

North Dakota Department of Transportation

ROTATIONAL Training Program



Prepared by

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
BISMARCK, NORTH DAKOTA
www.dot.nd.gov

DIRECTOR
Francis G. Ziegler, P.E.

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OVERVIEW

The North Dakota Department of Transportation (NDDOT) Rotational Training Program (RTP) is a dynamic program that empowers, integrates, and diversifies our Transportation Engineers (TE) in the field of transportation engineering. The primary goal of the RTP is to provide new TEs a broad base of training and awareness of NDDOT operations which will enhance career development opportunities for our employees.

The RTP is available in two tiers, Tier I and Tier II. Tier I is a 12 month RTP and Tier II is a 24 month RTP. After completing Tier II level criteria, all TEs should meet the minimum qualifications and requirements to be promoted to the next level, TE II, depending on performance.

GENERAL CRITERIA

It is mandatory for all entry-level TEs within the NDDOT to participate in Tier I at a minimum. If there are extenuating circumstances preventing a TE from participating in the RTP, the non-participation request must be obtained from the applicable Office Holder. All entry-level TEs assigned to the Construction Services Division, Engineering Special Forces will automatically be enrolled into Tier II of the RTP and will be under the supervision of the Construction Services Manager.

Both Tier I & II have mandatory rotations in construction. Tier I will have a mandatory construction rotation length of up to 9 months. Tier II will have a mandatory construction rotation length of up to 12 months. During this rotation the TE will gain field experience as well as the administrative side to construction in the Construction Services Division

TIER I

The RTP, Tier I is 12 months in duration and mandatory for all entry level TEs. The purpose of Tier I is to provide familiarization, awareness of NDDOT operations and to include work on production items as well as networking with the engineering divisions. Tier I is similar to an extended NDDOT orientation program. See Table 1 for rotation areas and lengths.

Table 1, Tier I Rotation Areas and Duration

Division/District	Tier I Rotation Length
Construction / District	3-9 months
Planning & Programming / Local Government	½ month
Materials & Research	½ month
Bridge	½ month
Maintenance & Engineering / District	½ month
Design	½ month
Environmental & Transportation	½ month
Total Program Target Length	12 months

TIER II

The RTP, Tier II is 24 months in duration and only mandatory for entry level TEs entering the Construction Services Division, Engineering Special Forces (formerly Engineering/Construction Pool). The purpose of Tier II is to provide detailed production items within an engineering division and to complete a checklist of training items/areas within that division. The rotation areas, training checklists, and contacts are listed under the “Contacts & Rotation Areas.”

Since Tier II is limited to 24 months, the TE will have a mandatory construction rotation and then select 2 other “full” engineering divisions to rotate through, after completion of these rotations, the TE will complete the remaining rotations under Tier I criteria. The selected “full” rotations should be identified collaboratively with the supervisor and TE based on areas of interest.

Table 1.2, Tier II Rotation Areas and Duration

Division/District	Tier II Rotation Length
Construction / District	6-12 months
Planning & Programming / Local Government	3-6 months
Materials & Research	3-6 months
Bridge	3-6 months
Maintenance & Engineering / District	3-6 months
Design	3 months
Environmental & Transportation	3 months
Total Program Target Length	24 months (2 years)

**The length at each location is dependent on where they are hired. For example, the probationary period may count as time in a rotation and would then abbreviate the rotation length in a specific area.*

FLEXIBILITY

The RTP is intended to be flexible in order to be successful. The RTP flexibility is intended to provide reasonable accommodations wherever necessary to limit the amount of time a TE will have to be away from their family obligations as well as customize their rotation lengths to best fit their experiences and career path.

The intent of the RTP is that the TE would begin work in their assigned Division / District and after successful completion of the probation period they may begin the rotations. However, depending on the time of year, the assigned Division / District may decide to place the TE into rotations immediately.

For example: If Design hires an entry level TE in June, Design may decide to shift that TE into the mandatory construction rotation immediately to take advantage of that current construction season.

The assigned Divisions / Districts will evaluate all TEs at the initial counseling and make the necessary accommodations and RTP schedules collaboratively with each TE. While enrolled in the RTP, a TE may apply for any open positions within the NDDOT and if selected, will complete the RTP and upon completion report directly to the new assigned division / district.

COORDINATION & RECORDKEEPING

Coordination of the RTP shall be managed by a coordinator identified by Human Resource Division (HRD). The coordinator will be responsible for managing, promoting, monitoring, and evaluating the RTP. The coordinator will also be charged with making adjustments to the RTP as necessary based on feedback and as training advancements are made.

