

North Dakota Department of Transportation

DBE NEWSLETTER

— For the June 21, 2024, Bid Letting —



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Upcoming Bid Letting Meeting

DBE Industry Update Meeting—June 10, 2024, at 9-10 a.m. CST
for the June 14 and 21, 2024, Bid Openings

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 227 895 756 087

Passcode: bgn2rE

[Download Teams](#) | [Join on the web](#)

Join with a video conferencing device

teams@join.nd.gov

Video Conference ID: 115 392 052 4

[Alternate VTC instructions](#)

Or call in (audio only)

+1 701-328-0950,,387165260# United States, Fargo

Phone Conference ID: 387 165 260#

[Find a local number](#) | [Reset PIN](#)

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Advertisements

Newsletter advertisements are due to the Civil Rights Office 15 business days prior to each bid opening by noon CDT:

Submit the required information online at:

<https://apps.nd.gov/dot/cr/csi/login.htm>

The North Dakota Department of Transportation (NDDOT) will consider every request for reasonable accommodation to provide:

- An accessible meeting facility or other accommodation for people with disabilities.
- Language interpretation for people with limited English proficiency (LEP)
- Translations of written material necessary to access NDDOT programs and information.

To request accommodations, contact Heather Christianson, Civil Rights Division, NDDOT at 701-328-2978 or civilrights@nd.gov TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

5 x Y - USING THE FIVE WHY ANALYSIS in Highway Construction



WHY?

The construction industry is challenging enough on its own, but when you add in repeated difficulties like project delays, safety incidents, or over-budget costs, it can cause significant problems for our companies. The good news is, there is a process that can help improve project efficiency, reduce costs, and enhance overall performance. Conducting a proper root cause analysis (RCA) enables companies to address the issues at the source rather than simply treating symptoms, by systematically identifying the underlying reason(s) that allowed for the situation to occur.

RCA aims to identify the fundamental reasons behind an issue, similar to how medical professionals strive to diagnose an ailment rather than just treat the symptoms. In construction, where time, resources, and safety are critical, RCA becomes an essential practice. In the competitive and complex environment of highway construction, where even minor delays or errors can have significant repercussions, the use of root cause analysis can provide a strategic advantage by enabling businesses to home in on and rectify the fundamental issue at hand. This proactive approach not only helps in resolving immediate problems but also fosters a culture of continuous improvement within an organization.

In this article, we are going to look at a straightforward, yet powerful root cause analysis tool that is easy for companies to employ immediately: the Five Why Analysis. Simply put, this strategy centers around asking “why” repeatedly (at least five times) to look deeper than the surface-level of a problem and discover the root cause. Let’s apply it to these examples.

Example 1 | Project Delay: Construction companies often face delays in completing projects, which can lead to financial losses and damage to their reputation. At a quick glance, many believe they can find the reason for delays, but root cause analysis could reveal a plethora of issues creeping beneath the surface.

Description:

ABC Construction has been given the contract for a highway expansion project which involves widening a section of the highway to accommodate increased traffic. The original timeline for the project was 12 months.



Problem Statement:

The company is experiencing delays in completing the project.

Five Why Analysis

#1: Why is the road widening work delayed?

Because the crew did not complete the excavation work on time.

#2: Why was the excavation work not completed on time?

Because there was a shortage of heavy machinery to carry out the excavation work efficiently.

#3: Why was there a shortage of heavy machinery?

Because one of the excavators broke down and required extensive repairs.

#4: Why did the excavator break down?

Because regular maintenance checks were not conducted, leading to the failure of a critical component.

#5: Why were regular maintenance checks not conducted?

Because there was no scheduled maintenance plan in place for the excavator, and maintenance was only carried out reactively when issues arose.

Root Cause:

The root cause of the delay in completing the road widening work was the lack of a proactive maintenance plan for the heavy machinery, specifically the excavator, which led to its breakdown and subsequent delays in excavation work.

Solution:

Implement a scheduled maintenance plan for all heavy machinery to prevent similar delays on future projects.

Instead of stopping at the first why and disciplining the crew for not completing the work (treating the symptom), the analysis dug deeper into the events that led to the delay. By implementing a scheduled maintenance plan, the company is likely to avoid future delays due to equipment breakdowns.

Example 2 | Safety Incident: Safety is a significant concern in the construction industry. Construction companies might experience safety incidents due to inadequate training, lack of proper safety equipment, or failure to adhere to safety regulations. Root cause analysis can help identify the underlying reasons for these incidents.

Description:

DEF Construction has been awarded a large government contract for a bridge construction project. The crew is returning to the work site after two days of heavy rain caused the site to be shut down.

Problem Statement:

A worker sustained an injury from a fall at the construction site.

Five Why Analysis

#1: Why did the worker fall?

Because the worker slipped on a wet surface.

#2: Why was the surface wet?

Because it had been raining, and no precautions were taken to cover or dry the area.

#3: Why were no precautions taken?

Because there was no procedure in place for monitoring and addressing slippery conditions after rainfall.

#4: Why is there no procedure in place?

Because safety protocols did not adequately address weather-related risks, and there was no specific training provided on this aspect.

#5: Why did safety protocols not address weather-related risks?

Because the company's safety training and protocols were outdated and did not account for all potential hazards, including weather-related ones.



Root Cause:

The root cause of the safety incident was the lack of updated safety protocols and training that adequately addressed weather-related risks, leading to a failure to implement measures to prevent slippery conditions after rainfall.

Solution:

Update safety protocols and provide comprehensive training on weather-related risks to help prevent similar incidents in the future.

