

# Deh Cho Bridge Project Technical Update – March 3, 2011



Department of Transportation  
March 3 , 2011

# Aim- Summary of Presentation

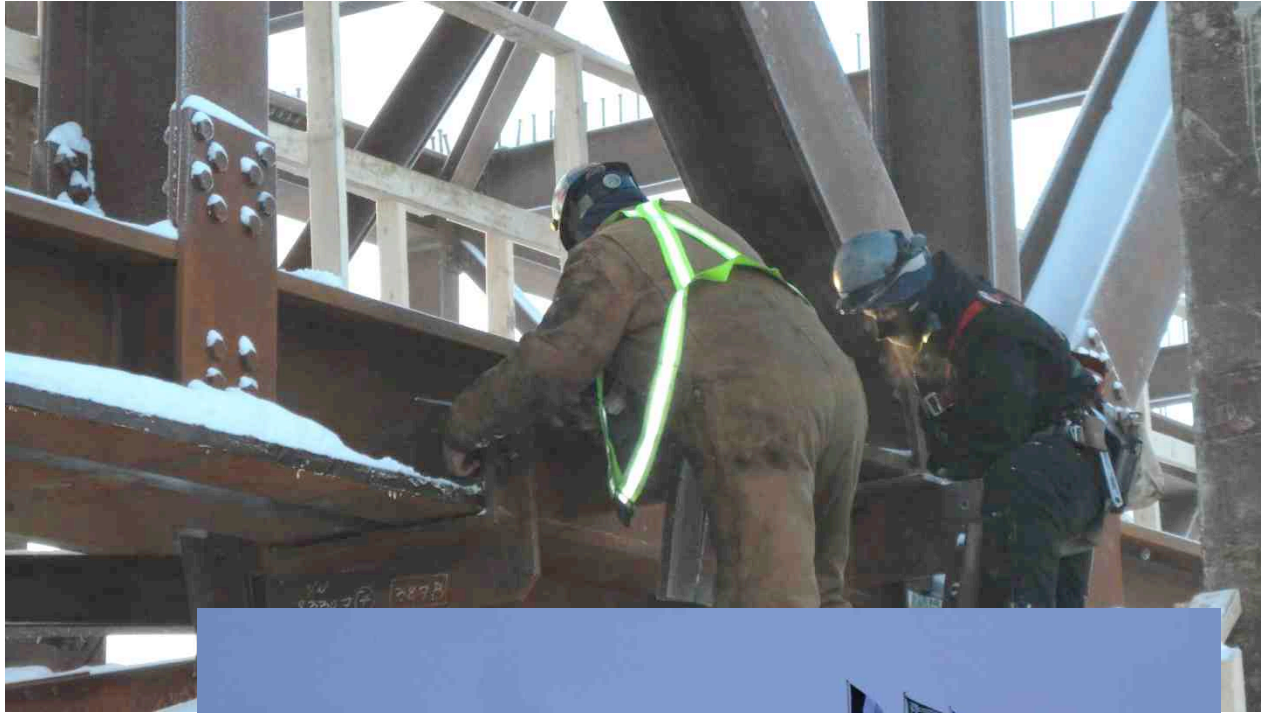
- Construction update and progress
- Project Management
- Risk Management
- Construction Schedule
- The Levelton Report- Action Plan
- Project Budget
- The OAG Performance Audit
- Communications
- Summary and Key Next Steps
- Questions



# Construction Progress

- Launching of the North Trusses progressing well
- High quality of steel and dry assembly in Que prior to shipping essential
- Erection of the North Tower and install of cable
- Delivery of all materials planned for end March 2010 and no supply issues to date
- Temporary works out of the water by break up – mid-April
- Assembly of South side to commence March 2010.
- Launch of the South side to commence June 2010.

