



BINNIE

Paving

- BEST VALUE SPENDING
- REHABILITATION OR MAINTENANCE OPTIONS
- THE RIGHT SOLUTION
- PROFILE: DOUG KIDD
- GOING GREEN



DO YOU KNOW that across BC there are 47,900 lane kilometres of highways; of which 41,200 are paved? And that there are more than 400,000 kilometres of roads connecting communities across the province; most of which are paved?

Many of our roads and highways are nearing the end of their life span in an environment of population growth, increased density, and increased movement of people, resources and goods across the province. Infrastructure spending is constrained by competing priorities for budgets therefore decisions to build or rehabilitate roads must be made from the perspective of achieving the highest value for the expenditure.

We can help you decide on, and achieve, the best value infrastructure spending for your roads and highways.

What Binnie does through our specialized paving expertise is provide you with the resources, advice and knowledge to effectively manage the roads and highways in your jurisdiction. We assess the need for new pavement overlays or for rehabilitation procedures to correct existing pavement and base distresses. We evaluate the remaining 'life' of roads and recommend options, or re-work, based on estimated life span and cost.

Binnie has been delivering engineering and technology services that build and connect communities since 1969. With the addition of Doug Kidd, our new Paving Construction Manager, we are well positioned to help you deal with the challenge of building and maintaining the roads in your communities.

As a leader in municipal services and transportation engineering, Binnie will work with you to plan sustainable infrastructure solutions for your challenges.

Build with Binnie.

SPENDING ON ROADS: *How to Achieve Best Value?*

When making decisions on which existing roads need to be maintained first, we consider the age of the existing pavement, the appropriate asphaltic concrete mix to be used, and the volume and type of traffic (cars or trucks) using the road. We also review the possible contributors to the current distresses and consider how to mitigate those contributors.



What Rehabilitation or Maintenance Options are Available?

We will assess the road, the use, and the environment to determine whether preventative or corrective maintenance treatments are the best solution.

Preventative maintenance includes crack sealing, cold milling and patching, hot-in-place (HIP) recycling, or an overlay with new asphaltic concrete mix. Preventative maintenance can extend the life of a road by 10 to 20 years depending on the option chosen.

Corrective road maintenance includes repairing distressed pavement and improving roadway drainage. Repairing or correcting existing pavement deficiencies improves road performance and safety, while extending the life span of the road.

Rehabilitative or Preventative Maintenance Options

- > Crack sealing is recommended approximately five to eight years after new pavement is installed to preserve and extend the life of the pavement.
- > Cold milling and patching is used to correct pavement and base deficiencies.
- > Hot-in-Place (HIP) recycling is used near the mid-of-life of the existing pavement; it can increase the pavement life-cycle up to an additional 10 to 12 years depending on geographic conditions.
- > The option of overlay with new asphaltic concrete mix is to be considered after other methods have been assessed. This is a costly option; however, the benefit is an additional 20 to 25 years of road life.
- > Pavement reclamation is used if both the existing pavement and the base are severely distressed and/or major geometric changes are required.
- > Seal coating and micro surfacing are inexpensive options which are designed to achieve a new wearing surface.

Choosing the Right Solution

We help you decide which paving solution is the right approach for your roads. We assess the existing pavement conditions, assess the life expectancy assessment, and recommend rehabilitation procedures to increase the life-cycle of your pavement.

Along with the rehabilitation recommendations, our assessment includes a cost estimate, scope of work and time schedule to meet your needs.

AS YOUR CLIENT REPRESENTATIVE, BINNIE PROVIDES:

- > Quality management control and assurance
- > Project fiscal management
- > Cost management of, and estimating on, paving and rehabilitation procedures
- > Stakeholder relationship development and maintenance
- > Contract administration and project inspection
- > Assessment and review of asphaltic concrete pavement mix designs and solutions
- > Review and monitoring of safety plan
- > Review and monitoring of traffic management plan
- > Support for your environmental and sustainability objectives

PROFILE: *Doug Kidd*

Binnie Paving Construction Manager



Doug Kidd joined Binnie in January 2014 with 35 years experience in transportation and infrastructure engineering. Doug is a paving specialist with considerable expertise in Paving Construction through his work on a variety of successful paving projects. His experience is in overseeing work on a variety of projects throughout the province, covering all aspects of pavement design, urban construction with curb and gutter, storm drainage, sanitary sewer construction, water line construction, and electrical installations.

Doug works directly with Clients and Contractors to deliver projects that satisfy all requirements.

As Binnie's Paving Construction Manager, Doug is focused on ensuring that roads are well built, well managed, and well maintained. His specialty is roadway paving, construction management, supervision, and inspection. Doug's sound knowledge of, and experience with, road construction standard specifications, policies and procedures is invaluable as a Client Representative.

At Binnie, Doug is directly involved in both the construction of new roadways, and the rehabilitation of existing pavement; he is responsible for overseeing new pavement overlays, planning maintenance procedures to correct existing pavement and base distresses or deficiencies, assessing pavement condition and inventory, and for managing people, costs, and schedules.

Doug works closely with our Clients to ensure that infrastructure work meets your requirements.

Contact Doug at dkidd@binnie.com or call him at 1-250-327-4491 to find out how he can help support your infrastructure needs.



Going Green: Meeting Your Community's Environmental and Sustainability Objectives

Highways and roads are necessary for the efficient movement of people and goods. There is an environmental consequence to paving that can be reduced by using green technologies. Binnie advocates and supports the introduction of 'warm' mix technologies and recycled materials into pavement management programs.

INTRODUCTION OF 'WARM' MIX TECHNOLOGIES

- > Less environmental impact
- > Less fuel used by the mixing plant
- > Decreased mixing plant wear (and less unscheduled downtime)
- > Longer haul distances and an extended paving season
- > Increased time for compaction (leading to better densities)
- > Longer pavement life (due to less binder oxidation)

INTRODUCTION OF RECYCLED MATERIALS INTO PAVEMENTS

- > Less environmental impact due to reduced quantity of aggregates needed
- > Less asphalt cement required
- > Improved environmental stewardship

BINNIE

- CIVIL ENGINEERING
- ✓ CONSTRUCTION MANAGEMENT SERVICES
- GEOMATICS
- LAND DEVELOPMENT
- LANDSCAPE ARCHITECTURE
- LEGAL SURVEY
- MUNICIPAL SERVICES
- NORTHERN
- PROJECT MANAGEMENT SERVICES
- SPORTS AND RECREATION
- TRAFFIC ENGINEERING
- TRANSPORTATION ENGINEERING

To find out more about how Binnie can help you maintain and extend the life of your roads, contact our paving specialist, Doug Kidd, Paving Construction Manager, at dkidd@binnie.com or call Doug at 1-250-327-4491.

For Binnie Head Office, please call 604-420-1721.

Build with Binnie.