# 46<sup>th</sup> Annual Michigan County Engineers Workshop

February 15, 2012

Brenda J. O'Brien, P.E. Engineer of Construction Field Services Michigan Department of Transportation

## 2012 Standard Specifications for Construction

## Division 1

Major Changes

### 2012 Standard Specifications

 Incorporated into projects beginning October 2011 letting

2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION

### 2012 Standard Specifications



Transition Years – Projects with 2003 or 2012 Spec Book for the next few years.

#### 2012 Spec Book – Division 1

Active Voice Revision More Use of Outline Format Incorporation of Special Provisions Significant Re-organization All payment provisions in 109 Sequence for Contract Revisions 109.05 Contract Unit Prices Negotiated Prices Force Account

#### **Active Voice Revision**

#### <u>2003 - 104.03</u>

"Deviations from the plans for the work or from working drawings, will not be permitted without the written order of the Engineer."

#### **Active Voice Revision**

#### <u>2012 - 104.03</u>

"The Contractor must not deviate from the plans or from Department-approved working drawings and design calculations, unless the deviation is approved by the Engineer in writing."

# Outline Format

#### 2003 - 105.01

"Unless otherwise specified in the contract documents, only new materials or fabricated items conforming to the requirements of the specifications... the Contractor shall provide the information requested on the Department's testing order form...The Contractor will be permitted to change the source of supply provided the Department is given reasonable time to carry out required inspection and testing...If accepted materials are transferred from another contract..."

#### **Outline Format**

#### 2012 - 105.01

"Unless otherwise required by the contract, the Contractor must:

A. Provide new materials...

B. ...provide the information requested on the...Testing Order...

C. Notify the Engineer...when materials are required on site

D. Provide...a reasonable time to sample, test or inspect...

2003 – "Terms, Format and Definitions"

2012 – "Terms, Format, and Definitions"

Incorporated 03SP101(A) "Special Provision for Definition Changes"

New Definitions Added

New Definitions

 Limits of Earth Disturbance
 Used to determine "Clearing" Pay Limits 201.04.A

 Liquidated Damages
 Monetary Damages Paid by Contractor to Department for work not completed on time

#### New Definitions

#### Mathematically Unbalanced Bid

 Bid that does not reflect reasonable actual costs for labor, equipment, materials, plus reasonable profit, overhead and other indirect costs

#### Materially Unbalanced Bid

Reasonable Doubt that a bidder with a mathematically unbalanced bid will result in the lowest ultimate cost

#### 2012 Spec Book – 101 Materially Unbalanced Bid Example

Pay Item: Widgets Estimated Quantity 10 Each Correct Quantity 100 Each (Plan Error) Average Unit Price = \$100 Each

#### **Contractor A**

#### Contractor B

Total Project Bid \$100,000 Bid \$, Widgets \$1000 Add +90 x \$1000

Adjusted Total Bid =

\$90,000

\$190,000

**Total Project Bid** Bid \$, Widgets \$100 Add +90 x \$100

\$120,000 \$9,000

Adjusted Total Bid =

\$129,000

2003 – "Proposal Submission, Award and Execution of Contract"

2012 – "Bid Submission, Award and Execution of Contract"

 Updated to reflect current electronic bid procedures

 2003-102.14 – "Construction Progress Schedule"
 Much of this moved to 2012-108, "Prosecution and Progress"

2003 – "Scope of Work"

2012 – "Scope of Work"

2012-103.02 – "Revisions to the Contract" 2012-103.02.B.2 – Adjustment for Major Items of Work decreased below 75% of original contract quantity capped at 75% of original quantity x contract unit price 2012-103.02.D – "Suspension of Work Ordered by the Engineer" - New Subsection incorporates parts of 2003-104.01.B "Authority of the Engineer to Suspend Work" ■ 2012-103.02.F – "Eliminated Work" – *New* Subsection replaces 2003-109.05 "Eliminated Work"

#### 2012 Spec Book - 103 2012-103.03 – "Contractor-Engineer Communication" – New Subsection Written Contractor Notice and Written **Engineer Response for:** Significant Changes in the Character of Work Differing Site Conditions Suspension of Work Ordered by the Engineer