# Construction Progress



# Construction Progress

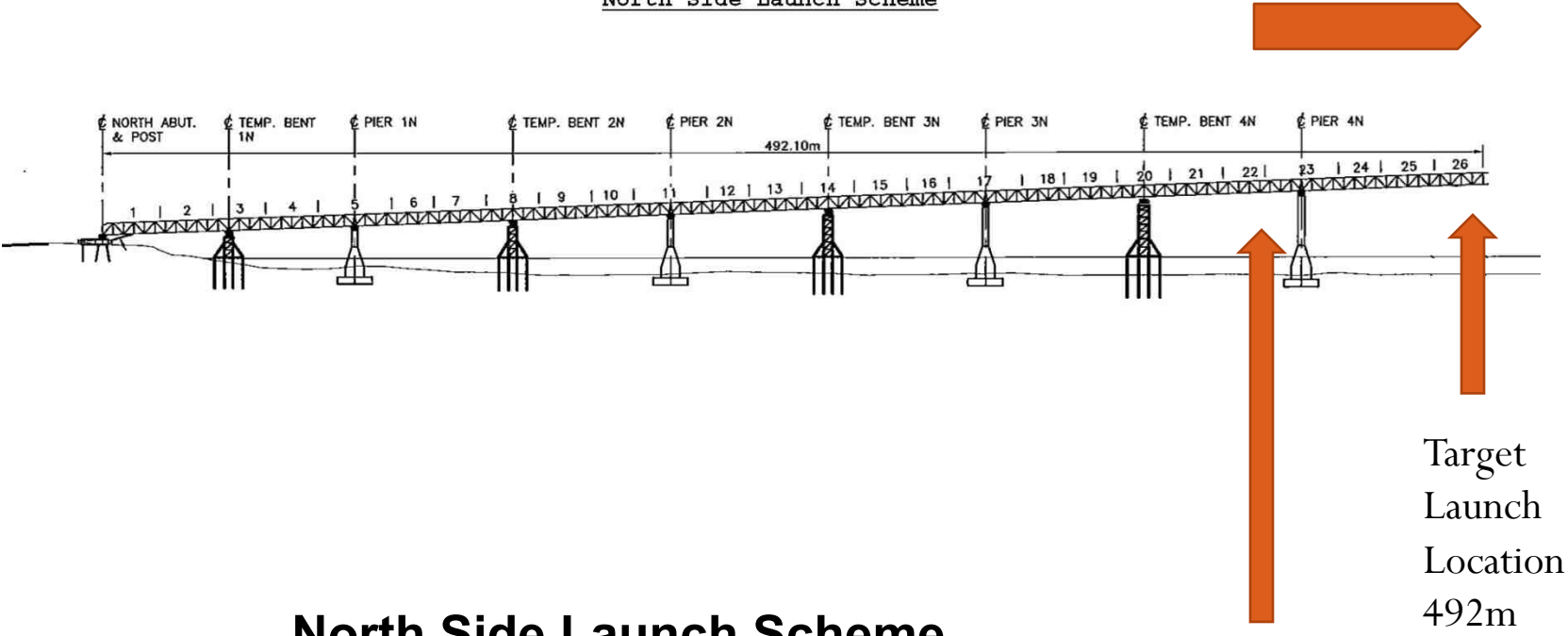


**Pier 4N -**



# Construction Progress

North Side Launch Scheme



North Side Launch Scheme

Target  
Launch  
Location  
492m

Next  
Launch  
420m

# Project Management

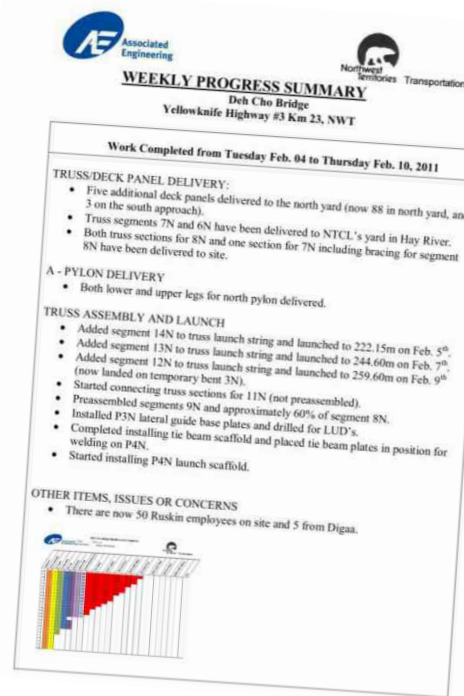
- **Associated Engineering**
  - On site oversight- 2 persons full-time on site
  - Review of all payments to match work approved and properly claimed
  - Progress reviews – Daily, Weekly, and Monthly reports
  - Weekly Meetings and Monthly Project Meetings
  - Central document management – “Buzzsaw”
  - Continuous risk review update
  - Monitor the day-to-day issues
- **Levelton Consulting**
  - Has Quality Assurance (QA) oversight to review and inspect all Quality Control (QC) procedures and reports

