamber to detect water and connected to a sensing unit with a red light indicator in the control cabinet shall be furnished.

Thermal Sensors

Motor shall be supplied with heat sensing unit attached to the motor winding. The heat sensing units shall trip the starter if the motor overheats.

Intermediate Rail Supports

Intermediate rail supports shall be furnished to stiffen guide rails.

Access Frame and Cover

The Contractor shall furnish and install two aluminum access frames and covers for the wet well and valve vault as shown on the Plans and specified herein. The units shall be rated at 150

lbs./sq. ft complete with hinged and flush locking mechanism. The frame shall be securely cast in the concrete top slab as shown on the drawings. Each door shall have a safety handle to maintain the door in the open position. Doors shall be skid-proof design. The access frame and cover shall be provided with an outside padlock hasp. The access frame for the wet well shall include a cable support. The access frame and cover shall be supplied by the submersible pump supplier.

All hardware on frame and cover shall be stainless steel.

Payment

The Contractor shall provide all the labor, materials and equipment necessary to install the pumping station as shown on the Plans and described herein. Payment for pumps and associated equipment shall be included in the contract lump sum price for Submersible Pumps and Accessories.

ELECTRICAL WORK FOR PUMP STATION

General

The work to be included under this item shall be the furnishing, installing, and testing of all materials and electrical equipment necessary in order to provide a complete and operational electrical system at the Pump Station.

All electrical equipment shall be installed in conformance with the applicable sections of NFPA 70-National Electric Code (most current issue), the respective equipment manufacturer's directions, as detailed on the Plans and as specified herein. Any installations which void the UL listing (or other third party listing) and/or the manufacturer's warranty of a device or equipment shall NOT be permitted.

The electrical work and equipment specified is based on equipment of the type and size as noted on the Plans and specified herein. Should the proposed pump motors (or any other proposed loads) exceed the ratings of the electrical equipment specified, the General Contractor shall be solely responsible for furnishing any and all modifications necessary in order to provide a fully functional system to the satisfaction of the Engineer at no change to the contract cost. The Contractor shall also be required to submit for review, sufficient information determined by the Engineer to be necessary to review such alternates or modifications.

Per Illinois Environmental Protection Agency Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter II: Environmental Protection Agency Part 370: Illinois Recommended Standards for Sewage Works all electrical equipment installed in a sewage pump station wet well shall be suitable for Class I, Division 1, Group D hazardous location. In addition equipment located in a sewage wet well shall be suitable for use under corrosive conditions. All electrical installations associated with a sewage pump station shall conform to the applicable sections of NEC 500, 501, and 504 in addition to the other applicable sections of NEC. Where electrical equipment is installed in a classified hazardous location it shall be UL-listed, Factory Mutual-listed, or ETL-listed suitable for use in the respective classified hazardous location.

Per NFPA 820, Standard for Fire Protection in Wastewater Treatment and Collection Facilities, a below-grade valve vault that is physically separated from the wet well and with a closed piping system is classified as a Class I, Division 2, Group D hazardous location. All electrical installations associated with the valve vault shall conform to the applicable sections of NEC 500, 501, and 504 in addition to the other applicable sections of NEC. Where electrical equipment is installed in a classified hazardous location it shall be UL-listed, Factory Mutual-listed, or ETL-listed suitable for use in the respective classified hazardous location.

Contractor shall keep a copy of the latest National Electrical Code in force on site at all times during construction for use as a reference.

Submittals

Contractor shall provide shop drawings for all electrical equipment. Shop drawings shall clearly indicate proposed items, capacities, characteristics and details in conformance with the Plans and Specifications. The respective manufacturer shall certify capacities, dimensions, special features, etc. Shop Drawings for all items shall be prepared immediately upon award of Contract. The Contractor shall submit a minimum of four copies to be retained by the Engineer plus the number of copies, for which the Contractor requires distribution. No materials shown thereon shall be ordered until Shop Drawings are reviewed and approved by the Engineer. When a submittal is marked "Revise and Resubmit", "Rejected", and/or "Not Approved" do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations, resubmit, and repeat if necessary to obtain a different action mark such as "No Exceptions Taken" or "Furnish as Corrected". Contractor is responsible for compliance with the specified characteristics. Contractor's responsibility for error and omissions in submittals is not relieved by the Engineer's review of submittals. Accompany each submittal with a transmittal letter that includes the date, project title and number, Contractor's name and address, the number of shop drawings, product data, and/or samples submitted, notification of any deviations from the Contract, and any other pertinent data. Shop drawing submittals shall include the following:

1. Date and revision dates.
2. Project title and number(s).
3. Identification of product or material.
4. Certified outline and installation drawings.
5. Performance data and operating characteristics.
6. Arrangement drawings showing piping, controls and accessory equipment.
7. Drawings on non-standard components and accessories.

8. Drawings on fuel system.

9. Catalog data marked to indicate materials being furnished.

10. Operation and Maintenance/Instruction Manuals.

11. Specified standards, such as ASTM numbers, ANSI numbers, UL listing/standard, NEMA ratings, etc.

12. A blank space, 3 in. x 5 in., for Architect/Engineer's stamp.

13. Identification of previously approved deviation(s) from Contract documents.

14. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract documents.

15. Space for Prime Contractor's approval stamp.

Equipment And Materials

Conduit And Fittings

Galvanized Rigid Steel Conduit. Conduit shall be fabricated from high strength steel and shall have a hot-dipped galvanized inner and outer coating, with a final coating of zinc chromate. Galvanized rigid steel conduit shall comply with Underwriters' Laboratories UL-6 (latest revision) and ANSI C-80.1. Galvanized rigid steel conduit shall be as manufactured by Allied Tube and Conduit Corporation, LTV Steel Tubular Products Company, Triangle Wire and Cable, Inc. or approved equal.

Schedule 40 PVC and Schedule 80 PVC Conduit. Conduit shall be Schedule 40 PVC or Schedule 80, 90 C, UL-rated or approved equal. Material shall comply to NEMA Specification TC-2 (Conduit), TC-3 (Fittings-UL-514), and UL-651 (Standard for rigid nonmetallic conduit). The conduit and fittings shall carry a UL label (on each 10 ft length of conduit and stamped or molded on every fitting). Conduit and fittings shall be identified for type and manufacturer and shall be traceable to location of plant and date manufactured. The markings shall be legible and permanent. The conduit shall be made from polyvinyl chloride C-300 compound which includes inert modifiers to improve weatherability, heat distortion. Clean rework material, generated by the manufacturer's own conduit production, may be used by the same manufacturer, provided the end products meet the requirements of this Specification. The conduit and fittings shall be homogeneous plastic material free from visible cracks, holes, or foreign inclusions. The conduit bore shall be smooth and free of blisters, nicks or other imperfections which could mar conductors or cables. Conduit, fittings and cement shall be produced by the same manufacturer to assure system integrity and shall be Carlon Plus 40, Plus 80 conduit, or approved equal.

Liquid-Tight, Flexible Metal Conduit. Liquid-tight, flexible metal conduit shall consist of polyvinyl jacket over flexible hot dip galvanized steel tubing. The flexible conduit shall be

completely sealed from liquids, dust, dirt, and fumes, and be resistant to oil, gasoline, grease, and abrasion. Jacket shall also be sunlight resistant. Liquid-tight flexible metal conduit shall be UL-listed, suitable for use as a grounding conductor, and comply with Article 350 of the 2002 NEC. Liquid-tight, flexible metal conduit shall also be suitable for use in a Class I, Division 2, Group D location. Liquid-tight, flexible metal conduit shall be Anaconda Sealtite Type UA as manufactured by Ananmet Electrical Inc., 1000 Broadway East, Mattoon, IL 61938-0039, Liquatite Type LA as manufactured by Liquatite 222 W. Central Ave., Roselle, IL 60172, or approved equal.

Rigid Aluminum Conduit. Rigid Aluminum conduit shall be heavy wall type fabricated from 6063 aluminum alloy, T-1 temper, (former designation T-42). Aluminum rigid conduit shall comply with Federal Specification WW-C-540C, Underwriter's Laboratories UL-6, latest revision, and American National Standards Institute (ANSI) c80.5. Aluminum rigid conduit shall be as manufactured by Easco Aluminum, Burlington, North Carolina, or approved equivalent.

PVC-Coated, Galvanized, Rigid Steel Conduit. PVC-coated, galvanized, rigid steel conduit shall be Robroy Industries Plasti-Bond, or equivalent. PVC coating shall be minimum of 40 Mils permanently fused to hot dipped, galvanized, rigid steel conduit. A urethane inner coating shall be applied to the conduit interior and a clear urethane coating shall be applied over the galvanized threads.

Explosion-Proof Flexible Conduit (where applicable). Explosion-proof, flexible conduit shall be suitable for use in Class I, Division 1, Group D hazardous locations, and liquid-tight for wet locations. Conduit shall have an interior insulating liner to protect conductors from abrasion under vibrating conditions. Conduit shall provide a continuous electrical path. Explosion-proof, flexible conduit shall be Crouse-Hinds, O-Z/Gedney ECGJH, ECLK Series, Appleton EXGJH or EXLK Series Flexible Coupling, or approved equal.

Explosion-Proof Conduit Seal-Off Fittings. Explosion-proof conduit seals shall be listed suitable for use in Class I, Division 1, Group D hazardous location. Explosion-proof conduit seals shall be Crouse-Hinds EYS or EZS Series, Appleton EYS, ESU, or EY Series, O-Z/Gedney EYA, EY, EZS Series explosion-proof sealing fitting, or approved equal.

Miscellaneous Fittings. Fittings shall be suitable for use with conduits and ducts supplied. All fittings for use with rigid metal conduit shall be threaded. Set screw type fittings are not acceptable. All conduit bodies, fittings, and boxes installed in classified hazardous locations (Class I, Division 1 or 2, Group D) shall be suitable for use in Class I, Division 1, Group D locations. Fittings shall be as manufactured by Appleton, Crouse-Hinds, Hubbel-Killark, O-Z/Gedney, or approved equal.

Conductors

XHHW Wire. Cable shall be UL-listed as Type XHHW-2 per UL Standard 44 for Rubber-Insulated wires and cables. Cable shall also conform to ICEA S-95-658/NEMA WC70 and Federal Specification J-C-30B. Conductors shall be Class B stranded annealed uncoated copper

per UL Standard 44. Insulation shall be rated for 600V. Insulation shall be cross-linked polyethylene complying with the physical and electrical requirements of UL Standard 44 for Type XHHW-2. Service conductors shall be Service Wire Company, Type XHHW-2, or approved equal.

THWN Wire. Cable shall be 1/C sized as indicated on the Plans. Cable shall comply with Underwriters' Laboratories Standard UL-83 and shall be UL-listed as VW-1. Conductor shall be soft annealed uncoated copper and shall comply with ASTM B3 and B8. Insulation shall be rated for 600V. Insulation shall be polyvinyl-chloride conforming to Underwriters' Laboratories requirements for Type THW. The outer covering shall be nylon conforming to Underwriters' Laboratories for type THHN or THWN-2. Cable shall be UL-listed and marked THWN. Power and control wiring shall be Southwire Type THWN-2, or approved equal.

Supporting Devices

Strut supports for exterior applications shall be stainless steel strut support, Unistrut P-1000SS or approved equal. Strut support for equipment located in the wet well, valve vault, or other corrosive areas shall be stainless steel or reinforced fiberglass material as manufactured by Unistrut, B-Line, Aickinstruct, or approved equal. Provide necessary hardware, such as floor flanges, etc., as required to install equipment as specified and as shown on the Plans. All hardware shall be stainless steel.

Provide materials, sizes and types of anchors, fasteners, and supports necessary to carry the loads of equipment and conduits. Consider weights of conduit when selecting products.

Fasteners and anchors shall be corrosion resistant, stainless steel. Where suitable, nonmetallic clamps and fasteners may be used.

Cable hangers shall be heavy duty nylon saddle rack with 3-in. throat opening Underground devices, Northbrook, IL, Cat. No. 3SR1N or 3SR2N. Cable hangers shall be adequately sized to accommodate the respective cables. Secure cables to cable hangers with corrosion resistant cable ties.

Service Breaker

Service Breaker shall be as detailed on the Plans.

AC Surge Protective Devices

AC Surge Protectors and Transient Voltage Surge Suppressors shall be as detailed on the Plans.

Panelboard For Pump Station

Panelboard bus structure and main lugs or main circuit breaker shall have current ratings as shown on the Plans. Such ratings shall be in accordance with UL Standard 67. Bus bar connections to the branch circuit breakers shall be the "distributed phase" or phase sequence type. All current carrying parts of copper bus structures shall be plated to prevent corrosion.

The panelboard enclosure shall be a steel cabinet suitable for the respective location. For outdoor installations (in non-hazardous areas) the enclosure shall be rated NEMA 3R (rainproof) and NEMA 12 (dust tight) with a hinged cover. Panelboard shall be provided with bolt-on circuit breakers of size, type, and ratings as detailed on the Plans. Contractor shall confirm and adjust circuit breaker amperage trip ratings as required for the respective equipment or device being fed, in accordance with the respective equipment manufacturer's recommendation and NEC. Breakers shall be 1, 2, or 3 pole with an integral crossbar to assure simultaneous opening of all poles in multi-pole circuit breakers. Breakers shall have an over-center, trip-free, toggle-type operating mechanism with quick-make, quick-break action and positive handle indication. Handles shall have "ON," "OFF," and "TRIPPED" positions. Circuit breakers shall be UL-listed in accordance with UL Standard 489 and shall be rated 120/240 VAC for single pole and two pole breakers and shall be rated 240 VAC for 3 pole breakers. A circuit directory frame and card with a clear plastic cover shall be provided on door interior. Circuit directory shall be typed or neatly hand written indicating each branch circuit of the panel board. Revise directory to reflect circuiting changes as required. All new panelboards shall be UL-listed and bear the UL label. Panelboards shall be furnished with an equipment ground bar(s) and a separate insulated neutral bus.

Ground Fault Circuit Interrupter Receptacles

Receptacles with ground fault circuit interrupters shall be provided and installed where noted on the Plans. Ground fault circuit interrupter receptacles shall be rated 120 VAC, 60 HZ, 20 Amps, Specifications grade with NEMA 5-20R receptacle configuration and a trip threshold of 5±1 milliamps. Ground fault circuit interrupter receptacles shall be UL Class A ground fault interrupter receptacle units complying with and tested in accordance with UL Standard No. 943. Ground fault circuit interrupter shall be as manufactured by Leviton, or equal, include junction boxes or surface-mount FS design as manufactured by Appleton, Crouse-Hinds, or equal, and industrial grade rain-tight, NEMA 3R (while outlet is in use, as well as when not in use), UL-listed, FS box-mountable, weatherproof covers, TayMac Corporation Catalog No. 20550, or equal.

Weatherproof Toggle Switch

Weatherproof toggle switches shall be 20-Amp, 1-pole, 120 VAC, rain-tight suitable for wet locations, cast box with 3/4-in. feed through conduit hubs, and pad lockable, Crouse Hinds Catalog Number EDSC2129, or approved equal.

Pole Light Fixture

Pole Light Fixture shall be furnished and installed as detailed on the Plans.

Junction And Pull Boxes

Surface-mounted exterior junction and pull boxes located in non-hazardous, non-classified areas, shall be NEMA 4X stainless steel or aluminum, Hoffman, or approved equal.

All junction and pull boxes installed in classified hazardous areas (Class I, Division 1 or 2, Group D) shall be NEMA 7 and shall comply with applicable provisions of the NEC including, but not limited to, Articles 500 and 501. Junction boxes located in the wet well or valve vault shall be rated NEMA 4 and NEMA 7 cast aluminum, as manufactured by Crouse-Hinds, Appleton or approved equal. Junction and pull boxes shall be sized as required for conductors and splices and per 2005 NEC Article 314. Boxes shall be UL-listed. Special boxes made to suit conditions shall be used to accommodate the respective application or where required by National Electrical Code even though they might not be indicated on the drawings. Avoid installations of junction boxes in the wet well, where possible.

Duplex Pump Control Panel

The duplex pump control panel enclosure shall be strut support-mounted UL-listed, NEMA 4X stainless steel rated for outdoor use, and pad lockable. Enclosure shall have 3-point latching mechanism and handle for easy release. Enclosure shall not have clasps around the door to maintain a NEMA 4 rating. Enclosure shall be manufactured by Hammond, Hoffman, Rittal, or approved equal and shall be adequately sized to accommodate equipment furnished. The enclosure shall also provide for "dead-front" construction using hinged inner doors (swing out panel) to mount all for "dead-front" construction using hinged inner doors (swing out panel) to mount all operator devices. Bond all panels and panel doors to ground. Hinges shall not be considered as an adequate grounding path. All hardware shall be corrosion resistant.

The pump manufacturer's representative shall supply the pump control panel. The panel manufacturer shall be a current Underwriters Laboratories listed UL 508 industrial control panel builder and shall show its follow-up service procedure file number on submittals. All devices within the panel shall be UL-listed and/or recognized where applicable and shall be mounted and wired in accordance with the most current edition of UL 508 and the NEC. All conduit runs entering or leaving the pump station wet well shall have explosion-proof conduit seals suitable for Class I, Division 1, Group D environment. All conduits for intrinsically safe wiring shall enter the pump control panel enclosure at the intrinsically safe section of the panel. Non-intrinsically safe wiring including, but not limited to, power feeder conductors, branch circuit conductors, alarm circuits, telephone cables, and pump motor cables shall not enter the control panel at the intrinsically safe wiring section and shall maintain a minimum separation distance inside the control panel from the intrinsically safe conductors as required by NEC 504 and ANSI/ISA RP12.6.

All conduit entries into the Pump Control Panel shall have water-tight threaded hubs, UL-listed for the respective NEMA 4, 4X enclosure.

Include a label placed on the inside of the panel door with the name, address, phone number and emergency phone number of the service representative for the pumps and control panel.

The pump control panel enclosure shall be located adjacent to proposed pump station as detailed on the Plans. Furnish and install stainless steel strut support Unistrut P1000SS or approved equal, and all mounting hardware. Include warning label on inner and outer door labeled "WARNING POTENTIAL ELECTRIC ARC FLASH HAZARD, DISCONNECT FEEDER

BREAKER BEFORE SERVICING", or similar note conforming to the requirements of NEC 110.16 "Flash Protection." Warning label shall also conform to ANSI Z535.4-2002 "Product Safety Signs and Labels."

The power feeding the pump control panel will be 208/120 VAC, 3 phase, 4-wire, 60 HZ.

Operation of the pumps shall be controlled by the four float switches mounted in the wet well. The float switches shall be activated at the different water levels as shown on the Plans. Verify levels with Engineer at the time of installation. Wet well float switches are numbered 1 to 4 from lowest level to highest level.

When the water level is rising and float switch #1 (pumps off) is activated it shall enable the pumps to run in the automatic mode of operation. When float switch #2 (lead pump on) is activated it shall turn on the lead pump. If the water level falls while the pump is operating, the pump shall turn off when the water level falls below float switch #1. If the water level continues to rise and activates float switch #3 (lag pump on) the lag pump shall turn on and both pumps shall be operating simultaneously.

If the water level still continues to rise and reaches and activates float switch #4 (high water level alarm) the high water level alarm circuit shall be activated.

If the water level falls below float switch #1 both pumps shall shut off.

Contractor shall furnish all equipment, labor, services, submittals, tools and work required to provide a complete and operational Duplex Pump Control Panel as shown on the Plans and specified herein.

The pump control panel shall include the following described equipment (installed complete and operational), as well as that shown on the Plans and specified herein.

1. Main Breaker Disconnect: Main circuit breaker shall be 240 VAC, 3 pole, 50-Amp thermal-magnetic circuit breaker with 10,000 AIC at 240 VAC Square D FAL 32050, or approved equal. Circuit breaker shall be mounted on the back panel of the enclosure. When in the "off" or "tripped" position it shall disconnect all power to the duplex pump control panel. Include legend plate labeled "MAIN BREAKER".

2. Power Distribution Blocks: Each power distribution terminal block shall be provided with a clear plexiglass cover. Terminal block shall be Square D Class 9080, or approved equal sized as required for the respective conductors. All terminal blocks shall be rated 600 volt with amperage ratings in conformance with NEC Table 310-16 using 75°C wire for the respective lug wire range.

3. Circuit breakers: Circuit breakers for motor circuits, control circuits, and other branch circuits shall be thermal magnetic, molded case, 100-Amp frame minimum, 10,000 Amps symmetrical, interrupting current rating at 120/240 VAC

for one-pole and two-pole breakers and 10,000 Amps symmetrical, interrupting current rating at 240 VAC for three-pole breakers as manufactured by Square D, or approved equal. Breakers shall have "on", "off" and "tripped" positions and shall be UL-listed. Breakers shall be sized as required for the respective equipment in accordance with NEC and the respective equipment manufacturer's recommendation. Include breakers for the following equipment as a minimum.

a. Pump motor #1 branch breaker.
b. Pump motor #2 branch breaker.
c. Pump control panel control circuit.
d. Pump control panel 120 VAC, GFCI receptacle, heater, and alarm system telephone dialer.

4. Motor Starters: Each pump motor shall have a starter sized for pump motor to be supplied. Motor starters shall be across-the-line (full voltage) type rated in accordance with NEMA standards, sizes and horsepower ratings. IEC class starters will not be permitted.

Across-the-line starters shall be equipped with double breaksilver alloy contacts. All contacts shall be replaceable without removing power wiring or removing starter from panel. The starter must have straight-through wiring. Coils shall be of molded construction. All coils shall be replaceable from the front without removing the starter from the panel. Overload relays shall be the type having ambient compensated NEMA Class 10 bimetallic thermal units of one-piece construction and interchangeable. Motor started thermal overloads shall be sized based on actual supplied motor Full Load Amps and Service Factor, not the NEC Table 430-150. The starter shall be inoperative if thermal elements are removed. Starters shall be Square D Class 8536, or approved equal.

Starters shall be equipped with sufficient auxiliary contacts to accomplish the control indicated on the Plans and in the Specifications plus one spare N.O. contact.

5. Intrinsically Safe Barriers: Provide an intrinsically safe isolation barrier for each float. Barriers shall be UL-listed or Factory Mutual-listed for Class I, Division 1, Group D environment. Barriers shall be so located in control panel as to physically isolate intrinsically safe wiring from other power control cables per Instrument Society of American ISA-RP12.6 and UL 698A. All intrinsically safe wiring shall be with conductors with "intrinsically safe blue colored" insulation only. Intrinsically safe barriers (switching amplifiers) shall be Diversified Electronics Model Number ISO-120-AFA, or approved equal.

6. Alternating Relay: A SPDT alternating relay shall alternate each successive start command. Alternating relay shall be rated for 120 VAC with 10-Amp contacts and shall be Timemark, Diversified Electronics or equal. Include a 3-position selector switch on the control panel, which will allow the alternation to be

cancelled and omit a disabled pump. Selector switch shall be rated 10 Amps at 120 VAC and shall be Allen-Bradley 800 T series Square D 9001, Type K, or approved equal.

7. Control Relays: Control Relays with socket shall be 3PDT or 4PDT with 115 VAC coil and 10-Amp rated contacts. Control relays shall be manufactured by Potter & Brumfield Products Division of Siemens Electromechanical Components, Inc., Allen Bradley, Square D, Magnecraft & Struthers-Dunn, or IDEC.

8. Time-Delay Relays: Adjustable time-delay relays shall be used where applicable. Contacts shall be rated 10-Amp minimum at 120 VAC. Time-delay relays shall be as manufactured by Timemark Corp. Signaline, Potter & Brumfield Products Division of Siemens Electromechanical Components, Inc., Diversified Electronics, Inc., or Magnecraft & Struthers-Dunn. Include socket for each relay. Provide time-delay relays, as required for alarm circuits or other sequencing functions.

9. Two pump running time meter with six-digit display, showing hours and tenths of hours of operation for pump. Meter shall be panel-mounted type and shall be mounted to control panel inner door (swing out panel). Run time meters shall be Westinghouse ETMAC60120, or Hobbs 20000 series, or equivalent Cramer model.

   Provide Legend plate labeled as follows:

   "PUMP 1 HOURS"
   "PUMP 2 HOURS"

10. Terminal blocks for control wiring shall be Heavy Duty 600 volt, tubular clamp style, with accessories as required, as manufactured by Buchanan, Allen-Bradley, Cutler-Hammer, or Square D. Control panel interior wiring shall be MTW or THW sized as required per NEC minimum #14 AWG copper.

11. Mode Select: method of operation shall be by a three position maintained "Hand-Off-Auto" selector switch provided for each pump. Selector switch shall be water-tight/oil tight (NEMA 4/13) Allen Bradley 800T Series, Square D Class 9001,, Type K, or Cutler-Hammer E22 or Cat. No. 10250 Series. Position commands are as follows:

    Hand – In this position, the applicable pump shall run without regard for the level sensing commands and will relay on operator discipline to run and stop.

    Off – In this position, the applicable pump will not run under any circumstances.

    Auto – in this position, the float switches and respective control relays shall control the applicable pump. The float switches will sense the appropriate levels

in the wet well and initiate start and stop commands to the pump through the associated control relays.

12. Pilot Lights: All pilot lights shall be "push-to-test" LED type complete with one (1) normally open and one (1) normally closed contact block. Power on pilot light is not required to be a push-to-test type. Pilot lights shall be oil tight and no less than 30 mm in diameter. Pilot lights shall be Allen/Bradley 800T Series, Square D Class 9001, Type K Series, or approved equal. Pilot light indication shall include, but not be limited to, the following:

    Power on; white – indicating the pump control panel is energized.

    Pump #1 running; Green – indicating pump #1 is running.

    Pump #2 running; Green – indicating pump #2 is running.

    Pump #1 Overload Trip; Red – indicating pump #1 has failed as a result of a starter overload trip.

    Pump #2 Overload Trip; Red – indicating pump #2 has failed as a result of a starter overload trip.

    Off Float Enabled; Green – indicating the water level in the wet well has activated the off float switch.

    Lead Pump Float On; Green – indicating the water level in the wet well has activated the lead pump float switch.

    Lag Pump Float On; Green – indicating the water level in the wet well has activated the lag pump float switch.

    High Water Level; Red – indicating the high water level float has been activated and the water level in the wet well is at a high alarm level.

13. Legend Plates: Legend plates shall be required for all starters, circuit breakers, control panels, and disconnects. Legend plates shall be provided to identify the equipment controlled and the function of each pushbutton, indicating light, pilot light, selector switch and device. Legend plates shall be weatherproof and abrasion resistant phenolic materials. Lettering shall be black on white background, unless otherwise noted.

14. Condensation Heater: Provide a condensation strip type heater sized as required for the pump control panel enclosure to minimize moisture that may accumulate inside the enclosure. Heater shall be sized to maintain a minimum internal enclosure temperature of approximately 50°F for an outside design temperature of -15°F. Include integral thermostat and circulating fan for condensation heater. Circulating fan shall be 4 in. to 6 in. nominal diameter axial type fan with wire

guards, 115 VAC, 60 Hz. Thermostat shall be line voltage thermostat, 120 VAC, 5-Amp minimum current rating, SPST, with adjustable control knob as manufactured by Honeywell, White-Rogers, Hammond, Hoffman, Rittal, or Chromalox.

15. Convenience Duplex Receptacle: Provide a duplex receptacle with ground fault circuit interrupter. Receptacle shall be rated 120 VAC, 60 Hz, and 15 Amps or 20 Amps, with a trip threshold of 5 ± 1 milliamp. Receptacle shall be a UL Class A GFCI unit complying with and tested in accordance with UL Standard No. 943. GFCI shall be as manufactured by Leviton, Hubbell, Eagle, Arrow-Hart, Bryant, or Pass & Seymour.

16. Pump Motor Thermal Trip: (For motors equipped with motor winding thermostats.) A thermal trip on the motor will cause immediate shutdown and activate the respective thermal trip condition pilot light and pump failure alarm. Pump motor thermal trip shall be wired to provide manual reset and restarting of the pump motor in conformance with the recommendations of the respective submersible pump manufacturer's representative. Provide interposing relays as required. Verify thermal trip requirements with the respective submersible pump manufacturer.

17. Pump Motor Seal Leak Detection: (For motors equipped with seal leak sensors.) A seal leak detection on the motor will shut down the pump and activate the respective seal leak pilot light and pump failure alarm as required/recommended by the respective submersible pump manufacturer's representative. Provide interposing relays as required. Verify seal leak requirements with the respective submersible pump manufacturer.

18. Automatic Pump Sump Cleaning System: Provide an automatic pump sump cleaning system controller per the respective submersible pump manufacturer's recommendation. The controller shall be designed to control the pump so that it will operate down to the lowest possible water level in the sump. This will enable the pump to pump away the grease and dirt that normally remains on the water surface. Number of cleaning cycles per 24 hours shall be as recommended by the respective submersible pump manufacturer's representative. Automatic Pump Sump Cleaning System for use with Flygt pumps shall be Flygt APF-Cleaner 840348, or equal. Include the appropriate current transformers for the respective pump motors. Verify selection of the appropriate pump cleaning system controller and wiring arrangement with the respective pump manufacturer's representative.

19. Enclosure Light: Provide a 60-watt incandescent light fixture for the pump control panel enclosure with door activated switch. Light fixture shall be Hoffman Catalog Number A-LTDB1, or approved equal. Include lamps for respective fixture.

20. Alarm Monitor/Telephone Dialer. Alarm monitor panel shall be furnished and installed in the pump control panel by ADT Security Services, Inc., 2016 North Knoxville Avenue, Peoria, Illinois 61603, Attn. Mr. Dave Smith, Commercial Sales Representative, Phone: 309-687-4366 or 1-800-832-4733, Mobile Phone: 309-678-5514, Fax: 309-685-7161. The pump control panel manufacturer shall provide adequate space in the pump control panel to accommodate mounting the alarm monitor panel. The pump control panel shall include an internal strip heater with thermostat to maintain a minimum internal enclosure temperature of approximately 50°F for an outside design temperature of -15°F to meet the operating temperature range of the alarm monitor panel. The approximate dimensions for the respective alarm monitor panel are 15 in. high by 13 in. wide by 4 in. deep. The Contractor shall confirm these dimensions with ADT Security Services, and make adjustments where applicable. The pump control panel shall also provide a 120 VAC, 15-Amp, simplex receptacle to accommodate the plug-in transformer for the alarm monitor panel. **The equipment and services provided by ADT Security Services shall be paid for separately by the City of Bloomington and shall not be included with this Contract.** The Contactor shall coordinate the work of ADT Security Services with the Pump Station Installation and with the City of Bloomington (Mr. Gary Poland, Superintendent of Streets and Sewers, Public Service Department, City of Bloomington, IL, Phone: 309-434-2384, Cell Phone: 309-275-1718). The alarm monitor panel shall provide notification for the following alarm conditions:

    1. Utility Power Failure.
    2. Pump Failure.
    3. Engine Generator Failure. This includes all alarm conditions, which cause the engine generator to shut down or prevent from starting.
    4. High Water Level.