Overall tracking and documentation of training of each RTP employee will primarily be the responsibility of the HRD. However, all participants in the RTP (Coordinator, Supervisor, Sponsor, HR Officer, and RTP Employee) must communicate progress, changes, and feedback on the RTP to each player in order for its success. When a RTP employee is assigned to a Division / District, each trainee will report to the RTP sponsor. The sponsor will be responsible for ensuring proper training is being conducted, and written documentation of the training is being communicated / logged to the supervisor, HRD, and coordinator.

Upon completion of the RTP, the RTP employee and supervisor should meet with the coordinator to provide feedback on the RTP as well as to communicate training courses completed and request for graduation. The coordinator should then review the RTP employee's training record and notify HRD of successful completion. HRD will then issue a graduation certificate to the RTP employee.

If the RTP employee is enrolled in Tier II, the supervisor and HRD should consider advancement opportunities upon completion/graduation.

ROLES & RESPONSIBILITIES

There are five (5) key roles and responsibilities for the RTP; they are the RTP Coordinator, employee's assigned Division Supervisor, RTP Employee, Sponsor, and HR Officer. Each role plays a crucial part to the success of the employee and the RTP.

Coordinator

- ☞ Administer the RTP; manage, promote, monitor, and evaluate RTP
- ☞ Serve as the point of contact for supervisor, RTP employee, sponsor, and HR officer
- ☞ Solicit feedback on the program and make modifications as required
- ☞ Monitor the RTP progress to ensure timeliness and success
- ☞ Provide training opportunities and events for sponsors

Supervisor

- ☞ Assigning RTP plan, Tier I or II and notify HR officer in writing of chosen plan
- ☞ Ensuring RTP employee completes rotations
- ☞ Communicates with RTP employee, sponsor, and HR officer to ensure that rotation areas are notified in advance of RTP employee's rotation schedule
- ☞ Communicates with sponsors to complete RTP employee performance evaluations
- ☞ Prepares and completes performance reviews for RTP employees in accordance with NDDOT Policies and Procedures and schedule
- ☞ Providing guidance for a successful learning experience
- ☞ Provide guidance to help the RTP employee adjust to the culture and norms of the NDDOT

RTP Employee

- ☞ Completing the rotation areas
- ☞ Reporting progress to supervisor and HR officer in writing
- ☞ Objectively evaluating the learning experience in each rotation
- ☞ Maximize the learning experience
- ☞ Meeting expectations and guidelines as set by the supervisor, sponsor, and HR officer
- ☞ Following NDDOT policies and procedures

Sponsor

- ☞ Provide learning opportunities to RTP employee
- ☞ Coaching/Mentoring RTP employee through identified training areas
- ☞ Ensuring work activities are meaningful, quality, and varied
- ☞ Providing guidance and support for a successful learning experience
- ☞ Communicates employee performance to RTP employee and supervisor
- ☞ Provide guidance and support to assist the RTP employee adjust to the organizational behavior and norms of the NDDOT

HR Officer

- ☞ Administer the RTP recordkeeping process
- ☞ Communicate any issues with the supervisor and sponsor that may arise
- ☞ Ensure performance review schedules for RTP employee follow the NDDOT Policies and Procedures and schedule
- ☞ Provide a graduation certificate upon satisfactory completion of RTP

CONTACTS & ROTATION AREAS

The Divisions and Districts will have a “sponsor” identified who will be the primary point of contact for each RTP employee. Below is a list of each division and district with the sponsors and training items for each rotation. For the most current list of sponsor names, see [Appendix A](#).

🌀 Bridge, Assistant Division Director

- 🌀 Structural Analysis
- 🌀 Structural Design
- 🌀 Plan Preparation
- 🌀 Hydraulics Analysis

🌀 Construction Service, Assistant Division Director

Office Rotation:

- 🌀 Construction Records Review
- 🌀 Addendums
- 🌀 Bid Opening Support
- 🌀 Special Studies
- 🌀 Contract Claims

Field Rotation:

- 🌀 Survey (GPS, Robotic, Level, Conventional)
 - ROW, Grading, Structures, Drainage, etc
- 🌀 Inspection
- 🌀 Materials Sampling and Testing
- 🌀 Recordkeeping
 - CARS, Daily Inspection Reports, Lab Reports, Force Accounts, Field Books, PQRs, etc