# Project Management

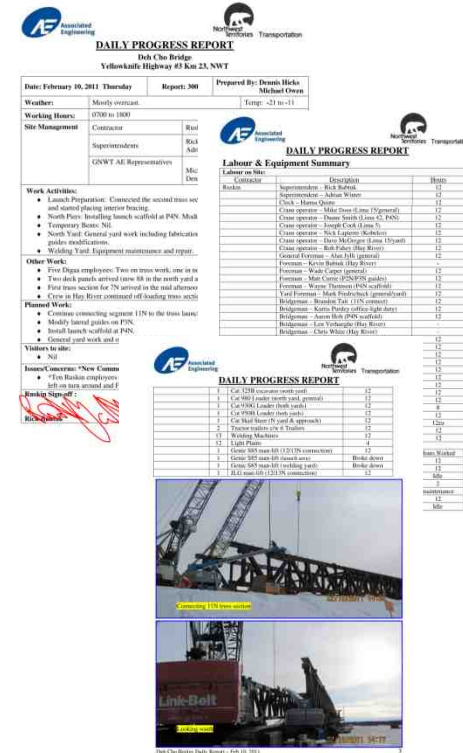
## Reports



Monthly



Weekly



Daily



# Risk Management

Project has a detailed Risk Matrix which allows for the tracking and comprehensive review of all the project risks



## DAILY PROGRESS REPORT

1	Cal. 127B excavator (north yard)	12
1	Cat 980 Loader (north yard, general)	12
1	Cat 930G Loader (both yards)	12
1	Cat 950H Loader (both yards)	12
1	Cat Skid Steer (N yard & approach)	12
2	Tractor trailers (N yard)	12
13	Welding Machines	12
12	Light Plans	4
1	Genie S85 man-lift (12/13N connection)	12
1	Genie S85 man-lift (south area)	Break down
1	Genie S85 man-lift (welding yard)	Break down
1	ILG man-lift (12/13N connection)	12



Dev. Clst Bridge Daily Report - Feb 10, 2011

# Construction Schedule

Date	Major Planned Activity
Jan-Mar 2011	<ul style="list-style-type: none"><li>•Complete North truss and tower</li><li>•Remove temporary bridges/piers</li><li>•Commence South Bridge assembly</li></ul>
Apr 2011	<ul style="list-style-type: none"><li>•Remove all in water temporary works</li><li>•Commence electrical works- approaches</li></ul>
May- June 2011	<ul style="list-style-type: none"><li>•Continue South truss assembly</li><li>•Install temp works once ice conditions allows</li></ul>
June – Aug 2011	<ul style="list-style-type: none"><li>•Launch south side and erect tower</li><li>•Work on both abutments</li><li>•Electrical works (lighting)</li></ul>
Sep- Oct 2011	<ul style="list-style-type: none"><li>•Deck work both sides</li><li>•Paving and Earthworks</li><li>•Lighting and Utility works (Northlands/NWTel)</li></ul>
Nov 2011	<ul style="list-style-type: none"><li>•Final works – Utilities</li></ul>

# Construction Schedule

- Delay in delivery of steel requires changes to the construction schedule to meet contracted date. Safety and quality must be maintained
- Contractor has submitted its schedules for project completion which we are reviewing in detail (23 Feb)
- Our principal focus is to ensure safety, quality and longevity
- Contract is clear on completion date



# Levelton Report

- Completed 30 Nov 2010 - recommended acceptance of Phase 1 works, completion of action plan
- GNWT Action Plan developed and presented to address
- Bridge is safe and constructed in accordance with specs
- Deficiencies are normal part of large construction projects and are being corrected along the way
- Approx \$14 m available to correct deficiencies from Atcon related works plus a holdback on Ruskin current works.
- Early estimates of \$4 – 7 million - depends on prices obtained from the companies who will do the work
- We have spent approx \$3.1 m on remediation to date
- No issues outstanding