21. Fusing: Provide fuse protection as indicated on the Plans and as Specified herein for control circuitry. Fuses shall be rated suitable for the respective voltage and application. Include fuse blocks with box lug terminals. Fuses shall be manufactured by Bussmann or Littlefuse. Provide one box (5 minimum quantity) of each type and size of fuse, upon completion of the job, for use as spares.

22. Equipment Grounding Bar: Provide a grounding bar mounted and bonded inside the panel enclosure, adequately sized to accommodate all ground conductors to or from the pump control panel.

23. Float Switches: Furnish float switches of type and quantity detailed on the Plans. Float switches shall be stainless steel, minimum diameter 5 in., flexibly supported by a multi-conductor neoprene jacketed Type SO, three conductor #14 AWG cable and having a mercury switch inside. Switch rating shall be rated 10 Amps minimum at 120 VAC. The float shall be constructed of Type 316 stainless steel. The cord shall be fine strand made especially for underwater heavy flexing service and shall include a ground wire. Float cables shall be continuous (no

splices) from the float to the pump controller cabinet. Floats shall be US Filter Control Systems (Consolidated Electric) Model 9G, Anchor Scientific Model Roto-Float Type SST, or approved equal. Float switch circuits shall comply with the applicable sections of Articles 500, 501, and 504 of the National Electrical Code (most current issue in force) for Class I, Division 1, Group D hazardous location and Instrument Society of America ANSI/ISA-RP12.6 as well as all local codes, ordinances, laws, and requirements in force.

24. Float Switch Suspension Mounting Kit: The float switch liquid level sensors shall be mounted to a common stainless steel cable/weight suspension mounting kit. The stainless steel cable shall be multi-stranded and have a minimum 1/8 in. diameter. A plastisol-coated 20 to 25-pound cast iron weight with a cast-in-place stainless steel eyelet (for connection to the stainless steel cable with two stainless steel clamps) shall provide drift free mounting. The kit shall utilize stainless steel float switch cable clamp mounting hardware with two stainless steel screws per clamp to provide easy field adjustment of float switch operating elevations. The stainless steel cable shall have a loop with two cable clamps at the upper end of the assembly for mounting to an eyelet installed by the Contractor in the top slab of the wet well. The float switch mounting kit shall be a US Filter control systems/Consolidated Electric Bulletin B100 Model CBM or approved equal.

Construction Methods

Temporary Power

The Contractor shall make necessary arrangements and provide all temporary electric service and lighting required during entire construction period including required fees and permits. Cost of electricity used shall be borne by the Contractor. The temporary service shall comply fully with all NEC and OSHA requirements for temporary service.

Electric services shall be of sufficient capacity and characteristics to supply proper current for various types of construction tools, motors, welding machines, lights, heating plant, air condition system, pumps and other work required. All necessary temporary wiring, panelboards, outlets, switches, lamps, fuses, controls and accessories shall be provided by the Contractor. All 120 VAC, 15-Amp and 20-Amp receptacles shall be ground fault circuit interrupter type.

Materials used for temporary service shall not be used in permanent system unless specific approval is given by the Engineer. Temporary service shall be so constructed and arranged as not to interfere with progress of other trades. This systems hall be erected and maintained strictly in accordance with all ordinances and requirements for temporary service pertaining thereto inclusive of OSHA and NEC, (most current issue in force).

The serving electric utility company for the work site is as follows:

Ameren IP
Attn: Mr. Marty Behrens, P.E.
Regional Engineering Supervisor
501 East Lafayette Street
Bloomington, Illinois 61701
Phone: (309) 823-9271
Fax: (309) 829-9499

Contractor who has installed a temporary utility connection as herein specified, shall, prior to final acceptance, remove temporary connections and installations and leave premises restored to condition in which it was found.

Electric Service Entrance

Contractor shall furnish and install electric service entrance as detailed on the Plans and specified herein. As part of the service entrance work, the Contractor shall coordinate with the serving utility:

Ameren IP
Attn: Mr. Marty Behrens, P.E.
Regional Engineering Supervisor
501 East Lafayette Street
Bloomington, Illinois 61701
Phone: (309) 823-9271
Fax: (309) 829-9499

The installation of a 208Y/120 VAC, three-phase, 4-wire service sufficient to handle the loads of the respective pump station and associated equipment located at the site. **The City of Bloomington, Illinois will pay for all associated electric utility company charges required to provide electric service to the respective pump station. The Contractor is not responsible for electric utility company charges associated with the proposed electric service to the pump station.** The Contractor shall coordinate the new electric service with the serving electric utility company and the City of Bloomington, Illinois. The service entrance shall include, but not be limited to, all service entrance equipment, labor and materials as detailed on the Plans and specified herein, in order to provide a complete and operational electrical system.

Ameren IP Company: Major work items to be performed by Ameren IP (not in contract) shall be as follows:

1. The furnishing of power for a 208Y/120 VAC, three-phase, 4-wire secondary service sufficient to handle the loads for a 100-Amp service. Due to the loads of the pump station and the location in a residential area it is requested that the electric utility company provide a dedicated transformer bank for the pump station.

2. Shall connect the customer's service entrance conductors at the riser pole to the utility service drop.

3. Shall furnish and install the metering.

4. Shall inspect transfer switch and engine-generator set installation to verify it conforms with their requirements.

5. Ameren IP Company shall retain the right to review and approve drawings prior to installation.

Contractor: Major work items to be performed by the Contractor (in Contract) shall be as follows: (all work, labor, equipment, and materials shall be as detailed on the Plans specified herein, and per the serving electric utility's requirements, where applicable).

1. Shall provide and install a new weatherproof treated power/metering riser pole (minimum 35 ft high) per utility's requirements and all other local codes, ordinances, and requirements. Pole shall be minimum Class 4, Douglas Fir or Southern Pine and be treated in accordance with American Wood Preservers Institute (AWPI) Standard LP-77 for heavy petroleum solvent-penta solution (Pentachlorophenol) in heavy oil treatment. Pole shall have a minimum circumference of 35 in. at 6 ft from butt end. Minimum circumference at top shall be 21 in.

2. Shall furnish and install UL-listed meter base per serving electric utility requirements and as detailed on the Plans.

3. Shall provide and install service entrance conduit from service entrance main breaker to meter base and from meter base to top of riser pole. Conduit shall terminate with a weatherhead. All service entrance conduit shall be grounded with grounding bushings with ground conductors connected to bushing and respective service equipment enclosure ground bus.

4. Shall provide and install service entrance conductors from service entrance main breaker to meter base and from meter base to top of riser pole. Sufficient cable shall be provided at the weatherhead to allow for drip loop and for utility connections to their transformers. Conductors shall be type and size as shown on the Plans and specified herein.

5. Shall provide and install service entrance main circuit breaker in a NEMA 4X stainless steel enclosure UL-listed suitable for service entrance as detailed on the Plans, and specified herein. Include solid neutral and separate ground bus. Bond neutral to ground in circuit breaker enclosure where it can be inspected by Engineer. Also include AC surge protector/TVSS device as detailed on the Plans. Circuit breaker enclosure shall have hinged door and shall be pad lockable in the

off position. Circuit breaker enclosure shall be provided with individual weatherproof engraved phenolic legend plate labeled "SERVICE BREAKER 208Y/120 VAC, 3 PH, 4 W" and a separate legend plate labeled "NOTE GENERATOR NEUTRAL IS ALSO BONDED TO GROUND AT SERVICE BREAKER."

6. Shall provide and install ground rods (minimum of three for ground field) at service entrance location as shown on the Plans and specified herein. Service entrance grounded phase conductor shall be solidly grounded. Ground rods shall be 3/4 in. diameter by 10 ft long, UL-listed, copper clad. Grounding electrode conductor shall be minimum #6 AWG bare stranded copper installed in 1 in. Schedule 40 PVC conduit from main service entrance circuit breaker to 1 ft below finished grade, and direct buried thereafter as detailed on the Plans. Ground conductors shall be connected to ground rods by exothermic weld, Cadweld or Thermoweld. Connect per manufacturer's requirements.

7. Verifying all requirements with serving electric utility.

8. Coordinating the electric service entrance work and billing arrangements with the serving electric utility company and the City of Bloomington, Illinois.

9. Additional work as required by the serving electric utility and as required to provide a complete and operational electric service entrance system.

Telephone Service

Contractor shall coordinate the work with the serving telephone company,

Verizon North, Inc.
1312 East Empire
Bloomington, Illinois 61701
Attn: Mr. Mike Hope
Phone: (309) 663-3156

and the City of Bloomington, Illinois (owner's representative). **All telephone company utility service charges, costs, fees, and billing shall be paid for by the City of Bloomington, Illinois. The Contractor is not responsible for telephone utility company charges associated with the proposed telephone service to the pump station.**

Installation of the new telephone service shall be as detailed on the Plans, per the serving telephone utility's requirements, and as specified below.

Serving Telephone Company

1. Shall furnish and install telephone services as required for installing the new alarm monitor/telephone dialer.

2. Shall furnish and install the network interface device at the pump control panel.

3. Shall retain the right to review and approve drawings prior to installation.

Contractor

1. Shall furnish and install 2–in. GRSC as detailed on the Plans for the new telephone service. Verify conduit size with serving telephone company and adjust as applicable.

2. Shall provide structure and hardware as required to mount the telephone network interface box at the pump station.

3. Shall verify telephone service requirements with the serving telephone utility.

Installation Of Conduits And Ducts

1. All exterior above grade exposed conduit shall be galvanized rigid steel (GRSC) or rigid aluminum as detailed on the Plans.

2. All work shall be laid out with sleeves for openings through slabs, pump station or valve vault walls, etc. as required. If sleeves and inserts are not properly installed, the Contractor will be required to do all necessary cutting and patching to accommodate conduits.

3. Conduit size and fill requirements shall comply with Chapter 9 and Annex C of the NEC. It should be noted these are minimum requirements and larger conduit sizes or smaller fill requirements shall be used whenever specified or detailed on the Plans.

4. Liquid-tight flexible conduit shall be provided as a connection between each motor junction box, or any other piece of equipment subject to movement or vibration, and the rigid conduit system where installed in a non-hazardous, non-classified area. Liquid-tight conduit shall not exceed 3 ft in length.

5. Explosion-proof, flexible conduit shall be provided as a connection between each motor junction box, or any other piece of equipment subject to movement or vibration, and the rigid conduit system where installed in a classified hazardous location.

6. Ream conduits only after threads are cut. Cut joints square to butt solidly into couplings. Where necessary to join two pieces of conduit and it is impossible to use standard coupling, use three piece malleable iron conduit coupling. The use of running thread is prohibited. This applies to all rigid conduit installations, underground or otherwise.

7. Make all joints in steel underground conduit water-tight with approved joint compound. Temporarily plug conduit openings to exclude water, concrete or any foreign materials during construction. Clean conduit runs before pulling in conductors.

8. Hickey bends will not be acceptable for conduits 1 in. and larger. Use manufactured elbows or bends fabricated with bending machine. Field bending of all PVC conduit shall be accomplished with the use of equipment approved by the conduit manufacturer. Open flame bending equipment will not be acceptable.

9. A run of conduit between a junction box, pull box, and/or fitting shall not contain more than the equivalent of four quarter bends, including bends immediately at the respective box or fitting.

10. Where conduit enters a box or fitting, provide a steel locknut and an insulated metallic bushing. Use this method to terminate conduit in panels, pull boxes, safety switches, etc. Conduit terminations in service equipment shall have grounding bushings with ground wire connections between the bushing and the ground bus.

11. Run exposed conduits parallel with respective walls or supporting structure and at right angles to the respective building, vault, etc., not diagonally. Make bends and turns with pull boxes or hot-dipped galvanized malleable iron fittings and covers.

12. Conduit terminations shall include bushings to protect cables and wires from damage from conduit.

13. Set screw type fittings are prohibited.

14. Use only screws, bolts, washers, etc. fabricated from rust resisting metals for the supporting of boxes.

15. Schedule 40 PVC conduit and/or sleeves shall be used for grounding electrode conductors.

16. Metal conduit in direct contact with earth or concrete shall be PVC-coated GRSC.

17. All conduit installed in Class I, Division 1 or 2, Group D locations shall be suitable for installation in the respective hazardous areas.

18. Install explosion-proof conduit seal off fittings in conformance with the manufacturer's instructions. Per Article 501-5 (C) (6) of the NEC and UL Standard 886, the cross sectional area for conductors installed in a conduit seal off fitting shall not exceed 25 percent, unless the conduit seal off fitting has been specifically approved for a higher percentage of fill.

19. Aluminum rigid conduit may be used for float switch mounting pipe, (where shown on the Plans).

20. Aluminum rigid conduit may be used for conduits entering the wet well (between the pump control panel and the wet well of the pump station), provided it has corrosion protection as detailed on the Plans and as specified herein.

21. Underground conduits shall be minimum 24 in. below finish grade to the top of conduit where located in areas not subject to vehicular traffic. Underground conduits shall be minimum 36 in. below grade where located in areas subject to vehicular traffic. Where shown on the Plans or where required to avoid obstructions and/or interferences with other underground utilities, deeper burial depths may be required.

22. Conduits shall be kept clean of concrete, dirt, or foreign substances during storage and construction. After conduit installation, a standard flexible mandrel shall be used for cleaning followed by a brush with stiff bristles. Mandrel shall be at least 12 in. long and have a diameter 1/4 in. less than the inside diameter of the conduit being cleaned. All obstructions in conduits shall be removed prior to pulling wires or final acceptance. Conduits unable to pass mandrel shall be replaced. All unused conduits shall be capped.

23. Trench widths shall be held to a minimum.

24. Examine all available site utility information in regard to existing utility lines and locate and protect existing lines. Repair all existing utility lines that are damaged by this construction.

25. All excavations shall be barricaded, lighted (where applicable) and protected during construction.

26. Contractor shall backfill all excavations.

Installation Of Wire And Cable

1. Wire and cable shall be installed using accepted industry methods to prevent damage to conductors and insulation. Installation shall comply with all applicable sections of the NEC regarding conduit fill.

2. No splices shall be permitted in conduit bodies. All splices shall be made in junction boxes provided for that purpose as detailed or required by need.

3. All conduits shall be swabbed until all moisture and grit is removed before any wires are pulled.

4. Manufacturers recommended pulling tension shall not be exceeded during conductor installation. Use approved pulling lubricant on long pulls or when pulling No. 4 or larger wire.

5. Neatly train and lace wiring inside boxes, equipment and panelboards.

6. Color code conductor insulation for #10 AWG and smaller. Color code conductors with tape or colored insulation for #8 AWG and larger. Where conductors are color coded with tape, they shall be identified (color coded) at all points of access. **Equipment ground wires shall have green colored insulation for all conductor AWG and/or Kcmil.** Color coding shall be as follows:

208/120 VAC, 3 PHASE, 4 WIRE

Phase A – Black
Phase B – Red
Phase C – Blue
Neutral – White
Ground – Green

7. Intrinsically safe wiring shall be with blue colored insulation per ANSI/ISA RP 12.6 and NEC 504.

8. Splicing 600 volt wire shall be as follows:

A. #8 and smaller:

Ideal "wing nut" type insulated connectors.
Scotchlok R, B, and Y type insulated connectors.
Thomas and Betts, PT-1, PT-2, and PT-3 insulated connectors.

B. #6 and larger:

1. For straight way connections, use compression connector with rubber shrink type insulating cover.

2. For tee cable taps, use compression connector with rubber shrink type insulating cover.

3. For taps in cutout cabinets, gutters, and other close locations, use O.Z., Burndy, or PLM fittings, type "PT" cable tape with type "PTC" insulating cover.

C. Use plastic tape on all uninsulated wire splices manufactured by Scotch, Okonite, Brady Co. or Plymouth.

D. Splice only in accessible junction or outlet boxes.

9. Connections and Terminations shall be as follows:

A. Identify each conductor in pump/motor control panels, panelboards, junction or pull boxes, or troughs with a permanent pressure sensitive label with suitable numbers or letters for easy recognition. Identify control wiring at each end and in junction boxes with numeric wire number corresponding to control wiring diagram.

B. Thoroughly clean wire before installing lugs and connectors.

C. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.

D. Terminate spare conductors with electrical tape and roll up in box. Label spare conductors "SPARE."

10. Inspect wiring for physical damage and proper connection. All wire and cable shall be tested for continuity and short circuits prior to energizing circuits. Verify proper phasing where applicable.

Installation Of Supporting Devices

Install products in conformance with manufacturer's instructions and as detailed on the Plans. Provide anchors, fasteners and supports in accordance with NECA Standard of Installation, and as recommended by the equipment manufacturer for the respective application.

Do not fasten/secure supports to pipes, ducts, mechanical equipment, or conduit. Do not use spring steel clips or clamps. Install surface-mounted cabinets, enclosures and panelboards with a minimum of four anchors. Use spring-lock washers under all nuts. All supports installed in the wet well and/or valve vault shall be corrosion resistant. Install supports with stainless steel hardware.

Concrete work associated with support structures shall conform to Section 1020 PORTLAND CEMENT CONCRETE of the Standard Specifications for Road and Bridge Construction and as detailed on the Plans.

Installation Of Separately Mounted Circuit Breakers

1. Secure circuit breakers to structure, riser pole, or equipment surface as shown on the Plans. Where the surface is not adaptable for mounting, provide stainless steel strut support Unistrut P-1000 SS rack-mounted as directed to secure circuit breakers.

2. All circuit breakers and enclosures shall be supplied with appropriate mounting hardware and strut support. Mounting hardware shall be corrosion resistant stainless steel.

3. Installation of circuit breakers shall be in conformance with the manufacturer's requirements and as detailed on the Plans. Installations that void the third party certification, or void the manufacturer's warranty, shall NOT be permitted.

4. Inspect all circuit breakers for proper operation, tight and secure connections, and correctness. Adjust as necessary to assure proper operation.

5. Nuts, bolts, and screws shall be tightened to manufacturer's requirements.

6. Provide weatherproof, abrasion resistant, legend plates, for all circuit breakers, indicating the function of the breaker and/or the device being fed.

7. All circuit breakers enclosures shall be bonded to ground with a ground lug or screw and a ground conductor (wire).

8. Install grounding bushings with ground wire connections between the bushing and the ground bus at all metal conduit terminations that enter or leave circuit breaker enclosures and/or disconnect enclosures that are used for service equipment or that have knockouts.

9. Install disconnect enclosures and circuit breaker enclosures plumb.

10. Provide NEMA 4 hubs for all conduit entries into circuit breaker enclosures that are rated NEMA 4, 4X, to maintain the NEMA 4, 4X rating.

Installation Of Panelboards

Panelboards shall be installed as detailed on the Plans and as specified herein. Panelboards shall be thoroughly inspected for physical damage, proper alignment, anchorage, and grounding. The exterior finish shall be inspected for blemishes, nicks, and bare spots, and touched up as required using matching touch-up paint. Inspections shall be made for proper installation and tightness of connections for circuit breakers. Install panelboards as shown on the Plans and in accordance with NEMA PB1.1. Install panelboards plumb. Install circuit breakers in panelboards in conformance with the respective manufacturer's directions. Connect only one wire/cable to each breaker terminal. Provide filler plates for unused spaces in panelboards. Provide typed circuit directory to identify each branch circuit in the panelboard. Revise directory to reflect circuiting changes as required. Provide legend plates for all panelboards to identify the area and/or equipment controlled by the panelboard, the power source, and the voltage system. Legend plates shall be weatherproof and abrasion resistant phenolic material. Lettering shall be black on white background unless noted otherwise on the Plans. Panelboards shall be thoroughly tested after installation and connection to respective loads.

Installation Of Ac Surge Protective Devices

Install AC Surge Protector/TVSS (Transient Voltage Surge Suppressor) devices in conformance with the respective manufacturer's directions and recommendations and in conformance with the applicable sections of NEC Article 280 and/or NEC Article 285. Maintain the leads as short and as straight as possible and avoid unnecessary bends. Where AC Surge Protector/TVSS devices are installed at panelboards provide a branch circuit breaker for connection to the panelboard bus and locate this branch circuit breaker as close as possible to the panelboard main lugs or main breaker. Verify the respective AC Surge Protector/TVSS device is rated and suitable for use on the respective voltage system.

Installation Of Junction And Pull Boxes

Use only screws, bolts, washers, etc. fabricated from rust resisting metals for the supporting of boxes. Install pull boxes in runs of conduit such that a total of 360 degrees in bends is not exceeded. Junction boxes shall be installed at all points in conduit runs where taps or splices are located. Boxes required by code or need which are not detailed on the Plans shall be considered incidental to the respective work item and will not be paid for separately.

Grounding Requirements

Grounding shall conform to the following as applicable: The Contractor shall furnish and install all grounding shown on the Plans and/or as may be necessary or required to make a complete grounding system as required by the latest National Electrical Code (NFPA 70) in force. The reliability of the grounding system is dependent on careful, proper installation and choice of materials. Improper preparation of surfaces to be joined to make an electrical path, loose joints, or corrosion can introduce impedance that will seriously impair the ability of the ground path to protect personnel and equipment and to absorb transients that can cause noise in communications circuits. The following functions are particularly important to ensure a reliable ground system:

1. All products associated with the grounding system shall be UL-listed and labeled.

2. All bolted or mechanical connections shall be coated with a corrosion preventative compound before joining, Dearborn Chemical Company "No-Oxide A" compound or equal.

3. Metallic surfaces to be joined shall be prepared by the removal of all non-conductive material, per 2005 National Electrical Code Article 250-12.

4. Metallic raceway fittings shall be made up tight to provide a permanent low impedance path for all circuits. Metal conduit terminations in enclosures shall be bonded to the enclosure with UL-listed fittings suitable for grounding. Provide grounding bushings with bonding jumpers (from bushing to the respective ground connection/enclosure frame) for all metal conduits entering service equipment (meter bases, CT cabinet, service disconnects, service panelboards, main service breaker enclosure, etc.). Provide grounding bushings with bonding jumpers for all

metal conduits entering an enclosure through concentric or eccentric knockouts that are punched or otherwise formed so as to impair the electrical connection to ground. Standard locknuts or bushings shall not be the sole means for bonding where a conduit enters an enclosure through a concentric or eccentric knockout.

5. Furnish and install ground rings, ground fields, and or ground rods at all locations where shown on the Plans or specified herein. Ground rods for electrical installations shall be ¾ in. diameter by 10 ft long, UL-listed, copper clad with 10 mil. minimum copper coating. Top of ground rods shall be a minimum of 30 in. below finish grade unless otherwise noted on the Plans. Ground rods shall be spaced as detailed on the Plans and in no case spaced less than one rod length apart. All connections to ground rods and/or ground rings or ground fields shall be made with exothermic weld type connectors, Cadweld by Erico Products, Inc., Solon, Ohio, (Phone 1-800-248-9353), or Thermoweld by Continental Industries, Inc., Tulsa, Oklahoma (Phone 918-663-1440). Exothermic weld connections shall be installed in conformance with the respective manufacturer's directions using molds as required for each respective application. Bolted connections will not be permitted at ground rods or at buried grounding electrode conductors. Grounding electrode conductors shall be bare stranded copper sized as detailed on the Plans. In addition to the grounding work described herein and shown on the Plans, the Contractor shall test the made electrode ground field/ground ring with an instrument specifically designed for testing ground field systems. If ground resistance exceeds **10 Ohms**, contact the Engineer for further direction. Copies of ground field test results shall be furnished to the Engineer, upon request, for review and record purposes.

6. All connections, located above grade, between the different types of grounding conductors shall be made using UL-listed double compression crimp-type connectors or UL-listed bolted ground connectors. For ground connections to enclosures, cases and frames of electrical equipment not supplied with ground lugs the Contractor shall drill required holes for mounting a bolted ground connector. All bolted ground connectors shall be Burndy, Thomas and Betts, or equal. Tighten connections to comply with tightening torques in UL Standard 486A to assure permanent and effective grounding.

7. All metal equipment enclosures, conduits, cabinets, boxes, receptacles, motors, etc. shall be bonded to the respective grounding system.

8. Each feeder circuit and/or branch circuit shall include an equipment ground wire. The equipment ground wire shall not be smaller than allowed by 2005 NEC Table 250-122 "Minimum Size Conductors or Grounding Raceway and Equipment." When conductors are adjusted in size to compensate for voltage drop, equipment-grounding conductors shall be adjusted proportionately according to circular mil area. All equipment ground wires shall be copper either bare or insulated green in color. Where the equipment grounding conductors are insulated, they shall be

identified by the color green and shall be the same insulation type as the phase conductors.

9. Provide all boxes for outlets, switches, circuit breakers, etc. with grounding screws. Provide all panelboard, control panel, transfer switch, etc. enclosures with grounding bars with individual screws, lugs, clamps, etc. for each of the grounding conductors that enter the respective enclosures. Do not terminate more than one ground wire in ground lug or terminal unless the respective lug or terminal is rated for multiple conductors.

10. Equipment ground wires shall be identified with green colored insulation for all conductor AWG or kcmil. Green tape shall not meet this requirement.

11. All utility transformer bank grounds shall be installed in accordance with the serving utility company's recommendation and in accordance with NEC.

12. Bond the main electrical service neutral to ground at the main service disconnect. Bond the service neutral to ground at one location only per the National Electrical Code. A grounding connection shall not be made to any neutral circuit conductor on the load side of the service disconnecting means, except as permitted by 2005 NEC 250-24.

13. All exterior metal conduit, where not electrically continuous because of manholes, handholes, non-metallic junction boxes, etc., shall be bonded to all other metal conduit in the respective duct run, and at each end, with a copper bonding jumper sized in conformance with 2005 NEC 250-102. Where metal conduits terminate in an enclosure (such as a motor control center, switchboard, etc.) where there is not electrical continuity with the conduit and the respective enclosure, provide a bonding jumper from the respective enclosure ground bus to the conduit sized per 2005 NEC 250-102.

14. Install grounding electrode conductors and/or individual ground conductors in Schedule 40 or Schedule 80 PVC conduit. Where grounding electrode conductors or individual ground conductors are run in PVC conduit, Do Not completely encircle conduit with ferrous and/or magnetic materials. Use non-metallic reinforced fiberglass strut support. Where metal conduit clamps are installed, use nylon bolts, nuts, washers and spacers to interrupt a complete metallic path from encircling the conduit.

Installation And Testing Of Pump Control Panel

Installation

1. Control panel shall be installed per manufacturer's recommendations as detailed on the Plans and as specified herein.

2. All conduit entries into the panel enclosure shall have water-tight threaded hubs, UL-listed for the use with the respective NEMA 4, 4X enclosure to maintain the NEMA 4, 4X rating of the panel enclosure.

3. Seal conduit openings in the panel enclosure with duct seal.

4. Conduits with intrinsically safe wiring, including float switch cables, shall terminate in the control panel at the intrinsically safe wiring section. Non-intrinsically safe wiring including, but not limited to, power feeder conductors, branch circuit conductors, and pump motor cables shall not enter the control panel at the intrinsically safe wiring section and shall maintain a minimum separation distance inside the control panel from the intrinsically safe conductors as required by NEC 504 and ANSI/ISA RP12.6.

5. Install explosion-proof conduit seal-off sittings as detailed on the Plans and in conformance with manufacturer's instructions. Contact the respective conduit seal-off manufacturer if assistance is required for direction of installing the packing fiber to form a dam and pouring the sealing compound.

6. Install float switches as detailed on the Plans and per manufacturer's directions and recommendations. Verify float elevations with Engineer and Pump Manufacturer's Service Representative and adjust as required. Secure slack float cable to cable hangers with corrosion resistant nylon cable ties. Connect equipment ground wires from individual float switches to the respective equipment ground bar in the pump control panel.

7. Terminate all equipment ground wires on the pump control panel equipment ground bar. Where pump motor cables include an equipment ground wire and an additional "ground check" wire both ground wires shall be terminated on the equipment ground wire. Where float switch cables include an equipment ground wire terminate the respective ground wire on the control panel equipment ground bar.

Testing

Contractor shall provide services of the pump control panel manufacturer's representative for the purpose of inspection, check-out, testing, start-up, instruction of user personnel, and any other required services to provide a complete and operational system. All tests shall be conducted in the presence of the Engineer. Contractor shall provide water as/if required to test pumps under load. Contractor shall furnish three copies of test results to Engineer. Contractor shall also furnish three copies of Operation and Maintenance Manuals, for operator personnel use, to the Engineer.

Start-up procedure and tests shall include, but not be limited to, the following, as well as other tests and requirements specified herein.

1. Conduct megger test on each motor, (see Motor Start Up Certification and Testing Report).

2. Inspect control panel for correct terminal connections and tightness, correct and tighten as required.

3. Check float switches and corresponding circuitry for proper operation.

4. Check oil in motors (where applicable).

5. Check for correct rotation of pump motors, correct as required.

6. Check for proper pump installation and operation.

7. Measure voltage at no load (pumps off) and at pumps running under load for each pump motor.

8. Measure current in each phase with motor running under load for each pump motor.

9. Verify proper operation of pump motor thermal sensors (where applicable).

10. Run the pumps in automatic and manual modes of operation. Verify proper operation of alternator.

11. Simulate alarm conditions and verify proper annunciation of each alarm on the automatic phone dialer system.

12. Verify a label is provided on the pump control panel with the name, address, phone number, and emergency phone number of the service representative.

13. Verify proper operation of all pilot lights and alarm lights.

14. Test receptacles for proper output power and proper operation.

15. Instruct user personnel about the operation of the control panel and components; indicating items for routine maintenance check, operation modes, failure modes, alarm conditions, etc.

16. Conduct any additional tests as recommended or required by the manufacturer.

17. Correct any defects or deficiencies and retest after corrective and/or repair work has been performed to confirm proper operation of the system.

Marking And Labeling

Legend plates shall be provided for all equipment. Legend plates shall be provided to identify the equipment controlled, the power source, and the function of each device. Each individual circuit breaker, transfer switch, control panel, safety switch, panelboard shall be furnished with a phenolic engraved legend plate that identifies the respective device, the power source, and the respective voltage, phase, and wire. Furnish additional phenolic engraved legend plates as detailed on the Plans and/or where required by code. Legend plates shall be weatherproof and abrasion resistant phenolic/plastic engraved material and fastened with contact type permanent adhesive, screws, or rivets. Installation shall not break, crack, or deform the legend plate. Lettering shall be ¼ in. high or larger. Equipment that is powered from a utility power source only (for example the main service disconnect) shall have black lettering on a white background. Equipment that is powered from a generator source only (for example the generator breaker) shall have black lettering on a yellow background. Equipment that is normally powered from the utility and automatically backed up by the engine set (for example the panelboard fed from the auto transfer switch) shall have white lettering on a red background.

