# Supplemental Specifications and Recurring Special Provisions

Adopted January 1, 2012



## **INTRODUCTION**

This book contains a copy of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

The SUPPLEMENTAL SPECIFICATIONS included herein supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012. The SUPPLEMENTAL SPECIFICATIONS are applicable to, and included by reference in, all contracts advertised and awarded by the Department.

The frequently used RECURRING SPECIAL PROVISIONS included herein may be included, by reference, in selected contracts advertised and awarded by the Department.

Bidding proposals issued by the Department may contain a "Check Sheet for Recurring Special Provisions" which specifies the RECURRING SPECIAL PROVISIONS applicable to and included in contracts by reference.

The units of measure used shall correspond to the units used in the contract.

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## INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

## Adopted January 1, 2012

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

No ERRATA this year.

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Std. Spec. Sec.

Page No.

No Supplemental Specifications this year.

# RECURRING SPECIAL PROVISIONS

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#### SPECIAL PROVISION FOR ADDITIONAL STATE REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

Effective: February 1, 1969 Revised: January 1, 2010

The following provisions are State of Illinois requirements and are in addition to the Federal requirements contained in FHWA-1273, "Required Contract Provisions Federal-Aid Construction Contracts".

"EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future Contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this contract, the Contractor agrees as follows:

- (1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
- (4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of

the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

- (5) That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (6) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (7) That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

#### **"STATEMENTS AND PAYROLLS**

The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number.). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

# "SUBLETTING OR ASSIGNING THE CONTRACT

The requirements of Section VII of FHWA-1273 are hereby made applicable to Secondary Road Plan Projects."

#### SPECIAL PROVISION FOR SUBLETTING OF CONTRACTS (FEDERAL-AID CONTRACTS)

Effective: January 1, 1988 Revised: May 1, 1993

This Special Provision supersedes paragraph VII of FHWA-1273, "Required Contract Provisions Federal-Aid Construction Contracts".

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title or interest therein, without written consent of the Engineer. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with the Contractor's own organization, work amounting to not less than 50 percent of the total contract cost, except any items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his/her own organization. Materials purchased or produced by the Contractor must be incorporated into the project by the Contractor's own organization if their cost is to be applied to the 50 percent requirement.

No subcontracts, or transfer of contract, shall in any case release the Contractor of his/her liability under the contract and bonds. All transactions of the Engineer will be with the Contractor. The Contractor shall have a representative on the job at all times when either contract or subcontract work is being performed.

All requests to subcontract shall contain a certification the subcontract agreement exists in writing and physically contains the required Federal and State Equal Employment Opportunity provisions and Labor compliance provisions, including the contract minimum wage requirements. The Contractor shall permit Department or Federal representatives to examine the subcontract agreements upon notice.

#### SPECIAL PROVISION FOR EEO

## Effective: July 21, 1978 Revised: November 18, 1980

The requirements of the following provisions written for federally-assisted construction contracts, including all goals and timetables and affirmative action steps, shall also apply to all State-funded construction contracts awarded by the Illinois Department of Transportation.

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

- 1. The offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- 2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

# APPENDIX A

The following goal for female utilization in each construction craft and trade shall apply to all Contractors holding federal and federally-assisted construction contracts and subcontracts in excess of \$10,000. The goal is applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a federal, federally assisted or nonfederally related construction contract or subcontract.

# Area Covered (Statewide)

Goals for Women apply nationwide.

GOAL

Goal (percent)

Female Utilization

6.9

#### APPENDIX B

Until further notice, the following goals for minority utilization in each construction craft and trade shall apply to all Contractors holding federal or federally-assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to the Contractor's total on-site construction workforce,

regardless of whether or not part of that workforce is performing work on a federal, federally-assisted or nonfederally related construction contract or subcontract.

	Economic Area	Goal (percent)
056	Paducah, KY: Non - SMSA Counties - IL - Hardin, Massac, Pope KY - Ballard, Caldwell, Calloway, Carlisle Crittenden, Fulton, Graves, Hickma Livingston, Lyon, McCracken, Mar	an,
080	Evansville, IN: Non-SMSA Counties IL - Edwards, Gallatin, Hamilton, Lawren Saline, Wabash, White IN - Dubois, Knox, Perry, Pike, Spencer KY - Hancock, Hopkins, McLean, M Ohio, Union, Webster	
081	Terre Haute, IN: Non-SMSA Counties - IL - Clark, Crawford KY - Parke	2.5
083	Chicago, IL SMSA Counties: 1600 Chicago, IL - IL - Cook, DuPage, Kane Lake, McHenry, Will 3740 Kankakee, IL - IL - Kankakee	19.6 9.1
	Non-SMSA Counties - IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnar IN - Jasper, Laporte, Newton, Pulaski, Starke	18.4 n
084	Champaign - Urbana, IL: SMSA Counties: 1400 Champaign - Urbana - Rantou IL - Champaign Non-SMSA Counties - IL - Coles, Cumberland, Douglas Edgar, Ford, Piatt, Vermilion	ıl, IL - 7.8 4.8

Springfield - Decatur, IL:	
2040 Decatur, IL -	7.6
7880 Springfield, IL - IL - Menard, Sangamon	4.5
IL -Cass, Christian, DeWitt, Logan, Morgan, Moultrie, Scott, Shelby	4.0
Quincy, IL: Non-SMSA Counties - IL - Adams, Brown, Pike MO - Lewis, Marion, Pike Rails	3.1
Peoria, IL:	
1040 Bloomington - Normal, IL -	2.5
6120 Peoria, IL -	4.4
Non-SMSA Counties - IL - Fulton, Knox, McDonough, Marshall,	3.3
SMSA Counties: 6880 Rockford, IL -	6.3
Non-SMSA Counties - IL - Lee, Ogle, Stephenson	4.6
Dubuque, IA: Non-SMSA Counties - IL - JoDaviess IA - Atlamakee, Clayton, Delaware, Jackson, Winnesheik	0.5
WI - Crawford, Grant, Lafayette	
Davenport, Rock Island, Moline, IA - SMSA Counties: 1960 Davenport, Rock Island, Moline, IA - IL IL - Henry, Rock Island IA – Scott	
Non-SMSA Counties - IL - Carroll, Hancock, Henderson, Mercer, Whiteside IA - Clinton, DesMoines, Henry, Lee, Louisa, Muscatine MO – Clark	3.4
	SMSA Counties: 2040 Decatur, IL - IL – Macon 7880 Springfield, IL - IL - Menard, Sangamon Non-SMSA Counties IL -Cass, Christian, DeWitt, Logan, Morgan, Moultrie, Scott, Shelby Quincy, IL: Non-SMSA Counties - IL - Adams, Brown, Pike MO - Lewis, Marion, Pike Rails Peoria, IL: SMSA Counties: 1040 Bloomington - Normal, IL - IL - McLean 6120 Peoria, IL - IL - Peoria, Tazewell, Woodford Non-SMSA Counties - IL - Fulton, Knox, McDonough, Marshall, Mason, Schuyler, Stark, Warren Rockford, IL: SMSA Counties: 6880 Rockford, IL - IL - Boone, Winnebago Non-SMSA Counties - IL - Lee, Ogle, Stephenson Dubuque, IA: Non-SMSA Counties - IL - JoDaviess IA - Atlamakee, Clayton, Delaware, Jackson, Winnesheik WI - Crawford, Grant, Lafayette Davenport, Rock Island, Moline, IA - SMSA Counties: 1960 Davenport, Rock Island, Moline, IA - IL IL - Henry, Rock Island IA - Scott Non-SMSA Counties - IL - Carroll, Hancock, Henderson, Mercer, Whiteside IA - Clinton, DesMoines, Henry, Lee, Louisa, Muscatine

#### **CHECK SHEET #3**

107	SMSA Counties:	
	7040 St. Louis, MO - IL -	14.7
	IL - Clinton, Madison, Monroe, St. Clair	
	MO - Franklin, Jefferson, St. Charles,	
	St. Louis, St. Louis City	
	Non-SMSA Counties -	11.4
	IL - Alexander, Bond, Calhoun, Clay,	
	Effingham, Fayette, Franklin, Greene,	
	Jackson, Jasper, Jefferson, Jersey,	
	Johnson, Macoupin, Marion, Montgomery,	
	Perry, Pulaski, Randolph, Richland,	
	Union, Washington, Wayne, Williamson	
	MO - Bollinger, Butler, Cape Girardeau,	
	Carter, Crawford, Dent, Gasconade,	
	Iron, Lincoln, Madison, Maries,	
	Mississippi, Montgomery, Perry,	
	Phelps, Reynolds, Ripley, St. Francois,	
	Ste. Genevieve, Scott, Stoddard, Warren,	
	Washington, Wayne	

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order 11246 and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the provisions and specifications set forth in its federally assisted contracts, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246 and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Illinois Department of Transportation will provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten working days of award of any construction contract and/or subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. This notification will list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the entire State of Illinois for the goal set forth in APPENDIX A and the county or counties in which the work is located for the goals set forth in APPENDIX B.

> STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

- 1. As used in these specifications:
  - (a) "Covered area" means the geographical area described in the solicitation from which this contract resulted:
  - (b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - (c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - (d) "Minority" includes:
    - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individual or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan.

Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

- 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal Procurement contracting officers. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
- 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
  - a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each

construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

- b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the Union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff,

termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship of other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are non-segregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

- Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
- p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specified minority group of women is underutilized).
- 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out

such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

- 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade rate of pay and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

## SPECIAL PROVISION FOR SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES NONFEDERAL-AID CONTRACTS

Effective: March 20, 1969 Revised: January 1, 1994

# 1. General

- a. The requirements set forth herein shall constitute the specific affirmative action requirements under this contract and supplement the non-discrimination requirements contained elsewhere in this proposal.
- b. The Contractor shall work with the Illinois Department of Transportation (IDOT) in carrying out Equal Employment Opportunity (EEO) obligations and in reviews of activities under the contract.
- c. The Contractor, and all subcontractors holding subcontracts (not including material suppliers) of \$10,000 or more, shall comply with the following minimum specific requirement activities of EEO. The Contractor shall include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

# 2. Equal Employment Opportunity Policy

The Contractor shall accept as operating policy the following statement which is designed to further the provision of EEO to all persons, and to promote the full realization of equal employment opportunity through a positive continuing program: "It is the policy of this Company to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age, or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

# 3. Equal Employment Opportunity Officer

The Contractor shall designate and make known to IDOT contracting officers an EEO Officer who will have the responsibility for and 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.

## **CHECK SHEET #4**

#### 4. Dissemination of Policy

- a. 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:
  - (1) 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.
  - (2) 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.
  - (3) 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 and female employees.
- b. In order to make the Contractor's EEO policy known to all employees, prospective employees, and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor shall take the following actions:
  - (1) 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.
  - (2) The Contractor's EEO policy and the procedures to implement such policy shall be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

#### 5. <u>Recruitment</u>

- a. When advertising for employees, the Contractor shall include in all advertisements for employees the notation: "An Equal Opportunity Employer". All such advertisements shall be published in newspapers, or other publications, having a large circulation among minority groups in the area from which the project work force would normally be derived.
- b. The Contractor shall, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants, including, but not limited to, State employment agencies, schools, colleges and minority and female organizations. To meet this requirement, the Contractor shall, identify sources of potential minority and

female employees, and establish with such identified sources procedures whereby minority and female applicants may be referred to the Contractor for employment consideration. In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with EEO contract provisions.

c. The Contractor shall encourage present employees to refer minority and female applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority and female applicants shall be discussed with employees.

#### 6. 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, will be taken without regard to race, color, religion, sex, national origin, age, or disability. The following procedures shall be followed:

- a. The Contractor shall conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- The Contractor shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The Contractor shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor shall 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 shall promptly investigate all complaints of alleged discrimination made to the Contractor in connection with the obligations under this contract, shall attempt to resolve such complaints, and shall 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 shall inform every complainant of all of the avenues of appeal.

# 7. Training and Promotion

- a. The Contractor shall assist in locating, qualifying and increasing the skills of minority and female 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.

- c. The Contractor shall advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The Contractor shall periodically review the training and promotion potential of minority and female employees and shall encourage eligible employees to apply for such training and promotion.
- 8. Unions

If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor shall use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minorities and females 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, shall include the procedures set forth below:

- a. The Contractor shall use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority and female employees for membership in the unions and increasing the skills of minority and female and employees so that they may qualify for higher paying employment.
- b. The Contractor shall use best efforts to incorporate an EEO clause into each union agreement to the end that such union shall 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 IDOT 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 female referrals within the time limit set forth in the collective bargaining agreement, the Contractor shall, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and females. (The U.S. Department of Labor 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 minorities or female employees). In the event the union referral practice prevents the Contractor shall immediately notify IDOT.

## 9. <u>Selection of Subcontractors, Procurement of Materials, and Leasing of</u> <u>Equipment</u>

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 Part 23, shall have equal opportunity to compete for and perform subcontracts which the Contractor enters into pursuant to this contract. The Contractor shall use best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority and female representation among their employees. Contractors shall obtain lists of DBE construction firms from IDOT personnel.
- c. The Contractor shall use his/her best efforts to ensure subcontractor compliance with their EEO obligations.
- 10. 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 IDOT.

- a. The records kept by the Contractor shall document the following:
  - the number of minorities, non-minorities and females 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 females;
  - (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 Contractor shall submit to IDOT a monthly report every month for the duration of the project, indicating the number of minority, non-minority and female employees currently engaged in each work classification required by contract work and the number of hours worked. This information is to be reported on Form SBE-956. If on-the-job training is being required by special provision, the Contractor will be required to collect and report training data.

#### SPECIAL PROVISION FOR REQUIRED PROVISIONS - STATE CONTRACTS

# Effective: April 1, 1965 Revised: January 1, 2012

# I. SELECTION OF LABOR

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

## EMPLOYMENT OF ILLINOIS WORKERS DURING PERIODS OF EXCESSIVE UNEMPLOYMENT

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

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

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

# II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future Contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this contract, the Contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or

an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

- 2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.
- 4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

#### **CHECK SHEET #5**

- III. SUBLETTING OR ASSIGNING THE CONTRACT
  - The Contractor shall perform with his/her own organization contract work amounting to not less than 50 percent of the original total contract price, except that any items designated by the State as "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the original total contract price before computing the amount of work required to be performed by the Contractor with his/her own organization.
    - a. "His/her own organization" shall be construed to include only worker employed and paid directly by the Contractor and equipment owned or rented by him/her, with or without operators.
    - b. "Specialty Items" shall be construed to be limited to work that requires specialized knowledge, craftsmanship or equipment not ordinarily available in contracting organizations qualified to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
  - 2. In addition to the 50 percent requirement set forth in paragraph 1 above, the Contractor shall furnish (a) a competent superintendent or foreman who is employed by him/her, who has full authority to direct performance of the work in accordance with the contract requirements, and who is in charge of all construction operations (regardless of who performs the work), and (b) such other of his/her own organizational capability and responsibility (supervision, management, and engineering services) as the State highway department contracting officer determines is necessary to assure the performance of the contract.
  - 3. The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the contract or contracts or any portion thereof, or of his/her right, title or interest therein, without written consent of the Engineer. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with the Contractor's own organization, work amounting to not less than 50 percent of the total contract cost, except that any items designated in the contract as "specialty items" may be performed by subcontract and the cost of any such specialty items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his/her own organization. Materials purchased or produced by the Contractor must be incorporated into the project by the Contractor's own organization if their cost is to be applied to the 50 percent requirement.

No subcontracts, or transfer of contract, shall in any case release the Contractor of his/her liability under the contract and bonds. All transactions of the Engineer shall be with the Contractor. The Contractor shall have representative on the job at all times when either contract or subcontract work is being performed.

All requests to subcontract shall contain a certification that the subcontract agreement exists in writing and physically contains the required Federal and

State Equal Employment Opportunity provisions and Labor compliance provisions, including the contract minimum wage requirements. The Contractor shall permit Department or Federal representatives to examine the subcontract agreements upon notice.