# Project Budget - Summary

Main Activity	Amount \$M	Remarks
Total Budget	182.39	Includes previous contributions to DCBC (\$1.95)
Phase 1 works	88.24	8 piers, 8 steel bents, earthworks, mobilization, camp, engineering, QA, environmental, insurance, Project Management, and claims
Ruskin Contract Phase 2 works	74.5	Steel truss, deck, pylon, cables, erection, engineering, earthworks
Misc Construction Cost	2.5	Safety lights, décor lights, habitat restoration
Project Control	8.56	QA, Levelton, design engineering, on site monitoring, environmental, communications, GNWT TAs, GNWT costs, insurance
Administrative	0.75	Legal, Acct, Community
Int and Fin (April 2011)	6.14	Debt finance costs
Contingency	1.7	To deal with any unforeseen events
Total	182.39	Does not include security amts (\$14M)

# OAG Performance Audit

- Have been working with the office of the Auditor General since July 2010
- Mid-project performance audit that is additional to annual financial audit (public accounts)
- Work has consisted of interviews, presentations, visits, information gathering and teleconferences
- Reviewed various draft reports and provided comments. This was a continuation of the transparency and access the GNWT provided the Auditor General on the project in previous years.
- Hundreds of hours committed to responding in a timely manner to OAG inquiries to ensure her team had everything she needed for the audit
- Final report has now been tabled



# OAG Performance Audit

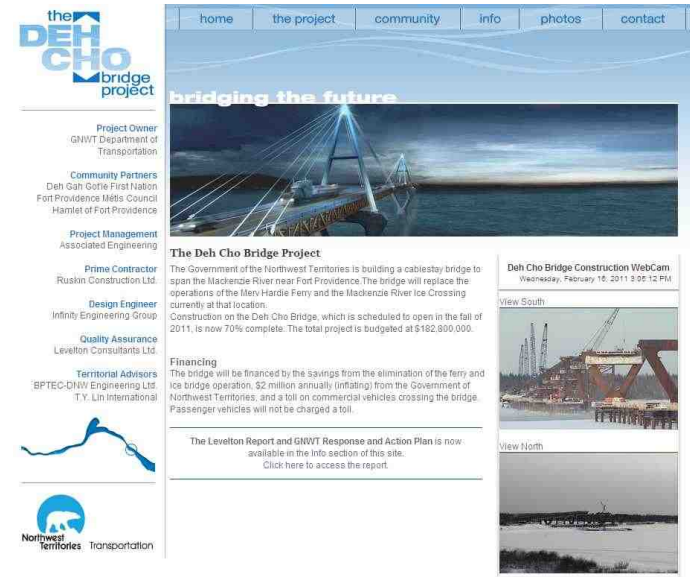
- All of Auditor General's recommendations were accepted:
  1. The GNWT has established a new Corporate Capital Planning Process which requires a planning study and peer review process for all new capital projects
  2. The Deh Cho Bridge Project Team has engaged risk experts to review and assess our risks and corresponding mitigation plans. Mitigation actions are reviewed in detail to mitigate risks and minimize impacts.
  3. The GNWT will ensure a proper authority certifies that the design and construction of the Bridge meets the Canadian Highway Bridge design Code.

# OAG Performance Audit

- The Auditor General took no issue with our position that the Deh Cho Bridge is being built to the highest standards of engineering, safety, and accountability.
- The Auditor General concluded that the Department of Transportation has taken appropriate steps to manage key risks in Phase 2 of the project, including a thorough review of the quality of work in Phase 1 (the Levelton Report). She suggested improvements in the risk mitigation process, which have been incorporated.

# Public Information

- Dedicated Project Website with two webcam images
- Regular updates to media via technical updates
- Quarterly Newsletter
- Bridge Models available
- Tours for community, MLAs, media
- Technical Articles from the Designer (Infinity Engineering)



# Summary- Conclusion

- All parties committed and focused to ensure a successful project.
- Project nearing 80% completion
- Excellent Quality Control and Quality Assurance process on the Project
- Erection – pylon erection, launching of the South truss and laying the deck next major components with detailed plans being prepared
- Spring Break-up will be critical to the next phase
- Schedule needs to be reviewed in detail

# Questions/Comments