Furnish and install weatherproof warning label for each meter socket, enclosed circuit breaker, disconnect switch, panelboard, and control panel to warn persons of potential electric arc flash hazards, per the requirements of NEC 110.16 "Flash Protection." Labels shall also conform to ANSI Z535.4-2002 "American National Standard for Product Safety Signs and Labels." NEC 110.16 requires that switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized shall be field marked to warn qualified persons of potential arc flash hazards. The markings shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment. This new requirement is intended to help reduce the occurrence of serious injury or death due to arcing faults to those working on or near energized electrical equipment. The warning labels are to indicate to a qualified worker who intends to open the equipment for analysis of work that a serious hazard exists and that the worker should follow appropriate work practices and wear appropriate personal protective equipment (PPE) for the specified hazard. Labels shall be as detailed on the Plans or shall include at least the following information: Warning – Potential Arc-Flash Hazards existing while working on this energized equipment. Appropriate PPE Required."

Measurement

The quantity of "ELECTRICAL WORK FOR PUMP STATION" to be paid for under this item shall consist of all labor, equipment, materials, associated supports, hardware, concrete work, tools, operational instructions, utility service work, coordination, and testing required to complete the installation of the pump station and to place it into proper working order. The duplex pump control panel shall be furnished by the respective pump manufacturer's representative and installed by the Electrical Contractor. The furnishing of the duplex pump control panel and pump manufacturer representative's services shall not be included with this item and shall be paid for as incidental to the "Pump Station". The installation of the Duplex

Pump Control Panel and all associated electrical work and coordination shall be included with this item.

Payment

Payment for the work under this item shall be at the contract lump sum price for "ELECTRICAL WORK FOR PUMP STATION", completed in place, tested, and ready for use.

MOTOR START UP CERTIFICATION AND TESTING REPORT

(One form is to be provided for each motor, copy as required)

Page 1 of 2 pages

Hanson Professional Services, Inc.
1525 South Sixth Street
Springfield, Illinois 62703
Phone (217) 788-2450

Project Location:_____ Project Name:_____
Client (End User)_____ Project Number:_____
Client Site Location:_____

Temperature (°F):_____
Humidity:_____
Time of Day:_____
Weather (if outdoors):_____
Motor Function/Designation/Location:_____

Motor Nameplate Data

1. Manufacturer's Name:_____
2. Motor Serial Number:_____
3. Manufacturer's type and frame designation_____
4. Horsepower _____
5. Time Rating (5, 15, 30, 60 minutes, or Continuous_____
6. Maximum ambient temperature for which motor is designed_____
7. NEMA Insulation Class Designation_____
8. NEMA Torque Design Class _____
9. RPM at rated load_____
10. Frequency_____
11. Number of Phases_____
12. Rated Full-Load Amperes_____
13. Voltage_____
14. Code letter for Locked-Rotor KVA_____
15. Service Factor_____
16. Efficiency (NEMA Nominal)_____
17. Internal motor thermal protected (if required)? (Yes/No)_____

Motor Start-Up Certification and Testing Report (Continued)

Motor Start-Up & Commissioning Data

Insulation Resistance Test

Megohms measured to ground @ 500 VDC (60 Second continuous test)

Motor Lead T1 measured to Ground_____ Megohms
Motor Lead T2 measured to Ground_____ Megohms
Motor Lead T3 measured to Ground_____ Megohms
T1-T2-T3 (Tied) measured to Ground_____ Megohms

Voltage (at motor)

	Phase A-B	Phase B-C	Phase C-A
No-Load	_____	_____	_____
Full Load	_____	_____	_____

Motor Current (field measured data)

No Load
Phase A_____Amps
Phase B_____Amps
Phase C_____Amps

Full Load
Phase A_____Amps
Phase B_____Amps
Phase C_____Amps

DATA CERTIFIED BY:

Firm:_____

Name_____

Date:_____

ENGINE GENERATOR SET FOR PUMP STATION

General

This item shall consist of furnishing and installing a standby diesel engine generator system and automatic transfer switch as detailed on the Plans and specified herein. This item shall include all labor, equipment, fuel, lubricants, fluids, weatherproof housing, start battery, battery charger, muffler, sub-base fuel tank, fuel piping, concrete pad, wiring, raceways, grounding, materials, tools, utility coordination, operational instructions, labeling, startup and check out services, testing and all incidentals required to place the engine generator system, automatic transfer switch, and all associated accessories into proper working order as a completed unit to the satisfaction of the Owner and Engineer. Contractor shall also include three copies of instruction manuals, operation and maintenance manuals, and parts list bound in a durable plastic binder for the engine generator set and automatic transfer switch.

Submittals

Contractor shall provide shop drawings for all mechanical and electrical equipment. Shop drawings shall clearly indicate proposed items, capacities, characteristics and details in conformance with the Plans and Specifications. The respective manufacturer shall certify capacities, dimensions, special features, etc. Shop Drawings for all items shall be prepared immediately upon award of Contract. The Contractor shall submit a minimum of four copies to be retained by the Engineer plus the number of copies, for which the Contractor requires distribution. No materials shown thereon shall be ordered until Shop Drawings are reviewed and approved by the Engineer. When a submittal is marked "Revise and Resubmit", "Rejected", and/or "Not Approved" do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations, resubmit, and repeat if necessary to obtain a different action mark such as "No Exceptions Taken" or "Furnish as Corrected". Contractor is responsible for compliance with the specified characteristics. Contractor's responsibility for error and omissions in submittals is not relieved by the Engineer's review of submittals. Accompany each submittal with a transmittal letter that includes the date, project title and number, Contractor's name and address, the number of shop drawings, product data, and/or samples submitted, notification of any deviations from the Contract, and any other pertinent data. Shop drawing submittals shall include the following:

1. Date and revision dates.
2. Project title and number(s).
3. Identification of product or material.
4. Certified outline and installation drawings.
5. Performance data and operating characteristics.

6. Arrangement drawings showing piping, controls and accessory equipment.

7. Drawings on non-standard components and accessories.

8. Drawings on fuel system.

9. Catalog data marked to indicate materials being furnished.

10. Operation and Maintenance/Instruction Manuals.

11. Specified standards, such as ASTM numbers, ANSI numbers, UL listing/standard, NEMA ratings, etc.

12. A blank space, 3 in. x 5 in., for Architect/Engineer's stamp.

13. Identification of previously approved deviation(s) from Contract documents.

14. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract documents.

15. Space for Prime Contractor's approval stamp.

Equipment And Materials

Standby Power Engine Generator Set

It is the intent and purpose of these Specifications to secure a diesel engine generator set of the latest commercial type and design. The engine generator set shall be capable of continuous duty service at rated output for the duration of any utility power failure. The engine and generator authorized dealer shall have sole responsibility for the performance of the diesel engine generator set and their accessories. The engine generator shall be a new factory assembled and tested set. It is the intent and purpose of these Specifications to also secure the necessary controls and accessories to the extent that this equipment, in conjunction with the diesel engine generator set will comprise a complete operating package for installation of 800 ft above sea level in an ambient temperature of 110°F maximum, -10°F minimum. The complete unit shall conform to NEMA, ANSI, and IEEE Standards.

A general outline of the work to be done and materials to be furnished by the manufacturer is given in the Specifications, but is not intended that it is all-inclusive. The manufacturer shall do any and all other work or operations as may be necessary to provide a complete standby power engine generator set in accordance with the Specifications or that may be reasonably interpreted therefrom for a complete package ready for installation and operation.

The engine generator set manufacturer of his authorized dealer shall submit satisfactory evidence that maintains a fully equipped service and replacement parts organization within a reasonable

proximity to the installation in order to be capable in all respects of furnishing complete inspections and service by trained field service mechanics 24 hours a day, 7 days a week. Authorized service center shall be located at a distance no greater than 200 miles from the installed site. Delegation of this service responsibility for ay or all of the equipment listed herein will not be considered fulfillment of these Specifications. Certification of compliance with the above requirements shall be submitted with each bid.

(a) Engine Generator Set:

1. Generator shall be rated 35KW/44KVA (minimum) at 1800 RPM, 60 Hertz, 0.8 power factor and 125°C maximum temperature rise. The generator shall be capable of delivering rated output (KVA) at rated frequency and power factor, at any voltage not more than five percent above or below rated voltage. The engine generator set shall be capable of starting, accelerating, and operating the following loads in the sequence shown with not more than 26 percent momentary voltage dip during starting of any single load.

STEP 1	½ HP sump pump, 120 VAC, 1 phase, 60 HZ 400W metal halide light, 120 VAC 1,000W miscellaneous receptacle, lighting and heating loads
STEP 2	Submersible pump motor, 3 HP, 200 VAC, 3 Phase, 60 HZ, Locked Rotor Code Letter H, Full Voltage Starter. Note pump will cycle on and off.
STEP 3	Submersible pump motor, 3 HP, 200 VAC, 3 Phase, 60 HZ, Locked Rotor Code Letter H, Full Voltage Starter. Note pump will cycle on and off.

Note: The above loads are based on specified proposed equipment for the pump station. The actual proposed loads may differ from the design load requirements due to pump manufacturer variances and differences in related equipment.

The generator set manufacturer shall furnish applications data to demonstrate the specific motor starting capabilities of the generator set proposed with the loads as herein specified. The data to be furnished must be substantiated by manufacturer's standard published test results and curves, special ratings or maximum ratings are not acceptable.

The generator output voltage shall supply a 208/120 VAC, 3-phase, 4-Wire system.

If the actual proposed equipment loads differ from the design loads, as shown above, it shall be the responsibility of the Contractor to coordinate generator sizing with both his generator supplier and proposed utilization equipment supplier. The Contractor shall be solely responsible such that all generator requirements as specified herein are met and shall furnish applicable data for substantiation.

2. The engine generator package shall be UL 2200 listed.

3. Engine shall be diesel fueled, four-cycle, water-cooled with integral mounted radiator, fan and water pump. Engine shall have a minimum rating of 1.5 HP/KW at its operating speed of 1,800 RPM when corrected to the altitude and temperature conditions specified herein. Intake and exhaust valves shall be heat resisting alloy steel. Exhaust valve seat inserts shall be provided. A positive displacement lube oil pump shall supply full pressure lubrication. The engine shall have air cleaners and fuel and oil filters with replaceable elements. Engine speed shall be governed by an electronic governor to maintain automatic isochronous frequency regulation. The engine governing system shall not utilize any exposed operating linkage. Remote 2-wire, starting shall be by a 12-volt or 24-volt, solenoid shift, electric starter.

4. The engine instrument panel shall contain an oil pressure gauge, coolant temperature gauge, and battery charger rate ammeter and service our meter.

5. The fuel system shall be integral with the engine. It shall consist of fuel filter, injection pumps, lines, and nozzles. The injection pumps shall obtain fuel from basin fuel tank. The injection pumps shall be driven from the camshaft and simultaneously controlled by a rack and pinion assembly that is hydraulically actuated by signals from the engine governor. The pumps shall be of a variable displacement type to alter the volume of fuel delivered to the spray nozzles according to load demand. The nozzles shall inject fuel directly into the cylinder in the optimum spray pattern for efficient combustion. A manual fuel-priming pump shall facilitate priming and bleeding air from the system.

6. Engine generator set shall contain a complete engine start-stop control, which starts engine on closing contact and stops engine on opening contact. A cycle cranking system shall be provided to open the starting circuit if the engine is not started within the selected periods. System shall be set for three cranking periods of 15 seconds each with 15-second rest period between cranking periods. All settings shall be adjustable. The engine controls shall also include provisions for remote starting. High engine temperature, low coolant temperature, high coolant temperature,

low coolant level, low oil pressure, overcrank and overspeed shutdown with signal light and alarm terminals shall also be provided.

7. Include an emergency stop red mushroom head type push button on the engine generator control panel and a second emergency stop station located remote from the engine generator set per the requirements of NFPA 37. Include all associated control and interface wiring and conduit. Remote emergency stop push button shall be front operated red mushroom knob, with "PUSH EMERGENCY STOP" printed on the knob, maintained contact push pull type with two universal contact blocks (one normally open and one normally closed for each block), with contacts rated 10 Amps at 120 VAC and 125 VDC, Square D, Class 9001, SKR9RO5H2, or equal. Include stainless steel push button enclosure rated NEMA 4 for outdoor applications, Hoffman E-1PBGXSS or equal. Contractor shall verify push button enclosure is adequately sized for the respective operator and contact blocks. Verify quantity of contact blocks required as detailed on the Plans or as recommended by the engine generator set manufacturer. Provide guard for emergency stop push button to prevent accidental activation, Square D Class 9001, Type K56YM, or similar type guard. Include weatherproof engraved phenolic legend plate with red background labeled.

   "ENGINE GENERATOR
   EMERGENCY STOP
   PUSH TO STOP
   PULL TO RESET"

8. Generator shall be a four-pole, 2/3-pitch winding, revolving field design with temperature compensated solid-state voltage regulator and brushless rotating rectifier exciter system. No brushes shall be allowed. The stator shall be directly connected to the engine flywheel housing, and the rotor shall be driven through a semi-flexible driving flange to insure permanent alignment. The insulation system shall be Class H as defined by NEMA MG1-1.65.

9. Frequency regulation shall not exceed 0.25 percent from no load to rated load for any steady load. Voltage regulation shall be within plus or minus 0.5 percent of rated voltage, from no load to full rated load. The instantaneous voltage dip shall be less than 26 percent of rated voltage when full load and rated power factor is applied to alternator. Recovery to stable operation shall occur within 2 seconds. Stable or steady state operation is defined as operation with terminal voltage remaining constant within plus or minus 1 percent of rated voltage. A rheostate shall provide a minimum of plus or minus 5 percent voltage adjustment from rated value. Temperature rise shall be within NEMA MG1-22.40, B5-4999 Part 32 and IEC 34-1.

10. The generator shall include a 100-Amp, 3-pole, 240 VAC, main circuit breaker with 14,000 AIC (minimum) at 240 VAC in a NEMA 1 enclosure with solid neutral and ground bar. Confirm generator breaker size with the respective engine generator manufacturer. Where a larger breaker size is recommended, the Contractor shall be responsible to adjust the feeder cable sizes to conform to the requirements of National Electrical Code. Generator breaker shall be selected and coordinated to maintain the withstand and closing rating of the respective auto transfer switch that it feeds. Include legend plates labeled "GENERATOR BREAKER, 208/120 VAC, 3 PHASE, 4 WIRE" and "NOTE GENERATOR NEUTRAL IS BONDED TO GROUND AT THE SERVICE BREAKER." Legend plates shall have black lettering on a yellow background.

11. The generator control panel shall contain a frequency meter; running time meter; voltage adjusting rheostat; AC voltmeter, with phase selector switch, and AC ammeter with phase selector switch.

12. The engine jacket water-cooling system shall be a closed circuit design with provision for filling, expansion, and deaeration. The cooling pump shall be driven by the engine. The cooling system shall tolerate at least 25-PSI static head. Coolant recirculation shall begin when generator starts, coolant temperature shall be regulated by thermostat.

13. Engine coolant heat shall be discharged to the atmosphere by means of a unit-mounted radiator.

14. Jacket water heater(s) shall be provided to maintain coolant temperature of 90°F while the engine is idle. Heaters shall be powered at 120 VAC or 240 VAC, single-phase, and include thermostatic controls. Hoses to and from the heater shall be industrial quality, which exhibit long life in operational environments. Manual shutoff valves shall be incorporated to isolate the heater during servicing, including before and after heater and bleed/vent line.

15. The engine and generator shall be assembled to a common base. The generator set base shall be designed and built to resist deflection, maintain alignment, and minimize resonant linear vibration. The base shall be of heavy-duty steel construction with rolled "C" channel structural members reinforced to maintain engine and generator alignment during lifting, installing and generator set operation. Structural side members shall have sufficient bottom mounting holes to locate vibration isolators. Restricted motion steel spring isolators shall be installed between the generator set base and the mounting surface. The isolators shall bolt to the base, and have a waffled or ribbed pad on their bottom surface. The pads shall be resistant to heat and age, and impervious to oil, water, antifreeze, diesel

fuel, and cleaning compounds. The base shall incorporate a battery tray with hold-down clamps within the rails.

16. The generator set shall be built, tested and shipped by one manufacturer so there is one source of supply and responsibility. The performance of the generating set shall be certified by an independent testing laboratory as to the set's full power rating, stability and voltage and frequency regulation.

17. Acceptable Manufacturers:

    a. Onan
    b. Caterpillar

(b) Fuel Tank:

1. Generator set shall be furnished with sub-base mounted fuel tank, sized to provide 48 hours of run time with the engine generator set operating at its full load (100 percent) rating. The tank shall be double wall corrosion resistant steel channel and sheet steel construction, with all welded seams. Tank shall be pressure tested to 5 PSI. The tank shall be UL 142 listed and shall include UL label on tank.

2. The tank shall be installed and anchored within a steel secondary containment basin having a minimum capacity of 100 percent that of the tank. The containment shall be protected against intrusion of debris, falling water. The containment shall be equipped with a leak detector that shall activate the "rupture" alarm described below. A drain with ball valve shall be supplied.

3. Fuel tank shall include float and alarm bell with silence pushbutton to alert the operator when tank is full. Floats shall activate and deactivate the sounding of the bell. Set high-level float at 85 percent full and high high-level at 90 percent full. Provide float switch for low and high level remote alarms.

4. Tank accessories shall include liquid level fuel gage, pressure relief vents, foot/check valve and locking fuel cap.

5. Tank shall have a rupture basin float switch to activate remote alarm when liquid is sensed in tank containment basin.

6. Provide flexible fuel lines and engine supply and return piping and shut off valves.

7. The fuel tank shall be painted in accordance with tank manufacturer recommendations.

(c) Provide muffler for unit. Muffler shall be "critical" type capable of attenuation of a minimum of 28 dB throughout the range of 60 through 8,000 hertz. Provide seamless stainless steel flexible exhaust tube and rain cap. Exhaust discharge shall be vertical. Muffler shall be located outside the engine generator housing.

(d) Batteries for starting and control shall be heavy-duty SLI lead acid type with battery cables and connectors. Battery tray shall be located within the frames. Starting batteries shall be rated 12 Volt DC or 24 Volt DC with a minimum of 90 ampere-hour and 950 CCA. Sizing shall consider specific application requirements of engine oil viscosity, ambient starting temperature, control voltage, overcharging and vibration. Batteries shall be located as close to the starting motor as practical, away from spark sources, in a relatively cool ambient, and permit easy inspection and maintenance.

(e) Battery Charger. Battery charger shall provide a rated output voltage of plus/minus 1 percent from no load to full load with A.C. variation of plus/minus 10 percent, minimum of 10-Amp output. Unit shall have automatic adjustable float and equalize ranges, overload protection, and automatic D.C. voltage regulation. Unit shall be solid-state type employing silicone diode full wave rectifiers and shall have D.C. ammeter and voltmeter. Unit shall have fused input and output and shall be mounted inside the engine generator set housing. Alarm circuits per NFPA 110, for low battery voltage, high batter voltage, and battery charger malfunction.

(f) Annunciator Panel

1. Annunciator panel shall be in accord with NFPA 110, control panel mounted and provide as a minimum audible and visual signals for the following:

   A. High Battery Voltage
   B. Low Battery Voltage
   C. Generator Running
   D. Generator on Load
   E. Pre-Low Oil Pressure
   F. Low Oil Pressure
   G. Pre-High Engine/Coolant Temperature
   H. High Engine/Coolant Temperature
   I. Low Engine/Coolant Temperature
   J. Overspeed
   K. Overcrank
   L. Control switch not in "auto" position (This alarm shall also be activated in the event that an emergency stop push button is pressed.)
   M. Battery Charger Malfunction

N. Low Coolant Level
O. Low Fuel Level
P. Rupture Basin Alarm

2. Panel shall contain Silence Switch and Lamp Test Switch.

3. Output alarm contacts shall be provided for the following:

A. Engine Generator Running

B. Engine Generator Pre-alarm Condition. This alarm shall be activated for the following conditions:

(1) High Battery Voltage
(2) Low Battery Voltage
(3) Pre-Low Oil Pressure
(4) Pre-High Engine/Coolant Temperature
(5) Low Engine/Coolant Temperature
(6) Battery Charger malfunction
(7) Low Fuel Level
(8) Rupture Basin Alarm

C. Engine Generator Failure Condition. This alarm shall be activated for the following conditions:

(1) Low Oil Pressure
(2) High Engine/Coolant Temperature
(3) Overspeed
(4) Overcrank
(5) Control switch not in "Auto" position
(6) Any other failure or shut down conditions.

(g) Weather Protective Housing

Provide a weather protective enclosure adequately sized for the engine generator set and all related accessories.

Enclosure shall be constructed of reinforced sheet steel, prime coated, and finish painted. Provide enclosure for engine, generator, control panel, engine safety control, start batteries, battery charger and accessories. Enclosure shall have sufficient louvered openings to allow entrance of outside air for engine and generator cooling at full load. Louvered openings shall be designed to exclude driving rain and snow. Provide properly arranged and sized hinged panels in the enclosure to allow convenient access to engine, generator, and control equipment for maintenance and operation. Provide lockable, hinged panels with spring latches to hold panels closed securely and not allow panels to vibrate. Brace

housing internally to prevent excessive vibration when generator set is in operation. Enclosure shall be rodent-proofed, and bird-proofed. Include rain shield for exhaust opening. Include Duplex GFCI spec grade 20-Amp, 120 VAC outlet inside the housing for use as a convenience receptacle. Provide label with name, address, phone number, and emergency phone number of the service representative for the engine generator set.

Automatic Transfer Switch

Automatic transfer switch shall be an electrically operated, mechanically held type, rated for continuous load, 100-Amp (minimum), three-pole with solid neutral, 208/120 VAC, three-phase, four-wire, 60 Hz, with a separate equipment ground bar adequately sized for all ground wires to and from the switch, in a NEMA 4 painted steel enclosure or NEMA 4 stainless steel enclosure. Auto transfer switch shall have a withstand rating of 14,000 RMS symmetrical when used with circuit breakers of specified type as noted by the transfer switch manufacturer. Automatic transfer switch shall be rated for all classes of load. The automatic transfer switch shall be Automatic Switch Company (ASCO) 300 Series, or ONAN OTEC Series. Automatic transfer switch shall include the following options and features:

(a) Indicating Lights: Mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE, STANDBY SOURCE AVAILABLE, NORMAL SWITCH POSITION, and STANDBY SWITCH POSITION.

(b) Engine generator start and stop control contacts. Coordinate requirements with the respective engine generator set manufacturer's representative.

(c) Engine generator exercise timer (2 weeks), with toggle switch to select load or no load operation.

(d) Time delay override momentary normal source outages to delay all transfer switch and engine stating signals. Adjustable from 0.5 to 6 seconds.

(e) Retransfer to normal time delay, adjustable from 0 to 30 minutes. Bypass time delay in event of emergency/standby source failure.

(f) Unloaded running time delay for emergency/standby engine generator cool down period adjustable from 0 to 30 minutes.

(g) Transfer to emergency/standby time delay, adjustable for 0 to 5 minutes for controlled timing of load transfer to emergency/standby power source.

(h) Test Switch: Mount in cover of enclosure to simulate failure of normal source.

(i) Return to Normal Switch: Mount in cover of enclosure to initiate manual transfer from emergency/standby to normal source.

(j) Transfer Switch Auxiliary Contacts: Two normally open on normal switch position, closed on emergency/standby switch position. Two normally closed on normal switch position, open on emergency/standby switch position.

(k) Normal Source Monitor: Monitor [each line of] normal source voltage, initiate transfer when voltage drops below 85 percent (adjustable from 75 percent to 95 percent) from rated nominal value.

(l) Emergency/Standby Source Monitor: Monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent (adjustable from 90 percent to 100 percent) from rated nominal value.

(m) Automatic Sequence of Operation

1. When normal (commercial) service drops below preset percentage of rated voltage and remains for specified time delay, contact closure in the transfer switch will signal the engine generator to start. When engine generator output reaches proper voltage and frequency, the transfer switch will transfer load to the generator. Time delay before transfer to alternate power source shall be 0 to 60 seconds, adjustable.

2. When normal (commercial) source returns to preset percentage of rated voltage and frequency, and after specified time delay, load retransfers to normal source, through the in phase monitor.

3. Engine generator start control to remain closed to allow engine generator to run (unloaded) for preset time after retransfer before shutdown. Cool down period for engine generator shall be as recommended by the engine generator manufacturer.

4. Control relays, etc. to reset instantaneously, ready for next automatic operation.

Construction Methods

Installation Of Generator Set

(a) Installation of the engine generator set and base-mounted fuel tank shall conform to the following requirements:

1. NFPA 30 – Flammable and Combustible Liquids Code.

2. NFPA 37 – Installation and Use of Stationary Combustion Engines and Gas Turbines.

3. NFPA 70 – National Electrical Code (most current issue in force).

4. NFPA 110 – Standard for Emergency and Standby Power Systems.

5. Office of the State Fire Marshall for Fuel Tanks.

6. Local codes and requirements as required by respective governing authorities.

(b) Contractor shall install unit to conform to manufacturer's written installation requirements.

(c) Base-mounted fuel tank and fill supply piping shall be installed in accordance with manufacturer's written instructions and in accord with applicable referenced standards, code and ordinances.

(d) The engine exhaust system shall be installed to discharge combustion gases quickly and silently with minimum restriction. System including silencer shall be designed for minimum restriction and, in no case, shall backpressure exceed 27 in. of water. Provide heavy walled piping, Schedule 40, with radii of 90 bends at least 1½ times the pipe diameter. Piping shall be installed with 9 in. minimum clearance for combustible material or incorporate appropriate insulation and shielding. Piping shall be supported and braced to prevent weight or thermal growth being transferred to the engine and flexible expansion fittings provided to accommodate thermal growth. Support dampers and springs shall be included where necessary to isolate vibration. Engine exhaust piping shall be insulated within the housing.

(e) Generator set and base-mounted fuel tank shall be shimmed, leveled and bolted to concrete base, in accordance with the manufacturer's recommendation for the respective application.

(f) Electrical wiring and connections:

1. Tighten factory-made connections, including connectors, terminals, bus joints, mountings, and grounding. Tighten field-connected connectors and terminals, including screws and bolts, according to equipment manufacturer's published torque tightening values. When manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL Standards 486A.

2. Terminate equipment ground wires on the respective equipment ground bar or terminal.

3. Bond the engine generator set frame and base-mounted fuel tank to a ground rod as detailed on the Plans. Connection of the grounding

electrode conductor to the engine generator set frame and base-mounted fuel tank shall be with 2-hole tongue long barrel compression lugs bolted to the respective device. Connections to the base-mounted fuel tank shall be at a ground point plate or as recommended by the fuel tank manufacturer. Connection of the grounding electrode conductor to the ground rod shall be exothermic weld.

4. Final conduit connections to engine-generator set shall be with UL-listed, liquid-tight, flexible metal conduit.

(g) Concrete work shall conform to Section 1020 PORTLAND CEMENT CONCRETE of the Standard Specifications for Road and Bridge Construction and as detailed on the Plans.

(h) Provide start-up services as recommended by manufacturer, including but not limited to, fill coolant system with anti-freeze solution for freeze protection to -20°F, all oil reservoirs filled, fuel system filled and checked.

(i) Demonstrate at site in presence of Owner and Engineer full functional capability under manual and automatic modes of operation. Perform a full load test using resistive load banks to provide 100 percent specified KW rating for a 4-hour test period. Correct all defects that occur during load testing.

1. Test the operation of the unit at 100 percent full load rating for four hours.

2. After the first half-hour operation and at 100 percent full load, record the following: Voltage and amperage, frequency, fuel pressure, oil pressure, water temperature, and exhaust gas temperature at engine exhaust outlet.

3. After completion of full load test, run the generator with the pump station loads to confirm proper operation of all pumps and equipment and the engine generator set.

4. Provide copy of Test Report to Engineer.

(j) Contractor shall fill the fuel tank and system with No. 2 "winter blend" diesel fuel meeting manufacturer's recommendations as part of this contract.

(k) Clean interior and exterior of engine generator set enclosure.

(l) Include the services of the manufacturer's representative to check final connections, inspect the installation, and supervise start-up and testing of the system. Operate pump station on engine generator power and verify proper operation of all equipment.

(m) Instruct Owner's personnel on the complete operation and maintenance system.

1. Instruction shall consist of minimum one (2)-hour session.

Installation Of Automatic Transfer Switch

(a) Examination

1. Inspect transfer switch for damage, rust or corrosion, broken or loose wiring, secure connections, etc. Clean out metal shavings, scrap, dirt, debris, etc. from the transfer switch enclosure. Verify proper installation and proper operation of transfer switch.

2. Verify that mounting surface location is suitable for transfer switch installation. Provide corrosion resistant hardware to mount the transfer switch enclosure.

3. Coordinate inspection of the automatic transfer switch with the serving electric utility to verify it conforms to their requirements.

(b) Installation

1. Install transfer switches in accordance with manufacturer's instructions.

2. Provide engraved plastic legend plates identifying the transfer switch and the voltage system. Include additional legend plates noting the respective power sources (for both feeds) and their respective locations.

(c) Manufacturer's Field Services

1. Provide checkout, inspection, start-up, adjustments, and ay other required services in order to provide a complete and operational system.

2. Provide label on inner and outer door with name, address, phone number and emergency phone number of the service representative for the transfer switch.

3. Program engine generator exercise timer and coordinate time of operation with the Owner's Representative.

4. Provide three copies of operation and maintenance manuals for the automatic transfer switch.

(d) Demonstration

1. Provide systems demonstration.

2. Demonstrate operation of transfer switch in normal, and emergency modes, instruct use personnel on the operation of the transfer switch. Note to user personnel items requiring adjustments for operation where applicable. Verify all equipment operates properly on each power source.

Measurement

The quantity of the Generator System to be paid for under this item shall consist of the engine generator set with all components and all associated accessories including the fuel tank, muffler, batteries, battery charger, and all associated accessories, the equipment pad for the engine generator set, diesel fuel, lubricants, and all required fluids, the automatic transfer switch, the feeder conductors and conduits between the generator and the automatic transfer switch, and all branch circuit, control circuit, alarm circuit and signal conductors and conduits for the engine generator and accessories, installed, connected, tested, and accepted as a complete unit ready for operation.

Payment

Payment for the work under this item shall be at the contract lump sum price for "ENGINE GENERATOR SET FOR PUMP STATION", completed in place, tested, and ready for use.