 2003 – 103.03 "Adjustments" - *Eliminated* Significant Change
 Differing Site Conditions
 Payment will be in accordance with 2012-109.05

2003-103.05 – "Traffic Control" – Moved Most moved to Division 8 "Incidental Construction" Some moved to 2012-104.11 "Work Zone" Safety and Mobility" – New Subsection 2003-103.06 – "Maintenance During" Construction" – Moved To 2012-104.07 "Contractor Obligations" (New 104.07.C)

2003-103.07 – "Final Clean Up" – Moved
 Moved in its entirety to 2012-104.07
 "Contractor Obligations" (New 104.07.D)

2003 – "Control of the Work"

2012 – "Control of the Work"

- 2003-104.01.B "Authority of the Engineer to Suspend Work" – Moved
  - Moved to 103.02.D "Suspension of Work Ordered by the Engineer"
- 2012-104.01.C "Authority of the Engineer to Direct the Acceleration of Work" – New Subsection
  - Only applies when the Engineer directs acceleration for early completion, not when contractor is behind schedule

2012-108.05.B for behind schedule

Payment in accordance with 109.05.F

2003 Silent on Directed Acceleration

 2012-104.04 "Conformity with the Contract" – *Replaces 2003-104.04* "*Conformity with Plans and Specifications"* Non-conforming materials specifications moved to 2012-105.08 "Nonconforming Materials"

2012-104.07 "Contractor Obligations" – Combines other subsections 2003-103.06 "Maintenance During Construction" 2003-103.07 "Final Clean Up" 2003-104.10 "Safety and Health" **Requirements**" 2003-108.04 "Competence of Contractor Supervision"

- 2003-104.08 "Lines, Grades, and Elevations" – *Majority moved to Division 8, Subsection 824* 2012-104.10 "Claim for Extra
  - Compensation or Time Extension"
  - Incorporates BOHIM 2008-02 "Review of Contractor Claims"

- 2012-104.11 "Work Zone Safety and Mobility"
  - Expanded 2003-104.11 "Limitations for Construction Equipment On or Crossing Pavements and Structures"
  - Updates old 2003-104.11 Requirements
  - Incorporates language from the "Work Zone Safety and Mobility Manual"
  - Requires the Contractor to develop and provide a work zone traffic control plan

2012-104.12 "Approval for the Use of Right-of-Way" – New Subsection

Process for a Contractor to request the use of ROW

Requires written response from the Engineer

- Requires specific information from the Contractor
- Incorporates some of 2003-105.06 "Storage of Materials"

2003 – "Control of Materials"

2012 – "Control of Materials"

2012-105.08 "Nonconforming Materials" – Replaces 2003-105.08 "Unacceptable Materials"

- Defines alternatives for nonconforming materials
  - Accept with Guaranty Bond or Reduction in Unit Price
  - Reject/Replace

2003 – "Quality Assurance Acceptance Program"
2012 – "Quality Assurance Acceptance Program"

All relocated to Quality Assurance Manual except first paragraph. Reference made to contract and QA Manual.

2003 – "Legal Relations and Responsibilities to the Public"

2012 – "Legal Relations and Responsibilities to the Public"

 2012-107.12 "Contractor's Responsibility for Utility Property and Services"
 All Metro Region contact information has been removed. The contractor must contact the maintenance representative at the appropriate MDOT Region Office for information.

2012-107.15.A.4 "Demolition or Renovation Notification" – New Subsection 2012-107.15.B & C "Construction Site Storm Water Runoff" and "Control of Hazardous and Polluting Materials" Enhanced to include requirements of our Storm Water Permit from the MDNRE.

2003 – "Prosecutions and Progress"

2012 - "Prosecutions and Progress"

- 2012-108.05 "Progress of the Work" Incorporates progress schedule requirements from 2003-102.14 "Construction Progress Schedule"
- 2003-108.02 "Performance of the Work" Moved to 2012-108.05.B "Prosecution of the Work"

 May require updated progress schedule detailing efforts to meet contract completion dates

NOT directed acceleration (2012-104.01.C), NOT compensable

2003-108.03 "Limitations of Operations" – Portions moved to 2012-104.08 "Cooperation by the Contractor" Language pertaining to disputes between two or more contractors. 2012-108.03 "Competence of Workers" Stronger language to ensure competence of workers

2003-108.04 "Competence of Contractor Supervision" – Relocated to 2012-104.07 "Contractor Obligations" 2012-108.08.E – Formula for increased quantities,  $E = (T \times I)/Q$ Time Extension based on the formula, but <u>not</u> to exceed the actual number of days required to do the work.