Involving employees that were involved with an incident is a great way to get to the root cause of a problem. The point here is not to assign blame, but to really look at the underlying issues and ensure that they are prevented from recurring.

Example 3 | Over-Budget Costs: Construction companies may struggle with cost overruns, where the actual project costs exceed the budgeted amount. Root cause analysis can uncover issues such as inaccurate cost estimates, scope changes, or inefficient resource allocation.

Description:

DEF Construction has continued working on the bridge construction project, but the project is costing more than was previously estimated.

Problem Statement:

The highway construction project has exceeded its budget due to cost overruns.

Five Why Analysis

#1: Why did the project exceed its budget?

Because the cost of materials was higher than anticipated.

#2: Why were the material costs higher than anticipated?

Because there was a sudden increase in the price of steel and asphalt due to market fluctuations.

#3: Why were market fluctuations not accounted for in the budget?

Because the budget was based on outdated cost estimates and did not account for potential changes in material prices.

#4: Why were the cost estimates outdated?

Because the initial estimates were made before the project was fully planned and designed, leading to inaccuracies in budget projections.

#5: Why were the estimates made before the project was fully planned and designed?

Because there was pressure to start the project quickly, and detailed planning and design work were rushed to meet deadlines.

Root Cause:

The root cause of the cost overruns was the lack of consideration for potential material price fluctuations in the budget, stemming from rushed planning and design work.

Solution:

Conduct more thorough planning and design work before finalizing the budget to help prevent similar cost overruns on future projects.

Using the Five Why Analysis method to drill down to the root cause even when looking at administrative functions within your construction company is effective and can help improve processes to become more competitive and remain profitable. Looking at the cause and not the outcome helps to eliminate systematic problems (and thinking) before they occur.

The Five Why Analysis RCA acts as a diagnostic tool, allowing teams to tackle problems at their core. By asking “why” repeatedly, you can peel away layers of symptoms to reveal the true source of issues. The next time you are met with a challenge, remember it’s not just about fixing the problem on the surface—it’s about digging deep, understanding the root cause, and establishing mechanisms to mitigate future issues.



Upcoming Events/Training

July
9

Tri-State Webinar Finding Federal Contracting Opportunities

Virtual Webinar

Tuesday, July 9, 2024, 9:00 a.m. – 10:00 a.m. CDT | Free

[Learn More >](#)

July
10

2024 Mid-Year Construction Economic Update and Forecast

Virtual Webinar

Wednesday, July 10, 2024, 9:00 – 1:00 p.m. - 2:30 p.m. CDT | Free

[Learn More >](#)

Welcome New DBEs

La Vie Home, Inc. dba La Vie Development, Inc.

Business Development, Transportation Security Data Management, Queue Management, Proximity Management, Background Screening, Air Purification, Charging stations for electric vehicles.

<http://www.laviedevelopment.com/evcharger> | 631-655-3280

Aimee Staats dba Dakota Consulting

Management Consulting Services including writing up business proposals for clients to get contracts with the Government, grant writing, data analysis and reporting data for customer surveys.

<http://www.dakotaconsulting.com> | 916-642-9410

Quoting Opportunities

June 21, 2024, Bid Opening at 9:30 a.m. CST

SWINGEN CONSTRUCTION COMPANY - PO BOX 13456, GRAND FORKS, ND 58208, is seeking quotes on any and all items or materials within the scope of the project(s) on job number(s) 24345 for the June 21, 2024 NDDOT Bid Opening to be held at 09:30 AM. We will assist you in interpreting plans and specifications, preparing proposals, provide advice to obtain bonding and insurance, project scheduling, pit information (location, length of haul, type of road, etc.) method of measurement (seeding by the mile or acre, hauling by the ton-mile or by the hour, etc.), expected overtime, payment schedule, items of work included in the quote or any other project related issues. SWINGEN CONSTRUCTION COMPANY will be accepting quotes up until deadlines as specified in the DBE Special Provisions for this letting. You can email your quotes to quotes@swingenconstruction.com. To speak to someone in our office regarding quoting please contact Jason Odegard at 701-775-5359. Any and all disadvantaged businesses are encouraged to submit a quote. SWINGEN CONSTRUCTION COMPANY is an Equal Opportunity Employer.



IT TAKES MORE THAN TENACITY TO SUCCEED IN CONSTRUCTION

LEARN ABOUT

- Construction Accounting
- Construction Legal
- Contracts
- Project Management
- Surety
- Estimating
- Bonding
- Marketing
- Access to Capital
- Strategic Planning

WHAT GRADUATES HAVE TO SAY

"I got a lot out of the bonding class. I was able to listen to a whole a lot of very professional people about bonding insurance and accounting. Overall it was just a great class."

BEP GRADUATE

REGISTER AT:

www.WestCentralSBTRC.com/bonding

THE USDOT BONDING EDUCATION PROGRAM PROVIDES THE INFORMATION TO TAKE YOUR COMPANY TO THE NEXT LEVEL

What have you done to position your business for increased success? In this Building Business Capacity Program, you will hear from experts in construction accounting, construction law, estimating, project management, surety, bonding, marketing and access to capital. This program is designed to help you take your company to the next level. If you are ready for that next step, **SIGN UP TODAY.**

Stakeholders include:
Utah Department of Transportation, Utah Apex, Utah Transit Authority and Salt Lake City International Airports.

DATES:
July 9, 10, 11, 16 & 17

TIME:
8:30am - 10:30am MT each day

LOCATION
Zoom Webinar

COST:
This class is free for qualified businesses to attend