CITY OF BLOOMINGTON

Traffic Control Authorization Request

PROJECT: _____

LOCATION: Marked Route _____ Location _____

INCLUSIVE DAYS OF WORK: _____ WORK HOURS: _____

WORK TYPE: Maintenance Construction Traffic Other

Work Description _____

_____

_____

CONTRACTOR OR AGENCY DOING WORK: _____

RESPONSIBLE CONTACT: (Construction Foreman, or Traffic Maintenace Person)

Name: _____ Phone: _____ (Office) _____ (Mobile)
(If traffic control is to be employed between 5:00p.m.and 8:30a.m.or on Saturday, Sunday or holidays, give three additional contacts.)

Name: _____ Phone: _____ (Office) _____ (Mobile)

Name: _____ Phone: _____ (Office) _____ (Mobile)

Name: _____ Phone: _____ (Office) _____ (Home)

CONTROLS: (Describe specific controls to be used, including reference to appropriate Highway Standards or section of Manual, and set forth any special controls proposed.)

_____

_____

COMMENTS: _____

_____

Distribution:
Project File
City of Bloomington Engineer
City of Bloomington Police

Submitted by _____

Approved by _____

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route Fell Avenue
Section 02-00325-00-BR
County McLean

Marked Fell Avenue
Project No. BRM – 5227(44)

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

FEB. 2, 2005
Date

DIRECTOR OF ENGINEERING
Title

1. Site Description

a. The following is a description of the construction activity which is the subject of this plan (use additional pages, as necessary):

The proposed construction will consist of the following removal activities: removal of the existing bridge over Sugar Creek, removal of pavement, removal of sidewalk, removal of gutter, removal of sanitary sewer, removal of manholes, removal of retaining walls, removal of channel lining, removal of trees and other miscellaneous removal items. The proposed construction will also consist of the following activities: construction of a new bridge of Sugar Creek, placement of new concrete jointed pavement, new sidewalk, new curb and gutter, new sanitary and storm sewer, new manholes and inlets, construction of a sanitary sewer pump station, construction of proposed channel lining, and other miscellaneous construction activities.

b. ~~The following is a description of the intended sequence of major activities which will disturb soils for major~~ portions of the construction site, such as grubbing, excavation and grading (use additional pages, as necessary):

The following activities will cause the distrubance of soils as a part of the major construction of this project: bridge removal and replacement, pavement removal and replacement, sanitary sewer pump station construction, installation of sanitary sewer and water main under Sugar Creek, channel lining removal and replacement.

c. The total area of the construction site is estimated to be 1.24 acres.

The total area of the site that it is estimated will be disturbed by excavation, grading or other activities is 1.31 acres.

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study which is hereby incorporated by reference in this plan. Information describing the soils at the site is contained either in the Soils Report for the project, which is hereby incorporated by reference, or in an attachment to this plan.

e. The design/project report, hydraulic report, or plan documents, hereby incorporated by reference, contain site map(s) indicating drainage patterns and approximate slopes anticipated after major grading activities, areas of major soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to a surface water.

f. The names of receiving water(s) and areal extent of wetland acreage at the site are in the design/project report or plan documents which are incorporated by reference as a part of this plan.

2. Controls

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b. above. For each measure discussed, the Contractor that will be responsible for its implementation is indicated. Each such Contractor has signed the required certification on forms which are attached to, and a part of, this plan:

a. Erosion and Sediment Controls

(i) Stabilization Practices. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided in 2.a.(i).(A) and 2.b., stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased on all disturbed portions of the site where construction activity will not occur for a period of 21 or more calendar days.

(A) where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

Description of Stabilization Practices (use additional pages, as necessary):

The following stabilization practices have been included in the erosion control plans as part of the project: temporary erosion control mulch and seeding for all disturbed areas to help control runoff from the site during construction and permanent seeding for the graded areas after construction which included mulch and fertilizer that will aid in the development of the seed and prevention of erosion until the permanent vegetation is established.

(ii) **Structural Practices.** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Description of Structural Practices (use additional pages, as necessary):

The following are the structural practices that are included in the erosion control plans: perimeter erosion barrier is used at the base of all slopes that would carry construction drainage offsite and help prevent the movement of construction materials. Inlet protection will be used on all off-street drainage structures as well as the outlets of the structures entering Sugar Creek. These will help reduce velocity and scour from these outlets until the permanent vegetation and channel lining are in place.

b. Storm Water Management

Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

(I) Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff on site; and sequential systems (which combine several practices). **The practices selected for implementation were determined on the basis of the technical guidance in Section 10-300 (Design Considerations) in Chapter 10 (Erosion and Sedimentation Control) of the Illinois Department of Transportation Drainage Manual. If practices other than those discussed in Section 10-300 are selected for implementation or if practices are applied to situations different from those covered in Section 10-300, the technical basis for such decisions will be explained below.**

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls (use additional pages, as necessary):

N/A

c. Other Controls

(i) Waste Disposal. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

d. Approved State or Local Plans

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans or site permits or storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

N/A

3. Maintenance

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan (use additional pages, as necessary):

The maintenance of the erosion control items specified in the plans shall conform to Article 280.05 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction.

4. Inspections

Qualified personnel shall inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 in. or greater or equivalent snowfall.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

5. Non-Storm Water Discharges

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge. (Use additional pages as necessary to describe non-storm water discharges and applicable pollution control measures).

No non-storm water discharges will be allowed at the construction site.

Illinois Department of Transportation

Contractor Certification Statement

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency on May 14, 1998.

Project Information:

Route Fell Avenue Marked Fell Avenue

Section 02-00325-00-BR Project No. BR-M – 5227(44)

County McLean

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature Date

Title

Name of Firm

Street Address

City State

Zip Code

Telephone Number

BDE 2342a

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING - P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO ATTENTION OF

http://www.mvr.usace.army.mil

November 19, 2004

Operations Division

SUBJECT: CEMVR-OD-P-2004-1612

Mr. Jeffrey Bushur
Hanson Professional Services, Inc.
1525 South Six Street
Springfield, Illinois 62703

Dear Mr. Bushur:

Our office reviewed your application dated October 01, 2004, concerning the proposed bridge replacement and other associated work over and adjacent to Sugar Creek in Section 33, Township 24 North, Range 2 East, McLean County, Illinois.

Your project is covered under Item 14 of the enclosed Fact Sheet No. 5(IL), provided you meet the permit conditions for the nationwide permits which are also included in the Fact Sheet. The Corps has also made a determination of no effect on federally threatened and endangered species or critical habitat. The decision regarding this action is based on information found in the administrative record which documents the District's decision-making process, the basis for the decision, and the final decision. The Illinois Environmental Protection Agency (IEPA) also issued Section 401 Water Quality Certification with conditions for this nationwide permit. Please note these additional conditions included in the Fact Sheet. You must also comply with these conditions.

Bank and shoreline protection shall consist of suitable clean materials, free from debris, trash, and other deleterious materials. If broken concrete is used as riprap, all reinforcing rods must be cut flush with the surface of the concrete, and individual pieces of concrete shall not exceed 3 feet in any dimension. Asphalt and broken concrete containing asphalt are specifically excluded from this authorization.

This verification is valid for two years from the date of this letter, unless the nationwide permit is modified, reissued, or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing the changes if and when they occur. Furthermore, if you commence or are under contract to commence the activity before the date the nationwide permit is modified or revoked, you will have twelve months from the date of the modification or revocation to complete the activity under the present terms and conditions of this nationwide permit.

You may accept or appeal the attached Approved Jurisdiction Determination or provide new information for our consideration. If you decide to appeal this decision, please carefully consider the information contained in the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal. Please note that your appeal of this decision must be received within 60 days of the date of this letter. This document is to be signed and returned only if you wish to file an appeal. If you do not wish to appeal, this document should not be signed and returned.

Although an individual Department of the Army permit and individual IEPA 401 certification will not be required for the project, this does not eliminate the requirement that you must still acquire other applicable Federal, state, and local permits. If you have not already coordinated your project with the Illinois Department of Natural Resources – Office of Water Resources, please contact them at 217/782-3863 to determine if a floodplain development permit is required for your project.

You are required to complete and return the enclosed "Completed Work Certification" upon completion of your project, in accordance with General Condition No. 14 of the enclosed Fact Sheet.

Should you have any questions, please contact our Regulatory Branch by letter, or telephone me at 309/794-5369.

Sincerely,

Jeff Sniadach
Project Manager
Enforcement Section

Enclosures

Copies Furnished: (w/o enclosures)

Mr. Dennis L. Kennedy, P.E.
IL Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62701-1787

Mr. Bruce Yurdin
Illinois Environmental Protection Agency
Watershed Management Section, Permit Sec. 5
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Mr. Peter J. Frantz/Ms. Kathy Ames
Bureau of Location and Environment
Illinois Department of Transportation
Division of Highways
2300 South Dirksen Parkway
Springfield, Illinois 62754

U.S. Army Corps of Engineers
Illinois Waterway Project Office
257 Grant Street
Peoria, Illinois 61603

COMPLETED WORK CERTIFICATION

Permit Number: CEMVR-OD-P-

Name of Permittee:

Date of Issuance:

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Engineer District, Rock Island
ATTN: Regulatory Branch
Clock Tower Building
Post Office Box 2004
Rock Island, Illinois 61204-2004

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above reference permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee _____ Date _____

JS

FACT SHEET NO. 5(IL)

US Army Corps
of Engineers
Rock Island District

NATIONWIDE PERMITS IN ILLINOIS

EFFECTIVE DATE: MARCH 18, 2002

On January 15, 2002, the Corps of Engineers published in the Federal Register (67 FR 2077), the Final Rule for the Nationwide Permits Program under the Rivers and Harbors Act of 1899; the Clean Water Act; and the Marine Protection, Research and Sanctuaries Act. These rules became effective on March 15, 2002.

The Nationwide Permit Program is an integral part of the Corps' Regulatory Program. The Nationwide Permits are a form of general permits issued by the Chief of Engineers and are intended to apply throughout the entire United States and its territories. A listing of the nationwide permits and general conditions is included herein. We encourage prospective permit applicants to consider the advantages of nationwide permit authorization during the preliminary design of their projects. Assistance and further information regarding all aspects of the Corps of Engineers Regulatory Program may be obtained by contacting the appropriate Corps of Engineers District at the address and/or telephone number listed on the last page of this Fact Sheet.

To ensure projects authorized by a Nationwide Permit will result in minimal adverse effects to the aquatic environment, the following Regional Conditions were developed for projects proposed within the state of Illinois except for Chicago District (See NOTE below):

1. Bank stabilization projects involving armoring of the streambank with riprap or the construction of retaining walls within High Value Subwatersheds exceeding 250 feet will require a PCN to the Corps of Engineers in accordance with Notification Condition (Number 13).

2. A proposed activity to be authorized under Nationwide Permits 12 or 14 within the Cache River Wetlands Areas (Alexander and Pulaski Counties), Kaskaskia River (Clinton, St. Clair, and Washington Counties), or Wabash River (Gallatin and White Counties) will require a PCN to the Corps of Engineers in accordance with the Notification Condition (Number 13).

3. Stormwater management facilities shall not be located within an intermittent stream.

NOTE: The Chicago District has proposed alternate regional conditions for work in McHenry, Kane, Lake, DuPage, Will and Cook Counties in Illinois. Information regarding Chicago District requirements can be accessed through their website at http://www.lrc.usace.army.mil/co-r/. If you have any questions regarding the Chicago District proposal, please contact Ms. Karon Marzec, Senior Project Manager, by telephone at 312/353-6400, ext. 4030 or e-mail karon.m.marzec@usace.army.mil.

NOTE: None of the Regional Conditions pertain to paragraph a. of Nationwide Permit Number 40.

Permits, issued by the Corps of Engineers, under the authority of Section 404 of the Clean Water Act may not be issued until the state (where the discharge will occur) certifies, under Section 401 of the Act, that the discharge will comply with the water quality standards of the State.

DENIED NATIONWIDE PERMITS

The Illinois Environmental Protection Agency (IEPA) did not issue a generic water quality certification for the following nationwide permits which are listed by subject only:

15. U.S. Coast Guard Approved Bridges
16. Return Water From Upland Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
21. Surface Coal Mining Activities
23. Approved Categorical Exclusions
25. Structural Discharges
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Facilities
32. Completed Enforcement Actions
33. Temporary Construction, Access and Dewatering
34. Cranberry Production Activities
37. Emergency Watershed Protection and Rehabilitation
39. Residential, Commercial, and Institutional Developments
40. Agricultural Activities
42. Recreational Facilities
43. Stormwater Management Facilities

Since Nationwide Permits 18, 19, 21, 23, 31, 32, 33, 37, and 39 are applicable under both Section 10 and 404, the State Section 401 certification is only required for discharges of pollutants under these nationwide permits. Section 10 work not involving discharges of dredged or fill material continues to be authorized under these nationwide permits.

Authorization for discharges covered by all the above nationwide permits is denied without prejudice. Applicants wishing to conduct such discharges must first obtain either an individual water quality certification or waiver from:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

If the state certifying agency fails to act on an application for water quality certification within 60 days after receipt, the certification requirement is presumed to be waived. The applicant must furnish the District Engineer (at the appropriate address listed on the last page of the Fact Sheet) with a copy of the certification or proof of waiver. The discharge may proceed upon receipt of the District Engineer's determination that the discharge qualifies for authorization under this nationwide permit. Details of this procedure are contained in 33 CFR 330.4, a copy of which is available upon request.

Nationwide Permits 3, 5, 7, 12, 13, 14, 17, 18, 21, 27, 29, 31, 33, 34, 37, 38, 39, 40, 41, 42, 43, and 44 require the permittee notify the District Engineer at least 30 to 45 days prior to performing the discharge under certain circumstances. Specific instructions for these notifications are contained in General Condition 13, a copy of which is included.

Nationwide Permits and Conditions

The following is a list of the nationwide permits, authorized by the Chief of Engineers, and published in the Federal Register (67 FR 2077), (67 FR 6692) and (67 FR 8579). Permittees wishing to conduct activities under the nationwide permits must comply with the conditions published in Section C. The Nationwide Permit Conditions found in Section C have been reprinted at the end of this Fact Sheet. The parenthetical references (Section 10, Section 404) following each nationwide permit indicate the specific authorities under which that permit is issued.

B. NATIONWIDE PERMITS

1. **Aids to Navigation.** The placement of aids to navigation and Regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (USCG) (See 33 CFR, chapter I, subchapter C part 66). (Section 10)

2. **Structures in Artificial Canals.** Structures constructed in artificial canals within principally residential developments where the connection of the canal to navigable water of the US has been previously authorized (see 33 CFR 322.5(g)). (Section 10)

3. **Maintenance.** Activities related to:
(i) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area including those due to changes in materials, construction techniques, or current construction codes or safety standards which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. This NWP authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the District Engineer, provided the permittee can demonstrate funding, contract, or other similar delays.
(ii) Discharges of dredged or fill material, including excavation, into all waters of the US to remove accumulated sediments and debris in the vicinity of, and within, existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and the placement of new or additional riprap to protect the structure, provided the permittee notifies the District Engineer in accordance with General Condition 13. The removal of sediment is limited to the minimum necessary to restore the waterway in the immediate vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend further than 200 feet in any direction from the structure. The placement of rip rap must be the minimum necessary to protect the structure or to ensure the safety of the structure. All excavated materials must be deposited and retained in an upland area unless otherwise specifically approved by the District Engineer under separate authorization. Any bank stabilization measures not directly associated with the structure will require a separate authorization from the District Engineer.

(iii) Discharges of dredged or fill material, including excavation, into all waters of the US for activities associated with the restoration of upland areas damaged by a storm, flood, or other discrete event, including the construction, placement, or installation of upland protection structures and minor dredging to remove obstructions in a water of the US. (Uplands lost as a result of a storm, flood, or other discrete event can be replaced without a Section 404 permit provided the uplands are restored to their original pre-event location. This NWP is for the activities in waters of the US associated with the replacement of the uplands.) The permittee must notify the District Engineer, in accordance with General Condition 13, within 12-months of the date of the damage and the work must commence, or be under contract to commence, within two years of the date of the damage. The permittee should provide evidence, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration. The restoration of the damaged areas cannot exceed the contours, or ordinary high water mark, that existed before the damage. The District Engineer retains the right to determine the extent of the pre-existing conditions and the extent of any restoration work authorized by this permit. Minor dredging to remove obstructions from the adjacent waterbody is limited to 50 cubic yards below the plane of the ordinary high water mark, and is limited to the amount necessary to restore the pre-existing bottom contours of the waterbody. The dredging may not be done primarily to obtain fill for any restoration activities. The discharge of dredged or fill material and all related work needed to restore the upland must be part of a single and complete project. ~~This permit cannot be used in conjunction with NWP 18 or NWP 19 to restore damaged~~ upland areas. This permit cannot be used to reclaim historic lands lost, over an extended period, to normal erosion processes.

This permit does not authorize maintenance dredging for the primary purpose of navigation and beach restoration. This permit does not authorize new stream channelization or stream relocation projects. Any work authorized by this permit must not cause more than minimal degradation of water quality, more than minimal changes to the flow characteristics of the stream, or increase flooding (See General Conditions 9 and 21). (Sections 10 and 404)

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Section 404(f) exemption for maintenance.

4. **Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities.** Fish and wildlife harvesting devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging; and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This NWP authorizes shellfish seeding provided this activity does not occur in wetlands or sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist, but may not be present in a given year.). This NWP does not authorize artificial reefs or impoundments and semi-impoundments of waters of the US for the culture or holding of motile species such as lobster or the use of covered oyster trays or clam racks. (Sections 10 and 404)

5. **Scientific Measurement Devices.** Devices, whose purpose is to measure and record scientific data such as staff gages, tide gages, water recording devices, water quality testing and improvement devices and similar structures. Small weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge is limited to 25 cubic yards and further for discharges of 10 to 25 cubic yards provided the permittee notifies the District Engineer in accordance with the "Notification" General Condition. (Sections 10 and 404)

6. **Survey Activities.** Survey activities including core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, soil survey, sampling, and historic resources surveys. Discharges and structures associated with the recovery of historic resources are not authorized by this NWP. Drilling and the discharge of excavated material from test wells for oil and gas exploration is not authorized by this NWP; the plugging of such wells is authorized. Fill placed for roads, pads and other similar activities is not authorized by this NWP. The NWP does not authorize any permanent structures. The discharge of drilling mud and cuttings may require a permit under section 402 of the CWA. (Sections 10 and 404)

7. **Outfall Structures and Maintenance.** Activities related to:

(i) Construction of outfall structures and associated intake structures where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted, or are otherwise in compliance with regulations issued under the National Pollutant Discharge Elimination System Program (Section 402 of the CWA), and

(ii) Maintenance excavation, including dredging, to remove accumulated sediments blocking or restricting outfall and intake structures, accumulated sediments from small impoundments associated with outfall and intake structures, and accumulated sediments from canals associated with outfall and intake structures, provided that the activity meets all of the following criteria:

a. The permittee notifies the District Engineer in accordance with General Condition 13;

b. The amount of excavated or dredged material must be the minimum necessary to restore the outfalls, intakes, small impoundments, and canals to original design capacities and design configurations (i.e., depth and width);

c. The excavated or dredged material is deposited and retained at an upland site, unless otherwise approved by the District Engineer under separate authorization; and

d. Proper soil erosion and sediment control measures are used to minimize reentry of sediments into waters of the US.

The construction of intake structures is not authorized by this NWP, unless they are directly associated with an authorized outfall structure. For maintenance excavation and dredging to remove accumulated sediments, the notification must include information regarding the original design capacities and configurations of the facility and the presence of special aquatic sites (e.g., vegetated shallows) in the vicinity of the proposed work. (Sections 10 and 404)

8. **Oil and Gas Structures.** Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the DOI, Minerals Management Service (MMS). Such structures shall not be placed within the limits of any designated shipping safety fairway or traffic separation scheme, except temporary anchors that comply with the fairway regulations in 33 CFR 322.5(l). (Where such limits have not been designated, or where changes are anticipated, District Engineers will consider asserting discretionary authority in accordance with 33 CFR 330.4(e) and will also review such proposals to ensure they comply with the provisions of the fairway regulations in 33 CFR 322.5(l). Any Corps review under this permit will be limited to the effects on navigation and national security in accordance with 33 CFR 322.5(f)). Such structures will not be placed in established danger zones or restricted areas as designated in 33 CFR part 334, nor will such structures be permitted in EPA or Corps designated dredged material disposal areas. (Section 10)

9. **Structures in Fleeting and Anchorage Areas.** Structures, buoys, floats and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where the USCG has established such areas for that purpose. (Section 10)

10. **Mooring Buoys.** Non-commercial, single-boat, mooring buoys. (Section 10)

11. **Temporary Recreational Structures.** Temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as water skiing competitions and boat races or seasonal use provided that such structures are removed within 30 days after use has been discontinued. At Corps of Engineers reservoirs, the reservoir manager must approve each buoy or marker individually. (Section 10)

12. **Utility Line Activities.** Activities required for the construction, maintenance and repair of utility lines and associated facilities in waters of the US as follows:

(i) Utility lines: The construction, maintenance, or repair of utility lines, including outfall and intake structures and the associated excavation, backfill, or bedding for the utility lines, in all waters of the US, provided there is no change in preconstruction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication (see Note 1, below). Material resulting from trench excavation may be temporarily sidecast (up to three months) into waters of the US, provided that the material is not placed in such a manner that it is dispersed by currents or other forces. The District Engineer may extend the period of temporary side casting not to exceed a total of 180 days, where appropriate. In wetlands, the top 6" to 12" of the trench should normally be backfilled with topsoil from the trench. Furthermore, the trench cannot be constructed in such a manner as to drain waters of the US (e.g., backfilling with extensive gravel layers, creating a french drain effect). For example, utility line trenches can be backfilled with clay blocks to ensure that the trench does not drain the waters of the US through which the utility line is installed. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

(ii) Utility line substations: The construction, maintenance, or expansion of a substation facility associated with a power line or utility line in non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, provided the activity does not result in the loss of greater than 1/2-acre of non-tidal waters of the US.

(iii) Foundations for overhead utility line towers, poles, and anchors: The construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the US, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

(iv) Access roads: The construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, provided the discharges do not cause the loss of greater than 1/2-acre of non-tidal waters of the US. Access roads shall be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes the adverse effects on waters of the US and as near as possible to preconstruction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above preconstruction contours and elevations in waters of the US must be properly bridged or culverted to maintain surface flows.

The term "utility line" does not include activities which drain a water of the US, such as drainage tile, or french drains; however, it does apply to pipes conveying drainage from another area. For the purposes of this NWP, the loss of waters of the US includes the filled area plus waters of the US that are adversely affected by flooding, excavation, or drainage as a result of the project. Activities authorized by paragraph (i) through (iv) may not exceed a total of 1/2-acre loss of waters of the US. Waters of the US temporarily affected by filling, flooding, excavation, or drainage, where the project area is restored to preconstruction contours and elevation, is not included in the calculation of permanent loss of waters of the US. This

includes temporary construction mats (e.g., timber, steel, geotextile) used during construction and removed upon completion of the work. Where certain functions and values of waters of the US are permanently adversely affected, such as the conversion of a forested wetland to a herbaceous wetland in the permanently maintained utility line right-of-way, mitigation will be required to reduce the adverse effects of the project to the minimal level.

Mechanized land clearing necessary for the construction, maintenance, or repair of utility lines and the construction, maintenance and expansion of utility line substations, foundations for overhead utility lines, and access roads is authorized, provided the cleared area is kept to the minimum necessary and preconstruction contours are maintained as near as possible. The area of waters of the US that is filled, excavated, or flooded must be limited to the minimum necessary to construct the utility line, substations, foundations, and access roads. Excess material must be removed to upland areas immediately upon completion of construction. This NWP may authorize utility lines in or affecting navigable waters of the US even if there is no associated discharge of dredged or fill material (See 33 CFR part 322).

Notification: The permittee must notify the District Engineer in accordance with General Condition 13, if any of the following criteria are met:

(a) Mechanized land clearing in a forested wetland for the utility line right-of-way;

(b) A Section 10 permit is required;

(c) The utility line in waters of the US, excluding overhead lines, exceeds 500 feet;

(d) The utility line is placed within a jurisdictional area (i.e., water of the US), and it runs parallel to a stream bed that is within that jurisdictional area;

(e) Discharges associated with the construction of utility line substations that result in the loss of greater than 1/10-acre of waters of the US;

(f) Permanent access roads constructed above grade in waters of the US for a distance of more than 500 feet; or

(g) Permanent access roads constructed in waters of the US with impervious materials. (Sections 10 and 404)

Note 1: Overhead utility lines constructed over Section 10 waters and utility lines that are routed in or under Section 10 waters without a discharge of dredged or fill material require a Section 10 permit; except for pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the US, which are considered to be bridges, not utility lines, and may require a permit from the USCG pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material associated with such pipelines will require a Corps permit under Section 404.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work and the area restored to preconstruction contours, elevations, and wetland conditions. Temporary access roads for construction may be authorized by NWP 33.

Note 3: Where the proposed utility line is constructed or installed in navigable waters of the US (i.e., Section 10 waters), copies of the PCN and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 12. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 12 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 12, Utility Line Activities.

1. Case-specific water quality certification from the Illinois EPA will be required for activities in the following waters:
   - A. Chicago Sanitary and Ship Canal
   - B. Calumet-Sag Channel
   - C. Little Calumet River
   - D. Grand Calumet River
   - E. Calumet River
   - F. South Branch of the Chicago River (including the South Fork)
   - G. North Branch of the Chicago River (including the East and West Forks and the Skokie Lagoons)
   - H. Chicago River (Main Stem)
   - I. Lake Calumet
   - J. Des Plaines River
   - K. Fox River (including the Fox Chain of Lakes)
   - L. Saline River (in Hardin County)
   - M. Richland Creek (in St. Clair and Monroe Counties)
   - N. Lake Michigan
   - O. Rock River (in Winnebago County)
   - P. Illinois River upstream of mile 229.6 (Illinois Route 178 bridge)
   - Q. Illinois River between mile 140.0 and 182.0
   - R. Pettibone Creek (in Lake County)
   - S. All Public and Food Processing Water Supplies with surface intake facilities (as

specified in the Illinois EPA's "List of Public and Food Processing Water Supplies Utilizing Surface Water")

2. Section 401 is hereby issued for all other waters, with the following conditions:

A. The applicant for Nationwide Permit 12 shall not cause:

i. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;

ii. water pollution defined and prohibited by the Illinois Environmental Protection Act; or

iii. interference with water use practices near public recreation areas or water supply intakes.

B. The applicant for Nationwide Permit 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.

C. Material resulting from trench excavation within surface waters of the State may be ~~temporarily sidecast adjacent to the trench excavation provided that:~~

i. Sidecast material is not placed within a creek, stream, river or other flowing water body such that material dispersion could occur;

ii. Side cast material is not placed within ponds or other water bodies other than wetlands; and

iii. Sidecast material is not placed within a wetland for a period longer than twenty (20) calender days. Such sidecast material shall either be removed from the site (refer to Condition 2.F), or used as backfill (refer to Condition 2.D and 2.E).

D. Backfill used within trenches passing through surface water 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:

i. Particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using a #230 U.S. sieve; or

ii. Excavation and backfilling are done under dry conditions.

E. 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.

F. All material excavated which is not being used as backfill as stipulated in Condition 2.D and 2.E shall be stored or disposed in self-contained areas with no discharge to waters of the State. Material shall be disposed of appropriately under the regulations at 35 Il. Adm. Code Subtitle G.

G. All areas affected by construction shall be mulched and seeded as soon after construction as possible. The applicant for Nationwide 12 shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, sedimentation basins and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions. The applicant for Nationwide 12 shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control, Permit Section.

H. The applicant for Nationwide 12 shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 1995).

I. The use of directional drilling to install utility pipelines below surface waters of the State is hereby certified provided that:

i. All pits and other construction necessary for the directional drilling process are located outside of surface waters of the State;

ii. All drilling fluids shall be adequately contained such that they cannot make their way to surface waters of the State. Such fluids shall be treated as stipulated in Condition 2.F; and

iii. Erosion and sediment control is provided in accordance with Conditions 2.B, 2.G, and 2.H.

13. Bank Stabilization. Bank stabilization activities necessary for erosion prevention provided the activity meets all of the following criteria:

a. No material is placed in excess of the minimum needed for erosion protection;

b. The bank stabilization activity is less than 500 feet in length;

c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line;

d. No material is placed in any special aquatic site, including wetlands;

e. No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any wetland area;

f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,

g. The activity is part of a single and complete project.

Bank stabilization activities in excess of 500 feet in length or greater than an average of one cubic yard per running foot may be authorized if the permittee notifies the District Engineer in accordance with the "Notification" General Condition 13 and the District Engineer determines the activity complies with the other terms and conditions of the NWP and the adverse environmental effects are minimal both individually and cumulatively. This NWP may not be used for the channelization of waters of the US. (Sections 10 and 404)

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 13. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 13 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Condition for Nationwide Permit 13, Bank Stabilization. ~~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 statues, 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 and placed in a manner to prevent violation of applicable water quality standards. Asphalt and construction or demolition debris cannot be used as fill or bank stabilization material.

14. Linear Transportation Projects. Activities required for the construction, expansion, modification, or improvement of linear transportation crossings (e.g., highways, railways, trails, airport runways, and taxiways) in waters of the US, including wetlands, if the activity meets the following criteria:

a. This NWP is subject to the following acreage limits:

(1) For linear transportation projects in non-tidal waters, provided the discharge does not cause the loss of greater than 1/2-acre of waters of the US; or

(2) For linear transportation projects in tidal waters, provided the discharge does not cause the loss of greater than 1/3-acre of waters of the US.

b. The permittee must notify the District Engineer in accordance with General Condition 13 if any of the following criteria are met:

(1) The discharge causes the loss of greater than 1/10-acre of waters of the US; or

(2) There is a discharge in a special aquatic site, including wetlands;

c. The notification must include a compensatory mitigation proposal to offset permanent losses of waters of the US to ensure that those losses result only in minimal adverse effects to the aquatic environment and a statement describing how temporary losses will be minimized to the maximum extent practicable;

d. For discharges in special aquatic sites, including wetlands, and stream riffle and pool complexes, the notification must include a delineation of the affected special aquatic sites;

e. The width of the fill is limited to the minimum necessary for the crossing;

f. This permit does not authorize stream channelization, and the authorized activities must not cause more than minimal changes to the hydraulic flow characteristics of the stream, increase flooding, or cause more than minimal degradation of water quality of any stream (see General Conditions 9 and 21);

g. This permit cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars; and

h. The crossing is a single and complete project for crossing waters of the US. Where a road segment (i.e., the shortest segment of a road with independent utility that is part of a larger project) has multiple crossings of streams (several single and complete projects) the Corps will consider whether it should use its discretionary authority to require an Individual Permit. (Sections 10 and 404)

Note: Some discharges for the construction of farm roads, forest roads, or temporary roads for moving mining equipment may be eligible for an exemption from the need for a Section 404 permit (see 33 CFR 323.4).