- 4. Any items that have been selected as "Specialty Items" for the contract are listed as such in the Special Provisions, bid schedule, or elsewhere in the contract documents.
- 5. No portion of the contract shall be sublet, assigned or otherwise disposed of, except with the written consent of the State highway department contracting officer, or his/her authorized representative, and such consent when given shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract. Request for permission to sublet, assign or otherwise dispose of any portion of the contract shall be in writing and accompanied by (a) a showing that the organization which will perform the work is particularly experienced and equipped for such work, and (b) an assurance by the Contractor that the labor standards provisions set forth in this contract shall apply to labor performed on all work encompassed by the request.
- IV. COMPLIANCE WITH THE PREVAILING WAGE ACT
  - Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
  - 2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.
  - 3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been

no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class B misdemeanor.

- 4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor.
- V. NONSEGREGATED FACILITIES

(Applicable to State Financed Construction Contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity clause).

By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement, as appropriate, the bidder, construction Contractor, subcontractor, or material supplier, as appropriate, certifies that (s)he does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that (s)he does not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. (S)He certifies further that (s)he will not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that (s)he will not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. (S)He agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, 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, creed, color, or national origin, because of habit, local custom, or otherwise. (S)He agrees that (except where he/she has obtained identical certifications from proposed subcontractors and material suppliers for specific time periods), he/she will obtain identical certifications from proposed subcontractors or material suppliers prior to the award of subcontracts or the consummation of material supply agreements. exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that (s)he will retain such certifications in his/her files.

#### SPECIAL PROVISION FOR ASBESTOS BEARING PAD REMOVAL

#### Effective: November 1, 2003

<u>Description</u>. This work shall consist of the removal and disposal of existing asbestos bearing pads.

The Contractor is advised that the existing bearing pads contain asbestos. All necessary precautions shall be taken in removing, handling, transporting and disposing of the bearing pads. Work shall be in conformance with all governing laws, codes, ordinances or other regulations except that, by agreement with IEPA, it shall not be necessary to notify IEPA or to have a person trained in the asbestos requirements on-site for removal and disposal of asbestos bearing pads.

<u>Documentation</u>. The Engineer will keep records of the removal, handling, transportation, and disposal site.

# CONSTRUCTION REQUIREMENTS

General. Prior to removal, the asbestos bearing pads shall be thoroughly wetted.

During handling and transportation, the pads shall be covered with an approved wetting material or contained in such a way as to prevent dust or debris from entering the atmosphere.

The asbestos bearing pads shall be hauled to an approved landfill disposal site.

Basis of Payment. This work will be paid for at the contract unit price per each for ASBESTOS BEARING PAD REMOVAL.

#### SPECIAL PROVISION FOR ASBESTOS WATERPROOFING MEMBRANE AND ASBESTOS HOT-MIX ASPHALT SURFACE REMOVAL

Effective: June 1, 1989 Revised: January 1, 2009

<u>Description</u>. This work shall consist of the removal and disposal of the existing variable thickness hot-mix asphalt (HMA) surface and all of the asbestos waterproofing membrane system from the bridge deck area or the variable thickness HMA surface containing asbestos shown on the plans, according to the requirements of Section 440 of the Standard Specifications, and the following.

#### CONSTRUCTION REQUIREMENTS

<u>General</u>. Complete surface removal is required for the entire deck including the waterproofing membrane system; the removal shall be done in such a manner that the concrete deck or the concrete beams are not damaged.

The Contractor is advised that the waterproofing membrane system or HMA wearing surface contains asbestos. Therefore, he/she shall take all necessary precautions in removing, handling, transporting, and subsequent disposal of all materials removed containing asbestos. All such work shall be in conformance with all governing laws, codes, ordinances, or other regulations.

The asbestos membrane, if present, shall be wet saw-cut and removed.

Grinding or milling the existing wearing surface or the membrane system will not be allowed.

All removed material containing asbestos shall be stockpiled separately from other removed material.

All stockpiled material containing asbestos, shall be hauled to an approved landfill disposal site. This removed material shall be wetted down in the truck and shall be covered with an approved wetting material to prevent debris or dust from entering into the atmosphere.

The Engineer will keep records of removal, stockpiling, trucking, shipping manifest, and the landfill disposal site used.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS).

#### SPECIAL PROVISION FOR HAUL ROAD STREAM CROSSINGS, OTHER TEMPORARY STREAM CROSSINGS, AND IN-STREAM WORK PADS

Effective: January 2, 1992 Revised: January 1, 1998

Haul Road and Other Temporary Stream Crossings. A temporary low flow structure such as a pipe culvert shall be installed at haul road and other temporary stream crossings. The haul road shall be constructed with materials (i.e., coarse aggregate) meeting the requirements of Article 1004.04 of the Standard Specifications, except, if pit run gravel is used, prior approval of the source may be required by the Engineer. Upon completion of the work, the haul road or other temporary stream crossing shall be removed and the stream channel returned to its original cross section or the cross section called for in the plans.

The Contractor may propose other methods of constructing the stream crossing to the Department of Natural Resources and, if approved by them, the Contractor may proceed with that method.

In-Stream Work Pads. All in-stream work pads shall be constructed with materials (i.e. e., coarse aggregate) meeting the requirements of Article 1004.04 of the Standard Specifications, except, if pit run gravel is used, prior approval of the source may be required by the Engineer. In cases where the work pad will span the stream, a temporary low flow structure such as a pipe culvert shall be installed. Upon completion of the work, the in-stream work pads shall be removed and the stream channel returned to its original cross section or the cross section called for in the plans.

The Contractor may propose other methods of constructing the work pads to the Department of Natural Resources, and if approved by them, the Contractor may proceed with that method.

<u>Method of Measurement and Basis of Payment</u>. Haul Roads and Other Temporary Stream Crossings or In-Stream Work Pads will not be measured or paid for separately but shall be considered as included in the unit cost of the various pay items in the contract.

The salvaged aggregates and pipe culverts used in the Haul Roads and Other Temporary Stream Crossings or In-Stream Work Pads shall remain the property of the Contractor but may be used in construction if approved by the Engineer.

# SPECIAL PROVISION FOR CONSTRUCTION LAYOUT STAKES EXCEPT FOR BRIDGES

# Effective: January 1, 1999 Revised: January 1, 2007

<u>Description</u>. The Contractor shall furnish and place construction layout stakes for this project. The Department will provide adequate reference points to the centerline of survey and bench marks as shown in the plans and listed herein. Any additional control points set by the Department will be identified in the field to the Contractor and all field notes will be kept in the office of the Resident Engineer.

The Contractor shall provide field forces, equipment, and material to set all additional stakes for this project, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary bench marks, necessary to secure a correct layout for the roadway portion of the work. Stakes for line and grade of pavement and/or curb shall be set at sufficient station intervals (not to exceed 50 ft (15 m)) to assure substantial conformance to plan line and grade. The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the contract nor to determine property lines between private properties.

The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for in the plans. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades, and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset when any are damaged, lost, displaced, removed, or otherwise obliterated.

#### Responsibility of the Department.

- (a) The Department will be responsible for all bridge staking as shown on the plans.
- (b) The Department will locate and reference the centerline of all roads and streets, except interchange ramps. The centerline of private entrances and short street intersection returns may not be located or referenced by the Department. Locating and referencing the centerline of survey will consist of establishing and locating the control points of the centerline of surveys as PC's, PT's and as many POT's as are necessary to provide a line of sight.
- (c) Bench marks will be established along the project outside of construction lines not exceeding 1000 ft (300 m) intervals horizontally and 20 ft (6 m) vertically.

- (d) Points set for (b) and (c) above will be identified in the field to the Contractor.
- (e) The Department will make random checks of the Contractor's staking to determine if the work is in conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.
- (f) The Department will set all stakes for utility adjustments and for building fences along the right-of-way line by parties other than the Contractor.
- (g) The Department will make all measurements and take all cross sections from which the various pay items will be measured.
- (h) Where the Contractor, in setting construction stakes, discovers discrepancies, the Department will check to determine their nature and make whatever revisions are necessary in the plans, including the recross sectioning of the area involved. Any additional restaking required by the Engineer will be the responsibility of the Contractor. The additional restaking done by the Contractor will be paid for according to Article 109.04 of the Standard Specifications.
- (i) The Department will accept responsibility for the accuracy of the initial control points as provided herein.
- (j) It is not the responsibility of the Department, except as provided herein, to check the correctness of the Contractor's stakes. Any apparent errors will be immediately called to the Contractor's attention and s(he) will be required to make the necessary correction before the stakes are used for construction purposes. The Contractor shall provide the Engineer a copy of any field notes, cut/fill sheets, and layout diagrams produced during the course of the project.
- (k) Where the plan quantities for excavation are to be used as the final pay quantities, the Department will make sufficient checks to determine if the work has been completed in conformance with the plan cross sections.

#### Responsibility of the Contractor.

- (a) The Contractor shall establish from the given survey points and bench marks all the control points necessary to construct the individual project elements. (S)He shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work. It is the Contractor's responsibility to tie in centerline control points in order to preserve them during construction operations.
- (b) At the completion of the grading operations, the Contractor shall set stakes at 100 ft (25 m) station intervals along each profile grade line. These stakes will be used for final cross sectioning by the Department.

- (c) The Contractor shall locate the right-of-way points for the installation of rightof-way markers. The Contractor shall set all line stakes for the construction of fences by the Contractor.
- (d) All work shall be according to normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Department at the completion of the project. All notes shall be neat, orderly, and in accepted form.

<u>Measurement and Payment</u>. This work will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT.

#### SPECIAL PROVISION FOR CONSTRUCTION LAYOUT STAKES

# Effective: May 1, 1993 Revised: January 1, 2007

<u>Description</u>. The Contractor shall furnish and place construction layout stakes for this project. The Department will provide adequate reference points to the centerline of survey and bench marks as shown in the plans and listed herein. Any additional control points set by the Department will be identified in the field to the Contractor and all field notes will be kept in the office of the Resident Engineer.

The Contractor shall provide field forces, equipment, and material to set all additional stakes for this project, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary bench marks, necessary to secure a correct layout of the work. Stakes for line and grade of pavement and/or curb shall be set at sufficient station intervals (not to exceed 50 ft (15 m)) to assure substantial conformance to plan line and grade. The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the contract nor to determine property lines between private properties.

The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for in the plans. Any inspection or checking of the Contractor's layout by the Department Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset when any are damaged, lost, displaced, removed, or otherwise obliterated.

#### Responsibility of the Department.

(a) The Department will locate and reference the centerline of all roads and streets, except interchange ramps. The centerline of private entrances and short street intersection returns may not be located or referenced by the Department.

Locating and referencing the centerline of survey will consist of establishing and referencing the control points of the centerline of surveys such as PC's, PT's and as many POT's as are necessary to provide a line of sight.

(b) Bench marks will be established along the project outside of construction lines not exceeding 1000 ft (300 m) intervals horizontally and 20 ft (6 m) vertically.

- (c) Stakes set for (a) and (b) above will be identified in the field to the Contractor.
- (d) The Department will make random checks of the Contractor's staking to determine if the work is in conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.
- (e) The Department will set all stakes for utility adjustments and for building fences along the right-of-way line by parties other than the Contractor.
- (f) The Department will make all measurements and take all cross sections from which the various pay items will be measured.
- (g) Where the Contractor, in setting construction stakes, discovers discrepancies, the Department will check to determine their nature and make whatever revisions are necessary in the plans, including the recross sectioning of the area involved. Any additional restaking required by the Engineer will be the responsibility of the Contractor. The additional restaking done by the Contractor will be paid for according to Article 109.04 of the Standard Specifications.
- (h) The Department will accept responsibility for the accuracy of the initial control points as provided herein.
- (i) It is not the responsibility of the Department, except as provided herein, to check the correctness of the Contractor's stakes; any errors apparent will be immediately called to the Contractor's attention and s(he) shall make the necessary correction before the stakes are used for construction purposes.
- (j) Where the plan quantities for excavation are to be used as the final pay quantities, the Department will make sufficient checks to determine if the work has been completed in conformance with the plan cross sections.

## Responsibility of the Contractor.

- (a) The Contractor shall establish from the given survey points and bench marks all the control points necessary to construct the individual project elements. S(he) shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work. It is the Contractor's responsibility to tie in centerline control points in order to preserve them during construction operations.
- (b) At the completion of the grading operations, the Contractor shall set stakes at 100 ft (25 m) Station intervals along each profile grade line. These stakes will be used for final cross sectioning by the Department.

- (c) The Contractor shall locate the right-of-way points for the installation of rightof-way markers. The Contractor shall set all line stakes for the construction of fences by the Contractor.
- (d) All work shall be according to normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Department at the completion of the project. All notes shall be neat, orderly and in accepted form.
- (e) For highway structure staking, the Contractor shall use diligent care and appropriate accuracy. Points shall be positioned to allow reuse throughout the construction process. Prior to the beginning of construction activities, all structure centerlines and pier lines are to be established by the Contractor and checked by the Engineer. The Contractor shall provide a detailed structure layout drawing showing span dimensions, staking lines and offset distances.

<u>Measurement and Payment</u>. This work will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT.

#### SPECIAL PROVISION FOR USE OF GEOTEXTILE FABRIC FOR RAILROAD CROSSING

#### Effective: January 1, 1995 Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing and installing geotextile fabric for railroad crossings.

<u>Materials</u>. The geotextile fabric shall consist of woven monofilaments or nonwoven filaments of polypropylene, polyester or polyethylene. Nonwoven fabric may be needlepunched, heat bonded, resin-bonded, or combinations thereof. The fabric shall be inert to commonly encountered chemicals, rot proof, dimensionally stable (i.e., fibers must maintain their relative position with respect to each other), resistant to delamination and conform to the following physical properties.

Weight oz/sq yd (g/mm)	10.0 (340) min.	ASTM D 3776
Grab Tensile Strength lb (kN) <sup>1/</sup>	250 (1.11) min.	ASTM D 4632
Grab Elongation at break %	20 min	ASTM D 4632
Bursting Strength psi (kPa)	350 (2410) min.	ASTM D 3786
Trapezoidal Tear Strength lb (kN)	100 (0.44) min.	ASTM D 4533
Puncture Resistance lb (kN)	130 (0.59) min.	ASTM D 4833
Apparent Opening Size Sieve No.	50-100 (300 µm-150 µm)	ASTM D 4751
U.V. Resistance, Strength Retained %	70 min.	ASTM D 4355

1/ Test samples for grab tensile strength and elongation shall be tested wet.

The supplier shall furnish certified test reports with each shipment of material attesting that the fabric meets the requirements of this specification.

## **CONSTRUCTION REQUIREMENTS**

<u>Handling and Storage</u>. Fabric shall be delivered to the job site in such a manner as to facilitate handling and incorporation into the work without damage. In no case shall the fabric be stored exposed to direct sunlight.

Installation. Geotextile fabric shall be placed on existing subgrade cleared of debris and sharp objects to prevent damage to the fabric. All laps shall be a minimum 12 in. (300 mm). The fabric shall not be punctured during compaction of the ballast.

<u>Method of Measurement</u>. This work will be measured for payment in place and the area computed in square yards (square meters). The overlap at joints will be measured as a single layer of material.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard (square meter) for GEOTEXTILE FABRIC FOR RAILROAD CROSSING.

### SPECIAL PROVISION FOR SUBSEALING OF CONCRETE PAVEMENTS

## Effective: November 1, 1984 Revised: January 1, 2007

<u>Description</u>. This work shall consist of filling voids beneath rigid and composite pavements with portland cement grout.

<u>Materials</u>. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications:

	Item	Article/Section
(a)	Portland Cement	
	Water	
	Fly ash	
	Admixtures	
(e)	Packaged Rapid Hardening Mortar or Concrete .	

Equipment. Equipment shall be according to the following.

