

# Sustainable Supply Chain and Transportation

## Green Design and Collaboration P3's Infrastructure Projects

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# Government of Alberta Definition “Public Private Partnership” P3’s

- Private entity or consortium
- Infrastructure projects
- Designs and builds
- Provide some or all financing
- Operate and/or maintain
- Receives payment over extended period



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# Why P3's?

- Faster
- Fixed long-term cost
- Common design platforms
- Efficiency in construction
- Life cycle costing/maintenance
- Lack of in-house staff
- Risk transfer



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# Alberta Projects

- NE/SE Calgary Ring Roads
- SE/NW Edmonton Ring Roads
- Schools 1, 2, 3 (40 schools)
- NE Edmonton Ring Road under construction
- SW Calgary Ring Road in procurement
- Edmonton Valley LRT in procurement
- Calgary Bus Barn in procurement



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# Schools 1 Facts and Figures

- 18 schools; 4 school boards; 2 cities
- 900,000 total square feet
- 12,000 student capacity
- 218 modular classrooms
- Designed and constructed in 21 months
- LEED Silver/Gold
- 30 year term



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# Advantages of P3's

- Great collaboration
- Economies of scale
- Prototyping
- Better planning
- Efficient work flows/approvals
- Life cycle benefits



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# Disadvantages

- All or nothing procurement
- Weakest link risk management
- Reduces innovation
- Binary performance requirements



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# Opportunities

- Cost effective projects
- Inclusive of life cycle
- Strong teams
- Much improved commissioning
- Cost/time/scope certainty



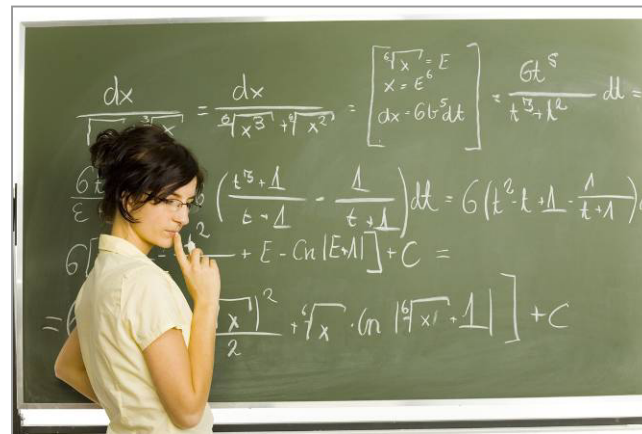
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# Lessons Learned

- Need the right partners
- Major risk transfer to private sector
- Economies of scale versus risk management
- Steep learning curve
- Importance of life cycle costing



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# Challenges

- Managing multiple owners and users
- Ineffective risk transfer
- 4<sup>th</sup> 'P' is politics
- Single supplier constraints



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