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 14. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 14 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 14, Linear Transportation Projects.

1. The affected area of the stream channel shall not exceed 100 linear feet, as measured along the stream corridor.

2 Temporary runarounds shall be constructed of clean course aggregate.

3 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 statues, a determined by the Illinois EPA.

4. Any backfilling must be done with clean material and placed in a manner to prevent violation of applicable water quality standards.

5. The applicant shall not cause:
A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
B. water pollution defined and prohibited by the Illinois Environmental Protection Act or
C. interference with water use practices near public recreation areas or water supply intakes

6. 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 erosion during construction shall be taken and may include the installation of staked straw bales, 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 an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control, Permit Section.

7. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 1995).

*** 15. **U.S. Coast Guard Approved Bridges.** Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the US, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided such discharges have been authorized by the USCG as part of the bridge permit. Causeways and approach fills are not included in this NWP and will require an individual or regional Section 404 permit. (Section 404)

*** 16. **Return Water From Upland Contained Disposal Areas.** Return water from upland, contained dredged material disposal area. The dredging itself may require a Section 404 permit. (33 CFR 323.2(d)), but will require a Section 10 permit if located in navigable waters of the US The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d), even though the disposal itself occurs on the upland and does not require a Section 404 permit. This NWP satisfies the technical requirement for a Section 404 permit for the return water where the quality of the return water is controlled by the state through the Section 401 certification procedures. (Section 404)

*** 17. **Hydropower Projects.** Discharges of dredged or fill material associated with (a) small hydropower projects at existing reservoirs where the project, which includes the fill, are licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act of 1920, as amended; and has a total generating capacity of not more than 5000 kW; and the permittee notifies the District Engineer in accordance with the "Notification" General Condition; or (b) hydropower projects for which the FERC has granted an exemption from licensing pursuant to section 408 of the Energy Security Act of 1980 (16 U.S.C. 2705 and 2708) and section 30 of the Federal Power Act, as amended; provided the permittee notifies the District Engineer in accordance with the "Notification" General Condition. (Section 404)

*** 18. **Minor Discharges.** Minor discharges of dredged or fill material into all waters of the US if the activity meets all of the following criteria:
a. The quantity of discharged material and the volume of area excavated do not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;
b. The discharge, including any excavated area, will not cause the loss of more than 1/10-acre of a special aquatic site, including wetlands. For the purposes of this NWP, the acreage limitation includes the filled area and excavated area plus special aquatic sites that are adversely affected by flooding and special aquatic sites that are drained so that they would no longer be a water of the US as a result of the project;
c. If the discharge, including any excavated area, exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line or if the discharge is in a special aquatic site, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" General Condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands (also see 33 CFR 330.1(e)); and
d. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project and is not placed for the purpose of a stream diversion. (Sections 10 and 404)

*** 19. **Minor Dredging.** Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the US (i.e., Section 10 waters) as part of a single and complete project. This NWP does not authorize the dredging or degradation through siltation of coral reefs, sites that support submerged aquatic vegetation

(including sites where submerged aquatic vegetation is documented to exist, but may not be present in a given year), anadromous fish spawning areas, or wetlands, or the connection of canals or other artificial waterways to navigable waters of the US (see 33 CFR 322.5(g)). (Sections 10 and 404)

20. **Oil Spill Cleanup.** Activities required for the containment and cleanup of oil and hazardous substances which are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR part 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. (Sections 10 and 404)

*** 21. **Surface Coal Mining Activities.** Discharges of dredged or fill material into waters of the US associated with surface coal mining and reclamation operations provided the coal mining activities are authorized by the DOI, Office of Surface Mining (OSM), or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 and provided the permittee notifies the District Engineer in accordance with the "Notification" General Condition. In addition, to be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing. The Corps, at the discretion of the District Engineer, may require a bond to ensure success of the mitigation, if no other Federal or state agency has required one. For discharges in special aquatic sites, including wetlands, and stream riffle and pool complexes, the notification must also include a delineation of affected special aquatic sites, including wetlands. (also, see 33 CFR 330.1(e)).

Mitigation: In determining the need for as well as the level and type of mitigation, the District Engineer will ensure no more than minimal adverse effects to the aquatic environment occur. As such, District Engineers will determine on a case-by-case basis the requirement for adequate mitigation to ensure the effects to aquatic systems are minimal. In cases where OSM or the state has required mitigation for the loss of aquatic habitat, the Corps may consider this in determining appropriate mitigation under Section 404. (Sections 10 and 404)

22. **Removal of Vessels.** Temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation... This NWP does not authorize the removal of vessels listed or determined eligible for listing on the National Register of Historic Places unless the District Engineer is notified and indicates that there is compliance with the "Historic Properties" General Condition. This NWP does not authorize maintenance dredging, shoal removal, or riverbank snagging. Vessel disposal in waters of the US may need a permit from EPA (see 40 CFR 229.3). (Sections 10 and 404)

*** 23. **Approved Categorical Exclusions.** Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR part 1500 et seq.), that the activity, work, or discharge is categorically excluded from environmental documentation, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment, and the Office of the Chief of Engineers (ATTN: CECW-OR) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination. Before approval for purposes of this NWP of any agency's categorical exclusions, the Chief of Engineers will solicit public comment. In addressing these comments, the Chief of Engineers may require certain conditions for authorization of an agency's categorical exclusions under this NWP. (Sections 10 and 404)

24. **State Administered Section 404 Program.** Any activity permitted by a state administering its own Section 404 permit program pursuant to 33 U.S.C. 1344(g)-(l) is permitted pursuant to section 10 of the Rivers and Harbors Act of 1899. Those activities that do not involve a Section 404 state permit are not included in this NWP, but certain structures will be exempted by section 154 of Pub. L. 94-587, 90 Stat. 2917 (33 U.S.C. 591) (see 33 CFR 322.3(a)(2)). (Section 10)

*** 25. **Structural Discharges.** Discharges of material such as concrete, sand, rock, etc., into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as bridges, transmission line footings, and walkways or for general navigation, such as mooring cells, including the excavation of bottom material from within the form prior to the discharge of concrete, sand, rock, etc. This NWP does not authorize filled structural members that would support buildings, building pads, homes, house pads, parking areas, storage areas and other such structures. The structure itself may require a Section 10 permit if located in navigable waters of the US. (Section 404)

[Reserved]

27. **Stream and Wetland Restoration Activities.** Activities in waters of the US associated with the restoration of former waters, the enhancement of degraded tidal and non-tidal wetlands and riparian areas, the creation of tidal and non-tidal wetlands and riparian areas, and the restoration and enhancement of non-tidal streams and non-tidal open water areas as follows:

(a) The activity is conducted on:

(1) Non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or creation agreement between the landowner and the U.S. Fish and Wildlife Service (FWS) or the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service, the National Ocean Service, or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or

(2) Reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the OSM or the applicable state agency (the future reversion does not apply to streams or wetlands created, restored, or enhanced as mitigation for the mining impacts, nor naturally due to hydrologic or topographic features, nor for a mitigation bank); or

(3) Any other public, private or tribal lands;

(b) Notification: For activities on any public or private land that are not described by paragraphs (a)(1) or (a)(2) above, the permittee must notify the District Engineer in accordance with General Condition 13; and

(c) Planting of only native species should occur on the site.

Activities authorized by this NWP include, to the extent that a Corps permit is required, but are not limited to: the removal of accumulated sediments; the installation, removal, and ~~maintenance of small water control structures, dikes, and berms; the installation of current~~ deflectors; the enhancement, restoration, or creation of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or create stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic or nuisance vegetation; and other related activities.

This NWP does not authorize the conversion of a stream to another aquatic use, such as the creation of an impoundment for waterfowl habitat. This NWP does not authorize stream channelization. This NWP does not authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed. However, this NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands, on the project site provided there are net gains in aquatic resource functions and values. For example, this NWP may authorize the creation of an open water impoundment in a non-tidal emergent wetland, provided the non-tidal emergent wetland is replaced by creating that wetland type on the project site. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Reversion. For enhancement, restoration, and creation projects conducted under paragraphs (a)(3), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion. For restoration, enhancement, and creation projects conducted under paragraphs (a)(1) and (a)(2), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities). The reversion must occur within five years after expiration of a limited term wetland restoration or creation agreement or permit, even if the discharge occurs after this NWP expires. This NWP also authorizes the reversion of wetlands that were restored, enhanced, or created on prior-converted cropland that has not been abandoned, in accordance with a binding agreement between the landowner and NRCS or FWS (even though the restoration, enhancement, or creation activity did not require a Section 404 permit). The five-year reversion limit does not apply to agreements without time limits reached under paragraph (a)(1). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before any reversion activity the permittee or the appropriate Federal or state agency must notify the District Engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements will be at that future date. (Sections 10 and 404)

Note: Compensatory mitigation is not required for activities authorized by this NWP, provided the authorized work results in a net increase in aquatic resource functions and values in the project area. This NWP can be used to authorize compensatory mitigation projects, including mitigation banks, provided the permittee notifies the District Engineer in accordance with General Condition 13, and the project includes compensatory mitigation for impacts to waters of the US caused by the authorized work. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition. NWP 27 can be used to authorize impacts at a mitigation bank, but only in circumstances where it has been approved under the Interagency Federal Mitigation Bank Guidelines.

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 27. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 27 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Condition for Nationwide Permit 27, Stream and Wetland Restoration Activities. All activities conducted under NWP 27 shall be in accordance with the provisions of 35 Il. Adm. Code 405.108. Work in reclaimed surface coal mine areas are required

to obtain prior authorization from the Illinois EPA for any activities that result in the use of acid-producing mine refuse.

28. Modifications of Existing Marinas. Reconfiguration of existing docking facilities within an authorized marina area. No dredging, additional slips, dock spaces, or expansion of any kind within waters of the US is authorized by this NWP. (Section 10)

29. Single-family Housing. Discharges of dredged or fill material into non-tidal waters of the US, including non-tidal wetlands for the construction or expansion of a single-family home and attendant features (such as a garage, driveway, storage shed, and/or septic field) for an Individual Permittee provided that the activity meets all of the following criteria:

a. The discharge does not cause the loss of more than 1/4-acre of non-tidal waters of the US, including non-tidal wetlands;

b. The permittee notifies the District Engineer in accordance with the "Notification" General Condition;

c. The permittee has taken all practicable actions to minimize the on-site and off-site impacts of the discharge. For example, the location of the home may need to be adjusted on-site to avoid flooding of adjacent property owners;

d. The discharge is part of a single and complete project; furthermore, that for any subdivision created on or after November 22, 1991, the discharges authorized under this NWP may not exceed an aggregate total loss of waters of the US of 1/4-acre for the entire subdivision;

e. An individual may use this NWP only for a single-family home for a personal residence;

f. This NWP may be used only once per parcel;

g. This NWP may not be used in conjunction with NWP 14 or NWP 18, for any parcel; and,

h. Sufficient vegetated buffers must be maintained adjacent to all open water bodies, streams, etc., to preclude water quality degradation due to erosion and sedimentation.

For the purposes of this NWP, the acreage of loss of waters of the US includes the filled area previously permitted, the proposed filled area, and any other waters of the US that are adversely affected by flooding, excavation, or drainage as a result of the project. This NWP authorizes activities only by individuals; for this purpose, the term "individual" refers to a natural person and/or a married couple, but does not include a corporation, partnership, or similar entity. For the purposes of this NWP, a parcel of land is defined as "the entire contiguous quantity of land in possession of, recorded as property of, or owned (in any form of ownership, including land owned as a partner, corporation, joint tenant, etc.) by the same individual (and/or that individual's spouse), and comprises not only the area of wetlands sought to be filled, but also all land contiguous to those wetlands, owned by the individual (and/or that individual's spouse) in any form of ownership." (Sections 10 and 404)

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 29. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 29 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 29, Single-family Housing.

1. The applicant shall not cause:
   A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
   B. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
   C. interference with water use practices near public recreation areas or water supply intakes

2. The NWP 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. 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 statues, 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 and 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 NWP applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, 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 an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency'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; 1995).

6. This NWP is not valid for the placement of fill for the installation of wastewater soil treatment (septic) systems unless a project-specific Section 401 water quality certification is obtained in writing from the Illinois EPA.

*** 30. Moist Soil Management for Wildlife. Discharges of dredged or fill material and maintenance activities that are associated with moist soil management for wildlife performed on non-tidal Federally-owned or managed, state-owned or managed property, and local government agency-owned or managed property, for the purpose of continuing ongoing, site-specific, wildlife management activities where soil manipulation is used to manage habitat and feeding areas for wildlife. Such activities include, but are not limited to: The repair, maintenance or replacement of existing water control structures; the repair or maintenance of dikes; and plowing or discing to impede succession, prepare seed beds, or establish fire breaks. Sufficient vegetated buffers must be maintained adjacent to all open water bodies, streams, etc., to preclude water quality degradation due to erosion and sedimentation. This NWP does not authorize the construction of new dikes, roads, water control structures, etc. associated with the management areas. This NWP does not authorize converting wetlands to uplands, impoundments or other open water bodies. (Section 404)

*** 31. Maintenance of Existing Flood Control Facilities. Discharge of dredge or fill material resulting from activities associated with the maintenance of existing flood control facilities, including debris basins, retention/detention basins, and channels that

(i) were previously authorized by the Corps by Individual Permit, General Permit; by 33 CFR 330.3, or did not require a permit at the time it was constructed, or

(ii) were constructed by the Corps and transferred to a non-Federal sponsor for operation and maintenance. Activities authorized by this NWP are limited to those resulting from maintenance activities that are conducted within the "maintenance baseline," as described in the definition below. Activities including the discharges of dredged or fill materials, associated with maintenance activities in flood control facilities in any watercourse that has previously been determined to be within the maintenance baseline, are authorized under this NWP. The NWP does not authorize the removal of sediment and associated vegetation from the natural water courses except to the extent that these have been included in the maintenance baseline. All dredged material must be placed in an upland site or an authorized disposal site in waters of the US, and proper siltation controls must be used. (Activities of any kind that result in only incidental fallback, or only the cutting and removing of vegetation above the ground, e.g., mowing, rotary cutting, and chainsawing, where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material, do not require a Section 404 permit in accordance with 33 CFR 323.2(d)(2)).

Notification: After the maintenance baseline is established, and before any maintenance work is conducted, the permittee must notify the District Engineer in accordance with the "Notification" General Condition. The notification may be for activity-specific maintenance or for maintenance of the entire flood control facility by submitting a five year (or less) maintenance plan.

Maintenance Baseline: The maintenance baseline is a description of the physical characteristics (e.g., depth, width, length, location, configuration, or design flood capacity, etc.) of a flood control project within which maintenance activities are normally authorized by NWP 31, subject to any case-specific conditions required by the District Engineer. The District Engineer will approve the maintenance baseline based on the approved or constructed capacity of the flood control facility, whichever is smaller, including any areas where there are no constructed channels, but which are part of the facility. If no evidence of the constructed capacity exist, the approved constructed capacity will be used. The prospective permittee will provide documentation of the physical characteristics of the flood control facility (which will normally consist of as-built or approved drawings) and documentation of the design capacities of the flood control facility. The documentation will also include BMPs to ensure that the impacts to the aquatic environment are minimal, especially in maintenance areas where there are no constructed channels. (The Corps may request maintenance records in areas where there has not been recent maintenance.) Revocation or modification of the final determination of the maintenance baseline can only be done in accordance with 33 CFR 330.5. Except in emergencies as described below, this NWP can not be used until the District Engineer approves the maintenance baseline and determines the need for mitigation and any regional or activity-specific conditions. Once determined, the maintenance baseline will remain valid for any subsequent reissuance of this NWP. This permit does not authorize maintenance of a flood control facility that has been abandoned. A flood control facility will be considered abandoned if it has operated at a significantly reduced capacity without needed maintenance being accomplished in a timely manner.

Mitigation: The District Engineer will determine any required mitigation one-time only for impacts associated with maintenance work at the same time that the maintenance baseline is approved. Such one-time mitigation will be required when necessary to ensure that adverse environmental impacts are no more than minimal, both individually and cumulatively. Such mitigation will only be required once for any specific reach of a flood control project. However, if one-time mitigation is required for impacts associated with maintenance activities, the District Engineer will not delay needed maintenance, provided the District Engineer and the permittee establish a schedule for identification, approval, development, construction and completion of any such required mitigation. Once the one-time mitigation described above has been completed, or a determination made that mitigation is not required, no further mitigation will be required for maintenance activities within the maintenance baseline. In determining appropriate mitigation, the District Engineer will give special consideration to natural water

courses that have been included in the maintenance baseline and require compensatory mitigation and/or BMPs as appropriate.

Emergency Situations: In emergency situations, this NWP may be used to authorize maintenance activities in flood control facilities for which no maintenance baseline has been approved. Emergency situations are those which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if action is not taken before a maintenance baseline can be approved. In such situations, the determination of mitigation requirements, if any, may be deferred until the emergency has been resolved. Once the emergency has ended, a maintenance baseline must be established expeditiously, and mitigation, including mitigation for maintenance conducted during the emergency, must be required as appropriate. (Sections 10 and 404)

*** 32. Completed Enforcement Actions. Any structure, work or discharge of dredged or fill material, remaining in place, or undertaken for mitigation, restoration, or environmental benefit in compliance with either:

(i) The terms of a final written Corps non-judicial settlement agreement resolving a violation of section 404 of the CWA and/or section 10 of the Rivers and Harbors Act of 1899; or the terms of an EPA 309(a) order on consent resolving a violation of section 404 of the CWA, provided that:

a. The unauthorized activity affected no more than 5 acres of non-tidal wetlands or 1 acre of tidal wetlands;

b. The settlement agreement provides for environmental benefits, to an equal or greater degree, than the environmental detriments caused by the unauthorized activity that is authorized by this NWP; and

c. The District Engineer issues a verification letter authorizing the activity subject to the terms and conditions of this NWP and the settlement agreement, including a specified completion date; or

(ii) The terms of a final Federal court decision, consent decree, or settlement agreement resulting from an enforcement action brought by the U.S. under section 404 of the CWA and/or section 10 of the Rivers and Harbors Act of 1899; or

(iii) The terms of a final court decision, consent decree, settlement agreement, or non-judicial settlement agreement resulting from a natural resource damage claim brought by a trustee or trustees for natural resources (as defined by the National Contingency Plan at 40 CFR subpart G) under section 311 of the Clean Water Act (CWA), section 107 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund), section 312 of the National Marine Sanctuaries Act (NMSA), section 1002 of the Oil Pollution Act of 1990 (OPA), or the Park System Resource Protection Act at 16 U.S.C. '19jj, to the extent that a Corps permit is required.

For either (i), (ii) or (iii) above, compliance is a condition of the NWP itself. Any authorization under this NWP is automatically revoked if the permittee does not comply with the terms of this NWP or the terms of the court decision, consent decree, or judicial/non-judicial settlement agreement or fails to complete the work by the specified completion date. This NWP does not apply to any activities occurring after the date of the decision, decree, or agreement that are not for the purpose of mitigation, restoration, or environmental benefit. Before reaching any settlement agreement, the Corps will ensure compliance with the provisions of 33 CFR part 326 and 33 CFR 330.6 (d)(2) and (e). (Sections 10 and 404)

*** 33. Temporary Construction, Access and Dewatering. Temporary structures, work and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites; provided that the associated primary activity is authorized by the Corps of Engineers or the USCG, or for other construction activities not subject to the Corps or USCG regulations. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must be of materials, and placed in a manner, that will not be eroded by expected high flows. The use of dredged material may be allowed if it is determined by the District Engineer that it will not cause more than minimal adverse effects on aquatic resources. Temporary fill must be entirely removed to upland areas, or dredged material returned to its original location, following completion of the construction activity, and the affected areas must be restored to the pre-project conditions. Cofferdams cannot be used to dewater wetlands or other aquatic areas to change their use. Structures left in place after cofferdams are removed require a Section 10 permit if located in navigable waters of the U.S. (See 33 CFR part 322). The permittee must notify the District Engineer in accordance with the "Notification" General Condition. The notification must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources. The District Engineer will add Special Conditions, where necessary, to ensure environmental adverse effects is minimal. Such conditions may include: limiting the temporary work to the minimum necessary; requiring seasonal restrictions; modifying the restoration plan; and requiring alternative construction methods (e.g. construction mats in wetlands where practicable.). (Sections 10 and 404)

*** 34. Cranberry Production Activities. Discharges of dredged or fill material for dikes, berms, pumps, water control structures or leveling of cranberry beds associated with expansion, enhancement, or modification activities at existing cranberry production operations provided that the activity meets all of the following criteria:

a. The cumulative total acreage of disturbance per cranberry production operation, including but not limited to, filling, flooding, ditching, or clearing, does not exceed 10 acres of waters of the U.S., including wetlands;

b. The permittee notifies the District Engineer in accordance with the "Notification" General Condition. The notification must include a delineation of affected special aquatic sites, including wetlands; and,

c. The activity does not result in a net loss of wetland acreage. This NWP does not authorize any discharge of dredged or fill material related to other cranberry production activities such as warehouses, processing facilities, or parking areas. For the purposes of this NWP, the cumulative total of 10 acres will be measured over the period that this NWP is valid. (Section 404)

35. **Maintenance Dredging of Existing Basins.** Excavation and removal of accumulated sediment for maintenance of existing marina basins, access channels to marinas or boat slips, and boat slips to previously authorized depths or controlling depths for ingress/egress, whichever is less, provided the dredged material is disposed of at an upland site and proper siltation controls are used. (Section 10)

36. **Boat Ramps.** Activities required for the construction of boat ramps provided:

a. The discharge into waters of the U.S. does not exceed 50 cubic yards of concrete, rock, crushed stone or gravel into forms, or placement of pre-cast concrete planks or slabs. (Unsuitable material that causes unacceptable chemical pollution or is structurally unstable is not authorized);

b. The boat ramp does not exceed 20 feet in width;

c. The base material is crushed stone, gravel or other suitable material;

d. The excavation is limited to the area necessary for site preparation and all excavated material is removed to the upland; and,

e. No material is placed in special aquatic sites, including wetlands.

Dredging to provide access to the boat ramp may be authorized by another NWP, Regional General Permit, or Individual Permit pursuant to Section 10 if located in navigable waters of the U.S. (Sections 10 and 404)

*** 37. **Emergency Watershed Protection and Rehabilitation.** Work done by or funded by:

a. The NRCS which is a situation requiring immediate action under its emergency Watershed Protection Program (7 CFR part 624); or

b. The USFS under its Burned-Area Emergency Rehabilitation Handbook (FSH 509.13); or

c. The DOI for wildland fire management burned area emergency stabilization and rehabilitation (DOI Manual part 620, Ch. 3).

For all of the above provisions, the District Engineer must be notified in accordance with the General Condition 13. (Also, see 33 CFR 330.1(e)). (Sections 10 and 404)

38. **Cleanup of Hazardous and Toxic Waste.** Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority provided the permittee notifies the District Engineer in accordance with the "Notification" General Condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste. Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under section 404 of the CWA or section 10 of the Rivers and Harbors Act. (Sections 10 and 404)

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 38. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 38 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 38, Cleanup of Hazardous and Toxic Waste.

1. The applicant shall not cause:
   A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
   B. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
   C. interference with water use practices near public recreation areas or water supply intakes.

2. In addition to any actions required of the NWP applicant with respect to the "Notification" General Condition 13, 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 remedial action.

3. This Nationwide Permit is not valid for activities that do not require or will not receive authorization or approval from the BOL.

*** 39. Residential, Commercial, and Institutional Developments. Discharges of dredged or fill material into non-tidal waters of the U.S., excluding non-tidal wetlands adjacent to tidal waters, for the construction or expansion of residential, commercial, and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include, but are not limited to, roads, parking lots, garages, yards, utility lines, stormwater management facilities, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development). The construction of new ski areas or oil and gas wells is not authorized by this NWP.

Residential developments include multiple and single unit developments. Examples of commercial developments include retail stores, industrial facilities, restaurants, business parks, and shopping centers. Examples of institutional developments include schools, fire stations, government office buildings, judicial buildings, public works buildings, libraries, hospitals, and places of worship. The activities listed above are authorized, provided the activities meet all of the following criteria:

a. The discharge does not cause the loss of greater than 1/2-acre of non-tidal waters of the U.S., excluding non-tidal wetlands adjacent to tidal waters;

b. The discharge does not cause the loss of greater than 300 linear-feet of a stream bed, unless for intermittent stream beds this criterion is waived in writing pursuant to a determination by the District Engineer, as specified below, that the project complies with all terms and conditions of this NWP and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

c. The permittee must notify the District Engineer in accordance with General Condition 13, if any of the following criteria are met:

(1) The discharge causes the loss of greater than 1/10-acre of non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters; or

(2) The discharge causes the loss of any open waters, including perennial or intermittent streams, below the ordinary high water mark (see Note, below); or

(3) The discharge causes the loss of greater than 300 linear feet of intermittent stream bed. In such case, to be authorized the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

d. For discharges in special aquatic sites, including wetlands, the notification must include a delineation of affected special aquatic sites;

e. The discharge is part of a single and complete project;

f. The permittee must avoid and minimize discharges into waters of the US at the project site to the maximum extent practicable. The notification, when required, must include a written statement explaining how avoidance and minimization of losses of waters of the US were achieved on the project site. Compensatory mitigation will normally be required to offset the losses of waters of the US. (See General Condition 19.) The notification must also include a compensatory mitigation proposal for offsetting unavoidable losses of waters of the US. If an applicant asserts that the adverse effects of the project are minimal without mitigation, then the applicant may submit justification explaining why compensatory mitigation should not be required for the District Engineer's consideration;

g. When this NWP is used in conjunction with any other NWP, any combined total permanent loss of waters of the US exceeding 1/10-acre requires that the permittee notify the District Engineer in accordance with General Condition 13;

h. Any work authorized by this NWP must not cause more than minimal degradation of water quality or more than minimal changes to the flow characteristics of any stream (see General Conditions 9 and 21);

i. For discharges causing the loss of 1/10-acre or less of waters of the US, the permittee must submit a report, within 30 days of completion of the work, to the District Engineer that contains the following information: (1) The name, address, and telephone number of the permittee; (2) The location of the work; (3) A description of the work; (4) The type and acreage of the loss of waters of the US (e.g., 1/12-acre of emergent wetlands); and (5) The type and acreage of any compensatory mitigation used to offset the loss of waters of the US (e.g., 1/12-acre of emergent wetlands created on-site);

j. If there are any open waters or streams within the project area, the permittee will establish and maintain, to the maximum extent practicable, wetland or upland vegetated buffers next to those open waters or streams consistent with General Condition 19. Deed restrictions, conservation easements, protective covenants, or other means of land conservation and preservation are required to protect and maintain the vegetated buffers established on the project site.

Only residential, commercial, and institutional activities with structures on the foundation(s) or building pad(s), as well as the attendant features, are authorized by this NWP. The compensatory mitigation proposal that is required in paragraph (f) of this NWP may be either conceptual or detailed. The wetland or upland vegetated buffer required in paragraph (j) of this NWP will be determined on a case-by-case basis by the District Engineer for addressing water quality concerns. The required wetland or upland vegetated buffer is part of the overall compensatory mitigation requirement for this NWP. If the project site was previously used for agricultural purposes and the farm owner/operator used NWP 40 to authorize activities in waters of the US to increase production or construct farm buildings, NWP 39 cannot be used by the developer to authorize additional activities. This is more than the acreage limit for NWP 39 impacts to waters of the US (i.e., the combined acreage loss authorized under NWPs 39 and 40 cannot exceed 1/2-acre, see General Condition 15).

Subdivisions: For residential subdivisions, the aggregate total loss of waters of US authorized by NWP 39 can not exceed 1/2-acre. This includes any loss of waters associated with development of individual subdivision lots. (Sections 10 and 404)

Note: Areas where wetland vegetation is not present should be determined by the presence or absence of an ordinary high water mark or bed and bank. Areas that are waters of the US based on this criterion would require a PCN although water is infrequently present in the stream channel (except for ephemeral waters, which do not require PCNs).

*** 40. Agricultural Activities. Discharges of dredged or fill material into non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, for improving agricultural production and the construction of building pads for farm buildings. Authorized activities include the installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches constructed in waters of the US; and similar activities, provided the permittee complies with the following terms and conditions:

a. For discharges into non-tidal wetlands to improve agricultural production, the following criteria must be met if the permittee is an United States Department of Agriculture (USDA) Program participant:

(1) The permittee must obtain a categorical minimal effects exemption, minimal effect exemption, or mitigation exemption from NRCS in accordance with the provisions of the Food Security Act of 1985, as amended (16 U.S.C. 3801 et seq.);

(2) The discharge into non-tidal wetlands does not result in the loss of greater than 1/2-acre of non-tidal wetlands on a farm tract;

(3) The permittee must have NRCS-certified wetland delineation;

(4) The permittee must implement an NRCS-approved compensatory mitigation plan that fully offsets wetland losses, if required; and

(5) The permittee must submit a report, within 30 days of completion of the authorized work, to the District Engineer that contains the following information: (a) The name, address, and telephone number of the permittee; (b) The location of the work; (c) A description of the work; (d) The type and acreage (or square feet) of the loss of wetlands (e.g., 1/3-acre of emergent wetlands); and

(e) The type, acreage (or square feet), and location of compensatory mitigation (e.g. 1/3-acre of emergent wetland on a farm tract; credits purchased from a mitigation bank); or

b. For discharges into non-tidal wetlands to improve agricultural production, the following criteria must be met if the permittee is not a USDA Program participant (or a USDA Program participant for which the proposed work does not qualify for authorization under paragraph (a) of this NWP):

(1) The discharge into non-tidal wetlands does not result in the loss of greater than 1/2-acre of non-tidal wetlands on a farm tract;

(2) The permittee must notify the District Engineer in accordance with General Condition 13, if the discharge results in the loss of greater than 1/10-acre of non-tidal wetlands;

(3) The notification must include a delineation of affected wetlands; and

(4) The notification must include a compensatory mitigation proposal to offset losses of waters of the US; or

c. For the construction of building pads for farm buildings, the discharge does not cause the loss of greater than 1/2-acre of non-tidal wetlands that were in agricultural production prior to December 23, 1985, (i.e., farmed wetlands) and the permittee must notify the District Engineer in accordance with General Condition 13; and

d. Any activity in other waters of the US is limited to the relocation of existing serviceable drainage ditches constructed in non-tidal streams. This NWP does not authorize the relocation of greater than 300 linear-feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent non-tidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively. For impacts exceeding
300-linear feet of impacts to existing serviceable ditches constructed in intermittent non-tidal streams, the permittee must notify the District Engineer in accordance with the "Notification" General Condition 13; and

e. The term "farm tract" refers to a parcel of land identified by the Farm Service Agency. The Corps will identify other waters of the US on the farm tract. NRCS will determine if a proposed agricultural activity meets the terms and conditions of paragraph a. of this NWP, except as provided below. For those activities that require notification, the District Engineer will determine if a proposed agricultural activity is authorized by paragraphs b., c., and/or d. of this NWP. USDA Program participants requesting authorization for discharges of dredged or fill material into waters of the US authorized by paragraphs (c) or (d) of this NWP, in addition to paragraph (a), must notify the District Engineer in accordance with General Condition 13 and the District Engineer will determine if the entire single and complete project is authorized by this NWP. Discharges of dredged or fill material into waters of the US associated with completing required compensatory mitigation are authorized by this NWP. However, total impacts, including other authorized impacts under this NWP, may not exceed the 1/2-acre limit of this NWP. This NWP does not affect, or otherwise regulate, discharges associated with agricultural activities when the discharge qualifies for an exemption under section 404(f) of the CWA, even though a categorical minimal effects exemption, minimal effect exemption, or mitigation exemption from NRCS pursuant to the Food Security Act of 1985, as amended, may be required. Activities authorized by paragraphs a. through d. may not exceed a total of 1/2-acre on a single farm tract.