- (a) Grout Plant. The grout plant shall be capable of accurately measuring and proportioning ingredients by volume, weight (mass), or a combination thereof. The mixer shall be capable of producing a consistent and homogeneous mixture free of lumps. Provisions for calibrating the batching or metering equipment and a positive means of monitoring total production including continuity of material delivery shall be provided.
- (b) Grout Pump. The grout pump shall be a positive displacement pump capable of producing 10 to 100 psi (69 to 690 kPa) at the grout packer. If the volume of the grout storage area is 4 cu ft (0.1 cu m) or more it shall be equipped with mixing paddles. The discharge line shall be equipped with a positive cut-off valve at the nozzle end, and a bypass return line for recirculating the grout into the holding tank or mixer; otherwise, the packer shall be inserted into the grout holding tank and the pump operated to prevent setting or degradation of the grout.
- (c) Drill. The drilling devices shall be capable of drilling the grout injection holes through the pavement, and through the subbase. The equipment shall be in good condition and operated in such a manner that the holes are vertical and sufficiently round to permit sealing by the packer head. Means to monitor the down feed force shall be provided.
- (d) Movement Detectors. The Contractor shall supply equipment to measure slab lift. When used on jointed pavements, the equipment shall be capable of detecting simultaneously the lift of the corners of two adjacent slabs. The

equipment shall have graduations of 0.001 in. (0.025 mm). Two measuring devices shall be provided.

(e) Pressure Gauge. The pressure gauge, protected from direct contact with grout slurry, shall be mounted in the grout line at the packer head.

#### **CONSTRUCTION REQUIREMENTS**

<u>General</u>. Grout pumping shall not be performed when ambient temperature is below 40 °F (5 °C), or when the subgrade and/or base material is frozen.

Grout pumping shall not be performed after October 31 or prior to April 15 unless approval is given by the Engineer.

<u>Drilling Holes</u>. Grout injection holes shall be drilled in the pattern shown in the plans or as determined by the Engineer. They shall not be larger than 2 in. (50 mm) in diameter, drilled vertically and round, to penetrate 2 to 6 in. (50 to 150 mm) below the subbase material. The downfeed force shall not exceed 200 lb (890 N). Depth of spalling of the pavement underside due to drilling of the concrete pavement shall not exceed 20 percent of the pavement thickness. Three times the bid price for holes drilled will be deducted from the money due the Contractor for each hole determined to be excessively spalled. Inspection holes shall be drilled, as required by the Engineer, to determine if the voids under the pavement have been filled. If the voids have not been filled, grout shall be pumped into the inspection hole as described herein.

<u>Washing Holes</u>. Prior to subsealing, holes shall be washed with water to provide an opening into the void system.

<u>Proportioning Grout</u>. Grout for filling voids beneath pavement shall be composed of portland cement, fly ash, water, and if necessary, admixtures. Grout shall meet the following minimum requirements:

- (a) Minimum cement content of 20 percent of the Absolute Volume of the grout solids.
- (b) Flow cone efflux time shall be 10 to 17 seconds according to ASTM C 939. The field test shall be performed by the Contractor at ambient air temperature at time of placement, and will be witnessed by the Engineer. The test shall be performed a minimum of once a day or when requested by the Engineer.
- (c) Minimum design strength at minimum efflux time shall be 600 psi (4150 kPa) at seven days according to ASTM C 109. The test will be performed by the Engineer and three specimens will be molded a minimum of once a day. Disposable molds with a cover shall be provided.
- (d) An initial set time less than two hours according to ASTM C 266. The field test shall be performed by the Contractor at ambient air temperature at time of placement, and will be witnessed by the Engineer. The test shall be performed as needed to open a lane to traffic.

At least three weeks prior to the beginning of this work, the Contractor shall submit to the Engineer the proposed mixture proportions based on absolute volumes. The submittal shall include independent laboratory testing of the grout showing one day, three day, and seven day strengths, efflux time, time of initial set, and specific gravity of fly ash. Accompanying this submittal shall be sufficient quantities of all mixture components to permit laboratory verification of the grout properties listed herein.

<u>Mixing Grout</u>. Mixed material shall not be held for more than 60 minutes. With permission of the Engineer, grout that has lost fluidity may be re-tempered with mix water one time.

<u>Pumping Grout</u>. An expanding rubber packer or hose connected to the discharge from the plant shall be lowered into the hole. The discharge end of the packer or hose shall not extend below the lower surface of the concrete pavement. Each hole shall be pumped until lift is observed, or material is observed flowing from hole to hole. Movement detectors shall be transported and positioned by the Contractor at each joint and crack to monitor lift. The upward movement of the pavement shall not exceed 0.05 in. (1.2 mm).

Transient pressures (2-3 seconds duration) of no greater than 100 psi (690 kPa) will be permitted to facilitate grout flow. Pumping pressures for void filling shall be no greater than 40 psi (276 kPa).

Water displaced from the void structure by the grout shall be allowed to flow out freely.

The Contractor shall correct subsealing procedures if there is excessive loss of grout through cracks, joints, holes or in the shoulder area. Pay quantities will be reduced by the Engineer accordingly.

Immediately after the grout packer has been removed from the hole, the hole shall be filled with a wooden plug or other approved methods when necessary to prevent grout loss from the hole. These plugs shall remain in place until the grout has set sufficiently to prevent grout escaping from the hole. Plugs driven flush may remain in place until the hole is patched.

Patching Holes. Upon completion of pumping, all drill holes shall be filled with rapid hardening mortar or concrete according to Article 407.10(b)(3) of the Standard Specifications.

<u>Cleaning Pavement</u>. All drill tailings, spilled grout, and other debris shall be cleaned up at the end of each working day or before the lane is opened to traffic. When adjacent lanes are open to traffic, provisions shall be made to prevent grout from encroaching onto the open lane or squirting onto passing vehicles.

<u>Opening to Traffic</u>. The lane in which pumping operations are completed may be opened to traffic 1/2 hour after the initial set of the grout.

Method of Measurement. This work will be measured for payment as follows.

- (a) Holes. Holes drilled through the pavement structure, including inspection holes, will be measured for payment as each.
- (b) Grout Material. Grout incorporated into the pavement structure will be measured for payment in cubic feet (cubic meters) (absolute volume) of dry solid material only. Weights (masses) will be converted to dry solid volume using the following formula:

$$V = \frac{Wc}{Gc \times 9.8} + \frac{Wf}{Gf \times 9.8} \left( \frac{Wc}{Gc \times 62.4} + \frac{Wf}{Gf \times 62.4} \right)$$

Where:

V	=	Total absolute volume of the dry solids in cu ft (cu m).
Wc	=	Weight (mass) of portland cement in lb (kg).
Gc	=	Specific gravity of portland cement.
Wf	=	Weight (mass) of fly ash in lb (kg).
Gf	=	Specific gravity of fly ash.

Water and admixtures will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per cubic foot (cubic meter) for DRY GROUT SOLIDS and at the contract unit price per each for HOLES DRILLED.

#### SPECIAL PROVISION FOR HOT-MIX ASPHALT SURFACE CORRECTION

## Effective: November 1, 1987 Revised: January 1, 2009

<u>Description</u>. This work shall consist of milling and planing the existing hot-mix asphalt (HMA) pavement to remove wheel lane ruts and leave a pavement surface texture suitable for traffic.

Equipment. The milling machine shall be according to Article 1101.16(a) of the Standard Specifications, except the machine shall be capable of milling an entire lane width in a single pass and it shall load the cuttings into a truck.

The cutting drum and teeth shall be designed to produce the required surface texture. When the teeth become worn so they will not produce the required surface texture, they shall be changed at the same time (as a unit). Occasionally, individual teeth may be changed if they lock up or break, but this method shall not be used to avoid changing the set of teeth as a unit.

The moldboard shall be straight, true, and free of excessive nicks or wear, and it shall be replaced as necessary to uniformly produce the required surface texture.

## **CONSTRUCTION REQUIREMENTS**

<u>General</u>. The temperature at which the work is performed, the nature and condition of the equipment, and the manner of performing the work shall be such that the milled and planed surface is not torn, gouged, shoved, or otherwise injured by the grinding operation. Surface tests will be made according to Article 407.09 of the Standard Specifications.

The Contractor shall remove any castings in the pavement and cover the holes prior to milling. The Contractor shall mill the amount as shown on the plans at the centerline, except when the milling at the outer edge of the surface exceeds 1 1/2 in. (40 mm); then the Contractor shall reduce the cut at the centerline to provide a maximum cut at the outer edge of the pavement of 1 1/2 in. (40 mm). It may also become necessary to reduce the slope of the crown from 3/16 in./ft (15 mm/m) to 1/8 in./ft (10 mm/m) to maintain a maximum cut at the outer edge of 1 1/2 in. (40 mm).

The cuttings resulting from this operation shall become the property of the Contractor and shall be disposed of according to Article 202.03 of the Standard Specifications.

<u>Surface Texture</u>. Each tooth on the cutting drum shall produce a series of discontinuous longitudinal striations. There shall be 16 to 20 striations (tooth marks) 40

for each tooth for each 6 ft (1.8 m) in the longitudinal dimension, and each striation shall be 1.7  $\pm$  0.2 in. (43  $\pm$  5 mm) in length after the area is planed by the moldboard. Thus the planed length between each pair of striations shall be 2.3  $\pm$  0.2 in. (58  $\pm$  5 mm). There shall be 80 to 96 rows of discontinuous longitudinal striations for each 5 ft (1.5 m) in the transverse dimension. The pattern of striations shall be such that a line connecting striations in adjacent rows shall form approximately a 70 degree skew angle with the roadway centerline. The areas between the striations in both the longitudinal and transverse directions shall be flat-topped and coplanar. The moldboard shall be used to cut this plane, and any time the operation fails to produce this flat plane interspersed with a uniform pattern of discontinuous longitudinal striations, the operation shall be stopped and the cause determined and corrected before recommencing.

<u>Clean-up</u>. After milling and planing a traffic lane, the pavement shall be swept clean with a mechanical broom prior to opening the lane to traffic.

Method of Measurement. This work will be measured for payment as follows.

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a) of the Standard Specifications.
- (b) Measured Quantities. This work will be measured for payment in place and the area computed in square yards (square meters). Measurement will include variations in depth of cut due to rutting, superelevations, and pavement crown.

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE CORRECTION.

#### SPECIAL PROVISION FOR PAVEMENT AND SHOULDER RESURFACING

## Effective: February 1, 2000 Revised: January 1, 2009

Revise Article 406.10 of the Standard Specifications to read:

**"406.10 Resurfacing Sequence.** The resurfacing operations shall satisfy the following requirements:

- (a) Before paving in a lane, the adjacent lane and its paved shoulder shall be at the same elevation.
- (b) Each lift of resurfacing shall be completed, including paved shoulders, before the next lift is begun.
- (c) Elevation differences between lanes shall be eliminated within twelve calendar days."

Revise the first sentence of the eleventh paragraph of Article 406.13 of the Standard Specifications to read:

"When a HMA binder and surface course mixture is used on shoulders and is placed simultaneously with the traffic lane as specified in Section 482, the quantity of HMA placed on the traffic lane that will be paid for will be limited to a calculated tonnage based upon actual mat width and length, plan thickness or a revised thickness authorized by the Engineer, and design mix weight per inch (millimeter) of thickness."

Delete the twelfth paragraph of Article 406.13 of the Standard Specifications.

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

"On pavement and shoulder resurfacing projects, the resurfacing sequence shall be according to Article 406.10. When the HMA binder and surface course option is used, the shoulders may be placed, at the Contractor's option, simultaneously with the adjacent traffic lane for both courses, provided the specified density, thickness and cross slope of both the pavement and shoulder can be satisfactorily obtained."

#### SPECIAL PROVISION FOR PCC PARTIAL DEPTH HOT-MIX ASPHALT PATCHING

## Effective: January 1, 1998 Revised: January 1, 2007

<u>Description</u>. This work shall consist of partial depth removal of the existing portland cement concrete pavement structure and replacement with hot-mix asphalt (HMA).

<u>Materials</u>. Materials shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Bituminous Material for Prime Coat	
(b)	Hot-Mix Asphalt (Note 1)	

Note1. The HMA for partial depth patches shall be a binder or surface mixture of the same type as the proposed resurfacing.

Equipment. Equipment shall be according to the following Articles/Sections of the Standard Specifications

Item	Article/Section
(a) Self-Propelled Milling Machine	
(b) Concrete Saw	442.03(f)
(c) Wheel Saw	442.03(g)
(d) Rollers	
(e) Mechanical Sweeper	
(f) Air Equipment (Note 1)	

Note 1. The air equipment shall be capable of supplying compressed air at a minimum pressure of 100 psi (690 kPa) and shall have sufficient flow rate to remove all disturbed pavement debris. The equipment shall also be according to ASTM D 4285.

## **CONSTRUCTION REQUIREMENTS**

<u>General</u>. Disposal of waste materials shall be according to Article 202.03 of the Standard Specifications.

Partial depth removal of the pavement shall be accomplished by the use of a milling machine and/or the wheel saw. The minimum patch dimension shall be  $24 \times 24$  in. (600 x 600 mm). Debris from the milling or wheel saw operation shall be removed from the patch area by air equipment or mechanical sweeper and shall remove all disturbed pavement debris and any loose and/or unsound concrete.

#### **CHECK SHEET #15**

Exposed reinforcement shall be removed back to the point where the steel is in contact with sound portland cement concrete. Where high steel is encountered, the depth of milling may be reduced as directed by the Engineer.

When the Engineer determines the exposed pavement will be suitable for a partial depth patch, a bituminous prime coat shall be applied according to Article 406.05(b) of the Standard Specifications.

The prepared patch shall be filled with HMA with a maximum lift thickness of 3 in. (75 mm). Where more than one lift is needed, the top lift shall be a minimum of 2 in. (50 mm) thick. At the option of the Contractor, the 2 in. (50 mm) top layer may be constructed using HMA surface course. The HMA shall be compacted to the satisfaction of the Engineer.

Patches opened to traffic which are high or become rough by rutting, shoving, or heaving shall be corrected by trimming off high areas and/or filling depressions. Filled areas shall be rolled again.

When the Engineer determines the exposed pavement will not be suitable for a partial depth patch, or removal is one half or more of the pavement thickness, the Contractor shall remove the remaining portion of the pavement and place a full depth patch according to Section 442 of the Standard Specifications for the Class of full depth patches included in the contract.

<u>Method of Measurement</u>. Partial depth removal of the portland cement concrete pavement will be measured for payment in place and the area computed in square yards (square meters).

HMA for partial depth patching of the portland cement concrete pavement will be measured for payment in tons (metric tons) according to Article 406.13 of the Standard Specifications.

Basis of Payment. Partial depth removal of the portland cement concrete pavement will be paid for at the contract unit price per square yard (square meter) for PARTIAL DEPTH REMOVAL, of the thickness specified.

Partial depth patching will be paid for at the contract unit price per ton (metric ton) for PARTIAL DEPTH PATCHING.

When the Engineer determines to convert any partial depth patch to a full depth patch after the partial depth removal of the portland cement concrete pavement has begun, the partial depth removal will be paid for at the contract unit price for PARTIAL DEPTH REMOVAL. The removal for the full depth patch will be considered as included in the appropriate full depth patching pay item.

## SPECIAL PROVISION FOR PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL

#### Effective: October 1, 1995 Revised: January 1, 2007

<u>Description</u>. This work shall consist of removing the hot-mix asphalt (HMA) over areas to be patched, patching, and HMA replacement.

<u>General.</u> The HMA shall be removed as shown on the plans according to Section 440 of the Standard Specifications. After the HMA has been removed, the Engineer will determine if patching is necessary. Areas requiring patching shall be patched according to Section 442 of the Standard Specifications. HMA binder replacement shall be according to Section 406 of the Standard Specifications.

<u>Method of Measurement</u>. In the event the thickness of the existing pavement in an area to be patched after the surface has been removed or the thickness of the existing overlay differs from the thickness shown on the plans, the Engineer will adjust the patching quantity, for the specific patch type, or HMA overlay removal for the individual patches meeting this requirement as indicated by the following chart. The quantities will be increased when the thickness is greater and decreased when the thickness is less.

