

Office of Materials and Road Research Technical Certification Unit

Technical Certification Manual

FY 2019



http://www.dot.state.mn.us/const/tcp/

For Your Information

REGISTRATION

Registration opens October 1st annually for all technical certification classes. Visit the LSC website at https://training.lsc.edu/mndot-technical-certification/ for class offerings and registration information. For information on the Technical Certification Program, visit http://www.dot.state.mn.us/const/tcp/. This site has links to the websites of the training partners who assist MnDOT in administering certification and non-certification classes. Training partner websites also go online October 1st annually.

AGGREGATE PRODUCTION REQUIRED

Aggregate Production is required for all aggregate testers. It is also required for certification in Bituminous Plant, Concrete Plant, and Grading & Base.

Currently Aggregate Production certification does not expire. Consequently, there are no recertification classes for Aggregate Production.

PROVISIONAL LEVEL 2 CERTIFICATIONS ELIMINATED

Level 2 provisional certifications have been eliminated effective September 1, 2005.

CERTIFICATION CARDS

Certification cards normally mailed in mid-June. Cards returned to us are held until you notify this office of your current address.

RECERTIFICATION

Successful completion of a Level 2 certification class will extend the corresponding Level 1 certification to the Level 2 expiration date. Otherwise, individuals must take the requisite recertification class. IF AN INDIVIDUAL FAILS A LEVEL 2 RECERTIFICATION CLASS, THEY MUST RECERTIFY THE LEVEL 1 CERTIFICATION TO RETAIN IT.

KEEP YOUR CONTACT INFORMATION CURRENT

Has your mailing or personal email address changed lately? If so, please contact the Technical Certification Unit at John.micheau@state.mn.us

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INTRODUCTION

The Technical Certification Unit developed this handbook to help you better understand the MnDOT Technical Certification Program (TCP). It addresses questions commonly asked about the program. However, for the sake of brevity, it does not address every aspect of the program. For questions not covered in this handbook, contact the Technical Certification Unit at (651) 366-4201.

This program is similar to other technician certification/qualification programs offered across the United States. By Federal mandate all state transportation departments have a technical certification program for construction and/or materials testing and inspecting technicians. Programs vary somewhat from state to state but have a common objective: to gauge technician expertise and ensure a minimum level of competency.

TCP training courses are developed and taught cooperatively by MnDOT and various proponent agencies. Technical experts from MnDOT, private industry, and educational institutions teach these courses. Using experienced instructors is extremely helpful to students, especially during the hands-on training sessions conducted in a MnDOT or private industry materials laboratory. All Instructors, both classroom and laboratory, are required to be in good standing with full certification for the course/s they teach. Any Instructor not certified, will not be allowed to teach.

A person may apply to become an Instructors in the Technical Certification Program by submitting a resume to the Technical Certification Supervisor. The resume is then reviewed by the Technical Certification Advisory Committee who will make a recommendation to the Technical Certification Supervisor on whether they believe the individual has the background to teach the course/s in which they have stated an interest in. The Technical Certification Supervisor has the final say on any instructor's involvement in the program. All instructors are reviewed annually through student evaluations and visits by the Technical Certification Supervisor. These reviews determine the continued involvement of the instructor in the program. For privacy reasons, these reviews are shared with the instructor, the instructors contracting authority (Lake Superior College or Aggregate & Ready Mix of Minnesota), and the Technical Certification Supervisor. These groups may share with others in their organization if necessary.

People from all areas of the construction industry attend MnDOT Technical Certification courses. They receive various certifications through successful completion of classroom and laboratory training, written examination, and performance review. Many bring a wealth of experience with them, which they often share with others in the classroom. The communication and cooperation fostered in the classroom is one of the most beneficial aspects of the program.

Certain recertification courses are being offered On-Line for those that prefer independent study to normal classroom learning. If you prefer an On-Line course verses a classroom please check each year, during registration, to see if the recertification course you need is offered On-Line.

The MnDOT Technical Certification Unit has the responsibility for granting certifications and issuing certification cards. Its policy and procedure is developed from administrative law, Department policy, and input from the Technical Certification Advisory Committee comprised of representatives from both the public and private sector.

If you have questions regarding course content or certification policy, contact:

The Technical Certification Unit, Phone: (651) 366-4201

Email: john.micheau@state.mn.us

TECHNICAL CERTIFICATION PROGRAM SUMMARY

There are two levels of technical certification:

Level 1: referred to as a "tester" or "field tester" level. This level is for individuals with limited responsibility who normally work under the direction of a supervisor. Often, materials testing and/or sampling is the sole duty of a Level 1 technician.

Level 2: referred to as the "inspector" level; is an advanced certification for individuals in a decision-making role, such as project supervision or oversight. Chief Inspectors, Mix Designers, etc., require Level 2 certification.

Technicians receive certification through successful completion of the required MnDOT Technical Certification Program curricula for that particular certification area. Successful completion consists of:

- Classroom or On-Line instruction,
- Written examination,
- And, if required, a hands-on performance evaluation.

Only training courses approved by the Minnesota Department of Transportation are accepted for technical certification. See the section on *Certification Areas* (P.18) for the specific requirements for each certification area.

Technical certification training is a cooperative effort between the Minnesota Department of Transportation and various agencies. Cooperating agencies include:

- Aggregate and Ready-Mix of Minnesota
- Lake Superior College
- National Highway Institute
- Transportation Curriculum Coordination Council (TC3)

Requirements for a certified technician are included in the **Standard Specifications for Construction Handbook**; project **Special Provisions** and the **Schedule of Materials Control for Federal Aid Projects**. Certification is required for all individuals sampling, testing or inspecting material on all state projects. Refer to the contract proposal for technical certification requirements on State Projects. Certification is required for personnel on all State Aid Projects as specified by the MnDOT Division of State Aid. Contact Joel Ulring, PE, at 651-366-3831 concerning certification on State-Aid projects.

Technical certifications expire at the end of five years. Technicians must recertify before their certification expires. Recertification is for five years. For more information, see the section on *Recertification*, page 13.

The Certification Areas section of this handbook lists specific requirements for each certification.

ELIGIBILITY FOR CERTIFICATION

The certification program is designed primarily for personnel already working in highway construction. Experience is highly recommended, but not required, for certification. To be eligible for certification, you must successfully complete all classroom training, written examination, and any related performance evaluation.

Seasonal workers, such as students or laborers, may obtain a *provisional testing certificate* in a specific area. Provisional *testing certificate* is for individuals who need testing privileges for only one season and who demonstrate proficiency in one or more related material testing procedures. See the *Provisional Testing Certificate* section on page 9 for more information.

Most certification classes require mathematical calculations and formulas at various proficiency levels. Students should be proficient with a scientific calculator and familiar with mathematical functions, including percentages, ratios, fractions, decimals, metrics, engineering type formulas, and basic algebra.

The Aggregate Production class is required for all aggregate testers, and is required for certification in Bituminous Plant 1, Concrete Plant 1, and Grading & Base 1.