If the site was used for agricultural purposes and the farm owner/operator used either paragraphs a., b., or c. of this NWP to authorize activities in waters of the US to increase agricultural production or construct farm buildings, and the current landowner wants to use NWP 39 to authorize residential, commercial, or industrial development activities in waters of the US on the site, the combined acreage loss authorized by NWPs 39 and 40 cannot exceed 1/2-acre (see General Condition 15). (Section 404)

41. Reshaping Existing Drainage Ditches. Discharges of dredged or fill material into non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in waters of the US. The reshaping of the ditch cannot increase drainage capacity beyond the original design capacity. Nor can it expand the area drained by the ditch as originally designed (i.e., the capacity of the ditch must be the same as originally designed and it cannot drain additional wetlands or other waters of the US). Compensatory mitigation is not required because the work is designed to improve water quality (e.g., by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, increase uptake of nutrients and other substances by vegetation, etc.).

Notification: The permittee must notify the District Engineer in accordance with General Condition 13 if greater than 500 linear feet of drainage ditch will be reshaped. Material resulting from excavation may not be permanently sidecast into waters but may be temporarily sidecast (up to three months) into waters of the US, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The District Engineer may extend the period of temporary sidecasting not to exceed a total of 180 days, where appropriate. In general, this NWP does not apply to reshaping drainage ditches constructed in uplands, since these areas are generally not waters of the US, and thus no permit from the Corps is required, or to the maintenance of existing drainage ditches to their original dimensions and configuration, which does not require a Section 404 permit (see 33 CFR 323.4(a)(3)). This NWP does not authorize the relocation of drainage ditches constructed in waters of the US; the location of the centerline of the reshaped drainage ditch must be approximately the same as the location of the centerline of the original drainage ditch. This NWP does not authorize stream channelization or stream relocation projects. (Section 404)

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 41. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 41 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 41, Reshaping Existing Drainage Ditches.

1. The applicant shall not cause:
   A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
   B. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
   C. interference with water use practices near public recreation areas or water supply intakes

2. The applicant for Nationwide Permit 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. 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 statues, 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 and 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 erosion during construction shall be taken and may include the installation of staked straw bales, 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 an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency'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; 1995).

6. The applicant is advised that the following permit(s) must be obtained from the Agency: the applicant must obtain permits to construct sanitary sewers, water mains and related facilities prior to construction.

7. The proposed work shall be constructed with adequate erosion control measures (i.e., silt

fences, straw bales, etc.) to prevent transport of sediment and materials to the adjoining wetlands and/or streams.

*** 42. Recreational Facilities. Discharges of dredged or fill material into non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, for the construction or expansion of recreational facilities, provided the activity meets all of the following criteria:

a. The discharge does not cause the loss of greater than 1/2-acre of non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters;

b. The discharge does not cause the loss of greater than 300 linear-feet of a stream bed, unless for intermittent stream beds this criterion is waived in writing pursuant to a determination by the
District Engineer, as specified below, that the project complies with all terms and conditions of this NWP and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

c. The permittee notifies the District Engineer in accordance with the "Notification" General Condition 13 for discharges exceeding 300 linear feet of impact of intermittent stream beds. In such cases, to be authorized the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine the adverse environmental effects are minimal both individually and cumulatively, and waive this limitation in writing before the permittee may proceed;

d. For discharges causing the loss of greater than 1/10-acre of non-tidal waters of the US, the permittee notifies the District Engineer in accordance with General Condition 13;

e. For discharges in special aquatic sites, including wetlands, the notification must include a delineation of affected special aquatic sites;

f. The discharge is part of a single and complete project; and

g. Compensatory mitigation will normally be required to offset the losses of waters of the US. The notification must also include a compensatory mitigation proposal to offset authorized losses of waters of the US.

For the purposes of this NWP, the term "recreational facility" is defined as a recreational activity that is integrated into the natural landscape and does not substantially change preconstruction grades or deviate from natural landscape contours. For the purpose of this permit, the primary function of recreational facilities does not include the use of motor vehicles, buildings, or impervious surfaces. Examples of recreational facilities that may be authorized by this NWP include hiking trails, bike paths, horse paths, nature centers, and campgrounds (excluding trailer parks). This NWP may authorize the construction or expansion of golf courses and the expansion of ski areas, provided the golf course or ski area does not substantially deviate from natural landscape contours. Additionally, these activities are designed to minimize adverse effects to waters of the US and riparian areas through the use of such practices as integrated pest management, adequate stormwater management facilities, vegetated buffers, reduced fertilizer use, etc. The facility must have adequate water quality management measures in accordance with General Condition 9, such as a stormwater management facility, to ensure that the recreational facility results in no substantial adverse effects to water quality. This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity. This NWP does not authorize other buildings, such as hotels, restaurants, etc. The construction or expansion of playing fields (e.g., baseball, soccer, or football fields), basketball and tennis courts, racetracks, stadiums, arenas, and the construction of new ski areas are not authorized by this NWP. (Section 404)

*** 43. Stormwater Management Facilities. Discharges of dredged or fill material into non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters, for the construction and maintenance of stormwater management facilities, including activities for the excavation of stormwater ponds/facilities, detention basins, and retention basins; the installation and maintenance of water control structures, outfall structures and emergency spillways; and the maintenance dredging of existing stormwater management ponds/facilities and detention and retention basins, provided the activity meets all of the following criteria:

a. The discharge for the construction of new stormwater management facilities does not cause the loss of greater than 1/2-acre of non-tidal waters of the US, excluding non-tidal wetlands adjacent to tidal waters;

b. The discharge does not cause the loss of greater than 300 linear-feet of a stream bed, unless for intermittent stream beds this criterion is waived in writing pursuant to a determination by the District Engineer, as specified below, that the project complies with all terms and conditions of this NWP and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

c. For discharges causing the loss of greater than 300 linear feet of intermittent stream beds, the permittee notifies the District Engineer in accordance with the "Notification" General Condition 13. In such cases, to be authorized the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine the adverse environmental effects are minimal both individually and cumulatively, and waive this limitation in writing before the permittee may proceed;

d. The discharges of dredged or fill material for the construction of new stormwater management facilities in perennial streams is not authorized;

e. For discharges or excavation for the construction of new stormwater management facilities or for the maintenance of existing stormwater management facilities causing the loss of greater than 1/10-acre of non-tidal waters, excluding non-tidal wetlands adjacent to tidal waters, provided the permittee notifies the District Engineer in accordance with the "Notification" General Condition 13. In addition, the notification must include:

(1) A maintenance plan. The maintenance plan should be in accordance with State and local requirements, if any such requirements exist;

(2) For discharges in special aquatic sites, including wetlands and submerged aquatic vegetation, the notification must include a delineation of affected areas; and

(3) A compensatory mitigation proposal that offsets the loss of waters of the US. Maintenance in constructed areas will not require mitigation provided such maintenance is accomplished in designated maintenance areas and not within compensatory mitigation areas (i.e., District Engineers may designate non-maintenance areas, normally at the downstream end of the stormwater management facility, in existing stormwater management facilities). (No mitigation will be required for activities that are exempt from Section 404 permit requirements);

f. The permittee must avoid and minimize discharges into waters of the US at the project site to the maximum extent practicable, and the notification must include a written statement to the District Engineer detailing compliance with this condition (i.e. why the discharge must occur in waters of the US and why additional minimization cannot be achieved);

g. The stormwater management facility must comply with General Condition 21 and be designed using BMPs and watershed protection techniques. Examples may include forebays (deeper areas at the upstream end of the stormwater management facility that would be maintained through excavation), vegetated buffers, and siting considerations to minimize adverse effects to aquatic resources. Another example of a BMP would be bioengineering methods incorporated into the facility design to benefit water quality and minimize adverse effects to aquatic resources from storm flows, especially downstream of the facility, that provide, to the maximum extent practicable, for long term aquatic resource protection and enhancement;

h. Maintenance excavation will be in accordance with an approved maintenance plan and will not exceed the original contours of the facility as approved and constructed; and

i. The discharge is part of a single and complete project. (Section 404)

44. Mining Activities. Discharges of dredged or fill material into:

(i) Isolated waters; streams where the annual average flow is 1 cubic foot per second or less, and non-tidal wetlands adjacent to headwater streams, for aggregate mining (i.e., sand, gravel, and crushed and broken stone) and associated support activities;

(ii) Lower perennial streams, excluding wetlands adjacent to lower perennial streams, for aggregate mining activities (support activities in lower perennial streams or adjacent wetlands are not authorized by this NWP); and/or

(iii) Isolated waters and non-tidal wetlands adjacent to headwater streams, for hard rock/mineral mining activities (i.e., extraction of metalliferous ores from subsurface locations) and associated support activities, provided the discharge meets the following criteria:

a. The mined area within waters of the US, plus the acreage loss of waters of the US resulting from support activities, cannot exceed 1/2-acre;

b. The permittee must avoid and minimize discharges into waters of the US at the project site to the maximum extent practicable, and the notification must include a written statement detailing compliance with this condition (i.e., why the discharge must occur in waters of the US and why additional minimization cannot be achieved);

c. In addition to General Conditions 17 and 20, activities authorized by this permit must not substantially alter the sediment characteristics of areas of concentrated shellfish beds or fish spawning areas. Normally, the water quality management measures required by General Condition 9 should address these impacts;

d. The permittee must implement necessary measures to prevent increases in stream gradient and water velocities and to prevent adverse effects (e.g., head cutting, bank erosion) to upstream and downstream channel conditions;

e. Activities authorized by this permit must not result in adverse effects on the course, capacity, or condition of navigable waters of the US;

f. The permittee must use measures to minimize downstream turbidity;

g. Wetland impacts must be compensated through mitigation approved by the Corps;

h. Beneficiation and mineral processing for hard rock/mineral mining activities may not occur within 200 feet of the ordinary high water mark of any open waterbody. Although the Corps does not regulate discharges from these activities, a CWA section 402 permit may be required;

i. All activities authorized must comply with General Conditions 9 and 21. Further, the District Engineer may require water quality management measures to ensure the authorized work results in minimal adverse effects to water quality;

j. Except for aggregate mining activities in lower perennial streams, no aggregate mining can occur within stream beds where the average annual flow is greater than 1 cubic foot per second or in waters of the US within 100 feet of the ordinary high water mark of headwater stream segments where the average annual flow of the stream is greater than 1 cubic foot per second (aggregate mining can occur in areas immediately adjacent to the ordinary high water mark of a stream where the average annual flow is 1 cubic foot per second or less);

k. Single and complete project: The discharge must be for a single and complete project, including support activities. Discharges of dredged or fill material into waters of the US for multiple mining activities on several designated parcels of a single and complete mining operation can be authorized by this NWP provided the 1/2-acre limit is not exceeded; and

l. Notification: The permittee must notify the District Engineer in accordance with General Condition 13. The notification must include: (1) A description of waters of the US adversely affected by the project; (2) A written statement to the District Engineer detailing compliance with paragraph (b), above (i.e., why the discharge must occur in waters of the US and why additional minimization cannot be achieved); (3) A description of measures taken to ensure that the proposed work complies with paragraphs (c) through (f), above; and (4) A reclamation plan (for aggregate mining in isolated waters and non-tidal wetlands adjacent to headwaters and hard rock/mineral mining only).

This NWP does not authorize hard rock/mineral mining, including placer mining, in streams. No hard rock/mineral mining can occur in waters of the US within 100 feet of the ordinary high water mark of headwater streams. The term's "headwaters" and "isolated waters" are defined at 33 CFR 330.2(d) and (e), respectively. For the purposes of this NWP, the term "lower perennial stream" is defined as follows: "A stream in which the gradient is low and water velocity is slow, there is no tidal influence, some water flows throughout the year, and the substrate consists mainly of sand and mud." (Sections 10 and 404)

NOTE: THE IEPA HAS CONDITIONED SECTION 401 WATER QUALITY CERTIFICATION APPLICABLE TO NATIONWIDE PERMIT 44. DEPARTMENT OF THE ARMY AUTHORIZATION PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) UNDER NATIONWIDE PERMIT 44 WILL BE SUBJECT TO THE IEPA CONDITIONS IN ADDITION TO THE CONDITIONS PUBLISHED IN SECTION C.

Section 401 Water Quality Certification Conditions for Nationwide Permit 44, Mining Activities.

1. The applicant shall not cause:
A. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation;
~~B. water pollution defined and prohibited by the Illinois Environmental Protection Act; or~~
C. interference with water use practices near public recreation areas or water supply intakes

2. The applicant for Nationwide Permit 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. 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 statues, 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 and 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 erosion during construction shall be taken and may include the installation of staked straw bales, 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 an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 5 (five) or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency'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; 1995).

6. Any applicant that is proposing mining activities shall obtain a construction and/or operation permit or exemption thereof pursuant to 35 Il. Adm. Code, Subtitle D, Sections 403, 404.101 and 404.103.

C. Nationwide Permit General Conditions

The following General Conditions must be followed in order for any authorization by an NWP to be valid:

1. Navigation No activity may cause more than a minimal adverse effect on navigation

2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

4. Aquatic Life Movements. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other must be taken to minimize soil disturbance.

6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any

case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.

7. Wild and Scenic Rivers. 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; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality. (a) In certain states and tribal lands an individual 401 Water Quality Certification must be obtained or waived (See 33 CFR 330.4(c)).

(b) For NWPs 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the state or tribal 401 certification (either generically or individually) does not require or approve water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of water quality management includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality (refer to General Condition 21 for stormwater management requirements). Another important component of water quality management is the establishment and maintenance of vegetated buffers next to open waters, including streams (refer to General Condition 19 for vegetated buffer requirements for the NWPs).

This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.

10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see 33 CFR 330.4(d)).

11. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the NWPs.

(b) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their world wide web pages at http://www.fws.gov/r9endspp/endspp.html and http://www.nfms.noaa.gov/prot_res/overview/es.html respectively.

12. Historic Properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

13. Notification.

(a) Timing; where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the notification is complete within 30 days of the date of receipt and

can request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the notification is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) If notified in writing by the District or Division Engineer that an Individual Permit is required; or

(3) Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification: The notification must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), Regional General Permit(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f));

(5) For NWP 7 (Outfall Structures and Maintenance), the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed;

(6) For NWP 14 (Linear Transportation Projects), the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the US and a statement describing how temporary losses of waters of the US will be minimized to the maximum extent practicable;

(7) For NWP 21 (Surface Coal Mining Activities), the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan, if applicable. To be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing;

(8) For NWP 27 (Stream and Wetland Restoration Activities), the PCN must include documentation of the prior condition of the site that will be reverted by the permittee;

(9) For NWP 29 (Single-Family Housing), the PCN must also include:

(i) Any past use of this NWP by the Individual Permittee and/or the permittee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring 1/4-acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than 1/4-acre in size, formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(10) For NWP 31 (Maintenance of Existing Flood Control Facilities), the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:

(i) Sufficient baseline information identifying the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site;

(11) For NWP 33 (Temporary Construction, Access, and Dewatering), the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources;

(12) For NWPs 39, 43 and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization for losses of waters of the US were achieved on the project site;

(13) For NWP 39 and NWP 42, the PCN must include a compensatory mitigation proposal to offset losses of waters of the US or justification explaining why compensatory mitigation should not be required. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

(14) For NWP 40 (Agricultural Activities), the PCN must include a compensatory mitigation proposal to offset losses of waters of the US. This NWP does not authorize the relocation of greater than 300 linear-feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent non-tidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

(15) For NWP 43 (Stormwater Management Facilities), the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with state and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the US. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

(16) For NWP 44 (Mining Activities), the PCN must include a description of all waters of the US adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the US, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for all aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities);

(17) For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work; and

(18) For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

(c) Form of Notification: The standard Individual Permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(18) of General Condition 13. A letter containing the requisite information may also be used.

(d) District Engineer's Decision: In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may submit a proposed mitigation plan with the PCN to expedite the process. The District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary. The District Engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then the District Engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an Individual Permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the US will occur until the District Engineer has approved a specific mitigation plan.

(e) Agency Coordination: The District Engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than 1/2-acre of waters of the US, the District Engineer will provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the NMFS). With the exception

of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to NMFS within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

(f) Wetland Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps (For NWP 29 see paragraph (b)(9)(iii) for parcels less than (1/4-acre in size). The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

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14. Compliance Certification. Every permittee who has received NWP verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include:

(a) A statement that the authorized work was done in accordance with the Corps 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.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit (e.g. if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed 1/3-acre).

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the CWA).

19. Mitigation. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

(a) The project must be designed and constructed to avoid and minimize adverse effects to waters of the US to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland impacts requiring a PCN, unless the District Engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands as compensatory mitigation, with preservation used only in exceptional circumstances.

(d) Compensatory mitigation (i.e., replacement or substitution of aquatic resources for those impacted) will not be used to increase the acreage losses allowed by the acreage limits of some of the NWPs. For example, 1/4-acre of wetlands cannot be created to change a 3/4-acre loss of wetlands to a 1/2-acre loss associated with NWP 39 verification. However, 1/2-acre of created wetlands can be used to reduce the impacts of a 1/2-acre loss of wetlands to the minimum impact level in order to meet the minimal impact requirement associated with NWPs.

(e) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by

creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., easements, deed restrictions) of vegetated buffers to open waters. In many cases, vegetated buffers will be the only compensatory mitigation required. Vegetated buffers should consist of native species. The width of the vegetated buffers required will address documented water quality or aquatic habitat loss concerns. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineers may require slightly wider vegetated buffers to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the Corps will determine the appropriate compensatory mitigation (e.g., stream buffers or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where vegetated buffers are determined to be the most appropriate form of compensatory mitigation, the District Engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland impacts.

(g) Compensatory mitigation proposals submitted with the "notification" may be either conceptual or detailed. If conceptual plans are approved under the verification, then the Corps will condition the verification to require detailed plans be submitted and approved by the Corps prior to construction of the authorized activity in waters of the US.

(h) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases that require compensatory mitigation, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

20. **Spawning Areas.** Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. **Management of Water Flows.** To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

This condition is only applicable to projects that have the potential to affect waterflows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to the acceleration of the passage of water, and/or the restricting its flow shall be minimized to the maximum extent practicable. This includes structures and work in navigable waters of the US, or discharges of dredged or fill material.

23. **Waterfowl Breeding Areas.** Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. **Removal of Temporary Fills.** Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. **Designated Critical Resource Waters.** Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the USFWS or the NMFS has concurred in a determination of compliance with this condition.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

26. **Fills Within 100-Year Floodplains.** For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

(a) Discharges in Floodplain; Below Headwaters. Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, 43, and 44.

(b) Discharges in Floodway; Above Headwaters. Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, and 44.

(c) The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. **Construction Period.** For activities that have not been verified by the Corps and the project was commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12-months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps.

For projects that have been verified by the Corps, an extension of a Corps approved completion date maybe requested. This request must be submitted at least one month before the previously approved completion date.

D. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project

E. Definitions

Best Management Practices (BMPs): BMPs are policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural. A BMP policy may affect the limits on a development.

Compensatory Mitigation: For purposes of Section 10/404, compensatory mitigation is the restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Creation The establishment of a wetland or other aquatic resource where one did not formerly exist.

Enhancement: Activities conducted in existing wetlands or other aquatic resources that increase one or more aquatic functions.

Ephemeral Stream: An ephemeral stream has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Farm Tract: A unit of contiguous land under one ownership that is operated as a farm or part of a farm.

Flood Fringe: That portion of the 100-year floodplain outside of the floodway (often referred to as "floodway fringe").

Floodway: The area regulated by Federal, state, or local requirements to provide for the discharge of the base flood so the cumulative increase in water surface elevation is no more than a designated amount (not to exceed one foot as set by the National Flood Insurance Program). within the 100-year floodplain.

Independent Utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent Stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of Waters of the US: Waters of the US that include the filled area and other waters that are permanently adversely affected by flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent above-grade, at-grade, or below-grade fills that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the US is the threshold measurement of the impact to existing waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Impacts to ephemeral streams are not included in the linear foot measurement of loss of stream bed for the purpose of determining compliance with the linear foot limits of NWPs 39, 40, 42, and 43. Waters of the US temporarily filled, flooded, excavated, or drained, but restored to preconstruction contours and elevations after construction, are not included in the measurement of loss of waters of the US.

Non-tidal Wetland: A non-tidal wetland is a wetland (i.e., a water of the US) that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open Water: An area that, during a year with normal patterns of precipitation, has standing or flowing water for sufficient duration to establish an ordinary high water mark. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. The term "open water" includes rivers, streams, lakes, and ponds. For the purposes of the NWPs, this term does not include ephemeral waters.

Perennial Stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Permanent Above-grade Fill: A discharge of dredged or fill material into waters of the US, including wetlands, that results in a substantial increase in ground elevation and permanently converts part or all of the waterbody to dry land. Structural fills authorized by NWPs 3, 25, 36, etc. are not included.

Preservation: The protection of ecologically important wetlands or other aquatic resources in perpetuity through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection and/or enhancement of the overall aquatic ecosystem.

Restoration: Re-establishment of wetland and/or other aquatic resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state.

Riffle and Pool Complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Single and Complete Project: The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers (see definition of independent utility) For linear projects, the "single and complete project" (i.e., a single and complete crossing) will apply to each crossing of a separate water of the US (i.e., a single waterbody) at that location. An exception is for linear projects crossing a single waterbody several times at separate and distant locations: each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.

Stormwater Management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater Management Facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and BMPs, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream Bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream Channelization: The manipulation of a stream channel to increase the rate of water flow through the stream channel. Manipulation may include deepening, widening, straightening, armoring, or other activities that change the stream cross-section or other aspects of stream channel geometry to increase the rate of water flow through the stream channel. A channelized stream remains a water of the US, despite the modifications to increase the rate of water flow.

Tidal Wetland: A tidal wetland is a wetland (i.e., water of the US) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line (i.e., spring high tide line) and are inundated by tidal waters two times per lunar month, during spring high tides.

Vegetated Buffer: A vegetated upland or wetland area next to rivers, streams, lakes, or other open waters which separates the open water from developed areas, including agricultural land. Vegetated buffers provide a variety of aquatic habitat functions and values (e.g., aquatic habitat for fish and other aquatic organisms, moderation of water temperature changes, and detritus for aquatic food webs) and help improve or maintain local water quality. A vegetated buffer can be established by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to open-waters. Mowed lawns are not considered vegetated buffers because they provide little or no aquatic habitat functions and values. The establishment and maintenance of vegetated buffers is a method of compensatory mitigation that can be used in conjunction with the restoration, creation, enhancement, or preservation of aquatic habitats to ensure that activities authorized by NWPs result in minimal adverse effects to the aquatic environment. (See General Condition 19.)

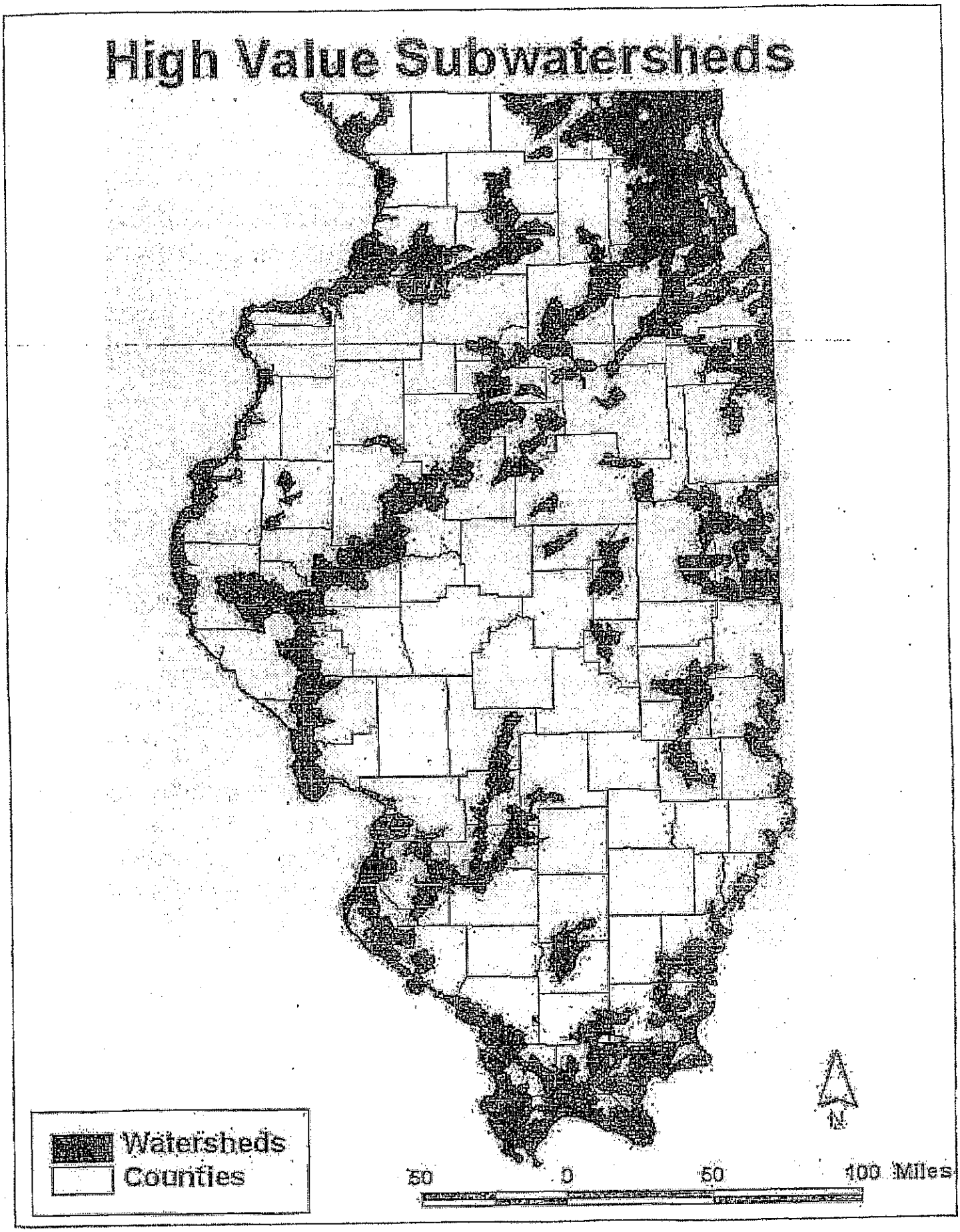
Vegetated Shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: A waterbody is any area that in a normal year has water flowing or standing above ground to the extent that evidence of an ordinary high water mark is established. Wetlands contiguous to the waterbody are considered part of the waterbody.

*** (Nationwide permits where Illinois Environmental Protection Agency has denied Section 401 Water Quality Certification.)

PCN - Pre-Construction Notification

High Value Subwatersheds - The state of Illinois has defined these areas through a combination of factors. Various sources of information were used to analyze and rank subwatersheds. Federal Threatened and Endangered Species, % of wetlands in the watershed, Natural Areas Inventory, and Biological Stream Categorization were factors used for High Value designation. A map highlighting these areas is attached.