% change of thickness	% change of quantity
0 to less than 15	0
15 to less than 20	10
20 to less than 30	15
30 and greater	20

Patching will be measured for payment according to Article 442.10 of the Standard Specifications.

HMA removal over the patches will be measured for payment in square yards (square meters), of the thickness specified.

The HMA binder replacement will be measured for payment in tons (metric tons) according to Article 406.13 of the Standard Specifications.

<u>Basis of Payment</u>. The HMA removal will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT REMOVAL OVER PATCHES, of the thickness specified.

HMA binder replacement will be paid for at the contract unit price per ton (metric ton) for HOT-MIX ASPHALT REPLACEMENT OVER PATCHES.

Patching will be paid for according to Article 442.11 of the Standard Specifications.

SPECIAL PROVISION FOR POLYMER CONCRETE

Effective: August 1, 1995 Revised: January 1, 2011

<u>Description</u>. This work shall consist of furnishing all labor, equipment, technical assistance, and materials necessary to install the polymer concrete as shown on the plans and as specified herein.

<u>Materials</u>. The polymer concrete material shall be a fast setting composite material that may contain aggregate and fibers. It shall be resilient, self-adhering, and water tight. It shall withstand and remain bonded to the surrounding material under repeated impact and thermal cycling. It shall not flow nor become tacky in temperatures up to 130 °F (54 °C). It shall be resistant to ultraviolet radiation, petroleum products and abrasion. It shall be capable of curing at all temperatures above 50 °F (10 °C). Mixing shall be according to the manufacturer's instructions. Based on information provided in the material safety data sheet, the Engineer reserves the right to reject the material due to health or safety concerns.

The polymer concrete shall comply with the following requirements:

Property (Test Method)	Material Specification
Compressive Strength (IL Mod. ASTM C 579)	Refer to Illinois Test Method
Direct Shear (IL Test Procedure, "Shear Strength of Bonded Polymer Concrete")	Refer to Illinois Test Method
Freeze-Thaw (IL Mod. AASHTO T 161)	Refer to Illinois Test Method
Salt Scale (IL Mod. ASTM C 672)	Refer to Illinois Test Method
Traffic Bearing Time	4 hours max. @ 70 ± 5 °F (21 ± 3 °C)
Pot Life	5 minutes min. @ 70 ± 5 °F (21 ± 3 °C)
Impact Resistance (IL Mod. ASTM D 2444):	Refer to Illinois Test Method

The Department will maintain an "Approved List of Polymer Concrete".

Equipment. All equipment necessary for proper construction of this work shall be as recommended by the manufacturer and approved by the Engineer prior to beginning the work. Air equipment shall pass the requirements of ASTM D 4285. This test shall be repeated as determined by the Engineer.

## **CONSTRUCTION REQUIREMENTS**

<u>General</u>. The Contractor shall furnish the Engineer with the manufacturer's product information and installation procedures at least two weeks prior to installation.

When placing the polymer concrete nosing against concrete, the concrete surface shall be dry. For newly placed concrete, the concrete shall be fully cured and

allowed to dry out a minimum of seven additional days prior to placement of the nosing. Cold, wet, inclement weather will require an extended drying time.

- a) Surface Preparation. All loose foreign material shall be removed. The substrate shall be structurally sound and sandblasted to be free of all foreign matter, grease, dirt, and laitance along the bottom and the sidewalls for all areas that will be in contact with the polymer concrete. Steel surfaces shall be cleaned to SSPC-SP10 surface preparation. After blast cleaning, the surfaces shall be blown clean of debris using oil-free compressed air at a minimum pressure of 90 psi (620 kPa). The bottom and sides of these areas shall then be primed as recommended by the manufacturer.
- b) Placement. The polymer concrete shall be mixed, placed and cured according to the manufacturer's instructions. The materials shall be screeded level when appropriate. The material shall be tack free and firm to the touch before proceeding or opening to traffic as determined by the Engineer.

<u>Method of Measurement</u>. This work will be measured for payment in place and the volume computed in cubic feet (cubic meters).

Basis of Payment. This work will be paid for at the contract unit price per cubic foot (cubic meter) for POLYMER CONCRETE.

> SPECIAL PROVISION FOR PVC PIPELINER

Effective: April 1, 2004 Revised: January 1, 2007

<u>Description</u>. This work shall consist of the rehabilitation of sewer lines and conduits 4 to 18 in. (100 to 450 mm) in diameter by the insertion of a folded/formed PVC pipe liner.

Materials. The folded/formed PVC pipe liner shall conform to ASTM F 1871.

## **CONSTRUCTION REQUIREMENTS**

Installation. The folded/formed PVC pipe liner shall be installed according to ASTM F 1867. The PVC pipe shall be heated, pressurized, and expanded to conform to the wall of the original conduit forming a new structural pipe-within-a-pipe. Service laterals shall then be reinstated.

Both pre and post installation shall be performed and recorded with a camera having an accurate footage counter which shall display on the monitor the exact distance of the camera from the center line of the starting manhole. A copy of the inspection video shall be provided to the Department.

<u>Method of Measurement</u>. This work will be measured for payment in feet (meters) in place.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for FOLDED/FORMED PVC PIPELINER, of the diameter specified.

#### SPECIAL PROVISION FOR PIPE UNDERDRAINS

Effective: September 9, 1987 Revised: January 1, 2007

This work shall be according to Section 601 of the Standard Specifications and Standard 601001, except CA 16 shall be used in lieu of FA 1 or FA 2 for trench backfill. The CA 16 shall be according to Article 1004.05 and Article 1004.01 of the Standard Specifications, except in the table, Coarse Aggregate Gradation, the percent passing the No. 16 (1.18 mm) sieve shall be  $4 \pm 4\%$ . The trench shall be wrapped using a fabric envelope meeting the requirements of Article 1080.05 of the Standard Specifications. The fabric encompassing the trench shall be in addition to the fabric required to be placed in direct contract with the pipe.

### SPECIAL PROVISION FOR GUARDRAIL AND BARRIER WALL DELINEATION

## Effective: December 15, 1993 Revised: January 1, 2012

<u>Description</u>. This work shall consist of furnishing and installing reflectorized guardrail markers, bridge rail markers, or barrier wall markers complete with reflectors or reflective faces as specified, and terminal marker post, when specified.

Materials. Materials shall be according to the following.

(a) Terminal Marker Post. The posts shall be according to Article 1006.29 of the Standard Specifications for Type C galvanized posts.

Hardware for attaching sign panels to posts shall be stainless steel and be according to Article 1006.29(d) of the Standard Specifications.

- (b) Terminal Markers.
  - (1) Direct Applied Reflectorized Terminal Marker. Direct applied reflectorized terminal markers shall be fabricated using Type A or Type AP reflectorized sheeting. All materials used shall be according to Sections 1090 and 1091 of the Standard Specifications.

The sheeting shall be uniform in color throughout and be according to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration of through instrumental color testing, the diffuse day color of the reflective material shall be according to Table 1.

					1	уре Аг					
								Reflec	ctance		
	1		1	2		3	4	4	Limit	Y(%)	
	Color	Х	Y	Х	Y	Х	Y	Х	Y	Min.	Max.
	Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	30	45
	White	0.303	0.287	0.368	0.353	0.340	0.380	0.274	0.316	50	-

# TABLE 1 Color Specification Limits (Daytime)

The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1391 standard colorimetric system measured with standard illuminant D 65.

Type AP sheeting shall have the minimum values shown in Table 1091-2 for the type and color of material specified.

Type AP sheeting surface shall exhibit an 85 degree gloss-meter rating of not less than 50 when tested according to ASTM D 523.

The thickness of Type AP sheeting without protective liner shall not be more than 0.025 in. (0.64 mm).

- (2) Post Mounted Reflectorized Terminal Marker. Post mounted reflectorized markers shall be fabricated using a Type I Sign Panel complete with reflectorized sheeting. The reflectorized material shall be Type A or Type AP Sheeting. All materials used shall be according to Sections 1090 and 1091 of the Standard Specifications.
- (c) Guardrail and Barrier Wall Markers.
  - (1) Type A Reflector Marker. The reflectors shall conform to the requirements of Section 1097 of the Standard Specifications.

The steel mounting bracket utilized for attaching reflectors to guardrail shall be fabricated from 12 gauge (minimum) steel, and galvanized according to AASHTO M 111.

The steel banding utilized for attaching reflectors to bridge rail shall be 3/4 in. (19 mm) stainless steel banding.

(2) Type B Reflector Marker. The reflectors shall be according to Section 1097 of the Standard Specifications.

The lexan mounting bracket shall be made of high impact lexan approved by the Department. The bracket shall be white or brown in color. Brown brackets shall be specified for use with weathering M 222 (M 222M) steel guardrail applications, and white brackets shall be specified for all other applications.

(3) Type C Reflector Marker. Molded reflective surfaces, when used, shall be according to Section 1097 of the Standard Specifications, except subparagraph (d) shall not apply.

Flexible reflective sheeting faces, when used, shall be fabricated of either a weather resistant sealed microprismatic sheeting or a high-performance reflective sheeting meeting the minimum reflective values for incidence angles of -4 and +30 degrees for Type A sheeting as set forth in Table 1091-2 of the Standard Specifications or the requirements for Type AP sheeting contained herein. The sheeting shall be manufactured by either 3M, Stimsonsite, Reflexite, or an approved equivalent. The Contractor shall furnish written documentation from the sheeting manufacturer that the sheeting is approved as being compatible for use as a permanent reflector face. The sheeting shall adhere securely to the bracket at temperatures of -30 °F to +160 °F (-34 °C to +71 °C) and shall not crack when struck at -10 °F (-23 °C).

The base material shall be fabricated from high impact thermoplastic, lexan, nylon, or other approved material which shall not shatter or crack under impact at temperatures of -30 °F (-34 °C).

# CONSTRUCTION REQUIREMENTS

(a) Terminal Marker Posts. The posts shall be driven by hand or mechanical means to a minimum depth of 3 ft (900 mm) and installed according to the details shown on the plans or as directed by the Engineer. The top of the post shall be 30 in. (760 mm) above ground. The post shall be protected by a suitable driving cap and if required by the Engineer, the material around the post shall be compacted after driving. The posts shall be vertical and oriented so the face of the terminal marker shall be at 90 degrees to the center line of the adjacent pavement.

Scratching, chipping, or other damage to the post shall be avoided during handling and installation. Chips and scratches may be recoated in the field by a method meeting the coating manufacturer's recommendation, except chips and scratches totaling more than five percent of the surface area of any one post and/or more than five percent of the surface area in 1 ft (300 mm) segment of any one post shall be cause for rejection of the post.

- (b) Terminal Markers.
  - (1) Direct Applied Reflectorized Terminal Marker. The direct applied reflectorized guardrail terminal markers shall be installed directly on the guardrail nose. The marker shall be installed as shown on the plans and directly to the guardrail terminal end. The surface of the guardrail terminal end shall be cleaned of all contaminants prior to the installation of the terminal marker. The surface shall be cleaned using a 5-8 percent phosphoric acid solution and rinsed with clean water or as recommended by the manufacturer of the direct applied terminal marker sheeting and as approved by the Engineer.
  - (2) Post Mounted Reflectorized Terminal Marker. Post mounted reflectorized terminal markers shall be installed on terminal marker posts. A minimum of two bolts per post shall be required for reflectorized terminal marker panel attachment.
- (c) Guardrail and Barrier Wall Markers.
  - (1) Type A Reflector Marker. Type A reflector marker shall be installed on guardrail or bridge rail as shown on the plans. When installed on guardrail, bolts for fastening will be required. The bolt-on guardrail marker shall consist of one or two round prismatic reflectors as specified attached to a steel mounting bracket. The reflector(s) shall be securely fastened to the bracket with an aluminum rivet. When used with "W" section guardrail, it shall be attached by loosening a guardrail bolt, then slipping the slotted bracket under the head of the bolt and retightening the bolt.

Type A Reflective Markers shall be used on oval or circular bridge rails. The marker shall be attached to the bridge rail using stainless steel banding.

The face of the marker shall be vertical and oriented so the reflector face shall be at 90 degrees to the centerline of the guardrail web, or to the centerline of the bridge rail.

(2) Type B Reflector Marker. Type B reflector marker shall be installed on the concrete barrier wall or guardrail, as shown on the plans, using an adhesive. The direct applied marker shall consist of one or two round prismatic reflectors as specified attached to a lexan mounting bracket. The locations for mounting the markers on barrier walls shall be as directed by the Engineer.

The surface of the guardrail or the barrier/bridge parapet wall to which the marker is to be applied shall be free of foreign matter and any material which would adversely affect the bond of the adhesive. Cleaning of the surfaces shall be to the satisfaction of the Engineer.

An adhesive meeting the reflector unit manufacturer's specifications shall be placed either on the surface or the bottom of the marker in sufficient quantity to ensure complete coverage of the contact area with no voids present and with a slight excess after the marker is pressed firmly in place.

The face of the marker shall be vertical and oriented so the reflector face shall be at 90 degrees to the centerline of the guardrail web, or to the surface of the barrier.

(3) Type C Reflector Marker. Type C reflector marker shall be installed on concrete barrier wall as shown on the plans. The direct applied barrier wall marker shall consist of one or two reflective surfaces as specified applied to a base fabricated of suitable material.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per each for TERMINAL MARKER-DIRECT APPLIED, TERMINAL MARKER-POST MOUNTED, TERMINAL MARKER POSTS; and GUARDRAIL MARKERS and BARRIER WALL MARKERS of the type specified.

The cost of work and material involved to perform any necessary alterations to the embedment length of the terminal marker post shall be included in the contract unit price bid for Terminal Marker Posts.

#### SPECIAL PROVISION FOR BICYCLE RACKS

### Effective: April 1, 1994 Revised: January 1, 2012

Description. This work shall consist of furnishing and installing bicycle racks.

Materials. Materials shall be according to the following.

- (a) Steel Pipe. The bicycle rack shall be fabricated from steel pipe, NPS 2, Schedule 40, according to ASTM A 53. The steel pipe shall be a continuous piece as shown on the plans. The steel pipe shall not be welded in sections. Only the base plate shall be welded to the steel pipe.
- (b) Fasteners. Expansion anchors shall be stainless steel mushroom head spikes 1/2 in. (13 mm) diameter x 4 in. (100 mm) long according to ASTM A 193.
- (c) Base Plates. Base plates shall be 3/8 in. (10 mm) thick steel and according to ASTM A 36M (A 36). Base plates shall be galvanized according to ASTM A 153.
- (d) Concrete Pad. The pad shall be Class SI, portland cement concrete according to Section 1020 and curing materials shall be according to Section 1021 of the Standard Specifications.

<u>Submittals</u>. The Contractor shall submit to the Department the following items before construction begins:

- (a) Bicycle Rack -- shop drawings or product data.
- (b) Fastener -- product data.
- (c) Certifications -- submit manufacturer's certification that the pipe and coatings meet the project specifications.
- (d) Samples -- Three 12 in. (300 mm) long samples of the pipe with finish coat and three fasteners.

#### CONSTRUCTION REQUIREMENTS

<u>Coating of Bicycle Racks</u>. The steel pipe and the base plate shall be coated as specified below. Color of the coating shall be black. The coating shall be applied only after the steel pipe and base plate have been fabricated. The final product shall

not contain cracks in the coating, ripples in the curved areas, nor any damage due to fabrication and or shipping.

- (a) Steel shall be shot blast to near white steel and then an iron phosphate pretreatment shall be applied.
- (b) Primer shall be a thermosetting epoxy powder coating (Corvel Zinc Gray 13-7004 or approved equal) electrostatically applied and cured six minutes at 250 °F (121 °C). The primer thickness shall be 1.8-10 mils (45-250 μm).
- (c) Topcoat shall be triglycidly isocyanurate (TGIC) polyester powder coating, electrostatically applied and cured in an oven for 20 minutes at 250 °F (121 °C). The total of all the coatings shall be 8-10 mils (200-250 μm).