If you completed a MnDOT Level 1 Bituminous Technology 2A or 2B, Bituminous QM, Concrete Plant, or Grading and Base class prior to October 1, 1995 you received credit for the Aggregate Production requirement.

CERTIFICATION OF ENGINEERS

Federal Highway Administration (FHWA) guidance clarifies who needs technical certification. All personnel who perform field sampling, laboratory testing, field testing, or inspection, on materials for acceptance on state projects, must be certified.

The State of Minnesota ads, those who perform concrete or bituminous mix designs, or mix corrections of these materials for state highway projects, must be certified. This includes registered, professional engineers.

For more information access the link below to view the FHWA Code of Federal regulations, Title 23- part 637

https://www.gpo.gov/fdsys/pkg/CFR-2011-title23-vol1/pdf/CFR-2011-title23-vol1-part637.pdf

CERTIFICATION CARDS

Each year the Technical Certification Unit issues a certification card to all certified technicians. These certification cards are issued in June annually and expire May 31 of the following year.

Certification cardholders are responsible for ensuring that:

- they receive a new certification card each year, and,
- certification areas and dates are correct, and,
- All other information listed (name, address, personal email and employer) is correct.

Certified personnel must present a valid certification card on demand of a MnDOT Independent Assurance Inspector, MnDOT Plant or Field Inspector, MnDOT Lab Supervisor, local agency inspector, or Federal Highway Administration official.

There are two types of certification cards: formal and provisional.

Formal certification cards are wallet-sized cards signed by the MnDOT Construction Engineer. These cards are issued each year by the certified individual and will list the expiration date for each certification area the technician holds. Formal certification is granted for five years. Prior to the end of the fifth year, one must successfully complete the associated recertification course to retain that certification. See the *Recertification* section, page 13, for more information.

Provisional Certification Cards (Provisional testing certificate) are issued by the MnDOT *Independent Assurance Inspector* in the District which the individual works. Contact the Independent Assurance Inspector (IAI) to request provisional certification.

Provisional Testing Certificate cards must be signed by the granting authority, are valid only for material testing in the District in which it was issued and expire December 31 of the calendar year of issue. For more information see the section on *Provisional Certification (Provisional Testing Certificate)* page 9.

Following is a comparison between the two types of certifications:

	Formal certification	Provisional testing certificate
Card issued by:	Technical Certification Unit	IAI
Certification expires:	5 years from year granted	End of calendar year issued
Can work alone:	YES	NO
Can be recertified:	YES	NO*
Level 2 certification:	YES	NO

PROVISIONAL CERTIFICATION (Provisional testing certificate)

- Provisional Certifications are not a full certifications. They give an individual the right to perform a certain test marked on the provisional certification card.
- Provisional Certification are limited to specific Level 1 testing procedures, such as gradations, concrete air or slump tests or sand cone density.
- Provisional Certification is not available for Level 2.
- Provisional Certifications are only valid for material testing in the District in which it was issued and expire December 31 of the year in which it was issued.

A Provisional Certification is offered once, Individuals who receive a provisional certification must attend formal certification training classes during the next training season.

The advantage of provisional certification is that it allows companies or agencies to utilize new or temporary employees to perform routine field/laboratory sampling or testing normally requiring certification.

The following also apply to provisional certification:

- A provisionally-certified technician cannot be used in lieu of a certified technician, but must be under the direct supervision of a Level 1 or Level 2 individual formally certified in the same technical area. An exception is given if the provisional tester carries a communication device that provides immediate contact with their certified supervisor. Supervisor must be available during all operating hours and must be available at the testing location within 1 hour when required.
- Individuals who successfully complete the written examination and performance review for Level 1 Bituminous Plant 1, Concrete Plant or Grading & Base 1, but were unable to attend the Aggregate Production class, may obtain provisional certification (provisional testing certificate).
- Provisional Testing Certifications are not issued for Bituminous Plant 1 or Concrete Plant certification due to the requirement to thoroughly review for accuracy and sign the production and/or batch tickets. This can only be done by technicians holding full formal Plant certifications.
- > **Full-time** students working construction jobs can be provisionally certified each summer until graduation.
- An individual may be provisionally certified for one additional year with the approval of the MnDOT District Materials Engineer. The District Materials Engineer will consider each exception on an individual basis.

Applicants seeking a provisional testing certificate will be required to complete a performance review administered by a MnDOT Independent Assurance Inspector (IAI) in the District the person will be working. The appropriate MnDOT Independent Assurance Inspector will issue a temporary provisional testing certificate card, allowing an individual to perform one or more test procedures in that District. i.e.: Air Test, Slump Test, Cylinders, Gradations, Moisture, Soil Density, Percent Crushing, Proctor, Rice, Spot Check, Extraction, Bulk Specific Gravities and Sampling.

NOTE: Any individual, who is provisionally certified in a District, and then moves or transfers to another District, must go through the provisional testing process again in the new district. Notify the Independent Assurance Inspector in the new District to arrange a review.

See the Reference Section on pages 35-36 for a list of MnDOT District Independent Assurance Inspectors.

Provisional Testing Certificate Fees

There is no fee for the initial review of a field tester (all testing areas). A \$150 fee, payable to the Commissioner of Transportation, will be charged for each subsequent review when the initial review has not resulted in a provisional certification (provisional testing certificate).

Contact the Technical Certification Unit at (651) 366-4201 or <u>john.micheau@state.mn.us</u> for more information.

CERTIFICATIONS FROM OTHER STATES (RECIPROCITY)

Individuals certified by another State Transportation Department may request Minnesota Department of Transportation certification. The decision to grant certification in any area is at the sole discretion of the MnDOT Technical Certification Specialist. Generally, MnDOT certification based on another state's certification is only granted in cases where the course requirements are substantially the same between the states.

To gain MnDOT certification will require the individual to complete a Test-out Application and return it to the Technical Certification Unit to be considered for reciprocity. Applications are available from the TCP website at: http://www.dot.state.mn.us/const/tcp/pubs.html. Individuals must pay for and pass a written examination to become certified.

The application requests information concerning your levels of experience, projects worked on, and training courses completed. Consideration for certification is dependent on a completed application form showing expiration dates of current certifications in home state. Attach additional sheets if necessary.

Individuals, who attempt to become certified through the test-out process, will receive the appropriate course materials prior to taking the examination. A fee for the course manual(s) and administration of the written examination will apply for each class. See the "Test-Out for Certification" section on pages 16 for further details.

REGISTRATION AND ENROLLMENT

Technical certification class registration opens **October 1**St every year.