High Value Subwatersheds
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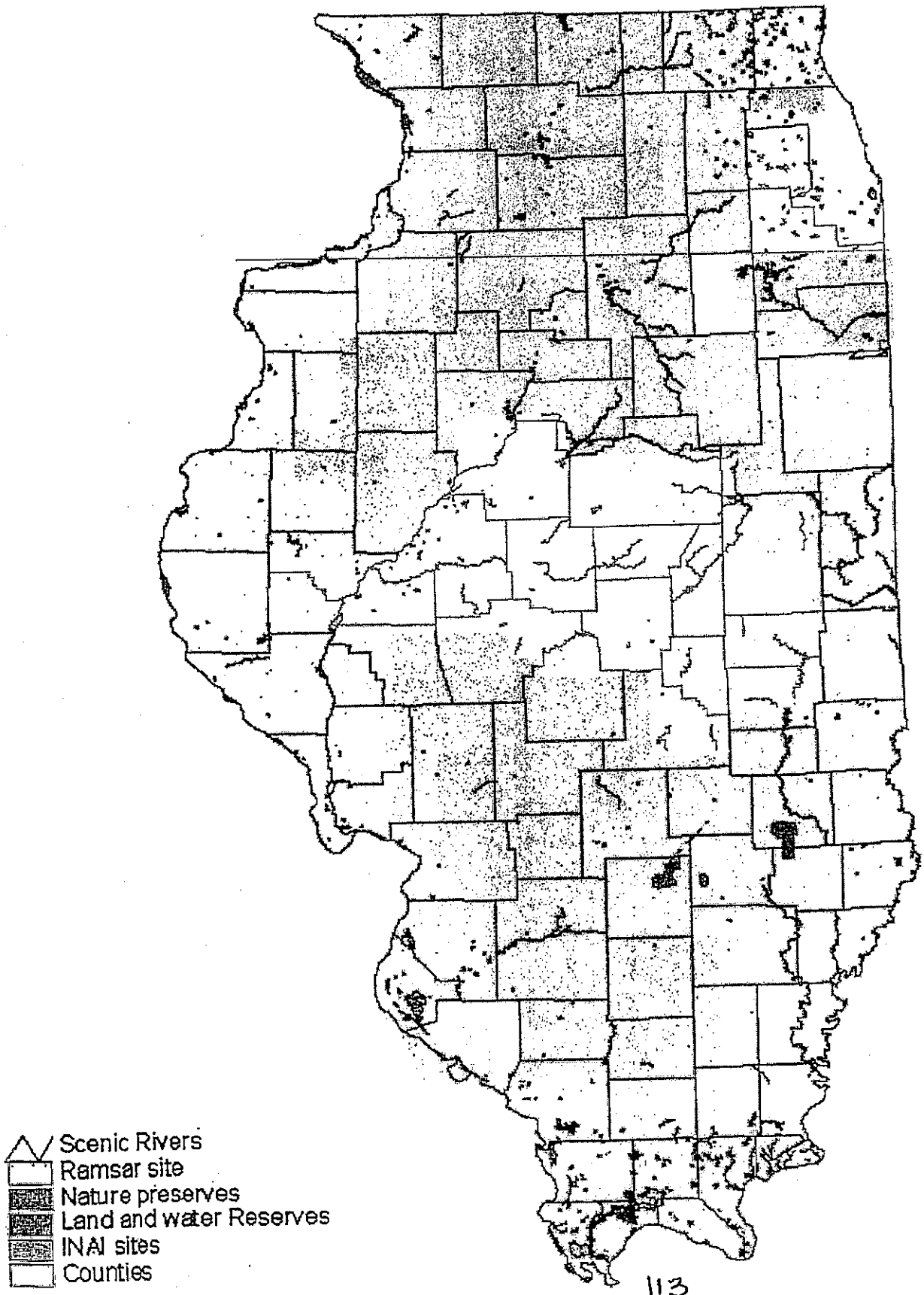
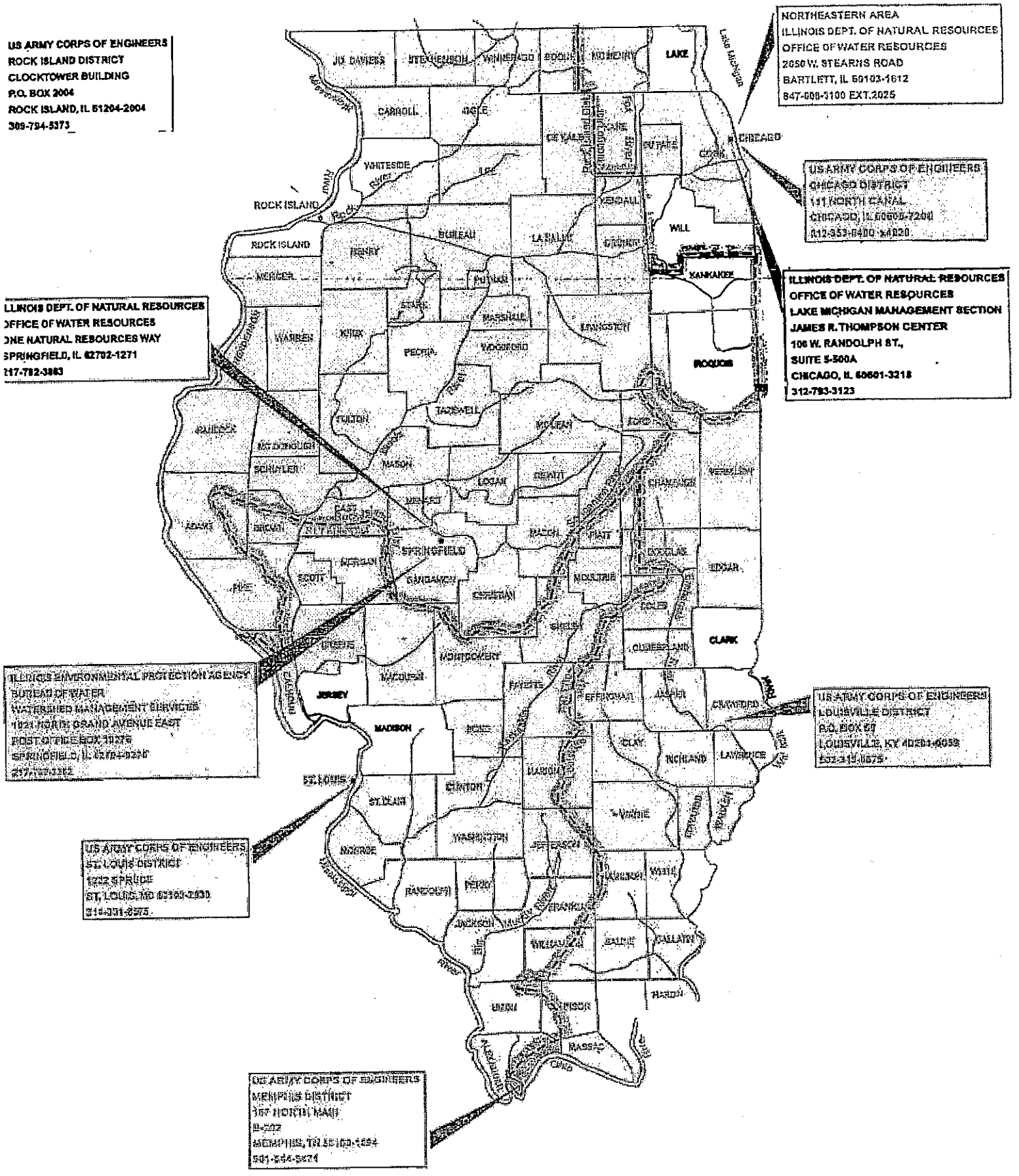
Critical Resource Waters



REGULATORY JURISDICTIONAL BOUNDARIES



JURISDICTIONAL DETERMINATION
U.S. Army Corps of Engineers

Revised 8/13/04

DISTRICT OFFICE: Rock Island
FILE NUMBER: 2004-1612

PROJECT LOCATION INFORMATION:
State: IL
County: McLean
Center coordinates of site (latitude/longitude): UTM N- 4484532 E- 331620
Approximate size of area (parcel) reviewed, including uplands: unknown acres.
Name of nearest waterway: Sugar Creek
Name of watershed: IL

JURISDICTIONAL DETERMINATION
Completed: Desktop determination ☒ Date: 10/28/04
Site visit(s) ☒ Date(s):

Jurisdictional Determination (JD):

■ Preliminary JD - Based on available information, ☐ *there appear to be* (or) ☐ *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).

■ Approved JD – An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:

■ *There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: acre.

■ *There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: .14 acres.

■ *There are "isolated, non-navigable, intra-state* waters or wetlands" within the reviewed area.
■ Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

A. **Waters defined under 33 CFR part 329 as "navigable waters of the United States":**
■ The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. **Waters defined under 33 CFR part 328.3(a) as "waters of the United States":**
■ (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
■ (2) The presence of interstate waters including interstate wetlands[1].
(3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
■ (4) Impoundments of waters otherwise defined as waters of the US.
■ (5) The presence of a tributary to a water identified in (1) – (4) above.
■ (6) The presence of territorial seas.
■ (7) The presence of wetlands adjacent[2] to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination:* Waterway noted on USGS maps

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

☒ Ordinary High Water Mark indicated by:
- ☐ clear, natural line impressed on the bank
- ☐ the presence of litter and debris
- ☐ changes in the character of soil
- ☐ destruction of terrestrial vegetation
- ☐ shelving
- ☐ other:

■ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gages
- ☐ other:

Mean High Water Mark indicated by:
☐ survey to available datum; ☐ physical markings; ☐ vegetation lines/changes in vegetation types.

Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by:

Basis For Not Asserting Jurisdiction:

■ The reviewed area consists entirely of uplands.
Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
- ☐ Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
- ☐ Artificially irrigated areas, which would revert to upland if the irrigation ceased.
- ☐ Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
- ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
- ☐ Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
- ☐ Isolated, intrastate wetland with no nexus to interstate commerce.
- ☐ Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:

- ☐ Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
- ☐ Other (explain): Wetland area 3 was determined to be isolated.

DATA REVIEWED FOR JURSIDICTIONAL DETERMINATION (mark all that apply):

■ Maps, plans, plots or plat submitted by or on behalf of the applicant.
Data sheets prepared/submitted by or on behalf of the applicant.
- ☐ This office concurs with the delineation report, dated , prepared by (company):
- ☐ This office does not concur with the delineation report, dated , prepared by (company):

Data sheets prepared by the Corps.
Corps' navigable waters' studies:
U.S. Geological Survey Hydrologic Atlas:
U.S. Geological Survey 7.5 Minute Topographic maps:
U.S. Geological Survey 7.5 Minute Historic quadrangles:
U.S. Geological Survey 15 Minute Historic quadrangles:
USDA Natural Resources Conservation Service Soil Survey:
National wetlands inventory maps:
State/Local wetland inventory maps:
FEMA/FIRM maps (Map Name & Date):
100-year Floodplain Elevation is: (NGVD)
Aerial Photographs (Name & Date): GIS DOQ
Other photographs (Date):
Advanced Identification Wetland maps:
Site visit/determination conducted on:
Applicable/supporting case law:
Other information (please specify):

[1]Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

[2]The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Bloomington, Illinois	File Number: CEMVR-OD-P-2004-1612	Date: 11/19/04
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I: The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: **INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: **PROFFERED PERMIT:** You may accept or appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: **PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: **APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: **PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL OR OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact:
Jeff Sniadach U.S. Army Corps of Engineers District, Rock Island ATTN: OD-P Clock Tower Building Post Office Box 2004 Rock Island, Illinois 61204-2004 Telephone: 309/794-5369	Martha S. Chieply U.S. Army Corps of Engineers Division, Mississippi Valley Post Office Box 80 ATTN: CEMVD-PD-KM Vicksburg, Mississippi 39181-0080 Telephone: 601/634-5820 Fax: 601/634-7073

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:

BRIDGE DECK CONSTRUCTION (BDE)

Effective: April 1, 2002
Revised: April 1, 2004

Add the following to Article 503.03 of the Standard Specifications:

"(h) Fogging Equipment ..... 1103.17(k)"

Add the following after the first sentence of the second paragraph to Article 503.07 of the Standard Specifications:

"When placing Class BD concrete, the discharge end of the pump shall have attached an "S" shaped flexible or rigid conduit, a 90 degree elbow with a minimum of 3 m (10 ft) of flexible conduit placed parallel to the deck, or a similar configuration approved by the Engineer."

Add the following after the second sentence of the ninth paragraph of Article 503.07 of the Standard Specifications:

"When consolidating concrete in bridge decks, the vibrator shall be vertically inserted into the concrete for 3 - 5 seconds, or for a period of time determined by the Engineer."

Add the following after the first paragraph of Article 503.17 of the Standard Specifications:

"For the bridge deck pour, fogging equipment shall be in operation unless the evaporation rate is less than 0.5 kg/sq m/hour (0.1 lb/sq ft/hour) and the Engineer gives permission to turn off the equipment. The evaporation rate shall be determined according to the figure in the Portland Cement Association's publication, "Design and Control of Concrete Mixtures" (refer to the section on plastic shrinkage cracking). The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment.

The fogging equipment shall be adjusted to adequately cover the entire width of the pour.

If there is a delay of more than ten minutes during bridge deck placement, wet burlap shall be used to protect the concrete until operations resume.

Concrete placement operations shall be coordinated to limit the distance between the point of concrete placement and concrete covered with cotton mats for curing. The distance shall not exceed 10.5 m (35 ft). For bridge deck widths greater than 15 m (50 ft), the distance shall not exceed 7.5 m (25 ft)."

Add the following to the end of the first paragraph of Article 503.17(b) of the Standard Specifications to read:

"The concrete in these areas shall be struck off during the deck pour and excess material from the finishing machine shall not be incorporated."

In the Coarse Aggregate Gradation table of Article 1004.01(c) of the Standard Specifications revise the percent passing the 12.5 mm (1/2 in.) sieve for gradation CA 7 to "45±15[4/ 9/]".

In the Coarse Aggregate Gradation table of Article 1004.01(c) of the Standard Specifications revise the percent passing the 12.5 mm (1/2 in.) sieve for gradation CA 11 to "45±15[6/ 9/]".

Add the following to the Coarse Aggregate Gradation table of the Standard Specifications:

"9/ When Class BD concrete is to be pumped, the coarse aggregate gradation shall have a minimum of 45 percent passing the 12.5 mm (1/2 in.) sieve. The Contractor may combine two or more coarse aggregate sizes, consisting of CA-7, CA-11, CA-13, CA-14, and CA-16, provided a CA-7 or CA-11 is included in the blend."

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

"(d)Class BD Concrete. The maximum mortar factor shall be 0.86."

Add the following to Article 1103.17 of the Standard Specifications:

"(k) Fogging Equipment. Fogging equipment shall consist of a mechanically operated, pressurized system using a triple headed nozzle or an equivalent nozzle. The fogging nozzle shall be capable of producing a fine fog mist that will increase the relative humidity of the air just above the fresh concrete surface without accumulating any water on the concrete. The fogging equipment shall be mounted behind the roller and pan of finishing machine or on a separate foot bridge. Controls shall be designed to vary the volume of water flow, be easily accessible and immediately shut off the water when in the off position. Hand held fogging equipment will not be allowed."

80066

BUTT JOINTS (BDE)

Effective: April 1, 2004
Revised: April 1, 2005

Revise Article 406.18 of the Standard Specifications to read:

"**406.18 Butt Joints.** Butt joints shall be constructed according to the details shown on the plans. The surface removal shall be performed according to Section 440. Construction of butt joints shall not begin prior to beginning general operations on the project.

When butt joints are to be constructed under traffic, temporary ramps shall be constructed and maintained at both the upstream and downstream ends of the surface removal areas immediately upon completion of the surface removal operation. The temporary ramps shall be constructed by the following methods.

(a) Temporary Bituminous Ramps. Temporary bituminous ramps shall have a minimum taper rate of 1:40 (V:H). The bituminous material used shall meet the approval of the Engineer. Cold-milled bituminous tailings will not be acceptable.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 55 mph or less. The ramps shall have a minimum taper rate of 1:30 (V:H). The leading edge of the rubber ramp shall have a maximum thickness of 6 mm (1/4 in.) and the trailing edge shall match the height of the adjacent pavement ± 6 mm (1/4 in.).

The rubber material shall conform to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	80 ±10
Tensile Strength	ASTM D 412	5500 kPa (800 psi) min.
Elongation, percent	ASTM D 412	100 min.
Specific Gravity	ASTM D 297	1.1-1.3
Brittleness	ASTM D 746	-40 °C (-40 °F)

The rubber ramps shall be installed according to the manufacturer's specifications and fastened with the anchors provided. Rubber ramps that fail to stay in place or create a traffic hazard shall be replaced immediately with temporary bituminous ramps at the Contractor's expense.

The temporary ramps shall be removed just prior to placing the proposed surface course. If work is suspended for the winter season prior to completion of surface course construction, precut butt joints shall be filled to the elevation of the existing pavement surface with compacted bituminous concrete surface course or binder course."

80118

COARSE AGGREGATE FOR TRENCH BACKFILL, BACKFILL AND BEDDING (BDE)

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

Revise Article 208.02 of the Standard Specifications to read:

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

(a) Fine Aggregate (Note 1) 1003.04
(b) Coarse Aggregate (Note 2) 1004.06

Note 1. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 2. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first sentence of the second paragraph of subparagraph (b) in Article 208.03 of the Standard Specifications to read:

"Any material meeting the requirements of Articles 1003.04 or 1004.06 which has been excavated from the trenches shall be used for backfilling the trenches."

Add the following to the end of Article 542.02 of the Standard Specifications:

"(bb) Fine Aggregate (Note 1) 1003.04
(cc) Coarse Aggregate (Note 2) 1004.06

Note 1. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 2. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first and second sentences of the second paragraph of subparagraph (a) of Article 542.04 ~~of the Standard Specifications to read~~:

"The unstable and unsuitable material shall be removed to a depth determined by the Engineer and for a width of one diameter (or equivalent diameter) of the pipe on each side of the pipe culvert, and replaced with aggregate. Rock shall be removed to an elevation 300 mm (1 ft) lower than the bottom of the pipe or to a depth equal to 40 mm/m (1/2 in./ft) of ultimate fill height over the top of the pipe culvert, whichever is the greater depth, and for a width as specified in (b) below, and replaced with aggregate."

Revise the second paragraph of subparagraph (c) of Article 542.04 of the Standard Specifications to read:

"Well compacted aggregate, at least 100 mm (4 in.) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except well compacted impervious material shall be used for the outer 1 m (3 ft) at each end of the pipe. When the trench has been widened by the removal and replacement of unstable or unsuitable material, the foundation material shall be placed for a width not less than the above specified widths on each side of the pipe. The aggregate and impervious material shall be approved by the Engineer and shall be compacted to the Engineer's satisfaction by mechanical means."

Revise subparagraph (e) of Article 542.04 of the Standard Specifications to read:

"(e) Backfilling. As soon as the condition of the pipe culvert will permit, the entire width of the trench shall be backfilled with aggregate to a height of at least the elevation of the center of the pipe. The aggregate shall be placed longitudinally along the pipe culvert, except at the outer 1 m (3 ft) at each end of the culvert which shall be backfilled with impervious material. The elevation of the backfill material on each side of the pipe shall be the same. The space under the pipe shall be completely filled. The aggregate and impervious material shall be placed in 200 mm (8 in.) layers, loose measurement. When using PVC, PE, or corrugated metal pipe, the aggregate shall be continued to a height of at least 300 mm (1 ft) above the top of the pipe and compacted to a minimum of 85 percent of standard lab density by mechanical means. When reinforced concrete pipes are used and the trench is within 600 mm (2 ft) of the pavement structure, the backfill shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

When using PVC, PE, or corrugated metal pipe a minimum of 300 mm (1 ft) of cover from the top of the pipe to the top of the subgrade will be required.

The installed pipe and its embedment shall not be disturbed when using movable trench boxes and shields, sheet pile, or other trench protection.

~~The remainder of the trench shall be backfilled with select material, from excavation or~~ borrow, free from large or frozen lumps, clods or rock, meeting the approval of the Engineer. The material shall be placed in layers not exceeding 200 mm (8 in.) in depth, loose measurement and compacted to 95 percent of the standard laboratory density. Compaction shall be obtained by use of mechanical tampers or with approved vibratory compactors. Before compacting, each layer shall be wetted or dried to bring the moisture content within the limits of 80 to 110 percent of optimum moisture content determined according to AASHTO T 99 (Method C). All backfill material shall be deposited in the trench or excavation in such a manner as not to damage the culvert. The filling of the trench shall be carried on simultaneously on both sides of the pipe.

The Contractor may, at his/her expense, backfill the entire trench with aggregate in lieu of select material. The aggregate shall be compacted to the satisfaction of the Engineer by mechanical means.

The backfill material for all trenches and excavations made in the subgrade of the proposed improvement, and for all trenches outside of the subgrade where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk shall be according to Section 208. The trench backfill material shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

The Contractor may, at his/her expense, backfill the entire trench with controlled low strength material meeting the approval of the Engineer.

When the trench has been widened for the removal and replacement of unstable or unsuitable material, the backfilling with aggregate and impervious material, will be required for a width of at least the specified widths on each side of the pipe. The remaining width of each layer may be backfilled with select material. Each 200 mm (8 in.) layer for the entire trench width shall be completed before beginning the placement of the next layer."

Revise subparagraph (b) of Article 542.05 of the Standard Specifications to read:

"(b) Embankment. Embankment extending to an elevation of 300 mm (1 ft) over the top of the pipe shall be constructed according to Article 542.04(f), except the material up to the elevation of the center of the pipe and extending to a width of at least 450 mm (18 in.) on each side of the pipe, exclusive of the outer 1 m (3 ft) at each end of the pipe, shall consist of aggregate. At the outer 1 m (3 ft) at each end of the culvert, impervious material shall be used."

Add the following paragraph after the first paragraph of Article 542.10 of the Standard Specifications:

"Trench backfill will be measured for payment according to Article 208.03."

Add the following paragraph after the third paragraph of Article 542.11 of the Standard Specifications:

"Trench backfill will be paid for according to Article 208.04."

Add the following to of Article 550.02 of the Standard Specifications:

"(m) Fine Aggregate (Note 2) 1003.04
(n) Coarse Aggregate (Note 3) 1004.06

Note 2. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 3. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first two sentences of the third paragraph of Article 550.04 of the Standard Specifications to read:

"Well compacted, aggregate bedding material at least 100 mm (4 in.) in depth below the pipe, shall be placed for the entire width of the trench and length of the pipe. The aggregate shall be compacted to the satisfaction of the Engineer by mechanical means."

Revise Article 550.07 of the Standard Specifications to read:

"550.07 Backfilling. As soon as the condition of the pipe will permit, the entire width of the trench shall be backfilled with aggregate to a height of at least the elevation of the center of the pipe. The aggregate shall be placed longitudinally along the pipe. The elevation of the backfill material on each side of the pipe shall be the same. The space under the pipe shall be completely filled. The aggregate backfill material shall be placed in 200 mm (8 in.) layers, loose measurement and compacted to the satisfaction of the Engineer by mechanical means. When using PVC pipe, the aggregate shall be continued to a height of at least 300 mm (12 in.) above the top of the pipe.

The installed pipe and its embedment shall not be disturbed when using movable trench boxes and shields, sheet pile, or other trench protection.

The remainder of the trench and excavation shall be backfilled to the natural line or finished surface as rapidly as the condition of the sewer will permit. The backfill material shall consist of suitable excavated material from the trench or of trench backfill as herein specified. All backfill material shall be deposited in the trench or excavation in such a manner as not to damage the sewer and shall be compacted to the satisfaction of the Engineer by mechanical means. The filling of the trench shall be carried on simultaneously on both sides of the pipe.

The backfill material for trenches and excavation made in the subgrade of the proposed improvement, and for all trenches outside of the subgrade where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder or sidewalk shall be according to Section 208. The backfill material shall be compacted to 85 percent of standard lab density by mechanical means.

All backfill material up to a height of 300 mm (1 ft) above the pipe shall be deposited in uniform layers not exceeding 200 mm (8 in.) thick, loose measurement. The material in each layer shall be compacted to the satisfaction of the Engineer by mechanical means. The

backfilling above this height shall be done according to Method 1, 2 or 3 as described below, with the following exceptions.

When trench backfill or excavated material meeting the requirements of Section 208 is required above the first 300 mm (1 ft) of the pipe, the layers shall not exceed 200 mm (8 in.). Gradations CA6 or CA10 shall not be used with Method 2 or Method 3.

Method 1. The material shall be deposited in uniform layers not exceeding 300 mm (1 ft) thick, loose measurement, and each layer shall be compacted to the satisfaction of the Engineer by mechanical means.

Method 2. The material shall be deposited in uniform layers not exceeding 300 mm (1 ft) thick, loose measurement, and each layer shall be either inundated or deposited in water.

Method 3. The trench shall be backfilled with loose material, and settlement secured by introducing water through holes jetted into the backfill to a point approximately 600 mm (2 ft) above the top of the pipe. The holes shall be spaced as directed by the Engineer but shall be no farther than 2 m (6 ft) apart.

The water shall be injected at a pressure just sufficient to sink the holes at a moderate rate of speed. The pressure shall be such that the water will not cut cavities in the backfill material nor overflow the surface. If water does overflow the surface, it shall be drained into the jetted holes by means of shallow trenches.

Water shall be injected as long as it will be absorbed by the backfill material and until samples taken from test holes in the trench show a satisfactory moisture content. The Contractor shall bore the test holes not more than 15 m (50 ft) apart and at such other locations in the trench designated by the Engineer. As soon as the watersoaking has been completed, all holes shall be filled with soil and compacted by ramming with a tool approved by the Engineer.

Backfill material which has been watersoaked shall be allowed to settle and dry for at least 10 days before any surface course or pavement is constructed on it. The length of time may be altered, if deemed desirable, by the Engineer. Where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder or sidewalk, the provisions of this paragraph shall also apply.

At the end of the settling and drying period, the crusted top of the backfill material shall be scarified and, if necessary, sufficient backfill material added, as specified in Method 1, to complete the backfilling operations.

The method used for backfilling and compacting the backfill material shall be the choice of the Contractor. If the method used does not produce results satisfactory to the Engineer, the Contractor will be required to alter or change the method being used so the resultant backfill will be satisfactory to the Engineer. Should the Contractor be required to alter or change the

method being used, no additional compensation will be allowed for altering or changing the method.

The Contractor may, at his/her expense, backfill the entire trench with controlled low strength material meeting the approval of the Engineer.

When sheeting and bracing have been used, sufficient bracing shall be left across the trench as the backfilling progresses to hold the sides firmly in place without caving or settlement. This bracing shall be removed as soon as practicable. Any depressions which may develop within the area involved in the construction operation due to settlement of the backfilling material shall be filled in a manner approved by the Engineer.

When the Contractor constructs the trench with sloped or benched sides according to Article 550.04, backfilling for the full width of the excavation shall be as specified, except no additional compensation will be allowed for trench backfill material required outside the vertical limits of the specified trench width.

Whenever excavation is made for installing sewer pipe across earth shoulders or private property, the topsoil disturbed by excavation operations shall be replaced as nearly as possible in its original position, and the whole area involved in the construction operations shall be left in a neat and presentable condition.

When using any PVC pipe, the pipe shall be backfilled with aggregate to 300 mm (1 ft) over the top of the pipe and compacted to a minimum of 85 percent of standard lab density by mechanical means.

When reinforced concrete pipes are used and the trench is within 600 mm (2 ft) of the pavement structure, the backfill shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

Deflection Testing for Storm Sewers. All PVC storm sewers will be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted.

For PVC storm sewers with diameters 600 mm (24 in.) or smaller, a mandrel drag shall be used for deflection testing. For PVC storm sewers with diameters over 600 mm (24 in.), deflection measurements other than by a mandrel drag shall be used.

Where the mandrel is used, the mandrel shall be furnished by the Contractor and pulled by hand through the pipeline with a suitable rope or cable connected to each end. Winching or other means of forcing the deflection gauge through the pipeline will not be allowed.

The mandrel shall be of a shape similar to that of a true circle enabling the gauge to pass through a satisfactory pipeline with little or no resistance. The mandrel shall be of a design to prevent it from tipping from side to side and to prevent debris build-up from occurring between the channels of the adjacent fins or legs during operation. Each end of the core of the mandrel shall have fasteners to which the pulling cables can be attached. The mandrel shall have 9,

various sized fins or legs of appropriate dimension for various diameter pipes. Each fin or leg shall have a permanent marking that states its designated pipe size and percent of deflection allowable.

The outside diameter of the mandrel shall be 95 percent of the base inside diameter, where the base inside diameter is:

For all PVC pipe (as defined using ASTM D 3034 methodology):

If the pipe is found to have a deflection greater than specified, that pipe section shall be removed, replaced, and retested."

Revise subparagraph (c) of Article 1003.04 of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation shall be as follows:

Backfill, bedding and trench backfill for pipe culverts and storm sewers	FA 1, FA 2, FA 6, or FA 21
Porous granular embankment and backfill, french drains, and sand backfill for underdrains	FA 1, FA 2, or FA20 (Note 1)

Note 1: For FA 1, FA 2, and FA 20 the percent passing the 75 μm (No. 200) sieve shall be 2 ± 2."

Revise the title of Article 1004.06 of the Standard Specifications to read:

"Coarse Aggregate for Blotter, Embankment, Backfill, Trench Backfill, French Drains, and Bedding."

Add the following to the end of subparagraph (c) of Article 1004.06 of the Standard Specifications:

"Backfill, bedding, and trench backfill for pipe culverts and storm sewers	CA 6, CA 10, and CA 18"

80051

CONCRETE ADMIXTURES (BDE)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

allowed for concrete placed underwater. Cement factor reductions shall not be cumulative when using multiple admixtures.

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

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

Revise Section 1021 of the Standard Specifications to read:

"SECTION 1021. CONCRETE ADMIXTURES

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

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

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

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

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

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

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

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

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

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

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

(a) The retarding admixture shall comply with the requirements of AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).

(b) The water-reducing admixture shall comply with the requirements of AASHTO M 194, Type A.

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

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

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

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

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

prior to addition of the Type F or Type G admixture, except as approved by the Engineer.

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

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

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

80094

CURB RAMPS FOR SIDEWALK (BDE)

Effective: January 1, 2004

Description. This work shall consist of constructing sidewalk curb ramps with detectable warnings in compliance with the Americans with Disabilities Act, Accessibility Guidelines (ADAAG). Work shall be according to Section 424 of the Standard Specifications except as modified herein.

The detectable warnings shall consist of an area of truncated domes that provide both visual and tactile cues to pedestrians who are about to enter into traffic. The warning area shall begin 150 mm (6 in.) from the back of the curb and continue 600 mm (2 ft) in the direction of pedestrian travel for the entire width of the walking surface.

The detectable warnings shall also present a contrast in color from the adjacent sidewalk. This shall be accomplished by constructing the warning area, plus the 150 mm (6 in.) area between the warning area and the back of curb, out of concrete that is integrally colored red. However if the sidewalk is brick or of some dark color, the contrast requirement shall be achieved with normal (grey), Class SI concrete.

Materials. Materials for the detectable warning area of the curb ramps shall meet the following requirements.

a) Integrally Colored Concrete. Integrally colored concrete shall be according to Section 1020 of the Standard Specification for Class SI concrete except as follows.

Article 1020.04	The allowable water/cement ratio range shall be 0.40 minimum to 0.44 maximum.
Article 1020.04	The allowable slump range shall be 75 mm (3 in.) minimum to 125 mm (5 in.) maximum.
Article 1020.04	The allowable coarse aggregate gradations shall be CA 11, CA 13, CA 14, and CA 16.
Article 1020.05(b)	A calcium chloride accelerating admixture shall not be used.
Article 1020.05(b)	The cement factor shall not be reduced if a water-reducing or high range water-reducing admixture is used.
Article 1020.05(c)	Fly ash shall not be used.
Article 1020.05(k)	Ground granulated blast-furnace slag shall not be used.
Article 1020.11	Pigment for integrally colored concrete shall be added to the concrete and mixed per the Manufacturer's recommendation.

Article 1020.13 The curing method shall be Type I membrane curing.

Article 1020.13. The protection method shall be according to Article 1020.13(e)(1) and the protection period shall be 96 hours. No material, including the insulating material, shall be placed in direct contact with the concrete surface.

(b) Pigment for Integrally Colored Concrete. The pigment shall meet the requirements of ASTM C 979, match color number 30166 of Federal Standard 595, and be on the Department's Approved List of Pigments for Integrally Colored Concrete.

(c) Release Agent for Concrete Stamping Tools. The release agent shall be according to the stamping tool manufacturer's recommendations and the following: it shall be a clear liquid that will evaporate, it shall not harm the concrete, and it shall allow the application of Type I membrane curing.

Equipment. Equipment for the detectable warning area of the curb ramps shall meet the following requirements.