<u>Concrete Pad.</u> Prior to construction of a concrete pad, the Engineer will designate the final location, elevation, and dimensions of the pad. Excavation required for the construction of the pad may require removal of existing concrete or asphalt. The excavated area shall be compacted to the satisfaction of the Engineer. A minimum of 6 in. (150 mm) of CA 6 according to Article 1004.04 of the Standard Specifications shall be placed and compacted. The concrete pad shall be 5 1/2 in. (140 mm) thick. Forming and concrete placement shall be according to Section 420 of the Standard Specifications. The site shall be left in a broom clean condition.

<u>Fastening</u>. The bicycle rack shall be surface mounted on concrete with expansion anchors only after concrete has been cured.

Basis of Payment. This work will be paid for at the contract unit price per each for BICYCLE RACKS.

### SPECIAL PROVISION FOR TEMPORARY MODULAR GLARE SCREEN SYSTEM

## Effective: January 1, 2000 Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing, installing, and maintaining a temporary modular glare screen system on top of temporary barrier.

Materials. Materials shall be according to the following.

(a) Specifications. The base unit and blades shall be supplied from the same manufacturer.

The maximum length and width of the modular base units shall equal the dimensions of the top of the individual temporary concrete barrier sections.

The glare screen blades shall be FHWA highway green in color and made of impact resistant, non-metallic, high-density plastic material. The blades shall have a height from 24 to 30 in. (600 to 750 mm) and a width from 6 to 9 in. (150 to 225 mm). The same sized blades shall be used throughout the project.

- (b) Producers. The following modular glare screen systems shall be used:
  - Modular Guidance System Carsonite International 605 Bob Gifford Blvd. Early Branch, SC 29916 Phone: (800) 648-7974
  - (2) Safe-Hit Glare Screen Safe-Hit Corporation
     35 East Wacker Drive, Suite 1100 Chicago, IL 60601 Phone: (800) 537-8958
  - (3) FlexStake Glare Screen FlexStake, Inc.
    2150 Andrea Lane Ft. Myers, FL 33912 Phone: (800) 348-9839

Installation. The temporary modular glare screen system shall be installed according to the manufacturer's instructions such that it is centered along the top of the concrete barrier and does not extend over the joints between the concrete barrier

sections. The glare screen blades shall be installed so the combination of blade width and spacing provide for a minimum 22 degree sight cut-off angle.

<u>Method of Measurement</u>. This work will be measured for payment in feet (meters) in place, along the centerline of the modular glare screen system.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for MODULAR GLARE SCREEN SYSTEM.

#### SPECIAL PROVISION FOR TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS

## Effective: August 1, 2003 Revised: January 1, 2007

<u>Description</u>. At the Contractor's option, temporary portable bridge traffic signals may be used in place of temporary bridge traffic signals. Work shall be according to Article 701.18(b) of the Standard Specifications, except as follows:

Materials. Materials shall be according to the following.

	Item	Article/Section
(a)	Traffic Signal Head	
	Electric Cable	
(c)	Controller	
	Controller Cabinet	
	Detector Loop	

## **CONSTRUCTION REQUIREMENTS**

<u>General</u>. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

All signal heads located over the travel lane shall be mounted at a minimum height of 17 ft (5 m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 ft (2.4 m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using hardwire communication cable or radio communication equipment. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements. The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). The signal system shall be designed to continuously operate over an ambient temperature range between -30 °F (-34 °C) and 120 °F (48 °C).

When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment according to Article 701.11 of the Standard Specifications.

<u>Basis of Payment</u>. This work will be paid for according to Article 701.20(c) of the Standard Specifications.

#### SPECIAL PROVISION FOR WORK ZONE PUBLIC INFORMATION SIGNS

## Effective: September 1, 2002 Revised: January 1, 2007

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

Camera-ready artwork for the signs will be provided to sign manufacturing companies upon request by contacting the Central Bureau of Operations at 217-782-2076. The sign number is W21-I116-6048.

<u>Freeways/Expressways</u>. These signs are required on freeways and expressways. The signs shall be erected as shown on Highway Standard 701400 and according to Article 701.14 of the Standard Specifications.

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

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

## SPECIAL PROVISION FOR NIGHT TIME INSPECTION OF ROADWAY LIGHTING

#### Effective: May 1, 1996

The Contractor shall provide traffic control and protection for the night time inspection of the roadway lighting as shown in the contract. Any fixtures found not to be aimed to provide optimum lighting on the roadway during the night time inspection shall be re-aimed to optimum during the inspection. Any work necessary for re-aiming will not be paid for separately but, shall be included in the cost of the highway lighting bid items.

#### SPECIAL PROVISION FOR ENGLISH SUBSTITUTION OF METRIC BOLTS

#### Effective: July 1, 1996

This special provision consists of giving the Contractor the option of replacing metric size bolts with English size bolts.

For ASTM A 325M and AASHTO M 164M, the following substitutions will be allowed:

Metric Bolt Diameter, mm	English Substitution Diameter, in.
M16	5/8
M22	7/8
M27	1-1/8
M30	1-1/4

A 3/4 in. diameter bolt may be substituted for a M20 bolt only on connections for straight multi-girder systems, detailed with over-sized holes.

For ASTM A 307, the following substitutions will be allowed:

Metric Bolt	English Substitution
Diameter, mm	Diameter, in.
M24	1
M30	1-1/4
M36	1-1/2
M48	2
M64	2-1/2

## SPECIAL PROVISION FOR ENGLISH SUBSTITUTION OF METRIC REINFORCEMENT BARS

### Effective: April 1, 1996 Revised: January 1, 2011

<u>Description</u>. This special provision consists of giving the Contractor the option of replacing metric reinforcement bars as shown on the plans with English size reinforcement bars or metric size bars which have been soft converted. Soft Conversion is an exact conversion to the nearest millimeter.

<u>Reinforcement for Structures</u>. A metric reinforcement bar shown on the plans may be replaced bar for bar with the next size English bar or soft converted metric reinforcement bar of equal or greater cross-sectional area. The exception is the #5 English bar or #16 soft converted metric bar may be substituted bar for bar for the #15 metric bar shown on the plans.

For slab bridges and slabs of culverts, re-evaluation of the slab design will be required prior to any reinforcement bar substitutions. The Contractor shall submit the design to the Bridge Office for approval.

Metric Size	Area	English	Metric Size	Area
Shown on the	sq mm	Size	Soft Converted	sq mm
Plans			(ASTM A 706 m)	
#10	100	#4	#13	129
#15	200	#5	#16	199
#20	300	#7	#22	387
#25	500	#8	#25	510
#30	700	#10	#32	819
#35	1000	#11	#36	1006
#45	1500	#18	#57	2581

<u>Reinforcement for Pavement</u>. For English substitution of metric bars in pavements and appurtenances the Contractor may use the given English sizes shown on the Standards or metric size bars which have been soft converted, as shown in this specification.

<u>Basis of Payment</u>. No additional payment will be made for any additional weight of steel furnished in substituting English size reinforcement bars or metric size reinforcement which have been soft converted for metric bars shown on the plans.

## SPECIAL PROVISION FOR CALCIUM CHLORIDE ACCELERATOR FOR PORTLAND CEMENT CONCRETE

## Effective: January 1, 2001

The Contractor has the option to use a calcium chloride accelerator for Class PP-1 or Class PP-2 concrete.

#### SPECIAL PROVISION FOR PORTLAND CEMENT CONCRETE INLAY OR OVERLAY FOR PAVEMENTS

## Effective: November 1, 2008 Revised: January 1, 2012

<u>Description</u>. This work shall consist of constructing a portland cement concrete inlay or overlay of an existing HMA surfaced pavement.

<u>Materials</u>. Materials shall be according to the following Articles/Sections of the Standard Specifications.

	Item	Article/Section
(a)	Portland Cement Concrete (Note 1)	
(b)	Synthetic Fibers (Note 2)	
(c)	Protective Coat	

Note 1. Class PV concrete shall be used, except the cement factor for central mixed concrete shall be 6.05 cwt/cu yd (360 kg/cu m). A cement factor reduction according to Article 1020.05(b)(9) of the Standard Specifications will be permitted, but shall not exceed a maximum 0.30 cwt/cu yd (18 kg/cu m). CA 5 shall not be used and CA 7 may only be used for overlays that are a minimum of 4.5 in. (113 mm) thick. The Class PV concrete shall have a minimum flexural strength of 550 psi (3800 kPa) or a minimum compressive strength of 3000 psi (20,700 kPa) at 14 days.

Note 2. Synthetic fibers shall be Type III according to ASTM C 1116. The synthetic fiber shall be a monofilament with a minimum length of 1/2 in. (13 mm) and a maximum length of 2 1/2 in. (63 mm), and shall have a maximum aspect ratio (length divided by the equivalent diameter of the fiber) of 100. The quantity of synthetic fiber(s) added to the concrete mixture shall be sufficient to have a minimum residual strength ratio ( $R_{150,3}$ ) of 20.0 percent according to Illinois Modified ASTM C 1609. The maximum dosage rate shall not exceed 5.0 lb/cu yd (3.0 kg/cu m), unless the manufacturer can prove through a field demonstration that the concrete mixture will be workable and fiber clumping is not a problem as determined by the Engineer.

The synthetic fibers shall be added to the concrete and mixed per the manufacturer's recommendation.

The Department will maintain an approved list of synthetic fibers, which will include the minimum required dosage rate.

Equipment. Equipment shall be according to Article 420.03 of the Standard Specifications, except the mechanical saw used for cutting joints shall be equipped

#### **CHECK SHEET #29**

with an upcutting blade and a restricting skid plate to prevent spalling of the finished saw cut.

## CONSTRUCTION REQUIREMENTS

<u>Preparation of Existing Pavement</u>. The area to be overlaid shall be milled as shown on the plans. When patching is required, the patches shall be milled or their surface given a rough texture.

When detector loops are required, the loops shall be Type I or Type II according to Section 886 of the Standard Specifications. The detector loops shall be installed into the milled surface prior to cleaning.

Following milling, the surface shall be cleaned as follows.

- (a) Inlay/Overlay Plan Thickness less than 5 in. (125 mm). The surface shall be pressure washed with water at 2,000 psi (13,800 kPa) minimum.
- (b) Inlay/Overlay Plan Thickness of 5 in. (125 mm) or greater. The surface shall be cleaned with a mechanical broom, compressed air, or water.

The prepared surface shall meet the approval of the Engineer prior to proceeding with the work.

<u>Forms and Form Setting</u>. This work shall be according to Article 420.06 of the Standard Specifications, except wood forms of a height equal to the proposed inlay or overlay thickness may be used. Shims or wedges may be used to raise the forms to the specified plan elevation.

<u>Treatment of Structures in the Pavement</u>. Pavement round-outs shall be used at structures in the pavement. This work shall be as shown on the plans.

<u>Placing</u>. This work shall be according to Article 420.07 of the Standard Specifications, except standing water on the existing pavement surface shall be removed prior to concrete placement.

<u>Final Strike Off, Consolidation, and Finishing</u>. This work shall be according to Article 420.09 of the Standard Specifications, except when a Type B final finish is specified the artificial turf drag shall be replaced with a rough broom finish struck perpendicular to the direction of traffic flow. The rough broom finish shall be performed over the entire surface including tooled joints.

<u>Joints</u>. Joints shall be constructed at the locations and spacing shown on the plans. Field adjustments to the transverse joint locations will be permitted provided no transverse joint exceeds the planned spacing by more than ten percent.

The joints shall be mechanically sawed or hand tooled to 1/4 the depth of the inlay or overlay, and shall be a minimum 1/8 in. (3 mm) and a maximum 1/4 in. (6 mm) wide. Hand tooled joints may be used on mainline pavement when the posted speed limit is less than or equal to 40 mph, and on other locations as approved by the Engineer. Sawed joints shall be constructed as soon as the 66

concrete will support the weight of the saw and operator without disturbing the final finish. Hand tooled joints shall be edged with an edging tool having a 1/8 in. (3 mm) radius. Care shall be taken to minimize displacement of the finished surface.

<u>Opening to Traffic</u>. The road shall be opened to traffic according to Article 420.13 of the Standard Specifications, except curing may be discontinued and the pavement opened to traffic when a minimum flexural strength of 550 psi (3800 kPa) or a minimum compressive strength of 3000 psi (20,700 kPa) is attained.

<u>Method of Measurement</u>. This work will be measured for payment according to Article 420.19 of the Standard Specifications.

Detector loops, when required, will be measured for payment according to Article 886.05 of the Standard Specifications.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard (square meter) for PORTLAND CEMENT CONCRETE INLAY or PORTLAND CEMENT CONCRETE OVERLAY, of the thickness specified.

Protective coat will be paid for according to Article 420.20 of the Standard Specifications.

Detector loops, when required, will be paid for according to according to Article 886.06 of the Standard Specifications.

#### State of Illinois Department of Transportation

## SPECIAL PROVISION FOR QUALITY CONTROL OF CONCRETE MIXTURES AT THE PLANT

### Effective: August 1, 2000 Revised: January 1, 2011

<u>Description</u>. This Special Provision specifies the quality control responsibilities of the Contractor at the plant, for portland cement concrete mixtures, cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Schedule C.

Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing, as required in Schedule A.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer at the beginning of each construction season or each 12 month period. Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" form.

The Engineer shall have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

<u>Plant/Delivery Trucks</u>. The concrete plant and delivery trucks shall be approved according to the Department's Policy Memorandum "Approval of Concrete Plants and Delivery Trucks".

<u>Quality Control Plan</u>. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan, Part 2, to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material at the plant. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt. Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

<u>Plant Quality Control by Contractor</u>. At the plant, the Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03 of the Standard Specifications.

(a) Personnel Requirements. The Contractor shall provide personnel to perform the required inspections, sampling, testing, and documentation in a timely manner. A Quality Control (QC) Manager will not be required. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

A Concrete Tester may provide assistance with sampling and testing, and shall be supervised by a Level I or Level II PCC Technician.

(b) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Schedule A. <u>Plant Quality Assurance by Engineer</u>. The Engineer will perform quality assurance tests on independent samples and split samples at the plant. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing is indicated in Schedule B.

(a) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will not be considered extreme if within the following limits:

Test Parameter	Acceptable Limits of Precision	
Slump	0.75 in. (20 mm)	
Air Content	0.9%	
Aggregate Gradation	See "Guideline for Sample Comparison" in Appendix "A" of the Manual of Test Procedures for Materials.	

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

- (b) Test Results and Specification Limits. Split sample and independent sample testing shall be as follows.
  - (1) Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits, and the other party is within specifications limits; immediate retests on a split sample shall be performed for slump, air content, or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength test result is a failure, and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:
    - a. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.
    - b. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.
    - c. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, plant slump, and plant air content: if the failing split sample test result is not resolved according to a., b., or c., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed, the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to a., b., or c.

(2) Independent Sample Testing. For aggregate gradation, plant slump, and plant air content; if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits, and the mixture has not been placed, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed, the material will be considered unacceptable.

<u>Jobsite Acceptance Testing by the Engineer</u>. The Engineer will perform acceptance testing at the jobsite for slump, air content, and strength.

<u>Acceptance by the Engineer</u>. Final acceptance will be based on the Standard Specifications and the following:

- (a) The Contractor's compliance with all contract documents for quality control.
- (b) Comparison of the Engineer's jobsite acceptance test results with specification limits, using samples independently obtained by the Engineer.
- (c) Validation of Contractor plant quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.
- (d) Comparison of the Engineer's plant quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (a), (b), (c), and (d).

<u>Documentation</u>. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results,

#### **CHECK SHEET #30**

and corrective actions in a bound hardback field book, bound hardback diary, or appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form MI 504M shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed Form MI 504M is required to authorize payment by the Engineer, for applicable pay items.

The Engineer will be responsible for completing form MI 654 and form MI 655.