District Rotation:

- 🌀 District Administration
- 🌀 Negotiating and Problem Solving

🌀 Design, Division Program Manager

- 🌀 PCRs
- 🌀 Roadway Design
- 🌀 Safety Design
- 🌀 Technical Support
- 🌀 ROW Plats
- 🌀 Survey

🌀 Environmental & Transportation Services, Division Program Manager

- 🌀 Consultant Agreements
- 🌀 Environmental
- 🌀 Cultural Resources
- 🌀 ROW
- 🌀 Specifications, road and bridge construction

🔄 **Maintenance & Engineering Services, *Division Program Manager***

Office & Field Rotation:

- 🔄 Specifications, equipment
- 🔄 Building Inspections
- 🔄 Equipment Inspections
- 🔄 Traveler Information
- 🔄 ITS
- 🔄 Safety
- 🔄 Maintenance Operations

🔄 **Materials & Research, *Division Director***

- 🔄 Pavement Design
- 🔄 Geotechnical
- 🔄 Materials Sampling & Testing

🔄 **Planning & Programming / Local Government, *Division Directors***

Planning:

- 🔄 Pavement Management
- 🔄 Scoping
- 🔄 Traffic Operations
- 🔄 Programming
- 🔄 GIS

Local Government:

- 🔄 Project Development, Cities & Counties
- 🔄 Transit
- 🔄 Transportation Enhancement
- 🔄 Safe Routes to Schools
- 🔄 MPO
- 🔄 Financial Planning for Political Subs
- 🔄 How to Work with People