(a) Concrete Stamps. Sufficient numbers and sizes of stamps shall be furnished to cover the various widths of the curb ramps. The stamps shall have an air opening at the top of each truncated dome recess; and shall be rigid enough to evenly distribute the force exerted during tamping.

(b) Tamper. The tamper shall be according to the concrete stamp manufacturer's recommendations.

CONSTRUCTION REQUIREMENTS

Stamping. The concrete shall be placed and finished according to Article 424.06 except the area to be stamped shall not be brushed. When the bleed water has been absorbed, stamping shall begin. The entire width of the curb ramp shall be stamped at the same time. A single stamp or a combination of stamps may be used.

Prior to placing the stamp on the concrete, the stamp shall be coated with the release agent. When recommended by the manufacturer, the release agent shall also be applied to the concrete surface. Once the stamp has been placed on the ramp, it shall remain down until the stamping is complete.

The entire area of the stamp shall be tamped with a short, slow, repetitive action such that the concrete is caused to move up and into the dome recesses of the stamp. Tamping shall continue until mortar has come through the air openings in the stamp. Stepping or walking on the stamp will not be allowed. The base elevation of the domes shall be even with the adjacent sidewalk surface; the stamp shall not be forced down into the concrete.

When stamping is complete, the stamp shall be removed and the concrete cured.

Upon completion of curing, or after cold weather protection if required, the protruding mortar tip on the top of each dome shall be removed and the dome rubbed or ground smooth.

80113

CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)

Effective: January 1, 2004

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Notes-General:

1/ Type I, membrane curing only

2/ Type II, membrane curing only

3/ Type III, membrane curing only

4/ Type I, II and III membrane curing

5/ Membrane curing will not be permitted between November 1 and April 15.

6/ The use of water to inundate footings, foundation seals or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 7 °C (45 °F) or higher.

7/ Asphalt Emulsion for Waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18.

8/ On non-traffic surfaces which receive protective coat according to Article 503.19, a linseed oil emulsion curing compound may be used as a substitute for protective coat and other curing methods. The linseed emulsion curing compound will be permitted between April 16 and October 31 of the same year, provided it is applied with a mechanical sprayer according to Article 1101.09 (b), and meets the material requirements of Article 1022.07.

9/ Steam curing (heat and moisture) is acceptable and shall be accomplished by the method specified in Article 504.06(c)(6).

10/ A moist room according to AASHTO M 201 is acceptable for curing.

11/ If curing is required and interrupted because of form removal for cast-in-place concrete items, precast concrete products, or precast prestressed concrete products, the curing shall be resumed within two hours from the start of the form removal.

12/ Curing maintained only until opening strength is attained, with a maximum curing period of three days.

13/ The curing period shall end when the concrete has attained the mix design strength. The producer has the option to discontinue curing when the concrete has attained 80 percent of the mix design strength or after seven days. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.

14/ The producer shall determine the curing period or may elect to not cure the product. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.

15/ The producer has the option to continue curing after strand release.

16/ When structural steel or structural concrete is in place above slope wall, Article 1020.13(c) shall not apply. The protection method shall be according to Article 1020.13(e)(1).

17/ When Article 1020.13(e)(2) is used to protect the deck, the housing may enclose only the bottom and sides. The top surface shall be protected according to Article 1020.13(e)(1).

18/ For culverts having a waterway opening of 1 sq m (10 sq ft) or less, the culverts may be protected according to Article 1020.13(e)(3).

19/ The seven day protection period in the first paragraph of Article 1020.13(e)(2) shall not apply. The protection period shall end when curing is finished. For the third paragraph of Article 1020.13(e)(2), the decrease in temperature shall be according to Article 504.06(c)(6)."

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Revise Article 1020.14 of the Standard Specifications to read:

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

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

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

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

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

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

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

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

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

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

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

80114

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: June 1, 2004

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

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

> The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of federally-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 recipient deems appropriate.

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

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 8 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

(a) The bidder documents that firmly committed DBE participation has been obtained to meet the goal; or

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

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

BIDDING PROCEDURES. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid nonresponsive.

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

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number and telefax number of a

responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The name and address of each DBE to be used;

(2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;

(3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and

(5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).

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

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

are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100% goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100% goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100% goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE firm does not count toward the DBE goal.

(d) DBE as a trucker: 100% goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed and insured by the DBE must be used on the contact. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.

(e) DBE as a material supplier:

(1) 60% goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100% goal credit for the cost of materials or supplies obtained from a DBE manufacturer.

(3) 100% credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

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

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors 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 contractor'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 contractor'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 Contractor has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five (5) working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.

(c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five (5) working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to

extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten (10) working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid nonresponsive.

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

(a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) All work indicated for performance by an approved DBE shall be performed, managed and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor

shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

(c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty (30) calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the District Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

(d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

80029

EPOXY COATING ON REINFORCEMENT (BDE)

Effective: April 1, 1997
Revised: January 1, 2003

For work outside the limits of bridge approach pavement, all references to epoxy coating in the Highway Standards and Standard Specifications for reinforcement, tie bars and chair supports will not apply for pavement, shoulders, curb, gutter, combination curb and gutter and median.

31578

EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2001
Revised: November 1, 2001

When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will direct the Contractor in writing to correct the deficiency. The Contractor shall then correct the deficiency within 24 hours. The deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities.

If the Contractor fails to correct the deficiency(s) within 24 hours, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The time period will begin with the initial written notification to the Contractor and end with the Engineer's acceptance of the corrected work. The per calendar day deduction will be either $1000.00 or 0.05 percent of the awarded contract value, whichever is greater.

If the Contractor fails to respond, the Engineer may correct the deficiencies and deduct the cost from monies due or which may become due the Contractor. This corrective action shall in no way relieve the Contractor of his/her contractual requirements or responsibilities.

80055

EXPANSION JOINTS (BDE)

Effective: August 1, 2003

Add the following paragraph after the second paragraph of Article 420.10(e) of the Standard Specifications:

"After the dowel bars are oiled, plastic expansion caps shall be secured to the bars maintaining a minimum expansion gap of 50 mm (2 in.) between the end of the bar and the end of the cap. The caps shall fit snuggly on the bar and the closed end shall be watertight. For expansion joints formed using dowel bar basket assemblies, the caps shall be installed on the alternating free ends of the bars. For expansion joints formed using a construction header, the caps shall be installed on the exposed end of each bar once the header has been removed and the joint filler material has been installed."

80103

FLAGGER VESTS (BDE)

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

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

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

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

"(6) Nighttime Flagging. The flagger station shall be lit by additional overhead lighting other than streetlights. The flagger shall be equipped with a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green garment meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 3 garments."

80101

FREEZE-THAW RATING (BDE)

Effective: November 1, 2002

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

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

80079

HAND VIBRATOR (BDE)

Effective: November 1, 2003

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

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

80054

PARTIAL PAYMENTS (BDE)

Effective: September 1, 2003

Revise Article 109.07 of the Standard Specifications to read:

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

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

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

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

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

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

80116

PAYMENTS TO SUBCONTRACTORS (BDE)

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

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

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

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

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

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

80022

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: July 1, 2004

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

80130

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2002

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

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

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

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

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

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

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

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

80083

PRECAST CONCRETE PRODUCTS (BDE)

Effective: July 1, 1999
Revised: November 1, 2004

Product Approval. Precast concrete products shall be produced according to the Department's current Policy Memorandum, "Quality Control/Quality Assurance Program for Precast Concrete Products". The Policy Memorandum applies to precast concrete products listed under the Products Key of the "Approved List of Certified Precast Concrete Producers".

Precast Concrete Box Culverts. Add the following sentence to the end of the fourth paragraph of Article 540.06:

"After installation, the interior and exterior joint gap between precast concrete box culvert sections shall not exceed 38 mm (1 1/2 in.)."

Portland Cement Replacement. For precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or ground granulated blast-furnace (GGBF) slag shall be governed by the AASHTO or ASTM standard specification referenced in the Standard Specifications.

For all other precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or GGBF slag shall be approved by the Engineer. Class F fly ash shall not exceed 15 percent by mass (weight) of the total portland cement and Class F fly ash. Class C fly ash shall not exceed 20 percent by mass (weight) of the total portland cement and Class C fly ash. GGBF slag shall not exceed 25 percent by mass (weight) of the total portland cement and GGBF slag.

Concrete mix designs, for precast concrete products, shall not consist of portland cement, fly ash and GGBF slag.

Ready-Mixed Concrete. Delete the last paragraph of Article 1020.11(a) of the Standard Specifications.

Shipping. When a precast concrete product has attained the specified strength, the earliest the product may be loaded, shipped, and used is on the fifth calendar day. The first calendar day shall be the date casting was completed.

Acceptance. Products which have been lot or piece inspected and approved by the Department prior to July 1, 1999, will be accepted for use on this contract.

419.doc

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products. The design and testing of a self-consolidating concrete mixture shall be according to Section 1020 of the Standard Specifications except as modified herein.

Materials. Materials shall conform to the following requirements:

(a) Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a flowable concrete that does not require mechanical vibration.

The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F.

The viscosity modifying admixture will be evaluated according to the test methods and mix design proportions referenced in AASHTO M 194, except the following physical requirements shall be met:

(1) For initial and final set times, the allowable deviation of the test concrete from the reference concrete shall not be more than 1.0 hour earlier or 1.5 hours later.

(2) For compressive and flexural strengths, the test concrete shall be a minimum of 90 percent of the reference concrete at 3, 7 and 28 days.

(3) The length change of the test concrete shall be a maximum 135 percent of the reference concrete. However, if the length change of the reference concrete is less than 0.030 percent, the length change of the test concrete shall be a maximum 0.010 percentage units greater than the reference concrete.

(4) The relative durability factor of the test concrete shall be a minimum 80 percent.

(b) Fine Aggregate. A fine aggregate used alone in the mix design shall not have an expansion greater than 0.30 percent per ASTM C 1260. For a blend of two or more fine aggregates, the resulting blend shall not have an expansion greater than 0.30 percent.

The aggregate blend expansion will be calculated as follows:

Aggregate Blend Expansion = (a/100 x A) + (b/100 x B) + (c/100 x C) + ...etc.

Where: a, b, c, ... = percent of aggregate blend
A, B, C, ... = aggregate expansion according to ASTM C 1260

Mix Design Criteria. The slump requirements of Article 1020.04 of the Standard Specifications shall not apply. In addition, the allowable coarse aggregate gradations shall be CA 11, CA 13, CA 14, CA 16, or a blend of these gradations. The fine aggregate proportion shall be a maximum 50 percent by mass (weight) of the total aggregate used.

Trail Batch. A minimum 1 cu m (1 cu yd) trial batch shall be produced. The mixture will be evaluated for air content, slump flow, visual stability index, compressive strength, passing ability, and static/dynamic segregation resistance.

The trial batch shall be scheduled and performed in the presence of the Engineer. Testing shall be performed per the Department's test method or as approved by the Engineer.

For the trial batch, the air content shall be within the top half of the allowable specification range. The slump flow range shall be 510 mm (20 in.) minimum to 710 mm (28 in.) maximum. The visual stability index shall be a maximum of 1. Strength shall be determined at 28 days. At the Contractor's option, strength may be determined for additional days.

Passing ability and static/dynamic segregation resistance shall be determined by tests selected by the Contractor and approved by the Engineer. The visual stability index shall not be used as the sole criteria for evaluating static segregation resistance.

After an acceptable mixture has been batched and tested, the mixture shall also be evaluated for robustness. Robustness shall be evaluated by varying the dosage of the self-consolidating admixture system and water separately. Additional trial batches may be necessary to accomplish this.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

Quality Control. Once testing is completed and acceptable results have been attained, production test frequencies and allowable test ranges for slump flow, visual stability index, passing ability, and static/dynamic segregation resistance shall be proposed. The production test frequencies and allowable test ranges will be approved by the Engineer.

The slump flow range shall be ± 50 mm (± 2 in.) of the target value, and within the overall range of 510 mm (20 in.) minimum to 710 mm (28 in.) maximum. The visual stability index shall be a maximum of 1. The approved test ranges for passing ability and static/dynamic segregation resistance will be based on recommended guidelines determined by the Engineer.

80132

SUBGRADE PREPARATION (BDE)

Effective: November 1, 2002

Revise the tenth paragraph of Article 301.03 of the Standard Specifications to read:

"Equipment of such weight, or used in such a way as to cause a rut in the finished subgrade of 13 mm (1/2 in.) or more in depth, shall be removed from the work or the rutting otherwise prevented."

80086

SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000
Revised: April 1, 2004

Description. This work shall consist of designing, producing and constructing Superpave bituminous concrete mixtures using Illinois Modified Strategic Highway Research Program (SHRP) Superpave criteria. This work shall be according to Sections 406 and 407 of the Standard Specifications and the special provision, "Quality Control/Quality Assurance of Bituminous Concrete Mixtures", except as follows.

Materials.

(a) Fine Aggregate Blend Requirement. The Contractor may be required to provide FA 20 manufactured sand to meet the design requirements. For mixtures with Ndesign ≥ 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation.

(b) Reclaimed Asphalt Pavement (RAP). If the Contractor is allowed to use more than 15 percent RAP, as specified in the plans, a softer performance-graded binder may be required as determined by the Engineer.

RAP shall meet the requirements of the special provision, "RAP for Use in Bituminous Concrete Mixtures".

RAP will not be permitted in mixtures containing polymer modifiers.

RAP containing steel slag will be permitted for use in top-lift surface mixtures only.

(c) Bituminous Material. The asphalt cement (AC) shall be performance-graded (PG) or polymer modified performance-graded (SBS-PG or SBR-PG) meeting the requirements of Article 1009.05 of the Standard Specifications for the grade specified on the plans.

The following additional guidelines shall be used if a polymer modified asphalt is specified:

(1) The polymer modified asphalt cement shall be shipped, maintained, and stored at the mix plant according to the manufacturer's requirements. Polymer modified asphalt cement shall be placed in an empty tank and shall not be blended with other asphalt cements.

(2) The mixture shall be designed using a mixing temperature of 163 ± 3 °C (325 ± 5 °F) and a gyratory compaction temperature of 152 ± 3 °C (305 ± 5 °F).

(3) Pneumatic-tired rollers will not be allowed unless otherwise specified by the Engineer. A vibratory roller meeting the requirements of Article 406.16 of the

Standard Specifications shall be required in the absence of the pneumatic-tired roller.

Laboratory Equipment.

(a) Superpave Gyratory Compactor. The superpave gyratory compactor (SGC) shall be used for all QC/QA testing.

(b) Ignition Oven. The ignition oven shall be used to determine the AC content. The ignition oven shall also be used to recover aggregates for all required washed gradations.

The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

Mixture Design. The Contractor shall submit mix designs, for approval, for each required mixture. Mix designs shall be developed by Level III personnel who have successfully completed the course, "Superpave Mix Design Upgrade". Articles 406.10 and 406.13 of the Standard Specifications shall not apply. The mixtures shall be designed according to the respective Illinois Modified AASHTO references listed below.

AASHTO MP 2	Standard Specification for Superpave Volumetric Mix Design
AASHTO R 30	Standard Practice for Mixture Conditioning of Hot-Mix Asphalt (HMA)
AASHTO PP 28	Standard Practice for Designing Superpave HMA
AASHTO T 209	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
AASHTO T 312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor
AASHTO T 308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method

(a) Mixture Composition. The ingredients of the bituminous mixture shall be combined in such proportions as to produce a mixture conforming to the composition limits by weight. The gradation mixture specified on the plans shall produce a mixture falling within the limits specified in Table 1.

TABLE 1. MIXTURE COMPOSITION (% PASSING)[1/]								
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm[4/]		IL-9.5 mm[4/]	
	min	max	min	max	min	max	min	max
37.5 mm (1 1/2 in.)		100						
25 mm (1 in.)	90	100		100				
19 mm (3/4 in.)		90	82	100		100		
12.5 mm (1/2 in.)	45	75	50	85	90	100		100
9.5 mm (3/8 in.)						89	90	100
4.75 mm (#4)	24	42[2/]	24	50[2/]	28	65	28	65
2.36 mm (#8)	16	31	20	36	28	48[3/]	28	48[3/]
1.18 mm (#16)	10	22	10	25	10	32	10	32
600 µm (#30)								
300 µm (#50)	4	12	4	12	4	15	4	15
150 µm (#100)	3	9	3	9	3	10	3	10
75 µm (#200)	3	6	3	6	4	6	4	6

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 40 percent passing the 4.75 mm (#4) sieve for binder courses with Ndesign ≥ 90.

3/ The mixture composition shall not exceed 40 percent passing the 2.36 mm (#8) sieve for surface courses with Ndesign ≥ 90.

4/ The mixture composition for surface courses shall be according to IL-12.5 mm or IL-9.5 mm, unless otherwise specified by the Engineer.

One of the above gradations shall be used for leveling binder as specified in the plans and according to Article 406.04 of the Standard Specifications.

It is recommended that the selected combined aggregate gradation not pass through the restricted zones specified in Illinois Modified AASHTO MP 2.

(b) Dust/AC Ratio for Superpave. The ratio of material passing the 75 μm (#200) sieve to total asphalt cement shall not exceed 1.0 for mixture design (based on total weight of mixture).

(c) Volumetric Requirements. The target value for the air voids of the hot mix asphalt (HMA) shall be 4.0 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the requirements listed in Table 2.

TABLE 2. VOLUMETRIC REQUIREMENTS

	Voids in the Mineral Aggregate (VMA), % minimum				Voids Filled with Asphalt (VFA), %
Ndesign	IL-25.0	IL-19.0	IL-12.5	IL-9.5	
50	12.0	13.0	14.0	15	65 - 78
70					65 - 75
90					
105					

(d) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified T 283 using 4 in. Marshall bricks. To be considered acceptable by the Department as a mixture not susceptible to stripping, the ratio of conditioned to unconditioned split tensile strengths (TSRs) shall be equal to or greater than 0.75. Mixtures, either with or without an additive, with TSRs less than 0.75 will be considered unacceptable.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option. The liquid additive shall be selected from the Department's list of approved additives and may be limited to those which have exhibited satisfactory performance in similar mixes.

Dry hydrated lime shall be added at a rate of 1.0 to 1.5 percent by weight of total dry aggregate. Slurry shall be added in such quantity as to provide the required amount of hydrated lime solids by weight of total dry aggregate. The exact rate of application for all anti-stripping additives will be determined by the Department. The method of application shall be according to Article 406.12 of the Standard Specifications.

Personnel. The QC Manager and Level I Technician shall have successfully completed the Department's "Superpave Field Control Course".

Required Plant Tests. Testing shall be conducted to control the production of the bituminous mixture. The Contractor shall use the test methods identified to perform the following mixture tests at a frequency not less than that indicated in Table 3.

TABLE 3. REQUIRED PLANT TESTS for SUPERPAVE

Parameter		Frequency of Tests	Test Method
Aggregate Gradation Hot bins for batch and continuous plants Individual cold-feeds or combined belt-feed for drier drum plants. (% passing sieves: 12.5 mm (1/2 in.), 4.75 mm (No. 4), 2.36 mm (No. 8), 600 µm (No. 30), 75 µm (No. 200))		1 dry gradation per day of production (either morning or afternoon sample). and 1 washed ignition oven test on the mix per day of production (conduct in afternoon if dry gradation is conducted in the morning or vice versa). NOTE. The order in which the above tests are conducted shall alternate from the previous production day (example: a dry gradation conducted in the morning will be conducted in the afternoon on the next production day and so forth). The dry gradation and washed ignition oven test results shall be plotted on the same control chart.	Illinois Procedure (See Manual of Test Procedures for Materials).
Asphalt Content by Ignition Oven (Note 1.)		1 per half day of production	Illinois Modified AASHTO T 308
Air Voids	Bulk Specific Gravity of Gyratory Sample	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois Modified AASHTO T 312
	Maximum Specific Gravity of Mixture		Illinois Modified AASHTO T 209

Note 1. The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the AC content.

During production, the ratio of minus 75 µm (#200) sieve material to total asphalt cement shall be not less than 0.6 nor more than 1.2 and the moisture content of the mixture at discharge from the mixer shall not exceed 0.5 percent. If at any time the ratio of minus 75 µm (#200) material to asphalt or moisture content of the mixture falls outside the stated limits, production of the mix shall cease. The cause shall be determined and corrective action satisfactory to the Engineer shall be initiated prior to resuming production.

During production, mixtures containing an anti-stripping additive will be tested by the Department for stripping according to Illinois Modified T 283. If the mixture fails to meet the TSR

criteria for acceptance, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria.

Construction Requirements

Lift Thickness.

(a) Binder and Surface Courses. The minimum compacted lift thickness for constructing bituminous concrete binder and surface courses shall be according to Table 4:

TABLE 4 – MINIMUM COMPACTED LIFT THICKNESS	
Mixture	Thickness, mm (in.)
IL-9.5	32 (1 1/4)
IL-12.5	38 (1 1/2)
IL-19.0	57 (2 1/4)
IL-25.0	76 (3)

(b) Leveling Binder. Mixtures used for leveling binder shall be as follows:

TABLE 5 – LEVELING BINDER	
Nominal, Compacted, Leveling Binder Thickness, mm (in.)	Mixture
≤ 32 (1 1/4)	IL-9.5
32 (1 1/4) to 50 (2)	IL 9.5 or IL-12.5

Density requirements shall apply for leveling binder when the nominal, compacted thickness is 32 mm (1 1/4 in.) or greater for IL-9.5 mixtures and 38 mm (1 1/2 in.) or greater for IL-12.5 mixtures.

(c) Full-Depth Pavement. The compacted thickness of the initial lift of binder course shall be 100 mm (4 in.). The compacted thickness of succeeding lifts shall meet the minimums specified in Table 4 but not exceed 100 mm (4 in.).

If a vibratory roller is used for breakdown, the compacted thickness of the binder lifts, excluding the top lift, may be increased to 150 mm (6 in.) provided the required density is obtained.

(d) Bituminous Patching. The minimum compacted lift thickness for constructing bituminous patches shall be according to Table 4.

Control Charts/Limits. Control charts/limits shall be according to QC/QA Class I requirements, except density shall be plotted on the control charts within the following control limits:

TABLE 6. DENSITY CONTROL LIMITS		
Mixture	Parameter	Individual Test
12.5 mm / 9.5 mm	Ndesign ≥ 90	92.0 – 96.0%
12.5 mm / 9.5 mm	Ndesign < 90	92.5 – 97.4%
19.0 mm / 25.0 mm	Ndesign ≥ 90	93.0 – 96.0%
19.0 mm / 25.0 mm	Ndesign < 90	93.0 – 97.4%

Basis of Payment. On resurfacing projects, this work will be paid for at the contract unit price per metric ton (ton) for BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On resurfacing projects in which polymer modifiers are required, this work will be paid for at the contract unit price per metric ton (ton) for POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, POLYMERIZED LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On full-depth pavement projects, this work will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE PAVEMENT, (FULL-DEPTH), SUPERPAVE, of the thickness specified.

On projects where widening is constructed and the entire pavement is then resurfaced, the binder for the widening will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition, Ndesign, and thickness specified. The surface and binder used to resurface the entire pavement will be paid for according to the paragraphs above for resurfacing projects.

80010

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revise the fifth sentence of the third paragraph of Article 280.04(a) of the Standard Specifications to read:

"This work may be constructed of hay or straw bales, extruded UV resistant high density polyethylene panels, erosion control blanket, mulch barrier, aggregate barriers, excavation, seeding, or mulch used separately or in combination, as approved, by the Engineer."

Add the following paragraphs after the fifth paragraph of Article 280.04(a) of the Standard Specifications.

"A ditch check constructed of extruded, UV resistant, high density polyethylene panels, "M" pins and erosion control blanket shall consist of the following materials:

Extruded, UV resistant, high density polyethylene panels shall have a minimum height of 250 mm (10 in.) and minimum length of 1.0 m (39.4 in.). The panels shall have a 51 mm (2 in.) lip along the bottom of the panel. Each panel shall have a single rib thickness of 4 mm (5/32 in.) with a 12 mm (1/2 in.) distance between the ribs. The panels shall have an average apparent opening size equal to 4.75 mm (No. 4) sieve, with an average of 30 percent open area. The tensile strength of each panel shall be 26.27 kN/m (1800 lb/ft) in the machine direction and 7.3 kN/m (500 lb/ft) in the transverse direction when tested according to ASTM D 4595.

"M" pins shall be at least 76 mm (3 in.) by 686 mm (27 in.), constructed out of deformed grade C1008 D3.5 rod (0.211 in. diameter). The rod shall have a minimum tensile strength of 55 MPa (8000 psi).

Erosion control blanket shall conform to Article 251.04.

A section of erosion control blanket shall be placed transverse to the flowline direction of the ditch prior to the construction of the polyethylene ditch check. The length of the section shall extend from the top of one side of the ditch to the top of the opposite side of the ditch, while the width of the section shall be one roll width of the blanket. The upstream edge of the erosion control blanket shall be secured in a 100 mm (4 in.) trench. The blanket shall be secured in the trench with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge before the trench is backfilled. Once the upstream edge of the blanket is secured, the downstream edge shall be secured with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge. The polyethylene ditch check shall be installed in the middle of the erosion control blanket, with the lip of each panel facing outward.

The ditch check shall consist of two panels placed back to back forming a single row. Placement of the first two panels shall be at the toe of the backslope or sideslope, with the panels extending across the bottom of the ditch. Subsequent panels shall extend both across the bottom of the ditch and up the opposite sideslope, as well as up the original backslope or sideslope at the distance determined by the Engineer.

The M pins shall be driven through the panel lips to secure the panels to the ground. M pins shall be installed in the center of the panels with adjacent panels overlapping the ends a minimum of 50 mm (2 in.). The pins shall be placed through both sets of panels at each overlap. They shall be installed at an interval of three M pins per one meter (39 in.) length of ditch check. The panels shall be wedged into the M pins at the top to ensure firm contact between the entire bottom of the panels and the soil."

80087

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 1992
Revised: January 1, 2005

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

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

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

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

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

57291

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 2 . 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.

BASIS OF PAYMENT 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.

20338

TRUCK BED RELEASE AGENT (BDE)

Effective: April 1, 2004

Add the following sentence after the third sentence of the first paragraph of Article 406.14 of the Standard Specifications.

"In addition to the release agent, the Contractor may use a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle."

80123

WEIGHT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2001
Revised: August 1, 2002

The Contractor shall provide accurate weights of materials delivered to the contract for incorporation into the work (whether temporary or permanent) and for which the basis of payment is by weight. These weights shall be documented on delivery tickets which shall identify the source of the material, type of material, the date and time the material was loaded, the contract number, the net weight, the tare weight when applicable and the identification of the transporting vehicle. For aggregates, the Contractor shall have the driver of the vehicle furnish or establish an acceptable alternative to provide the contract number and a copy of the material order to the source for each load. The source is defined as that facility that produces the final material product that is to be incorporated into the contract pay items.

The Department will conduct random, independent vehicle weight checks for material sources according to the procedures outlined in the Documentation Section Policy Statement of the Department's Construction Manual and hereby incorporated by reference. The results of the independent weight checks shall be applicable to all contracts containing this Special Provision. Should the vehicle weight check for a source result in the net weight of material on the vehicle exceeding the net weight of material shown on the delivery ticket by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. No adjustment in pay quantity will be made. Should the vehicle weight check for a source result in the net weight of material shown on the delivery ticket exceeding the net weight of material on the vehicle by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. The Engineer will adjust the net weight shown on the delivery ticket to the checked delivered net weight as determined by the independent vehicle weight check.

The Engineer will also adjust the method of measurement for all contracts for subsequent deliveries of all materials from the source based on the independent weight check. The net weight of all materials delivered to all contracts containing this Special Provision from this source, for which the basis of payment is by weight, will be adjusted by applying a correction factor "A" as determined by the following formula:

$$A = 1.0 - \left(\frac{B-C}{B}\right); \text{ Where } A \leq 1.0; \left(\frac{B-C}{C}\right) > 0.50\% \text{ (0.70\% for aggregates)}$$

Where A = Adjustment factor
B = Net weight shown on delivery ticket
C = Net weight determined from independent weight check

The adjustment factor will be applied as follows:

Adjusted Net Weight = A x Delivery Ticket Net Weight

The adjustment factor will be imposed until the cause of the deficient weight is identified and corrected by the Contractor to the satisfaction of the Engineer. If the cause of the deficient weight is not identified and corrected within seven (7) calendar days, the source shall cease delivery of all materials to all contracts containing this Special Provision for which the basis of payment is by weight.

Should the Contractor elect to challenge the results of the independent weight check, the Engineer will continue to document the weight of material for which the adjustment factor would be applied. However, provided the Contractor furnishes the Engineer with written documentation that the source scale has been calibrated within seven (7) calendar days after the date of the independent weight check, adjustments in the weight of material paid for will not be applied unless the scale calibration demonstrates that the source scale was not within the specified Department of Agriculture tolerance.

At the Contractor's option, the vehicle may be weighed on a second independent Department of Agriculture certified scale to verify the accuracy of the scale used for the independent weight check.

80048

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

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

Add the following to Article 702.01 of the Standard Specifications:

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

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

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

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

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

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

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

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

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

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

Add the following to Article 702.03 of the Standard Specifications:

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

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

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

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

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

80097

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 110 working days.

80071

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. These contract provisions shall apply to all word 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.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4 and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

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 and 41 CFR 60 (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 Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American 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 State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his 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, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO 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 minority group employees.

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 minority groups 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 employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group 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, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group 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 his 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 his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

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 minority group and women employees 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 his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best 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 SHA 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 minority and women 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 quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 SHA.

8. 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.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. 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 completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority 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;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA 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. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term “segregated facilities” means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter “the wage determination”) which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the

contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional 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 question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advised the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost 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.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) 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 DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/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 Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 wage determination for the work actually performed. Where a contractor or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) 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 journeyman-level 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) 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 DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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. Helpers:
Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. 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.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required 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 SHA contracting officer 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.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies 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 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period).

The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V.

This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all suncontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such 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 the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. 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 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U/S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for

inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on /Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

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 he contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted form the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly 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, assignee, or agent of the prime contractor.

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 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 VII 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 SHA 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 SHA 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 SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

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 SHA 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. 333).

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. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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, the following notice 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:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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 not more than $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary 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 participant shall submit an 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 primary 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 department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary 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,""lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary 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 primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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.

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.

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Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-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;

c. 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 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary 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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2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

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," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tie 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.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

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 dealing.

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.

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Certification Regarding Debarment, Suspension, Ineligibility And Voluntary Exclusion-Lower Tier Covered Transactions:

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 participation in this transaction 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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XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(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 his or her bid or proposal that he or she 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

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at http://www.dot.il.gov/desenv/delett.html.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at http://www.dot.il.gov/desenv/subsc.html.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.