Basis of Payment. Quality Control of Concrete Mixtures at the Plant will not be paid for separately, but shall be considered as included in the cost of the various types of concrete mixtures required to construct the work items included in the contract.

CONTRACTOR PLANT SAMPLING AND TESTING - DOUBLE A			
ltem	Test	Frequency	IL Modified AASHTO, IL Modified ASTM, or Department Test Method <sup>1/</sup>
Aggregates (Arriving at Plant)	Gradation <sup>2/</sup>	As needed to check source for each gradation number	T 2, T 11, T 27, and T 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Gradation <sup>2/</sup>	2,500 cu yd (1,900 cu m) for each gradation number <sup>3/</sup>	T 2, T 11, T 27, and T 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Moisture: <sup>4/</sup> Fine Aggregate	Once per week for moisture sensor, otherwise daily for each gradation number	Flask, Dunagan, Pychnometer Jar, or T 255
	Moisture: <sup>4/</sup> Coarse Aggregate	As needed to control production for each gradation number	Dunagan, Pychnometer Jar, or T 255
Mixture <sup>5/</sup>	Slump, Air Content, Unit Weight / Yield, and Temperature	As needed to control production	T 141 and T 119 T 141 and T 152 or T 196 T 141 and T 121 T 141 and ASTM C 1064

## SCHEDULE A

- 1/ Refer to the Department's "Manual of Test Procedures for Materials".
- 2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.
- 3/ One per week (Sunday through Saturday) minimum unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

- 4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests, using the Dunagan or Illinois Modified AASHTO T 255 test method. The Department's "Water/Cement Ratio Worksheet" form shall be completed when applicable.
- 5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO T 141, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318; or other tests at the plant to control mixture production.

## SCHEDULE B

ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING		
Location Measured Property Testing Frequency <sup>1/</sup>		
Plant         Gradation of aggregates stored in stockpiles or bins, Slump and Air Content         As determined by the Engineer.		

ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING		
Location	Measured Property Testing Frequency <sup>1/</sup>	
Plant	Gradation of aggregates stored in stockpiles or bins <sup>2/</sup>	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.
	Slump and Air Content <sup>2/</sup>	As determined by the Engineer.

- 1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.
- 2/ The Engineer will witness and take immediate possession of or otherwise secure the Department's split sample obtained by the Contractor.

## SCHEDULE C

# IDOT CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

- (a) Model Quality Control Plan for Concrete Production (\*)
- (b) Qualifications and Duties of Concrete Quality Control Personnel (\*)
- (c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (\*)
- (d) Required Sampling and Testing Equipment for Concrete (\*)
- (e) Calibration of Concrete Testing Equipment (\*)
- (f) Water/Cement Ratio Worksheet (BMPR PCCW01) (\*)
- (g) Field/Lab Gradations (MI 504 M) (\*)
- (h) Aggregate Technician Course or Mixture Aggregate Technician Course (\*)
- (i) Portland Cement Concrete Tester Course (\*)
- (j) Portland Cement Concrete Level I Technician Course Manual of Instructions for Concrete Testing (\*)
- (k) Portland Cement Concrete Level II Technician Course Manual of Instructions for Concrete Proportioning (\*)
- Portland Cement Concrete Level III Technician Course Manual of Instructions for Design of Concrete Mixtures (\*)
- (m) Manual of Test Procedures for Materials
- \* Refer to the Manual of Test Procedures for Materials for more information.

#### State of Illinois Department of Transportation

## SPECIAL PROVISION FOR QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES

## Effective: April 1, 1992 Revised: January 1, 2011

<u>Description</u>. This special provision specifies the quality control responsibilities of the Contractor, for portland cement concrete mixtures, cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Schedule D.

Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer at the beginning of each construction season or each 12 month period. Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" form.

Test equipment used to determine compressive or flexural strength shall be calibrated each 12 month period by an independent agency, using calibration equipment traceable to the National Institute of Standards and Technology (NIST). The Contractor shall have the calibration documentation available at the test equipment location.

The Engineer will have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

<u>Plant/Delivery Trucks</u>. The concrete plant and delivery trucks shall be approved according to the Department's Policy Memorandum "Approval of Concrete Plants and Delivery Trucks."

<u>Quality Control Plan</u>. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan to the Engineer. The QC Plan shall be submitted a minimum of 76 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled lowstrength material incorporated in the project. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt.

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

<u>Mix Design Requirements</u>. A Level III PCC Technician shall be required to develop Contractor mix designs for concrete, cement aggregate mixture II, and controlled low-strength material. The mix design, submittal information, and Engineer verification shall be according to the "Portland Cement Concrete Level III Technician" course manual.

The Contractor shall provide the concrete, cement aggregate mixture II, and controlled low-strength material mix designs to the Engineer, a minimum of 45 calendar days prior to production. The mix design shall meet all the criteria specified in the contract. More than one mix design may be submitted for each class or type used.

The Contractor may provide a mix design previously developed by the Engineer. The Engineer will verify the mix design if the Department's historical test data shows compliance with specification requirements. This would also apply to a mix design previously developed by the Contractor.

Verification of a concrete, cement aggregate mixture II, or controlled low-strength material mix design shall in no manner be construed as acceptance of any mixture produced. The Engineer shall be notified in writing of any proposed changes, subsequent to verification of a mix design.

Tests performed at the jobsite will determine if a concrete, cement aggregate mixture II, or controlled low-strength material mix design can meet specifications. The Contractor shall make adjustments to a mix design, or submit a new mix design if necessary, to comply with the specifications.

<u>Quality Control by Contractor</u>. The Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits, or to resolve test result differences with the Engineer. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be

immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03 of the Standard Specifications.

(a) Personnel Requirements. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for quality control. The jobsite and plant personnel shall be able to contact the QC Manager by cellular phone, two-way radio or other methods approved by the Engineer.

The QC Manager shall visit the jobsite a minimum of once a week. A visit shall be performed the day of a bridge deck pour, the day a non-routine mixture is placed as determined by the Engineer, or the day a plant is anticipated to produce more than 1000 cu yd (765 cu m). Any of the three required visits may be used to meet the once per week minimum requirement.

The Contractor shall provide personnel to perform the required inspections, sampling, testing and documentation in a timely manner. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level I PCC Technician shall be provided at the jobsite during mixture production and placement, and may supervise concurrent pours on the project. For concurrent pours, a minimum of one Concrete Tester shall be required at each pour location. If the Level I PCC Technician is at one of the pour locations, a Concrete Tester is still required at the same location. Each Concrete Tester shall be able to contact the Level I PCC Technician by cellular phone, two-way radio or other methods approved by the Engineer. A single Level I PCC Technician shall not supervise concurrent pours for multiple contracts.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

For a mixture which is produced and placed with a mobile portland cement concrete plant as defined in Article 1103.04 of the Standard Specifications, a Level II PCC Technician shall be provided. The Level II PCC Technician shall be present at all times during mixture production and placement.

A Concrete Tester, Mixture Aggregate Technician, and Aggregate Technician may provide assistance with sampling and testing. A Gradation Technician may provide assistance with testing. A Concrete Tester shall be supervised by a Level I or Level II PCC Technician. A Gradation Technician shall be supervised by a Level II PCC Technician, Mixture Aggregate Technician, or Aggregate Technician.

- (b) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Schedule A.
- (c) Required Field Tests. Sampling and testing shall be performed at the jobsite to control the production of a mixture, and to comply with specifications for placement. For standard curing, after initial curing, and for strength testing; the location shall be approved by the Engineer. The required minimum Contractor jobsite sampling and testing is indicated in Schedule B.

<u>Quality Assurance by Engineer</u>. The Engineer will perform quality assurance tests on independent samples and split samples. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing is indicated in Schedule C.

- (a) Strength Testing. For strength testing, Article 1020.09 of the Standard Specifications shall apply, except the Contractor and Engineer beam strength specimens may be cured in the same tank.
- (b) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will not be considered extreme if within the following limits:

Test Parameter	Acceptable Limits of Precision
Slump	0.75 in. (20 mm)
Air Content	0.9%
Compressive Strength	900 psi (6200 kPa)
Flexural Strength	90 psi (620 kPa)
Aggregate Gradation	See "Guideline for Sample Comparison" in Appendix "A" of the Manual of Test Procedures for Materials.

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

- (c) Test Results and Specification Limits.
  - (1) Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits, and the other party is within specification limits; immediate retests on a split sample shall be performed for slump, air content, or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength test result is a failure, and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:
    - a. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.
    - b. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.
    - c. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, jobsite slump, and jobsite air content; if the failing split sample test result is not resolved according to a., b., or c., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed, or if a failing strength test result is not resolved according to a., b., or c., the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to items a., b., and c.

(2) Independent Sample Testing. For aggregate gradation, jobsite slump, and jobsite air content; if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits, and the mixture has not been placed, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work according to Article 105.03 of the Standard Specifications. If the mixture has already been placed or the Engineer obtains a failing strength test result, the material will be considered unacceptable.

<u>Acceptance by the Engineer</u>. Final acceptance will be based on the Standard Specifications and the following:

(a) The Contractor's compliance with all contract documents for quality control.

- (b) Validation of Contractor quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.
- (c) Comparison of the Engineer's quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (a), (b), or (c).

#### Documentation.

(a) Records. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, the subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form MI 504M, form BMPR MI 654, and form BMPR MI 655 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed form MI 504M, form BMPR MI 654, and form BMPR MI 655 are required to authorize payment by the Engineer, for applicable pay items.

(b) Delivery Truck Ticket. The following information shall be recorded on each delivery ticket or in a bound hardback field book: initial/final revolution counter reading, at the jobsite, if the mixture is truck-mixed; time discharged at the jobsite; total amount of each admixture added at the jobsite; and total amount of water added at the jobsite.

Basis of Payment. Quality Control/Quality Assurance of portland cement concrete mixtures will not be paid for separately, but shall be considered as included in the cost of the various concrete contract items.

CONTRACTOR PLANT SAMPLING AND TESTING			
ltem	Test	Frequency	IL Modified AASHTO, IL Modified ASTM, or Department Test Method <sup>1/</sup>
Aggregates (Arriving at Plant)	Gradation <sup>2/</sup>	As needed to check source for each gradation number	T 2, T 11, T 27, and T 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Gradation <sup>2/</sup>	2,500 cu yd (1,900 cu m) for each gradation number <sup>3/</sup>	T 2, T 11, T 27, and T 248
Aggregates (Stored at Plant in Stockpiles or Bins)	Moisture <sup>4/</sup> : Fine Aggregate	Once per week for moisture sensor, otherwise daily for each gradation number	Flask, Dunagan, Pychnometer Jar, or T 255
	Moisture <sup>4/</sup> : Coarse Aggregate	As needed to control production for each gradation number	Dunagan, Pychnometer Jar, or T 255
Mixture <sup>5/</sup>	Slump, Air Content, Unit Weight / Yield, and Temperature	As needed to control production	T 141 and T 119 T 141 and T 152 or T 196 T 141 and T 121 T 141 and T 309

## SCHEDULE A

- 1/ Refer to the Department's "Manual of Test Procedures for Materials".
- 2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.
- 3/ One per week (Sunday through Saturday) minimum unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

- 4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests, using the Dunagan or Illinois Modified AASHTO T 255 test method. The Department's "Water/Cement Ratio Worksheet" form shall be completed when applicable.
- 5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO T 141, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318; or other tests at the plant to control mixture production.

# SCHEDULE B

CONTRACTOR JOBSITE SAMPLING & TESTING 1/				
ltem	Measured Property	Random Sample Testing Frequency per Mix Design and per Plant <sup>2/</sup>	IL Modified AASHTO Test Method	
Pavement, Shoulder, Base Course,	Slump <sup>3/4/</sup>	1 per 500 cu yd (400 cu m) or minimum 1/day	T 141 and T 119	
Base Course Base Course Widening, Bridge Approach	Air Content <sup>3/ 5/</sup>	1 per 100 cu yd (80 cu m) or minimum 1/day	T 141 And T 152 or T 196	
Pavement, Driveway Pavement, Railroad Crossing, Cement Aggregate Mixture II	Compressive Strength <sup>7/ 8/</sup> or Flexural Strength <sup>7/ 8/</sup>	1 per 1250 cu yd (1000 cu m) or minimum 1/day	T 141, T 22 and T 23 Or T 141, T 177 and T 23	
Bridge Deck <sup>9/</sup> , Bridge Deck Overlay	Slump <sup>3/4/</sup>	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 and T 119	
Superstructure <sup>9/</sup> , Substructure, Culvert,	Air Content <sup>3/ 5/</sup>	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 And T 152 or T 196	
Miscellaneous Drainage Structures, Retaining Wall, Building Wall, Drilled Shaft Pile & Encasement Footing, Foundation, Pavement Patching, Structural Repairs	Compressive Strength <sup>7/ 8/</sup> or Flexural Strength <sup>7/ 8/</sup>	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141, T 22 and T 23 Or T 141, T 177 and T 23	
Seal Coat	Slump	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141 and T 119	
	Compressive Strength <sup>7/ 8/</sup> or Flexural Strength <sup>7/ 8/</sup>	1 per 250 cu yd (200 cu m) or minimum 1/day	T 141, T 22 and T 23 Or T 141, T 177 and T 23	

CONTE	CONTRACTOR JOBSITE SAMPLING & TESTING 1/				
Curb, Gutter, Median,	Slump <sup>3/4/</sup>	1 per 100 cu yd (80 cu m) or minimum 1/day	T 141 and T 119		
Barrier, Sidewalk, Slope Wall,	Air Content <sup>3/ 5/</sup> 6/	1 per 50 cu yd (40 cu m) or minimum 1/day	T 141 And T 152 or T 196		
Paved Ditch, Fabric Formed Concrete Revetment Mat <sup>11/</sup> , Miscellaneous Items, Incidental Items	Compressive Strength <sup>7/ 8/</sup> or Flexural Strength <sup>7/ 8/</sup>	1 per 400 cu yd (300 cu m) or minimum 1/day	T 141, T 22 and T 23 Or T 141, T 177 and T 23		
All	Temperature <sup>3/</sup>	As needed to control production	T 141 and T 309		
Controlled Low- Strength Material (CLSM)	Air Content, Flow and Compressive Strength	As needed to control production	Test according to CLSM specification		

- 1/ Sampling and testing of small quantities of curb, gutter, median, barrier, sidewalk, slope wall, paved ditch, miscellaneous items, and incidental items may be waived by the Engineer if requested by the Contractor. However, quality control personnel are still required according to "Quality Control by Contractor, (a) Personnel Requirements." The Contractor shall also provide recent evidence that similar material has been found to be satisfactory under normal sampling and testing procedures. The total quantity that may be waived for testing shall not exceed 100 cu yd (76 cu m) per contract.
- 2/ If one mix design is being used for several construction items during a day's production, one testing frequency may be selected to include all items. The construction items shall have the same slump, air content, and water/cement ratio specifications. The frequency selected shall equal or exceed the testing required for the construction item.

One sufficiently sized sample shall be taken to perform the required test(s). Random numbers shall be determined according to the Department's "Method for Obtaining Random Samples for Concrete". The Engineer will provide random sample locations.

- 3/ The temperature, slump, and air content tests shall be performed on the first truck load delivered, for each pour. Unless a random sample is required for the first truck load, testing the first truck load does not satisfy random sampling requirements.
- 4/ The slump random sample testing frequency shall be a minimum 1/day for a construction item which is slipformed.
- 5/ If a pump or conveyor is used for placement, a correction factor shall be established to allow for a loss of air content during transport. The first three

truck loads delivered shall be tested, before and after transport by the pump or conveyor, to establish the correction factor. Once the correction is determined, it shall be re-checked after an additional 50 cu yd (40 cu m) is pumped, or an additional 100 cu yd (80 cu m) is conveyored. This shall continue throughout the pour. If the re-check indicates the correction factor has changed, a minimum of two truckloads is required to re-establish the correction factor. The correction factor shall also be re-established when significant changes in temperature, distance, pump or conveyor arrangement, and other factors have occurred. If the correction factor is 3.0 percent or more, the Contractor shall take corrective action to reduce the loss of air content during transport by the pump or conveyor. The Contractor shall record all air content test results, correction factors and corrected air contents. The corrected air content shall be reported on Form MI 654.

6/ If the Contractor's or Engineer's air content test result is within the specification limits, and 0.2 percent or closer to either limit, the next truck load delivered shall be tested by the Contractor. For example, if the specified air content range is 5.0 to 8.0 percent and the test result is 5.0, 5.1, 5.2, 7.8, 7.9 or 8.0 percent, the next truck shall be tested by the Contractor.

If the Contractor's or Engineer's air content or slump test result is not within the specification limits, all subsequent truck loads delivered shall be tested by the Contractor until the problem is corrected.

7/ The test of record for strength shall be the day indicated in the Standard Specifications. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of at least two cylinder or two beam breaks for field tests.

In some instances, such as Articles 503.05 and 503.06 of the Standard Specifications, only a flexural strength is specified. An equivalent compressive strength may be used if approved by the Engineer.

- 8/ In addition to the strength test, an air test, slump test, and temperature test shall be performed on the same sample. For mixtures pumped or conveyored, the Contractor has the option to sample at the discharge end.
- 9/ The air content test will be required for each delivered truck load.
- 10/ For seal coat, the slump test shall be performed as needed to control production.
- 11/ For fabric formed concrete revetment mat, the slump test is not required and the flexural strength test is not applicable.

## SCHEDULE C

ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING		
Location	Measured Property	Testing Frequency <sup>1/</sup>
Plant	Gradation of aggregates stored in stockpiles or bins, Slump and Air Content	As determined by the Engineer.
Jobsite	Slump, Air Content and Strength	As determined by the Engineer.

ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING		
Location	Measured Property Testing Frequency <sup>1/</sup>	
Plant	Gradation of aggregates stored in stockpiles or bins <sup>2/</sup>	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.
	Slump and Air Content	As determined by the Engineer.
Jobsite	Slump <sup>2/</sup> and Air Content <sup>2/ 3/</sup>	At the beginning of the project, the first three tests performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.
	Strength <sup>2/</sup>	At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.

- 1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.
- 2/ The Engineer will witness and take immediate possession of or otherwise secure the Department's split sample obtained by the Contractor.
- 3/ Before transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant. After transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant.

## SCHEDULE D

# IDOT CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

- (a) Model Quality Control Plan for Concrete Production (\*)
- (b) Qualifications and Duties of Concrete Quality Control Personnel (\*)
- (c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (\*)
- (d) Required Sampling and Testing Equipment for Concrete (\*)
- (e) Method for Obtaining Random Samples for Concrete (\*)
- (f) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09) (\*)
- (g) Water/Cement Ratio Worksheet (BMPR PCCW01) (\*)
- (h) Field/Lab Gradations (MI 504 M) (\*)
- (i) Concrete Air, Slump and Quantity (BMPR MI 654) (\*)
- (j) P.C. Concrete Strengths (BMPR MI 655) (\*)
- (k) Aggregate Technician Course or Mixture Aggregate Technician Course (\*)
- (I) Portland Cement Concrete Tester Course (\*)
- (m) Portland Cement Concrete Level I Technician Course Manual of Instructions for Concrete Testing (\*)
- (n) Portland Cement Concrete Level II Technician Course Manual of Instructions for Concrete Proportioning (\*)
- (o) Portland Cement Concrete Level III Technician Course Manual of Instructions for Design of Concrete Mixtures (\*)
- (p) Manual of Test Procedures for Materials

\* Refer to the Manual of Test Procedures for Materials for more information.

# LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

The following special provisions should only be used when the local agency is the lead on a project. RESERVED

SPECIAL PROVISION FOR FURNISHED EXCAVATION

Effective: January 1, 1999 Revised: January 1, 2007

Add the following subparagraph to Article 204.07 of the Standard Specifications:

"(c) Truck Loads. When contract quantities do not exceed 2000 cu yd (cu m), furnished excavation may be measured by truck loads. Prior to the start of work, the Contractor and the Engineer shall agree to a standard volume for the trucks utilized by the Contractor. A shrinkage factor of 25 percent will be used in the computations."

#### SPECIAL PROVISION FOR WORK ZONE TRAFFIC CONTROL SURVEILLANCE

Effective: January 1, 1999 Revised: January 1, 2010

Revise Article 701.10 of the Standard Specifications to read:

"The Contractor shall conduct inspections of the worksite at a frequency that will allow for the timely replacement of any traffic control device that has become displaced, worn, or damaged. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement."

Delete Articles 701.19(d) and Article 701.20(g) of the Standard Specifications.

SPECIAL PROVISION FOR FLAGGERS IN WORK ZONES

Effective: January 1, 1999 Revised: January 1, 2007

Revise the last paragraph of Article 701.13 of the Standard Specifications to read:

"Flaggers are required only when workers are present."

> SPECIAL PROVISION FOR CONTRACT CLAIMS

Effective: January 1, 2002 Revised: January 1, 2007

Revise the second sentence of subparagraph (a) of Article 109.09 of the Standard Specifications to read:

"All claims shall be submitted to the Engineer."

Revise subparagraph (e) of Article 109.09 of the Standard Specifications to read:

"(e) Procedure. All Claims shall be submitted to the Engineer. The Engineer will consider all information submitted with the claim. Claims not conforming to this Article will be returned without consideration. The Engineer may schedule a claim presentation meeting if, in the Engineer's judgement, such a meeting would aid in resolution of the claim, otherwise a decision will be based on the claim documentation submitted. A final decision will be rendered within 90 days of receipt of the claim.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Engineer's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim."

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#### State of Illinois Department of Transportation Bureau of Local Roads and Streets

## SPECIAL PROVISION FOR BIDDING REQUIREMENTS AND CONDITIONS FOR CONTRACT PROPOSALS

### Effective: January 1, 2002 Revised: January 1, 2012

<u>Prequalification of Bidders</u>. County or Municipality. When prequalification is required and the Awarding Authority for contract construction work is the County Board of a County, the Council, the City Council, or the President and Board of Trustees of a city, village, or town, each prospective bidder, in evidence of competence, shall furnish the Awarding Authority as a prerequisite to the release of proposal forms by the Awarding Authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Department of Transportation, according to the Department's "Prequalification Manual".

The two low bidders must file, within 24 hours after the letting, a sworn affidavit in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work, using the blank form made available for this affidavit. One copy shall be filed with the Awarding Authority and two copies with IDOT's District office.

<u>Issuance of Proposal Forms</u>. The Awarding Authority reserves the right to refuse to issue a proposal form for bidding purposes for any of the following reasons:

- (a) Lack of competency and adequate machinery, plant, and other equipment, as revealed by the financial statement and experience questionnaires required in the prequalification procedures.
- (b) Uncompleted work which, in the judgement of the Awarding Authority, might hinder or prevent the prompt completion of additional work awarded.
- (c) False information provided on a bidder's "Affidavit of Availability".
- (d) Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of issuance of proposal forms.
- (e) Failure to comply with any prequalification regulations of the Department.
- (f) Default under previous contracts.
- (g) Unsatisfactory performance record as shown by past work for the Awarding Authority, judged from the standpoint of workmanship and progress.
- (h) When the Contractor is suspended from eligibility to bid at a public letting where the contract is awarded by, or requires approval of, the Department.

- (i) When any agent, servant, or employee of the prospective bidder currently serves as a member, employee, or agent of a governmental body that is financially involved in the proposal work.
- (j) When any agent, servant, or employee of the perspective bidder has participated in the preparation of plans or specifications for the proposed work.

Interpretation of Quantities in the Bid Schedule. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the 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 hereinafter provided.

Examination of Plans, Specifications, Special Provisions, and Site of Work. The bidder shall, before submitting a bid, carefully examine the provisions of the contract. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the contract and fully acquaint themselves with the detailed requirements of construction. Submission of a bid shall be a conclusive assurance and warranty the bidder has made these examinations and the bidder understands all requirements for the performance of the work. If his/her bid is accepted, the bidder shall be responsible for all errors in the proposal resulting from his/her failure or neglect to comply with these instructions. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses, or change in anticipated profits resulting from such failure or neglect of the bidder to make these examinations.

The bidder shall take no advantage of any error or omission in the proposal and advertised contract. Any prospective bidder who desires an explanation or interpretation of the plans, specification, or any of the contract documents, shall request such in writing from the Awarding Authority, in sufficient time to allow a written reply by the Awarding Authority that can reach all prospective bidders before the submission of their bids. Any reply given a prospective bidder concerning any of the contract documents, plans, and specifications will be furnished to all prospective bidders in the form determined by the Awarding Authority including, but not limited to, an addendum, if the information is deemed by the Awarding Authority to be necessary in submitting bids or if the Awarding Authority concludes the information would aid competition. Oral explanations, interpretations, or instructions given before the submission of bids unless at a prebid conference will not be binding on the Awarding Authority.

<u>Preparation of the Proposal</u>. Bidders shall submit their proposals on the form furnished by the Awarding Authority. The proposal shall be executed properly, and bids shall be made for all items indicated in the proposal form, except when alternate bids are asked, a bid on more than one alternate for each item is not required, unless otherwise provided. The bidder shall indicate in figures, a unit price for each of the separate items called for in the proposal form; the bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the proposal form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder which shall be written in ink.

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If the proposal is made by an individual, that individual's name and business address shall be shown. If made by a firm or partnership, the name and business address of each member of the firm or partnership shall be shown. If made by a corporation, the proposal shall show the names, titles, and business addresses of the president, corporate secretary and treasurer. The proposal shall be signed by president or someone with authority to execute contracts and attested by the corporate secretary or someone with authority to execute or attest to the execution of contracts.

When prequalification is required, the proposal form shall be submitted by an authorized bidder in the same name and style as shown on the "Contractor's Statement of Experience and Financial Condition" used for prequalification.

<u>Rejection of Proposals</u>. The Awarding Authority reserves the right to reject any proposal for any of the conditions in "Issuance of Proposal Forms" or for any of the following reasons:

- (a) More than one proposal for the same work from an individual, firm, partnership, or corporation under the same name or different names.
- (b) Evidence of collusion among bidders.
- (c) Unbalanced proposals in which the bid prices for some items are, in the judgement of the Awarding Authority, out of proportion to the bid prices for other items.
- (d) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum pay items.
- (e) If the proposal form is other than that furnished by the Awarding Authority; or if the form is altered or any part thereof is detached.
- (f) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
- (g) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- (h) If the proposal is not accompanied by the proper proposal guaranty.
- If the proposal is prepared with other than ink or typewriter, or otherwise fails to meet the requirements of the above "Preparation of Proposal" section.

<u>Proposal Guaranty</u>. Each proposal shall be accompanied by a bid bond on the Department form contained in the proposal, executed by a corporate surety company satisfactory to the Awarding Authority, by a bank cashier's check or a properly certified check for not less than five percent of the amount bid, or for the amount specified in the following schedule:

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

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must equal to the sum of the proposal guaranties which would be required for each individual proposal.

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to 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.

The proposal guaranty checks of all, except the two lowest responsible, will be returned promptly after the proposals have been checked, tabulated, and the relation of the proposals established. Proposal guaranty checks of the two lowest bidders will be returned as soon as the contract and contract bond of the successful bidder have been properly executed and approved. Bid bonds will not be returned.

After a period of three working days has elapsed after the date of opening proposals, the Awarding Authority may permit the two lowest bidders to substitute for the bank cashier's checks or certified checks submitted with their proposals as proposal guaranties, bid bonds on the Department forms executed by corporate surety companies satisfactory to the Awarding Authority.

<u>Delivery of Proposals</u>. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Authority and the blank spaces on the envelope shall be filled in correctly to

#### **CHECK SHEET #LRS6**

clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

<u>Withdrawal of Proposals</u>. Permission will be given a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

<u>Public Opening of Proposals</u>. Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents, and other interested parties are invited to be present.

<u>Consideration of Proposals</u>. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. In awarding contracts, the Awarding Authority will, in addition to considering the amounts stated in the proposals, take into consideration the responsibility of the various bidders as determined from a study of the data required under "Prequalification of Bidders", and from other investigations which it may elect to make.

The right is reserved to reject any or all proposals, to waive technicalities, or to advertise for new proposals, if in the judgement of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

<u>Award of Contract</u>. The award of contract will be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter of intent that his/her bid has been accepted, and subject to the following conditions, the bidder will be the Contractor.

An approved contract executed by the Awarding Authority is required before the Awarding Authority is bound. An award may be cancelled any time by the Awarding Authority prior to execution in order to protect the public interest and integrity of the bidding process or for any other reason if, in the judgement of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

If a contract is not awarded within 45 days after the opening of proposals, bidders may file a written request with the Awarding Authority for the withdrawal of their bid, and the Awarding Authority will permit such withdrawal.

<u>Requirement of Contract Bond</u>. The Contractor shall furnish the Awarding Authority a performance and payment bond with good and sufficient sureties in the full amount of the contract as the penal sum. The surety shall be acceptable to the Awarding Authority, shall waive notice of any changes and extensions of time, and shall submit its bond on the form furnished by the Awarding Authority. Execution of Contract. The contract shall be executed by the successful bidder and returned, together with the Contract Bond, within 15 days after the contract has been mailed to the bidder.

If the bidder to whom the award is made is a corporation organized under the laws of a State other than Illinois, the bidder shall furnish the Awarding Authority a copy of the corporation's Certificate of Authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish such evidence of a Certificate of Authority within the time required will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Awarding Authority, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

<u>Failure to Execute Contract</u>. If the contract is not executed by the Awarding Authority within 15 days following receipt from the bidder of the properly executed contracts and bonds, the bidder shall have the right to withdraw his/her bid without penalty.

Failure of the successful bidder to execute the contract and file acceptable bonds within 15 days after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Awarding Authority, not as penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be readvertised and constructed under contract, or otherwise, as the Awarding Authority may decide.

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#### State of Illinois Department of Transportation Bureau of Local Roads and Streets

## SPECIAL PROVISION FOR BIDDING REQUIREMENTS AND CONDITIONS FOR MATERIAL PROPOSALS

## Effective: January 1, 2002 Revised: January 1, 2012

<u>Prequalification of Bidders</u>. County or Municipality. When prequalification is required and the awarding authority for contract construction work is the County Board of a County, the Council, the City Council, or the President and Board of Trustees of a city, village, or town, each prospective bidder, in evidence of competence, shall furnish the awarding authority as a prerequisite to the release of proposal forms by the awarding authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Department of Transportation, in accordance with the Department's "Prequalification Manual".

The two low bidders must file, within 24 hours after the letting, a sworn affidavit in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work, using the blank form made available for this affidavit. One copy shall be filed with the awarding authority and two copies with the District office.

<u>Issuance of Proposal Forms</u>. The Awarding Authority reserves the right to refuse to issue a proposal form for bidding purposes for any of the following reasons:

- (a) Lack of competency and adequate machinery, plant, and other equipment, as revealed by the financial statement and experience questionnaires required in prequalification procedures.
- (b) Uncompleted work which, in the judgement of the Awarding Authority, might hinder or prevent the prompt completion of additional work awarded.
- (c) False information provided on a bidder's "Affidavit of Availability".
- (d) Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of issuance of proposal forms.
- (e) Failure to comply with any prequalification regulations of the Department.
- (f) Default under previous contracts.
- (g) Unsatisfactory performance record as shown by past work for the Awarding Authority, judged from the standpoint of workmanship and progress.
- (h) When the Contractor is suspended from eligibility to bid at a public letting where the contract is awarded by, or requires approval of, the Department.

- (i) When any agent, servant, or employee of the prospective bidder currently serves as a member, employee, or agent of a governmental body that is financially involved in the proposal work.
- (j) When any agent, servant, or employee of the perspective bidder has participated in the preparation of plans or specifications for the proposed work.