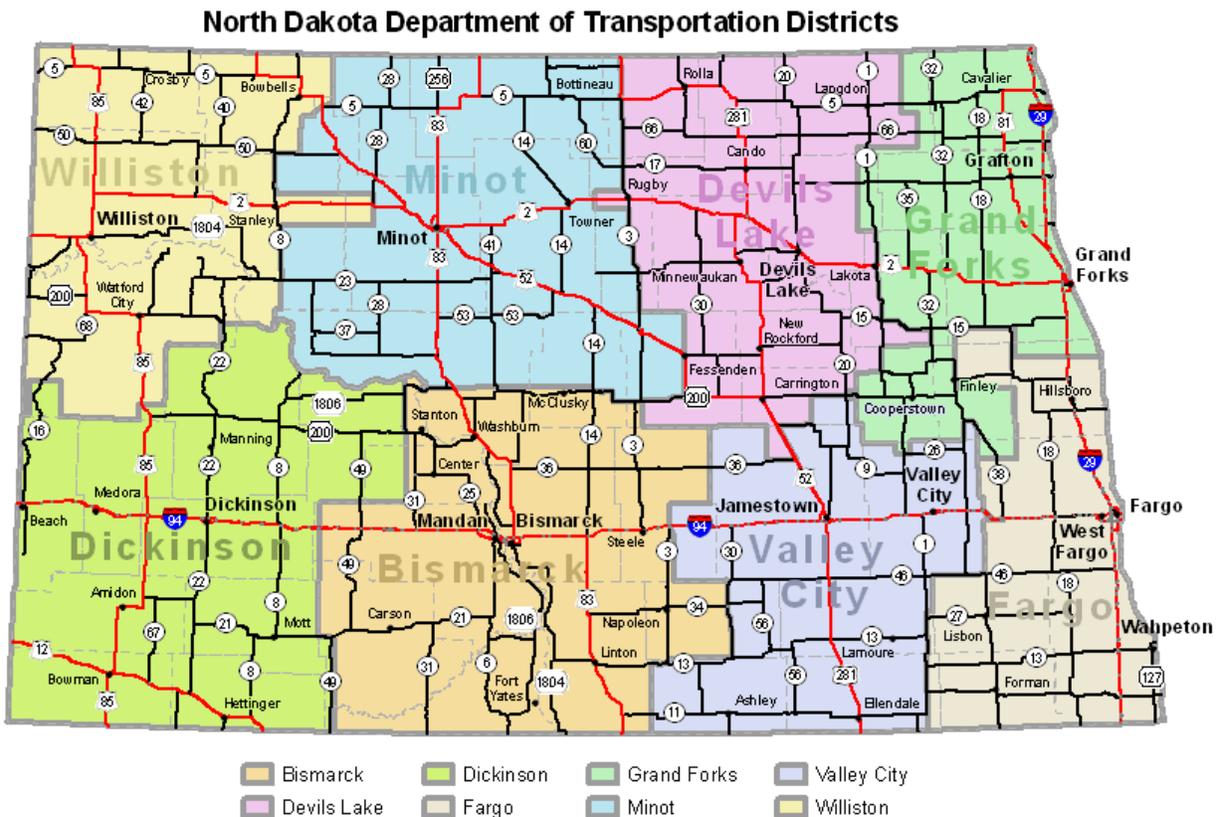
🔄 **Districts**

- 🔄 Bismarck District, *Assistant District Engineer*
- 🔄 Valley City District, *Assistant District Engineer*
- 🔄 Devils Lake District, *Assistant District Engineer*
- 🔄 Minot District, *Assistant District Engineer*
- 🔄 Dickinson District, *Assistant District Engineer*
- 🔄 Grand Forks District, *Materials Coordinator*
- 🔄 Williston District, *Assistant District Engineer*
- 🔄 Fargo District, *Team Leader*

DESCRIPTION OF ROTATIONS

NDDOT Divisions / Districts:

The NDDOT includes 8 engineering divisions and 8 districts. Each division / district plays a crucial part in completing the NDDOT Mission Statement, "Providing a Transportation System that Safely Moves People and Goods." The RTP will provide training and understanding in the relationships between each of these divisions / districts and how they interact to complete our mission. See map below for district locations.



Construction:

Construction (field) is the only mandatory rotation for all TEs. The RTP employee will typically be assigned to one (1) of the eight (8) district offices during the construction season and could spend anywhere from 3-12 months working on a project(s). While assigned to the district, the RTP employee will be provided many training opportunities which include, but are not limited to; surveying, materials testing, inspection, project management, and documentation on construction projects.

RTP employees should become familiar with the Standard Specifications for Road and Bridge Construction, design plans, contracts, special provisions, construction of various pavement types, roadway grading, drainage, and structures. RTP employees should learn the methods and procedures of different types of construction and have an understanding on field practices and how they relate to design plans and standards.

During the field rotation RTP employees are eligible for all benefits associated with construction staff. This includes overtime earned at a rate of 1.5 times their salary accrued after 8 hours per day or 40 hours per week (taken as cash payment or compensatory time), State Fleet vehicle, meal expenses, lodging either direct billed or reimbursed, and safety equipment.

Construction Services:

After completing a field rotation, the RTP employee should be assigned to the Construction Services Division. The sponsor will assign the RTP employee to one of the work units within the Construction Services Division. The RTP employee will cover training on project record final reviews, addenda, contract claims, special studies, bid opening support, and other miscellaneous construction reviews. This experience provides a valuable learning opportunity for trainees to understand the records requirements and other processes that are involved in construction administration and contracts that they work with during the construction season.

Bridge:

The RTP employee should be exposed to each of the division's sections. Depending on the Tier, the RTP employee could be assigned to a bridge design project or go through job shadowing for numerous activities. RTP employees assigned to the Bridge Division should work on various aspects of bridge design to include, structural analysis and design, plan preparation, hydraulics analysis, and consultant management. This experience should provide the RTP employee with valuable exposure and familiarization with the Bridge Division processes and components involved in bridge analysis and design.

Design:

The RTP employee should be exposed to all units of the division. Depending on the Tier, the RTP employee could be assigned to a design project or go through job shadowing for numerous activities. If assigned to a design project, the RTP employee typically works in the project development phase to include project concept reports, safety, project location and environmental concerns including alternatives, impacts, environmental assessment, and public input. RTP employees working for the Design Division usually receive MicroStation and Geopak training.

Environmental & Transportation:

The RTP employee should be exposed to all elements of the division. Depending on the Tier, the RTP employee could be assigned to a specific task or go through job shadowing for numerous activities. If assigned to a specific task, the RTP employee typically works in the project development phase to include project location and environmental concerns including alternatives, impacts, environmental assessment, and public input. The RTP employee should also be exposed to the development of the standard specifications and supplemental specifications.

Planning & Programming / Local Government:

The RTP employee should be assigned to all the sections of both divisions. The sponsor(s) will typically assign the RTP employee to one of several ongoing studies in the Planning & Programming / Local Government Divisions. Topics include, but are not limited to: pavement management, scoping, urban and rural corridor studies, engineering economics, traffic operations, economic development, local government, railroad engineering, GIS, programming, transit, and transportation enhancement. Depending on the Tier, the RTP employee could rotate through all of these areas or primarily spend time on one specific task. RTP employees working for these divisions could receive training related to dealing with people as well other available task related courses.

