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| DOTLOGO2 | **MODEL QUALITY CONTROL PLAN FOR VOLUMETRIC MOBLIE MIXER PRODUCTION FOR CONCRETE** |
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| INSTRUCTIONS:  The Producer shall respond to all items addressed in this model template. This is applicable to work performed by the Producer or subcontractor(s). Examples and explanations are provided in the Departmental Policy Memo “Approval of Volumetric Mobile Mixers for Concrete” to assist the Producer, and any innovations to the quality control process may be presented. If an item does not pertain to the Producer’s particular operation, it shall be marked “Not Applicable” or “N/A”. | |

**ILLINOIS DEPARTMENT OF TRANSPORTATION**

**Quality Control Plan for Volumetric Mobile Mixer Production for Concrete**

Effective: **(enter date)**

Producer Name:

Submittal Date:

Producer/Supplier Number:

P.O. Box:

Street Address:

City/State/ZIP Code:

Contact Person:

Phone Number:

E-Mail Address:

PRODUCER RESPONSIBILITIES

This Quality Control plan explains how (enter company/firm name) proposes to control the equipment, materials, and production methods to ensure the specified concrete product is obtained. The Producer agrees to read, understand, abide, and implement all the requirements in the Department’s Policy Memorandum, “Approval of Volumetric Mobile Mixers for Concrete”, and the Policy Memorandum will be considered a part of this Quality Control Plan.

PRODUCER’S ACKNOWLEDGEMENT

(enter company/firm name) desires to obtain advance approval of materials to be supplied to Department of Transportation or Local Agency contractors as more fully described herein. I and the company understand that the Department of Transportation or Local Agency reserves the right in its contracts to approve materials at the source of supply as provided in Article 106.01 of the Standard Specifications for Road and Bridge Construction supplied to the State, Local Agency or any of its contractors. In consideration of approval, I and the company agree to the terms, conditions, and performance standards of the Standard Specifications for Road and Bridge Construction and Policy Memorandum, “Approval of Volumetric Mobile Mixers for Concrete,” a copy of which has been received. Once approved, all procedures in this Quality Control Plan are a binding provision of the contract.

1. Calibration.

Start of Production. The Quality Control Manager will conduct the calibration of each mixer. Each calibration will be witnessed and approved by the Department and/or Local Agency prior to start of concrete production.

Recalibration. Recalibration will take place if any of the following situations exist:

* Mechanical adjustments are made to a volumetric mixer that impact the movement, control, proportioning or mixing of the cement, admixtures, aggregates, or water.
* A particular mix or mixer demonstrates inconsistent test results.
* Recalibration has been deemed necessary by the Department and/or Local Agency.

1. Material Control – Aggregates.

Certified aggregates with gradation bands in accordance with the Department’s Aggregate Gradation Control System (AGCS) will be obtained from IDOT approved aggregate sources. Prior to incorporation into the mix, documentation verifying each aggregates approval under the AGCS system and the associated bands for each of those aggregate products will be made available by the Producer for review at any time.

Material No. 1 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

Material No. 2 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

Material No. 3 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

Material No. 4 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

Material No. 5 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

Material No. 6 Information

Material Code:

Material Type (course/fine):

Producer/Supplier Number:

Company Name:

Contact Person:

Telephone Number:

1. Material Control - Aggregate Stockpiling and Handling.

Aggregates will be stockpiled and handled in a manner which minimizes segregation and degradation, prevents contamination, produces a uniform gradation before placement in a volumetric mobile mixer, and ensures uniform moistures are being achieved according to [Articles 106.06, 106.07, 1003.01(e), 1004.01(e), 1004.02(d), and 1020.10 of the Standard Specifications for Road and Bridge Construction](https://public.powerdms.com/IDOT/documents/1945348/Standard%20Specifications%20for%20Road%20and%20Bridge%20Construction%202022).

Description of stockpile operation at the plant and/or jobsite:

IV. Material Control - Moisture Control of Aggregates.

Coarse and fine aggregate moistures will be tested a minimum of once per week, or as necessary to control production.

1. Material Control – Gradation Tests for Aggregates.

Aggregates stored at the yard, or delivered to a jobsite in stockpiles, will be tested a minimum of one per week, or as needed to control production.

1. Material Control – Cement and Finely Divided Minerals.

Cement will be from the “[Approved/Qualified Producer List of Qualified Cement Plants](https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/doing-business/specialty-lists/highways/materials/materials---physical-research/cement/qualifiedcementplants.pdf)” and finely divided minerals will be from the “[Qualified Producer List of Finely Divided Minerals](https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/doing-business/specialty-lists/highways/materials/materials---physical-research/cement/finelydividedminerals.pdf)” and are as follows:

VII. Material Control - Concrete Admixtures.

Latex will be according to Article 1021.09 of the Standard Specification for Road and Bridge Construction (See also Attachment B). Other admixtures will be obtained from the “[Qualified Product List of Concrete Admixtures](https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/doing-business/specialty-lists/highways/materials/materials---physical-research/concrete/concreteadmixtures.pdf)” and are as follows:

VIII. Material Control – Water.

Water will be according to Section 1002 of the Standard Specification for Road and Bridge Construction.