Interpretation of Quantities in the Bid Schedule. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the 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 hereinafter provided.

Examination of Material Proposal, Specifications, Special Provisions, and Site of Work. The bidder shall, before submitting a bid, carefully examine the provisions of the proposal. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the work and fully acquaint themselves with the detailed requirements of the work. Submission of a bid shall be a conclusive assurance and warranty the bidder has made these examinations and the bidder understands all requirements for the performance of the work. If his/her bid is accepted, the bidder will be responsible for all errors in the proposal resulting from his/her failure or neglect to comply with these instructions. The Awarding Authority will, in no case, be responsible for any costs, expenses, losses, or change in anticipated profits resulting from such failure or neglect of the bidder to make these examinations.

The bidder shall take no advantage of any error or omission in the proposal. Any prospective bidder who desires an explanation or interpretation of the specification, or any of the documents, shall request such in writing from the Awarding Authority, in sufficient time to allow a written reply by the Awarding Authority that can reach all prospective bidders before the submission of their bids. Any reply given a prospective bidder concerning any of the documents and specifications will be furnished to all prospective bidders in the form determined by the Awarding Authority including, but not limited to, an addendum, if the information is deemed by the Awarding Authority to be necessary in submitting bids or if the Awarding Authority concludes the information would aid competition. Oral explanations, interpretations or instructions given before the submission of bids unless at a prebid conference will not be binding on the Awarding Authority.

<u>Preparation of the Proposal</u>. Bidders shall submit their proposals on the form furnished by the Awarding Authority. The proposal shall be executed properly, and bids shall be made for all items indicated in the proposal form, except when alternate bids are asked, a bid on more than one alternate for each item is not required, unless otherwise provided. The bidder shall indicate in figures, a unit price for each of the separate items called for in the proposal form; the bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the proposal form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder which shall be written in ink.

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When prequalification is required, the proposal form shall be submitted by an authorized bidder in the same name and style as shown on the "Contractor's Statement of Experience and Financial Condition" used for prequalification and shall be submitted in like manner.

<u>Rejection of Proposals</u>. The Awarding Authority reserves the right to reject any proposal for any of the conditions in "Issuance of Proposal Forms" or for any of the following reasons:

- (a) More than one proposal for the same work from an individual, firm, partnership, or corporation under the same name or different names.
- (b) Evidence of collusion among bidders.
- (c) Unbalanced proposals in which the bid prices for some items are, in the judgement of the Awarding Authority, out of proportion to the bid prices for other items.
- (d) If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum pay items.
- (e) If the proposal form is other than that furnished by the Awarding Authority; or if the form is altered or any part thereof is detached.
- (f) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.
- (g) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- (i) If the proposal is not accompanied by the proper proposal guaranty.
- (i) If the proposal is prepared with other than ink or typewriter, or otherwise fails to meet the requirements of the above "Preparation of Proposal" section.

<u>Proposal Guaranty</u>. Each proposal shall be accompanied by a bid bond on the Department form contained in the proposal, executed by a corporate surety company satisfactory to the Awarding Authority, by a bank cashier's check or a properly certified check for not less than five percent of the amount bid, or for the amount specified in the following schedule:

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

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must equal to the sum of the proposal guaranties which would be required for each individual proposal.

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to 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 this proposal contains various groups and the bidder has the option of bidding on one or several groups, the bidder may provide a separate proposal guaranty for each group or combination of groups in lieu of a single proposal guaranty to cover the amount bid for the entire proposal. Each proposal guaranty shall identify the groups covered by the individual proposal guaranty. In the event that one proposal guaranty check is intended to cover two or more groups, the amount must be equal to the sum of the proposal guaranties which would be required for each individual group.

The proposal guaranty checks of all, except the two lowest responsible, will be returned promptly after the proposals have been checked, tabulated, and the relation of the proposals established. Proposal guaranty checks of the two lowest bidders will be returned as soon as the contract and contract bond of the successful bidder have been properly executed and approved. If a contract bond is not required, the proposal guaranty check will be held in lieu thereof. Bid bonds will not be returned.

The awarding authority may deny the use of a bid bond as a proposal guaranty but may not further restrict the proposal guaranty. The Notice of Material Letting will state whether a bid bond is allowed.

Delivery of Proposals. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Authority and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

# **CHECK SHEET #LRS7**

<u>Withdrawal of Proposals</u>. Permission will be given a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

<u>Public Opening of Proposals</u>. Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents and other interested parties are invited to be present.

<u>Consideration of Proposals</u>. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the quantities shown in the bid schedule by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit bid price shall govern. In awarding the supply of materials, the Awarding Authority will, in addition to considering the amounts stated in the proposals, take into consideration the responsibility of the various bidders as determined from a study of the data required under "Prequalification of Bidders", and from other investigations which it may elect to make.

The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if in the judgement of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

Acceptance of Proposal to Furnish Material. The award will be made within 45 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter of intent that his/her bid has been accepted, and subject to the following conditions, the bidder will be the Contractor or Supplier.

An acceptance of proposal to furnish materials executed by the Awarding Authority is required before the Awarding Authority is bound. An award may be cancelled any time by the Awarding Authority prior to execution in order to protect the public interest and integrity of the bidding process or for any other reason if, in the judgement of the Awarding Authority, the best interests of the Awarding Authority will be promoted thereby.

If a material proposal is not awarded within 45 days after the opening of proposals, bidders may file a written request with the Awarding Authority for the withdrawal of their bid, and the Awarding Authority will permit such withdrawal.

<u>Requirement of Contract Bond</u>. If the Awarding Authority requires a Contract Bond, the Contractor or Supplier shall furnish the Awarding Authority a performance and payment bond with good and sufficient sureties in the full amount of the award as the penal sum. The surety shall be acceptable to the Awarding Authority, shall waive notice of any changes and extensions of time, and shall submit its bond on the form furnished by the Awarding Authority.

The contract bond shall be returned within 15 days after the notice of award. Failure of the successful bidder to execute and file acceptable bonds within 15 days after the notice of award has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Awarding Authority, not as penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be readvertised, or otherwise, as the Awarding Authority may decide. 104

If the bidder to whom the award is made is a corporation organized under the laws of a State other than Illinois, the bidder shall furnish the Awarding Authority a copy of the corporation's Certificate of Authority to do business in the State of Illinois with the return of the contract bond. Failure to furnish such evidence of a Certificate of Authority within the time required will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Awarding Authority, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

<u>Failure to Execute the Acceptance of Proposal to Furnish Material</u>. If the acceptance of proposal to furnish material is not executed by the Awarding Authority within 15 days following receipt from the bidder of the properly executed bonds, the bidder shall have the right to withdraw his/her bid without penalty.

# **CHECK SHEET #LRS8**

RESERVED

## SPECIAL PROVISIONS FOR BITUMINOUS SURFACE TREATMENTS

Effective: January 1, 1999 Revised: January 1, 2011

Revise the last sentence of Article 403.13 of the Standard Specifications to read:

"Upon completion of the work and after the final set of the asphalt, excesses of loose aggregate shall be removed."

# CHECK SHEET #LRS10

RESERVED

# SPECIAL PROVISION FOR EMPLOYMENT PRACTICES

#### Effective: January 1, 1999

In addition to all other labor requirements set forth in this proposal and in the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

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

Equal Employment Opportunity. During the performance of this contract, the Contractor agrees as follows:

- (a) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (b) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (c) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service.

That it will send to each labor organization or representative of workers with which it has or is bound by collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with so such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

- (e) That it will submit reports as required by the Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (f) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (g) That it will include verbatim or by reference the provisions of this clause in every subcontract so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

### SPECIAL PROVISION FOR WAGES OF EMPLOYEES ON PUBLIC WORKS

Effective: January 1, 1999 Revised: January 1, 2010

All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the revised rate as provided by the public body shall apply to this contract and the Contractor will not be allowed additional compensation on account of said revisions.

The Contractor and each subcontractor shall make and keep, for a period of not less than three years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, and the starting and ending times of work each day.

The Contractor and each subcontractor shall submit monthly, in person, by mail, or electronically a certified payroll to the public body in charge of the project, except that the full social security number and home address shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The certified payroll shall consist of a complete copy of the records. The certified payroll shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and (iii) the Contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

Upon two business days' notice, the Contractor and each subcontractor shall make available for inspection the records to the public body in charge of the project, its officers and agents, and to the Director of Labor and his deputies and agents at all reasonable hours at a location within this State. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor.

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State of Illinois Department of Transportation Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR SELECTION OF LABOR

Effective: January 1, 1999 Revised: January 1, 2012

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

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

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

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

# SPECIAL PROVISION FOR PAVING BRICK AND CONCRETE PAVER PAVEMENTS AND SIDEWALKS

# Effective: January 1, 2004 Revised: January 1, 2009

<u>Description</u>. This work shall consist of constructing pavement or sidewalk, composed of paving bricks or concrete pavers, on a prepared subgrade, subbase, or base.

<u>Materials</u>. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications.

	Item	Article/Section
(a)	Fine Aggregate (Note 1) .	
(b)	Edge Restraints (Note 2)	
(c)	Paving Brick (Note 3)	
(d)	Concrete Pavers (Note 3)	

Note 1. The fine aggregate used for the bedding course and joint filling shall be sand, silica sand, or slag sand. It shall also be Class A quality and dry. For the bedding course, the gradation shall be FA 1 or FA 2. For joint filling, the gradation shall be FA 9.

Note 2. For sidewalk, the edge restraints shall conform to the manufacturer's recommendations. For pavement, the edge restraints shall be combination concrete curb and gutter according to Section 606 of the Standard Specifications.

Note 3. The dimensions of the bricks and/or pavers shall be as shown on the plans.

Equipment. Equipment shall conform to the following Articles of Division 1100 - Equipment of the Standard Specifications.

	Item	Article/Section
(a)	Pneumatic-Tired Rollers	1101.01(a)
(b)	Masonry Saw (Note 1)	

(c) Vibrator/Compactor (Note 2)

Note 1. The masonry saw shall be a wet or dry saw capable of clean and accurate cuts.

Note 2. The vibrator/compactor shall be either a plate compactor with a high frequency, low amplitude plate or a rubber-roller mechanical vibrator.

<u>Aesthetic Mockup, Review, and Approval</u>. A 1 sq yd (sq m) full-scale mock-up using actual job specific edge restraint (if other than combination concrete curb and gutter), materials, brick dimension, colors, methods, and workmanship shall be provided by the Contractor. The actual vibrating equipment and vibrating rate to be used on the job shall be used on the mockup. The accepted mock-up will be the standard by which remaining work will be evaluated for technical and aesthetic merit. The mock up may be in a location of proposed installation where it may remain if approved by the Engineer.

#### **CONSTRUCTION REQUIREMENTS**

<u>Preparation of Subgrade</u>. The subgrade shall be prepared according to Section 301of the Standard Specifications, except Articles 301.05 and 301.06 will not apply.

Edge Restraints. Edge restraints shall be placed to a depth of at least the bottom of the bedding course.

For pavement, a transverse full-depth cast-in-place concrete header shall be placed at the limits of the pavement.

<u>Bedding Course</u>. The fine aggregate for bedding shall be placed and screeded, without compaction, to a uniform thickness of 1 to 1.5 in. (25 to 38 mm). Prepared areas shall not be left overnight, unless they are protected from disturbance and moisture. Stockpiled material shall be kept covered. Any saturated bedding aggregate shall be removed and replaced.

Installation. The bricks or pavers shall be laid in the pattern shown on the plans with a joint width from 1/8 to 1/4 in. (3 to 6 mm) on all sides. Whole bricks or pavers shall be laid first, starting from an exact edge or from the centerline of the pavement, followed by cut bricks or pavers. Cut bricks or pavers shall be at least 33 percent of the whole unit size.

After the entire pavement or sidewalk has been laid, it shall be set into the bedding course by one pass of the vibrator/compactor. Vibration/compaction shall stop within 3 ft (1 m) of any unrestrained edge.

For pavement, construction equipment shall not be driven on the new surface until the joints have been filled.

<u>Joint Filling</u>. The fine aggregate for joint filling shall be spread over the pavement or sidewalk and hand broomed into the joints. The aggregate shall then be worked down into the joints with multiple passes of the vibrator/compactor. Each pass shall be alternated 90 degrees from the previous pass. This process shall be repeated until the joints are completely filled.

Excess fine aggregate shall be removed by hand brooming.

All bricks and pavers within 6 ft (1.8 m) of the laying face shall be compacted and the joints completely filled with sand at the end of each workday.

For pavement, final rolling shall be completed with a 5 - 10 ton (4.5 - 9 metric ton) static pneumatic-tired roller.

<u>Smoothness</u>. For pavement, the completed surface will be tested for smoothness with a 16 ft (5 m) straightedge. Surface variations of the mainline pavement shall not exceed 3/16 in. (5 mm).

Method of Measurement. This work will be measured for payment as follows:

- (a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a) of the Standard Specifications.
- (b) Measured Quantities. This work will be measured for payment in place and the area computed in square yards (square meters). Measurements will not include the edge restraints.

Edge restraints constructed of combination concrete curb and gutter will be measured according to Article 606.14 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per square meter (square yard) for PAVING BRICK PAVEMENT FOR LIGHT TRAFFIC, PAVING BRICK PAVEMENT FOR HEAVY TRAFFIC, CONCRETE PAVER PAVEMENT, PAVING BRICK SIDEWALK, or CONCRETE PAVER SIDEWALK.

Edge restraints constructed of combination concrete curb and gutter will be paid for according to Article 606.15 of the Standard Specifications.

State of Illinois Department of Transportation

### SPECIAL PROVISION FOR PARTIAL PAYMENTS

Effective: January 1, 2007

Add the following after the first paragraph of Article 109.07(a) of the Standard Specifications:

"The State will deduct from the amount so determined for the first 50 percent of the completed work a sum of ten percent to be retained until after the completion of the entire work to the satisfaction of the Engineer. After 50 percent or more of the work is completed, the Engineer may, at his/her discretion, certify the remaining partial payments without any further retention, provided that satisfactory progress is being made, and provided that the amount retained is not less than five percent of the total adjusted contract price. When the principal items of the work have been satisfactorily completed, a semi-final estimate may be made with the consent of the surety. Payment to the Contractor under such an estimate shall not exceed 90 percent of the amount retained after making partial payments, but in no event shall the amount retained after making the semi-final payment be less than one percent of the adjusted contract price, nor less than \$500.00.

When any payment is made directly to the State, payments for completed work shall have deducted the proportionate share of the cost to be borne by the State. The deduction will be the estimated cost to the State divided by the awarded contract value with this percentage applied to the value of work in place. Any adjustment to be made because of changed quantities will be made when the final payment is being processed. No retainage will be held from the value of such payments."

# SPECIAL PROVISION FOR PROTESTS ON LOCAL LETTINGS

# Effective: January 1, 2007

All protests will be handled according to Subpart F of Subtitle B of Title 44 of the Illinois Administrative Code except for apprenticeship and training certification issues. The Chief Procurement Officer will be a representative of the awarding authority.

# SPECIAL PROVISION FOR SUBSTANCE ABUSE PREVENTION PROGRAM

# Effective: January 1, 2008 Revised: January 8, 2008

In addition to all other labor requirements set forth in this proposal and in the Standard Specification for Road and Bridge Construction, adopted by the Department, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

Substance Abuse Prevention Program. Before the Contractor and any subcontractor commences work, the Contractor and any subcontractor shall have in place a written Substance Abuse Prevention Program for the prevention of substance abuse among its employees which meets or exceeds the requirements in P.A. 95-0635 or shall have a collective bargaining agreement in effect dealing with the subject matter of P.A. 95-0635.

The Contractor and any subcontractor shall file with the public body engaged in the construction of the public works: a copy of the Substance Abuse Prevention Program along with a cover letter certifying that their program meets the requirements of the Act, or a letter certifying that the Contractor or a subcontractor has a collective bargaining agreement in effect dealing with the subject matter of this Act.