All registration procedures are handled through;

Lake Superior College https://training.lsc.edu/mndot-technical-certification/

Kim Thibert Phone (218) 733-7680 Email <u>kim.thibert@lsc.edu</u>

Suzanne Johnsrud Phone (218) 733-5931 Email suzanne.johnsrud@lsc.edu

Technical Certification Classes -

Aggregate Production

Bituminous Plant 1

Bituminous Plant 1 Recertification

Bituminous Plant 1 Recertification (on-line course)

Bituminous Plant 2

Bituminous Plant 2 Recertification

Bituminous Street

Bituminous Street Recertification

Bituminous Street Recertification (on-line course)

Bridge Construction

Bridge Construction Recertification

(ACI) Concrete Field Testing Technician - Grade 1

Concrete Field 1 MnDOT only Recertification

Concrete Field 1 MnDOT only Recertification (on-line course)

Concrete Field 2

Concrete Field 2 Recertification

Concrete Field 2 Recertification (on-Line course)

Concrete Plant 1

Concrete Plant 1 Recertification

Concrete Plant 1 Recertification (on-line course)

Concrete Plant 2 Recertification

Concrete Strength Testing

Grading & Base 1

Grading & Base 2

Grading & Base Recertification

Grading & Base 1 Recertification (on-line course)

Grading & Base 2 Recertification (on-line course)

MnDOT employees-

MnDOT personnel will need supervisor approval to enroll and will **register through your Training & Development Specialist (TDS) or Office Manager. Do Not contact LSC** directly as they cannot register MnDOT employees for these training sessions.

Any changes to class registration will be through LSC in writing 7 calendar days before the course starts.

COURSES REQUIRED FOR CERTIFICATION

The chart below shows the requirements for certification:

CERTIFICATION AREA	LEVEL 1	LEVEL 2
Aggregate Production	Aggregate Production Lab Evaluation	(No Level 2 certification)
Bituminous Plant	Aggregate ProductionBituminous Plant 1Lab Evaluation	Level 1 certification Bituminous Plant 2 Approved Mix Design
Bituminous Street	(No Level 1certification)	- Bituminous Street
Bridge Construction	(No Level 1certification)	 Requires 8-10 TC3 on-line courses Aggregate Production Grading & Base 1 MnDOT Concrete Field 1 or ACI Concrete Field Testing Technician Grade 1 Concrete Field 2 Bridge Construction
Concrete Field	 MnDOT Concrete Field 1 or ACI Concrete Field Testing Technician Grade 1 Performance Evaluation 	 MnDOT Level 1 certification or ACI Concrete Field Testing Technician Grade 1 Concrete Field 2
Concrete Plant	Aggregate ProductionConcrete Plant 1	(No Level 2 certification)
Grading & Base	Aggregate ProductionGrading & Base 1Lab Evaluation	Level 1 certificationGrading & Base 2
Concrete Strength Testing	 MnDOT Concrete Field 1 or ACI Concrete Field Testing Technician Grade 1 Concrete Strength Testing Lab Evaluation 	(No Level 2 certification)

Although discouraged, courses may be taken out of order. However, certification is not granted until all certification requirements are fulfilled. For more information call (651) 366-4201.

Currently Aggregate Production certification does not expire. Consequently, there are no recertification classes for Aggregate Production.

RECERTIFICATION

To maintain certification, technicians must successfully complete a recertification class before their certification(s) expire. **Certifications expire May 31**st of the fifth year of certification. Certifications that have lapsed are ineligible for recertification by attending a recertification class. To regain their certification, they must attend the original certification course or, if expired less than 1 year, an attempt to certify through a self-study test-out may be available.

For self-study test-out information see page 16

For Recertification, all Prerequisites must be kept current, (see previous page.)

Successful completion of the requisite recertification course extends that certification for 5 years.

Individuals may attend a recertification course no sooner than two seasons prior, but not after that certification expires. For example, if your certification in Concrete Field Level 1 expires on 5/31/18, you may take the Concrete Field recertification course no earlier than the 2016-2017 training season, but not later than the 2017-2018 training season.

All recertification courses include a written examination. One must pass the written examination with a minimum score of (70) seventy percent. Individuals scoring at least (60) sixty percent are allowed one retest at no additional charge. A score of less than (60) sixty percent requires the individual to successfully complete the original certification course to regain that certification.

Some certifications, such as Concrete Field and Grading & Base, have a single recertification class. Other certifications, such as Concrete Plant and Bituminous Plant, have separate recertification classes for Level 1 and Level 2. In either case, successful completion of the Level 2 exam grants recertification at both levels.

NOTE: Should an individual fail the Level 2 recertification exam, that individual must successfully complete the Level 1 recertification course to retain Level 1 certification in that area. Contact the Technical Certification Program office at 651-366-4201 for more information.

Performance reviews are not required for MnDOT recertification

RETEST

A retest may be requested in the case of a failed course examination if the individual meets the following requirements:

- 1. Scored from 60 69 on the written exam.
- 2. Must have successfully completed the performance review, if required.
- 3. Must contact the Technical Certification Office for retest instructions.
- 4. Must retest prior to October 1 (the start of the new training season).
- 5. ACI retests are arranged through Aggregate and Ready Mix Association of Minnesota at (952) 707-1250.

In the following four cases, the individual must successfully complete the original, Technical Certification Program, certification course:

- 1. Received a score of less than 60 percent correct on any written examination.
- 2. Received a score of less than 70 percent correct on any test-out examination.
- 3. Did not successfully complete the required performance review.
- 4. Received a score of less than 70 on a retest exam.
- There is no fee for a MnDOT retests.
- A retest fee does apply for ACI Concrete Field Testing Technician Grade 1 re-examinations. If you need to request a retest for this class, contact Aggregate and Ready Mix Association of Minnesota at (952) 707-1250.
- For all other retest requests contact the MnDOT Technical Certification Unit at (651) 366-4201 or email john.micheau@state.mn.us

SUSPENSION OR REVOCATION OF CERTIFICATION

The MnDOT Technical Certification Program grants certification to a technician who meets the requirements for certification.

MnDOT may suspend or revoke certification for reasons including, but not limited to, the following:

- Knowingly or repeatedly failing to comply with the governing materials specifications.
- Knowingly or repeatedly recording erroneous data, calculations, information, or test results in project records.
- Inaccurately reporting what materials were placed in a bituminous or concrete mix.
- Allowing materials to be placed in a bituminous or concrete mix that are not in accordance with the current verified bituminous mix design or approved concrete mix design.
- Providing false information on a certification application or in connection with the certification exam or performance evaluation.
- Performing duties requiring a certification that are outside the scope of the person's certification.
- Failing to timely pay for technical certification courses.
- Behavior that violates the standards of conduct stated in Standard Specification for Construction 1802.
- Any other cause the Technical Certification Supervisor determines to be serious and compelling.

In addition to any of the criteria stated above, MnDOT may also suspend or revoke certification of an inspector based on the following:

- Failing to comply with MnDOT Quality Control or Quality Assurance requirements; and/or
- By act or omission, repeatedly allowing erroneous sampling, testing, or inspection data to be recorded on project documents or submitted to MnDOT, or repeatedly allowing noncompliance with specifications, in the performance of the work subject to inspection.

In addition to any of the criteria stated above, MnDOT may also suspend or revoke certification of supervisory personnel based on the following:

- Failing to accept responsibility for acts of subordinates that support suspension or revocation;
 and/or
- Failing to take steps to implement corrective measures related to conduct that supports suspension or revocation.

Period of suspension or revocation. The Technical Certification Supervisor will determine, on a case-by-case basis, whether a suspension or revocation is appropriate and the length of the suspension or revocation. The action taken will depend on the severity of the act or omission. After a period of suspension, the individual may apply for certification. To obtain certification after a period of revocation, the individual must apply for certification, take the courses required for certification and pass the certification exam and any related performance review.

Written Notice. MnDOT Technical Certification Supervisor will provide a written notice informing an individual that MnDOT intends to suspend or revoke technical certification(s). The notice will state the reason(s) for the proposed action and the length of time the certification will be suspended or revoked.

Reconsideration. The individual may submit a written request for a meeting with MnDOT personnel to present information showing that suspension or revocation is not warranted. The request must be received by the Technical Certification Supervisor within two weeks of the notice date. If no request is received in that timeframe, the proposed suspension or revocation becomes automatically and immediately effective.

If a meeting is requested, the Director of the Office of Construction and Innovative Contracting, the Technical Certification Supervisor, and any other appropriate MnDOT personnel will meet with the decertified individual.

After the meeting, the MnDOT personnel may decide not to impose a proposed suspension or revocation. If the group determines after a meeting that suspension or revocation remains appropriate, the Technical Certification Supervisor will refer the matter to the Engineering Services Division Director. The Director will consider the matter and issue a determination in writing. The Director's determination is the final agency action and becomes immediately effective.

Public documents. In accordance with the Minnesota Government Data Practices Act (Minnesota Statutes Chapter 13), all documents used at any stage in this process are "government data" subject to the requirements of the Act.

TEST-OUT FOR CERTIFICATION

Individuals who are attempting to regain a certification expired less than 1 year, or gain certification through reciprocity with another state, may apply for certification through test-out. A test-out presumes that the applicant has a broad knowledge of the material and is proficient in MnDOT procedures in that area. Individuals requesting certification through reciprocity must show testing compatibility with MnDOT and current certification expiration dates.

TEST-OUTS ARE NOT FOR THE CONVENIENCE OF THE APPLICANT. FOR TEST-OUTS, ALL PREREQUISITES MUST BE CURRENT.

To request certification through test-out, submit a Test-out Application to the address on page 2 of the form. This form is available from the TCP web site at: http://www.dot.state.mn.us/const/tcp Click on Forms and Publications on the top menu bar and click Test-out Application and Instructions on the list of forms.

Complete the application, indicating all related training and experience, **including showing Testing compatibility with MnDOT**. All applications must be signed by the applicant. The Technical Certification Unit will contact the applicant about the application and, if approved, provide further instructions on how to proceed.

If the test-out is approved, the applicant will receive a letter in the mail instructing them how to make payment. Once payment is received, they will get a 2nd letter with instructions on who to contact to take their exam once they are ready. After reviewing the material, the applicant contacts the exam proctor to arrange a time and location to complete the written examination. Once this process is completed the applicant will be notified by a Technical Certification Program representative as to the results of their exam.

Applicants must complete the written examination within 1 year from the date of application or they will forfeit the test-out fees. Applicants will need to reapply and pay the test-out fee(s) if they want to pursue the test-out process again.

THERE ARE NO RETESTS FOR TEST-OUTS

Test-outs fall into two categories: Newly expired certifications and those looking for certification through reciprocity with another state.

Certification through Reciprocity-

To gain certifications through reciprocity, one must meet all of the following requirements:

- Level 1- 1. Currently certified in another state for the same discipline
 - 2 Currently works in construction inspection and/or materials testing.
 - 3 Two years' experience in construction inspection and/or materials testing.
 - 4 Submit a completed Application for Certification, and any required fees.
 - 5 Successfully complete the written examination and prerequisite classes.
- **Level 2-** 1. Must meet all requirements for level 1, plus
 - 2. Five years of recent and relevant experience, or certified in that area for the past two years.
 - 3 Submit a completed Application for Certification, and any required fees.
 - 4 Successfully complete the written examination.

Newly Expired Certifications –

Individuals whose certification(s) have expired less than 1 year may request a test-out to regain their certification. This involves successfully completing the full written examination for the original course.

Successful completion of the written examination will restore that certification for another five years. A score of less than 70 percent correct will require you attend the original course to regain your certification.

THERE ARE NO RETESTS FOR TEST-OUTS.

To request a test-out, you must complete, sign and return a **Test-out Application**. The application requests information concerning your experience and training. It is important that the application be complete and is signed by the applicant.

Test-out Fees

Fees for the test-out examination are handled through the process explained in the letter sent from the Technical Certification Office stating approval of the test-out application. Fees for test-outs will be the current recertification fee for each area.

Test-out applicants must complete the examination within 365 days (1 year) from the application date. Applicants failing to complete the test-out during this time forfeit all fees, and must resubmit the application and all associated fees. Fees for test-out applications are not eligible for refund.

For more information concerning test-out fees, call (651) 366-4201

CERTIFICATION AREA REQUIREMENTS

Normally project responsibilities fall into two categories: *Agency/Owner* and *Contractor*. The following is a definition of who comprises the two categories:

Agency/Owner: Any MnDOT (Agency/Owner), or County, City or Consultant personnel representing the Agency/Owner. These individuals are responsible for performing or monitoring QC/QA materials testing.

Contractor/Producer: Prime or sub-contractor personnel responsible for performing, supervising or monitoring the QC materials testing on a given project. These responsibilities are frequently different on a project. This difference is reflected in the following "Who needs certification:" criteria for each certification area.

AGGREGATE PRODUCTION CERTIFICATION Level 1 – Aggregate Tester

Who needs certification?

Agency/Owner: Required for certification in Bituminous Plant, Concrete Plant, and Grading & Base.

Certification is required for all MnDOT Independent Assurance Inspectors and anyone who performs aggregate quality control and/or assurance

sampling/testing.

Contractor: Required for certification in Bituminous Plant, Concrete Plant, and Grading & Base.

For anyone who performs aggregate quality control and/or assurance

sampling/testing1.

Requirements:

- Completion of the Aggregate Production course, a minimum score of seventy percent (70) on the written exam, and successful completion of the related performance review.

Performance review consists of the following tests:

AASHTO T2 Aggregate SamplingAASHTO T248 Sample Reduction

AASHTO T255 Total Moisture Content of aggregate by oven drying

AASHTO T27 Coarse Sieves analysisAASHTO T27 Fine Sieves analysis

AASHTO T84 & 85 Specific Gravity & Absorption of Fine & Course Aggregate

- #200 Course Wash Out

- Spall/Litho - AASHTO T335 % Crushed

- AASHTO T113 - #4 Shale (Float) Test (modified to use #30 sieve)

Level 2 - Currently there is no Level 2 certification in this area.

¹ Aggregate tester certification is required for aggregate suppliers on all MnDOT jobs. See the Special Provisions of the project contract.

BITUMINOUS PLANT CERTIFICATION

Level 1 - Bituminous Plant - Tester

Who needs certification?

Agency/Owner: All Bituminous Plant Inspectors/Monitors, MnDOT Independent Assurance

Inspectors, and anyone who performs monitoring or verifies bituminous mixture

quality control and assurance tests.

Contractor: Anyone performing bituminous mixture quality control testing, including, but not

limited to: sampling, splitting, producing test specimens, maximum and bulk specific gravities, Tensile Strength Ratio (Lottman), spot checks, and extractions.

Requirements:

Aggregate Production certification.

- Completion of Bituminous Plant 1 class (3 days)

- A minimum score of seventy percent on the written examination.

- Successful completion of the required performance review².

Performance review consists of the following tests:

Rate of sampling MnDOT Schedule of Materials Control

Bit Plant 1 course manual Sampling behind the paver Bit Plant 1 course manual Sampling (Truck Box)

AASHTO T248 Splitting (MnDOT lab manual 1201)
AASHTO T308 Method "A" Modified Ignition Oven (MnDOT lab manual 1853)
AASHTO T308 Method "A" Solvent, Mixture Calibration Process

AASHTO T209 Modified

AASHTO T312 Modified

AASHTO T166 Modified

AASHTO T269 Modified

AASHTO T269 Modified

AASHTO T166Modified

AASHTO T166Modified

AASHTO T166Modified

AASHTO T166Modified

Maximum Specific Gravity (MnDOT lab manual 1820)

Bulk Specific Gravity (MnDOT lab manual 1806)

Void Calculation (MnDOT lab manual 1808)

Density cores (MnDOT lab manual 1810)

AASHTO T84 & T85 Rap procedures (Gsb) (MnDOT lab manual 1815)

AASHTO D4867 Modified Lottman (MnDOT lab manual 1813)

AASHTO D6752-D2 Modified Corelock System. (MnDOT lab manual 1816)

AASHTO T304 Fine Aggregate Angularity (MnDOT lab manual 1206)

NOTE: Individuals have one-year from the date of the class exam to successfully complete the performance review. If the performance evaluation is not done within one year, one must again attend and successfully complete the course to be eligible for certification.

Bituminous Plant certification - continued on next page

⁷ To successfully complete the course, students must also complete a hands-on performance review. An Independent Assurance Inspector (IAI) or District Lab Supervisor conducts this evaluation. See Reference Section for Lab locations and phone numbers.

BITUMINOUS PLANT CERTIFICATION cont.

Level 2 - Bituminous Plant - Mix Designer³,

Who needs certification?

Agency/Owner: All personnel who design, adjust, verify and/or approve mix designs and/or their

related calculations.

Contractor: All personnel who are responsible for the design, adjustment, calculations and

submittal of bituminous mix designs and/or supervise quality control testing.

Requirements:

Level 1 certified.

Completion of the Bituminous Plant 2 class (5 days)

- Score a minimum of 70 percent correct on the written examination
- Successful completion of the required performance review⁴

NOTE: Upon successful completion of the course and written examination, the student must develop a bituminous mix design (2360) and submit it with all required documentation and related mixture materials to the MnDOT Maplewood Lab for verification. Submittals must be delivered to the MnDOT Maplewood Lab not later than one year from the date of the class exam. If the mix design is not submitted and verified within that one year, the individual will be required to re-attend and successfully complete the class again to be eligible for certification in this area.

See Reference Section for MnDOT District Laboratory locations and phone numbers.

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³ On a Federal-aid or State-aid project a Level 2 Bituminous Plant Mix Designer is required if the local agency is performing mix design or mix adjustments. If MnDOT is doing these, the local agency is not required to have Level 2 certification.

⁴ To be certified at Level 2 individuals must successfully complete the written examination, and personally submit a 2360 trial mix design (mixture, related calculations and required documentation) for verification.

BITUMINOUS STREET CERTIFICATION

Who needs certification?

Agency/Owner: Anyone working on a bituminous paving project, obtaining and/or splitting samples

and all MnDOT Independent Assurance Inspectors.

Minimum one certified inspector per project, preferably one for each major work

area (Chief Inspector).

Contractor: Personnel who obtain and/or split field mixture samples during the paving process.

A minimum of one certified individual per paving project. Preferably one certified

individual for each major work area (Paving Superintendent).

Requirements:

- Completion of the Bituminous Street class (3 days)

- A minimum score of seventy (70) percent on the written examination.

BRIDGE CONSTRUCTION CERTIFICATION

Bridge Construction - Inspector

Who needs certification?

Agency/Owner: A certification is required for construction of significant structures (cast-in-place concrete culverts, pile supported structures, bridges, retaining walls, etc.).

Precast concrete box culverts are inspected during fabrication and a lesser level of inspection is required at the construction site.

A certification is not needed for precast concrete box culvert construction.

All personnel acting as "chief inspectors" on bridge construction projects must be certified, a minimum of one certified individual per project.

Please refer to footnote⁵.

Contractor: None

Prerequisites: Must be completed prior to attending the Bridge Construction Course

- Aggregate Production certified.
- Level 1 Grading & Base certified.
- Level 1 and Level 2 Concrete Field certified.
- AASHTO/TC3 on-line courses
 - **Construction Inspection Series**
 - ✓ Subsurface
 - ✓ Substructures
 - ✓ Superstructures
 - ✓ Rehab And Maintenance of Structures

Requirements:

- Completion of the Bridge Construction class (14 days)
- A minimum score of seventy (70) percent on each of the two written examinations.

⁵ It is not required that a local agency provide a Level 2 certified street or field inspector for each bridge, grading, bituminous, or concrete project. The Level 2 certified person may handle or be available to several projects at one time in a "chief inspector" capacity for operations relating to their areas of certification.

CONCRETE FIELD CERTIFICATION

Level 1 - Certified ACI Concrete Field Testing Technician Grade 1

Who needs certification?

Agency/Owner: All personnel performing or overseeing field testing of fresh concrete. Tests may

include but are not limited to percent air, slump, casting cylinders and beams, temperature, unit weight, and calibration of test equipment. This includes all

MnDOT Independent Assurance Inspectors.

Contractor: All personnel performing field tests on fresh concrete. Tests may include but are

not limited to percent air, slump, casting cylinders and beams, temperature, unit weight, calibration of test equipment, etc. (Prestressed Concrete plant personnel).

Requirements:

- Completion of the ACI Concrete Field Testing Technician Grade 1 (2 days).

 A minimum score of 60 percent correct is required for each section of the ACI exam, and seventy percent overall.

Successful completion of the performance review.

Performance review consists of the following tests:

Sampling, Slump, Unit Weight, Air-Pressure Meter, Cylinders, Beams,

Temperature, and Roll O Meter.

ACI certification is obtained and maintained at the discretion of American Concrete Institute (ACI) and the certified individual. It is the responsibility of the individual to be aware of their certification expiration dates.

Beginning 2017 MnDOT went with the ACI certification for performing field tests on fresh concrete. The ACI certification card must be shown to any MnDOT project personal or Independent Assurance Inspector upon request.

CONCRETE FIELD CERTIFICATION cont.

Level 2 - Concrete Field Inspector

Who needs certification?

Agency/Owner: All personnel acting as a chief inspector on concrete projects such as paving, curb

and gutter, median, sidewalk, etc. (Lead Inspector)⁶.

Contractor: None

Requirements:

Level 1 Concrete Field certified.

- Successful completion of the Concrete Field 2 class (3 days).

- A minimum score of seventy (70) percent on the written examination.

NOTE: Unlike the Level 1 Concrete Field class, American Concrete Institute (ACI) certification is not offered for Concrete Field Level 2. If you need ACI certification for Grade 2 Concrete Technician contact the American Concrete Institute at: www.aci-int.org

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⁶ It is not required that a local agency provide a Level 2 certified Street or Field inspector for each bridge, grading, bituminous, or concrete project. The Level 2 certified person may handle or be available to several projects at one time in a "chief inspector" capacity for operations relating to their areas of certification.

CONCRETE PLANT CERTIFICATION

Who needs certification?

Agency/Owner: All ready-mix/central-mix concrete plant inspectors/Monitors, all MnDOT

Independent Assurance Inspectors and anyone who performs QC/QA tests or

calibrates testing equipment at a concrete plant facility.

Contractor: All personnel performing quality control testing in concrete ready-mix/central-mix

plants. This may include but are not limited to: test equipment calibration,

representative sampling, splitting of samples, moistures and gradations.

Requirements:

- Aggregate Production certification.

Completion of the Concrete Plant class (2 days).

- A minimum score of seventy percent on the written exam.

CONCRETE STRENGTH CERTIFICATION

Concrete Strength Testing Technician

Who needs certification?

Agency/Owner: All personnel who cap and/or break cylinders for acceptance of concrete

strength. Any individuals who provide test results of concrete cylinder breaks.

Contractor: All personnel who cap and/or break cylinders for acceptance of concrete

strength. Any individuals who provide test results of concrete cylinder

breaks.

Requirements:

Completion of Concrete Strength Testing course (1 day)

- A minimum score of seventy (70) percent on the written exam and successful completion of the related performance evaluation.

Performance evaluation consists of the following tests:

- ASTM C617 Capping Cylindrical Concrete Specimens
- ASTM C 1231 Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
- ASTM C 39 Compressive Strength of Cylindrical Concrete Specimens (Modified)
- (5) AASHTO T 23 Making and Curing Concrete Test Specimens in the Field
- (6) AASHTO M 201 Standard Specification for Moist Cabinets, Moist Rooms, and Water Storage Tanks used in the Testing of Hydraulic Cements and Concretes.
- There is no Concrete Strength Testing Technician Recertification. Anyone whose current MnDOT Concrete Strength Testing Certification expires is required to complete the Concrete Strength Testing Technician course to obtain recertification

In lieu of MnDOT Concrete Strength Testing Technician Certification, MnDOT will accept personnel who hold a current ACI Strength Testing Technician Certification and Wisconsin Concrete Strength certification.

Currently, Concrete Strength Testing certification does not expire. Consequently, there are no recertification classes for Concrete Strength Testing.

GRADING AND BASE CERTIFICATION

Level 1 - Grading and Base Tester

Who needs certification?

Agency/Owner: Personnel performing or overseeing laboratory or field tests on soils/grading &

base materials. Test procedures may include but are not limited to representative sampling, splitting samples, gradations, moisture-density (proctor), in-place field density or calibrates testing equipment; MnDOT Independent Assurance

Inspectors.

Contractor: Personnel performing field tests on soils/grading & base materials. Test

procedures may include but are not limited to representative sampling, splitting samples, gradations, moisture-density (proctor), and in-place field density or

calibrates testing equipment.

Requirements:

Aggregate Production certification.

Completion of the Grading and Base 1 class (3 days).

- A minimum score of seventy (70) percent on the written examination, and successful completion of the related performance evaluation.

Performance evaluation consists of the following tests:

- Moisture-Density Relations

AASHTO T 99 Method C Moisture-Density Relation (Proctor).

AASHTO T 265 Moistures & Calculations

AASHTO T 217 Modified CCGP¹² Method: 20 gram Speedy Moisture Meter

AASHTO T 99 Proctor – Plotting Test Results

MnDOT G&B manual 5-692-232 Cone & Ring Calibration
 MnDOT G&B manual 5-692-232 Standard Sand Calibration

- AASHTO T 191 In Place Field Density – Sand Cone Method

MnDOT G&B manual 5-692.255 Dynamic Cone Penetrometer (DCP)

MnDOT G&B manual 5-692.601 Soils ID (Soils Triangle)

The engineering properties associated with soils have been used for classification and are the basis of the AASHTO system. The AASHTO system uses the engineering properties of elasticity, expansion and load bearing capacity based on actual field use along with exact texture as to basis for classification.

¹² Calcium Carbide gas pressure moisture meter

GRADING AND BASE CERTIFICATION cont.

Level 2 - Grading and Base Inspector

Who needs certification?

Agency/Owner: All personnel acting as chief inspectors on grading and base projects¹³.

Contractor: None

Requirements:

- Level 1 certified.

- Completion of the Grading and Base 2 class (3 days).

A minimum score of seventy percent on the written examination.

¹³ It is not required that a local agency provide a Level 2 certified street or field inspector for each bridge, grading, bituminous, or concrete project. The Level 2 certified person may handle or be available to several projects at one time in a "chief inspector" capacity for operations relating to their areas of certification.

All these requirements are per Specification and the contact information is listed below:

PRESTRESSED CONCRETE CERTIFICATION

Prestressed Concrete Certification is required on all MnDOT and Federal-Aid jobs. See the Special Provisions and Section 2405.3, Standard Specifications for Construction, latest edition (currently-2014). *For further information contact Steve Grover, 651-366-5540.*

Concrete Flat Work Finisher

For further information contact Maria Masten 651-366-5572

SIGNAL & LIGHTING CERTIFICATION

For further information contact Ron Bisek, 651-234-7057.

EROSION AND SEDIMENT CONTROL

For information concerning erosion and sediment control certification requirements, contact the Office of Environmental Services at 651- 366-3600.

For information on Erosion Control class registration and availability, contact the University of Minnesota, Bio-products and Bio-systems Engineering Department at (612) 625-9733.

FLAGGER TRAINING

For information please contact Ted Ulven at 651-366-4222

MNDOT TRAFFIC CONTROL SUPERVISOR

For more information please contact Ted Ulven at 651-366-4222

BRIDGE SAFETY INSPECTION

For further information contact: Ed Lutgen - 651-366-4507 Pete Wilson - 651-366-4574

The MnDOT Office of Bridges and Structures administers the Bridge Safety Certification Program. For information on Bridge safety classes and their related certifications you can contact the MnDOT Bridge Office at 651-366-4576

COURSE DESCRIPTIONS

Aggregate Production (24 hrs.)

This is a three day introductory course taught both in the classroom and in the lab. It covers aspects of aggregate production and quality control testing. Subjects include: prospecting for aggregate, crushing and stockpiling, aggregate blending, process control, and effects of non-complying aggregate on construction. Test topics include aggregate sampling, splitting, gradations, aggregate specific gravity, moisture, spall identification, percent crushing, and other aggregate durability and quality tests. This course includes a hands-on performance review. This is done during the lab.

There is currently no level 2 or recertification course for aggregate production.

Bituminous Street (24 hrs.)

This course is a three day course in bituminous technology. It is taught entirely in the classroom. Topics include: asphalt properties and types, production and testing, plant types and operation, aggregates used in production of hot-mix design concepts, paving and compaction specifications, inspector and contractor roles, the MnDOT QM Spec. and Certified Plant requirements.

Bituminous Plant 1 (24 hrs.)

This course is specifically designed for individuals working in the quality control testing area of a bituminous hot-mix plant. It is a three day course with time spent in the classroom and in the lab. Subjects to be covered are the following test procedures - maximum specific gravity (Rice test), air voids and bulk specific gravity as determined from specimens, Fine Aggregate Angularity, Flat & Elongated, Sand Equivalent, Gyratory specimens and compacted pavement cores, extraction and gradation of salvaged- asphaltic aggregate (RAP), and the Tensile Strength Ratio (TSR-Lottman) test. This course requires a hands-on performance review to obtain full certification. This must be completed within a year of the exam date.

Bituminous Plant 2 (40 hrs.)

This course is specifically for Bituminous Mix Designers, Plant Superintendents, and both agency and private testing Lab Supervisors. It covers Bituminous Mix Design requirements and working ranges specified by MnDOT specifications. It also covers subjects such as blending aggregates and recycled mixture design. This course prepares the student for doing MnDOT Trial Mix Design submittals. To obtain certification, this course requires you submit all materials and paper work, and receive an approval for, a 2360 mix design. This must be completed within a year of the exam date.

Bridge Construction (80 hrs.)

This is an advanced two week course designed for personnel acting as Chief Inspector on bridge projects. Taught in the classroom, it is an in-depth look at bridge construction inspection. Students receive instruction in bridge staking, excavation and embankment, foundations, steel reinforcement, substructures, structural steel, forms and false-work, pre-stressed beams, deck expansion joints, superstructures, deck drainage, bridge utilities, deck overlays, timber bridges, special structures, slope protection, documentation, approach panels, reconstruction and widening, and safety practices. This course is recommended for those involved in any type of structural construction. There are several required prerequisites courses associated with this course. They must be completed before attend this course. They are as follows.

Participants must be certified in Aggregate Production, Concrete Field 1, Concrete Field 2, and Grading and Base 1.

The following AASHTO TC3 E-Learning is also required:

Construction Inspection of Structures Series:

- Subsurface AT-TC3CN053-17-T1
- Substructures TC3CN054-17-T1

- Construction Inspection of Structures Series: Superstructures TC3CN055-17-T1
- Construction Inspection of Structures Series: Rehabilitation and Maintenance of Structures AT-TC3MN032-17-T1

Concrete Field 1 – American Concrete Institute (ACI) (16 hrs.)

This is a two day introductory course in concrete technology for personnel who sample, test and/or inspect concrete in the field. The course details the principles of concrete quality, with an emphasis on field tests including slump, temperature, air entrainment, unit weight, and casting cylinders by incorporating the American Concrete Institute's (ACI) Concrete Field Technician - Grade 1 course. Successful completion of this course grants certification through both ACI and the MnDOT program. The first day is all classroom instruction with a second day to review that material, complete a written *closed-book* examination and hands-on performance review.

Concrete Field 2 (24 hrs.)

This is a three-day advanced course for experienced personnel acting as Chief Inspectors on concrete projects. It is taught entirely in the classroom. Subjects include materials technology and construction techniques required by MnDOT specifications, concrete paving, joint reconstruction, forming, curing, and material properties. This course is a prerequisite for the Bridge Construction course.

Concrete Plant 1 (16 hrs.)

This two-day class is for contractor personnel performing quality control tests in ready-mix/central-mix plants and agency plant inspectors. Instruction covers certified plant requirements, composite gradations, and ready-mix plant operation. The course is taught in the classroom.

Concrete Strength Testing (8 hrs.)

This one day course is required for all persons performing concrete compressive strength testing that involves material acceptance based upon compressive strength. This course has both classroom and laboratory requirements. Concrete Strength Testing Technician Certification is not required for persons breaking concrete beams.

There is currently no level 2 or recertification course for Concrete Strength Testing.

Grading and Base 1 (24 hrs.)

This three-day course is required for anyone performing inspection or testing on grading projects. The course covers soils identification, moisture-density test (proctor), field moisture and density determinations, and Dynamic Cone Penetrometer test procedure. The course includes both classroom lectures and hands-on training in a laboratory.

Grading and Base 2 (24hrs.)

Grading and Base 2 is a required advanced course for personnel acting as lead inspectors on grading projects. This course discusses the inspector's roles and responsibilities, subgrade soils and soils identification, excavation and embankment construction, base construction, turf establishment, geosynthetic applications and compliance with labor laws. The course is covered entirely in the classroom and requires successful completion of a written exam

RECERTIFICATION CLASSES

Recertification classes vary in scope depending on the certification area. Some areas have a single class that recertifies individuals for both levels.

Bituminous Street Recertification -

 In addition to the instructor-led classroom sessions, there is an option to take this course online. For more information go to the Technical Certification website: http://www.dot.state.mn.us/const/tcp/

Concrete Field Recertification – MnDOT only certification

 In addition to the instructor-led classroom sessions, there is an option to take this course online for <u>MnDOT Level 1 Recertification only</u>. For more information go to the Technical Certification website:

http://www.dot.state.mn.us/const/tcp/

Grading & Base Recertification –

 In addition to the instructor-led classroom sessions, there is an option to take this course online for MnDOT Level 1 and level 2 Recertification only. For more information go to the Technical Certification website:

http://www.dot.state.mn.us/const/tcp/

Bridge Construction Recertification -

The other areas have a recertification class for each level. However, a Level 2 certified individual need only take the Level 2 class to recertify for both levels.

Be aware that failure of a Level 2 Recertification class will result in the expiration of both certification levels unless one successfully completes recertification for the level one certification.

REFERENCE SECTION

Course Instructors –

Aggregate Production

Instructors; P.E., Dan Frentress, Gary Kaelke, Tom Rodgers, P.E., Jack Salmela

C/O Aggregate & Ready Mix of Minnesota

2955 Eagandale Blvd, Ste. 300

Eagan, MN 55121

(888) 733-4649, or (952) 707-1250

Bituminous Plant

Instructors: Dave Clauson, Stephan Rolf, Gary Kaelke and John Savaloja

C/O Lake Superior College

2101 Trinity Road

Duluth, MN 55811

(218) 733-5918

Bituminous Street

Instructors: P.E., Gerald Huber, P.E., Timothy Murphy, P.E., John Garrity,

P.E., Greg Schneider, P.E., Greg Johnson

C/O Lake Superior College

2101 Trinity Road

Duluth, MN 55811

(218) 733-5918

Concrete Field (ACI)

Instructors, Dan Frentress, P.E., Ann Johnson, P.E., Gary Orlich, P.E., Mary Vancura, Gordy Bruhn C/O Aggregate & Ready Mix of Minnesota

2955 Eagandale Blvd, Ste. 300

Eagan, MN 55121

(888) 733-4649, or (952) 707-1250

Concrete Plant

Instructors: P.E. Doug Schwartz, P.E. Wendy Garr and Gordy Bruhn

C/O Aggregate & Ready Mix of Minnesota

2955 Eagandale Blvd, Ste. 300

Eagan, MN 55121

(888) 733-4649, or (952) 707-1250

Concrete Strength Testing

Instructor: Jeri Essig

C/O Lake Superior College

2101 Trinity Road

Duluth, MN 55811

(218) 733-5918

Bridge Construction

Instructors: Craig Alberg P.E. MnDOT Bridge Office personnal

C/O Lake Superior College

2101 Trinity Road

Duluth, MN 55811

(218) 733-5918

Grading and Base

Instructors: P.E., Mike Rief, P.E. Jack Salmela Sandy Roggenkamp, Larry Huseth, John Savaloja

C/O Lake Superior College

2101 Trinity Road

Duluth, MN 55811

(218) 733-5918

COOPERATING AGENCIES

Lake Superior College (LSC)

Customized Training Center Attn: Suzanne Johnsrud 2101 Trinity Road Duluth MN 55811 (218) 733-5934 www.lsc.edu

Aggregate & Ready Mix Association of Minnesota (ARM)

Attn: John Cunningham, Executive Director 2955 Eagandale Blvd, Ste. 300 Eagan, MN 55121 (952) 707-1250, or Tool Free (888) 733-4649 www.armofmn.com

AASHTO/TC3 (Transportation Curriculum Coordination Council)
On-Line Training program

https://tc3.transportation.org/training-resources/courses/

MnDOT DISTRICT EXAM PROCTORS

District 1 - Duluth Leila DeLuca – Nadine Miller -	Materials Specialist Independent Assurance Inspector	, ,	725-2738 725-2737
District 2 – Bemidj Jeff Long - Thomas Lloyd -	i Materials Specialist Independent Assurance Inspector	,	755-6544 755-6545
District 3 – Baxter, Tom Boser- Matthew Miles - Teresa Mertens -	'St. Cloud Materials Specialist Independent Assurance Inspector, Baxter 3A Independent Assurance Inspector, St. Cloud 3B	(218)	828-5755 828-5753 223-6555
District 4 - Detroit Brad Hanson - David Brunner -	Lakes Materials Specialist Independent Assurance Inspector		846-3616 846-3613
District 6 - Roches Ken DeCramer - Ken Pickett -	ter Materials Specialist Independent Assurance Inspector	,	286-7580 286-7584
District 7 – Manka Mark Schoeb – Mitch Jordahl -	t o Materials Specialist Independent Assurance Inspector		304-6188 304-6187
District 8 - Willman Jay Jorgenson - Jon Vlaminck -	Materials Specialist Independent Assurance Inspector	,	214-6345 214-6348

MnDOT METRO EXAM PROCTORS

Concrete Office - Materials and Research Lab, Maplewood Wendy Garr - Concrete Engineering Specialist	(651) 366-5423
Bituminous Office - Materials and Research Lab, Maplewood Debra Evans - Bituminous Mix Design/Recommendation Specialist	(651) 366-5574
Grading and Base Office - Materials and Research Lab, Maplewo John Bormann - Grading & Base Specialist	ood (651) 366-5596
Bituminous Trial Mix - Materials and Research Lab, Maplewood Ray Betts - Bituminous Trial Mix Laboratory Technician	(651) 366-5469
Aggregates - Materials and Research Lab, Maplewood Dave Baker - Aggregate Laboratory Supervisor	(651) 366-5414
Metro Inspection – Water's Edge Building, Roseville Mike Sroga - Pavement Management Specialist /IA Supervisor	(651) 234-7354
Metro IA Inspectors—	(054) 024 7250
Mike Amiot — Independent Assurance Inspector	(651) 234-7356
Greg Bohmert – Independent Assurance Inspector	(651) 234-7356
Matt Herbst - Independent Assurance Inspector	(651)234-7356
Steve Reinardy - Independent Assurance Inspector	(651) 234-7356
MnDOT Office of Materials and Road Research, Maplewood John Micheau - Technical Certification Program Supervisor	(651) 366-4201

TECHNICAL CERTIFICATION ADVISORY COMMITTEE

Technical Certification Program policy is coordinated through the Technical Certification Advisory Committee, a cooperating Agency and Industry group composed of representatives active in the field of highway construction. The group consists of a number of private and governmental officials.

Following are members of the Technical Certification Advisory Committee as of October 1, 2018

Name	Organization
Charles Kremer P.E.	MnDOT District 7 Materials Engineer
Dave Clauson	Braun InterTech, Consultant Representative
Edward Lutgen P.E	MnDOT, Bridge Engineering unit
John Cunningham P.E.	Aggregate and Ready Mix, Industry Representative
Glenn Engstrom P.E.	MnDOT State Materials Engineer
Suzanne Johnsrud	Lake Superior College, Academic Partner
Jim Kochsiek P.E.	MnDOT Engineer Senior Administrative
Vacant	MN Asphalt Pavers Association, Industry Representative
John Garrity, P.E.	MnDOT, Bituminous Engineer
John Micheau	Technical Certification Specialist
Kevin Kliethermes P.E.	Federal Highway Administration
Maria Masten, P.E.	MnDOT, Concrete Engineer
Matt Zeller, P.E.	Concrete Pavers Assoc. MN, Industry Representative
Mike Rief, P.E.	WSB, Consultant Representative
Mike Sroga	Pavement Management Specialist /IA Supervisor
Joel Ulring, P.E.	MnDOT, State Aid Division
Terry Beaudry, P.E.	MnDOT, Grading & Base Engineer
Tim Sinclair	MnDOT, Metro Inspection
Tom Ravn, P.E.	MnDOT, State Construction Engineer
Vacant	Associated General Contractors, Industry Representative