- 2012-108.09.B "Compensable Delays" New Subsection
  - Incorporates first section of 2003-109.03 "Payments for Increased Contractor Costs", which defines delays attributable to the Department
  - References 2003-103.02 "Changes in the Work" (Differing Site Conditions, Significant Changes, Engineer Ordered Suspension, Extra Work, Eliminated Work)

Payment in accordance with 2012-109.05.E "Delay Costs" – New Subsection replaces 2003-109.03.C payment methodology

 2012-108.09.C "Non-Excusable Delays" – *New Subsection* Delays that are the Contractor's fault or

responsibility

No extensions of time and non-compensable

2012-108.10.C "Assessment of Liquidated Damages" – Updated Updated to reflect actual CE costs as required by the Federal Regulations New categories ■ \$10M – less than \$20M ■ \$20M – less than \$50M ■ \$50M or more

2003 – "Measurement and Payment"

2012 – "Measurement and Payment"

 2003-109.03 "Payments for Increased Contractor Costs" – *Deleted and portions moved to other places in the book* First part moved to 2012-108.09.B "Compensable Delays"
 2003-109.03.C - method of payment revised and moved to 2012-109.05.E "Delay Costs"

2003-109.05 "Eliminated Work" – Relocated to 2012 103.02.F "Eliminated Work"

Payment for all direct costs incurred on the item prior to the work being eliminated

2012-109.05 "Payment for Contract **Revisions**" All payment for revisions to the contract are included in this subsection Payment determined by sequence Contract Unit Prices Negotiated Price

Force Account

 2012-109.05.D.6 "Equipment and Plant" – *New definitions for Force Account Equipment rental rates* Base Hourly Rate=Rental Rate + Operating Rate
 Standby Rate=50% of Rental Rate
 Payment not to exceed cost of equipment

 2012-109.05.D.10(a) Force Account Employee Earnings Statement
 Must show employee earnings to date – *New* Used to determine unemployment insurance cost

2003-109.06.C "Materials Stockpiled Off-Site" – Eliminated

Combined with 2012-109.04.B "Delivered and Stockpiled Materials

No Major Changes

2012-109.05.E "Delay Costs" – New Subsection

 Payment method for Compensable Delays
 Replaces 2003-109.03.C "Payments for Increased Contractor Costs"
 Used for payment of delay caused by

significant change, differing site conditions, and engineer suspended work.

 2012-109.05.F "Directed Acceleration" – *New Subsection* 2003 Spec Book Silent
 Only applies when Directed by the Engineer AND for avoiding user delay costs or to complete the project early

2012-109.05.F "Directed Acceleration" – New Subsection

Does NOT include direction per 2012-108.05.B "Prosecution of the Work"

2012-109.05.G "Unrecoverable Costs" – New Subsection

Loss of anticipated profit

 Consequential damages (loss of bonding capacity, business interruption, etc.)

Indirect Costs

Attorney fees, litigation fees, etc.

Field or home office overhead except as provided in force account markups

2012-109.07 "Final Inspection, Acceptance, and Final Payment" – New Subsections to address interim acceptance 2012-109.07.A "Partial Acceptance" - New For <u>completed portions</u> of work (i.e. stages, locations, etc.) Relieves a contractor of maintenance responsibility Is NOT final acceptance Does NOT relieve responsibility for defective work

2012-109.07 "Final Inspection, Acceptance, and Final Payment" – New Subsections to address interim acceptance 2012-109.07.B "Delayed Acceptance" - New For items designated for delayed acceptance Pavement markings, plantings, etc. Is NOT final acceptance Does NOT relieve responsibility for defective work

2003 – "Mobilization"

2012 – "Mobilization"

There have been no significant changes to this section.

# 2012 Standard Specifications

Roll Out Plan Major Changes from 2003 Online and Digital Format Investigating "YouTube" as a medium DVD's Modules for each Division Division 1 completed by January 31'st All Divisions completed by Spring 2012

# Questions?