Maintenance & Engineering Services:

The intent of this rotation would include the RTP employee spending most of the rotation through the Maintenance & Engineering Division with a brief rotation in one of the 8 districts. The RTP employee would spend time with the District's Maintenance Coordinator to gather an understanding of the overall maintenance operations. The sponsor would coordinate this with each RTP employee to ensure maximum exposure in the learning process. The trainee could, depending on the Tier be exposed to these areas: specification (equipment) development, building management and inspections, traveler information, ITS, safety, and operations.

Materials and Research:

The RTP employee should be exposed to all sections of the division. Depending on the Tier the trainee is enrolled, the sponsor could assign them to; research projects and reports, pavement design, geotechnical, and sampling / testing of various materials. The RTP employee could be assigned work in the lab performing tests with aggregates, soils, bituminous products, and concrete and asked to provide reports after analyzing the results of those tests. In addition to these work items, the sponsor may assign the trainee to the aggregate prospecting team to gain additional knowledge in the field operations of the division.

TRAINING COURSES

The RTP employee will be eligible to receive all available training that is offered through the NDDOT while enrolled in the RTP. The RTP employee will be required to comply with NDDOT Personnel Policy, Training & Education, IX-2 for all training requests.

If the TE is hired by the Construction Services Division, Materials & Research, or any of the 8 Districts, they will be required to obtain materials certification as offered through the Materials and Research Division. These courses include: Asphalt Introduction, Inspection, Mix Testing, and Mix Controller, Aggregate, Soils, and Concrete. (Depending on the location, all or select courses may be required.)

Other engineering / task related courses available to the RTP employee include, but are not limited to:

- 🔄 Defensive Driving
- 🔄 Construction Plan Reading
- 🔄 MicroStation
- 🔄 Geopak
- 🔄 Survey
- 🔄 GIS
- 🔄 Basic Construction Mathematics Self Study Course
- 🔄 National Highway Institute (NHI) Training Courses
- 🔄 Federal Highway Administration (FHWA) Training Courses
- 🔄 Leadership Training

The HRD Training Resource Library is also available to all RTP employees. These courses are located at: <http://mydot.nd.gov/divdist/hrd/trainingresourcelibrary2007.pdf>

APPENDIX A

SPONSOR LIST (eff. 02/05/2008)

Bridge Division

Larry Schwartz, PE
NDDOT

Bridge Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-4446
Email: lschwartz@nd.gov

Construction Services Division

Phil Murdoff, PE
NDDOT
Construction Services Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-2569
Email: pmurdoff@nd.gov

Design Division

James Rath, PE
NDDOT
Design Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-1722
Email: jrath@nd.gov

Environmental & Transportation Services Division

Chad Orn, PE
NDDOT
Engineering & Transportation Services Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-4587
Email: corn@nd.gov

Maintenance & Engineering Services Division

Mike Kisse, PE
NDDOT
Design Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-4410
Email: mkisse@nd.gov

Materials & Research Division

Ron Horner, PE
NDDOT
Materials & Research Division
218 Airport Road
Bismarck, North Dakota 58504
Phone: (701)328-4410
Email: rhoner@nd.gov

Planning & Programming Division

Scott Zainhofsky, PE
NDDOT
Planning & Programming Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-2642
Email: szainhofsky@nd.gov

Local Government Division

Dave Leftwich, PE
Local Government Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-4334
Email: dleftwic@nd.gov

Districts

Bismarck	Kirk Hoff, PE (701)328-6949, khoff@nd.gov
Valley City	Ron Blaufuss, PE (701)845-8810, rblaufus@nd.gov
Devils Lake	Greg Semenko, PE (701)665-5105, gsemenko@nd.gov
Minot	Bob Allen, PE (701)837-7611, boallen@nd.gov
Dickinson	Rob Rayhorn, PE (701)227-6511, r-rayhorn@nd.gov
Grand Forks	Curt Dunn (701)787-6525, cdunn@nd.gov
Williston	Joel Wilt, PE (701)774-2711, jwilt@nd.gov
Fargo	Duane Carlstrom, PE (701)239-8917, dcarlstr@nd.gov

Human Resources

Judy Froseth
Human Resources Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505
Phone: (701)328-2453
Email: jfroseth@nd.gov

RTP Coordinator

TBD