IX. Producer Quality Control Laboratory.

Laboratory Name (if independent lab is used):

Location:

Contact Person:

Telephone No.:

The quality control laboratory is (sq. ft.):

The laboratory was approved on       by:     .

In the event of lab equipment failure,       will provide back up equipment.

All strength specimens cast during volumetric mobile mixer calibrations will be transported to the lab listed above for standard curing and testing. Strength specimens will be laboratory stored and cured according to the “[Manual of Test Procedures for Materials](https://public.powerdms.com/IDOT/documents/2966431)”.

X. Quality Control Personnel.

      with       will be the Quality Control Manager (IDOT PCC Level II or III with active certification) and will be ultimately responsible for quality control operations including, but not limited to, mixture control and adjustments, calibration, and production/placement operations. The Quality Control Manager will be available by mobile phone at      . Additional QC personnel listed below will assist the Quality Control Manager with required testing and documentation.

| **Name** | **PCC QC Training** | **Firm** | **Mobile Phone Number** |
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XI. Volumetric Mobile Mixer Operators.

The mixer operator will work at the direction of the Quality Control Manager. The Quality Control Manager will determine the settings for the controls on the mixer to achieve the desired mixture and the mix operator will ensure the settings are not altered. If a change in materials or conditions requires altered settings, the volumetric mixer operator shall consult with the Quality Control Manager to determine new settings and the Department and/or Local Agency will be notified.

XII. Mix Designs.

Only mix designs verified by the Department and/or Local Agency will be used. Current PCC mix design documentation will be available for review at all times.

XIII. Volumetric Mobile Mixer.

List of approved Volumetric Mobile Mixers:

| **Mixer Number** | **VIN** | **License Plate** | **Calibration Date** | **Calibration Mixture** |
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Volumetric mobile mixers will only be utilized if properly calibrated and approved by the Department and/or Local Agency. The only mixture(s) allowed to be produced by a volumetric mobile mixer will be the mixture which was used during the calibration process and approved by the Department and/or Local Agency.

The Department and/or Local Agency approval letters for each volumetric mixer and for each calibration conducted, will be maintained by the Quality Control Manager and will be available for review at any time. Each volumetric mixer will have a copy of the current Volumetric Mixer Calibration Spreadsheet {embed link}, Department and/or Local Agency approval letter, and mix design sheet used during the most recent calibration. This information will be available for viewing upon request.

XIV. Mixture Testing.

Initial start-up testing (slump, air content, unit weight, yield, strength, and temperature) will be performed during the calibration operations for each volumetric mixer. Testing will be performed according to the [IDOT Manual of Test Procedures for Materials](https://public.powerdms.com/IDOT/documents/1851375/Manual%20of%20Test%20Procedures%20for%20Materials%202022) and will only be conducted once the calibration process is finalized and determined by the Department and/or Local Agency to be in compliance with the required specifications.

For strength testing,       molds sized      , made of      , will be used to cast strength specimens during a volumetric mixer calibration. The molds will be covered to prevent the loss of moisture during field curing. During this initial field cure, temperature of the specimens will be maintained within the required range according to the [Manual of Test Procedures for Materials](https://public.powerdms.com/IDOT/documents/1851375/Manual%20of%20Test%20Procedures%20for%20Materials%202022). The specimens will be transported after 24 hours for standard curing.

XV. Production Testing.

Production testing will be performed as required by the [Recurring Special Provision for Quality Control/Quality Assurance of Concrete Mixtures, Check Sheet #23, Schedule A](https://public.powerdms.com/IDOT/documents/2882497). Concrete placements that are not otherwise covered contractually with an independent QC addendum, shall be tested as per [Check Sheet #23, Schedule B](https://public.powerdms.com/IDOT/documents/2882497).

XVI. Volumetric Mixer Documentation.

All Department and/or Local Agency required forms will be available for review at all times.

**QUALITY CONTROL PLAN SIGNATURE SHEET**

(IF AN INDIVIDUAL)

Firm Name:

Print Name of Owner:

Signature of Owner:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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(IF A CO-PARTNERSHIP)

Firm Name:

Print Name of Partner:

Signature of Partner:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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(IF A CORPORATION)

Corporate Name:

Print Name of Auth. Rep.:

Signature of Auth. Rep.:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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(ALL)

Business Address:

P.O. Box:

Street Address:

City/State/Zip Code: