

INFRASTRUCTURE PROTECTION PROGRAM

June 22, 2010

Know Your Roads...

Control Your Roads

Protect Your Roads.

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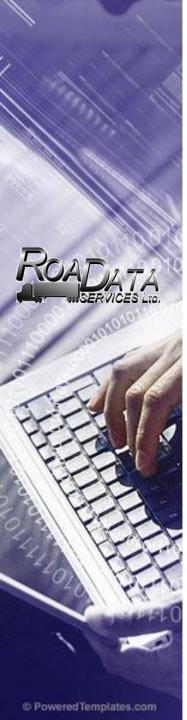




Infrastructure Protection 101

Why?





 Up to 85% of Municipal Budget EXPENSES can be Public Works related.





Based on 2008 Report for Municipal Affairs

GUIDELINES ON VALUATIONS of Tangible Capital Assets for PSAB 3150

Prepared for:

Alberta Municipal Affairs



Unpaved Gravel Roads

Table 1.5 - Summary for Unpaved Gravel Roads

Road Surface Layer Thickness	Road Subgrade Preparation Thickness	Typical Road Width (including shoulder)	Typical Road Width (including shoulders & drainage ditches)	Estimated Useful Life (for the surface only)	Cost / Lane Kilometres	
75mm	100mm	5 m	10 m	10	\$345,000	
75mm	100mm	10	20 m	10	\$560,000	



- Unpaved Gravel Roads
- Estimate Approximately 2300 km
 Value =

\$793,500,000 to \$1,288,000,000

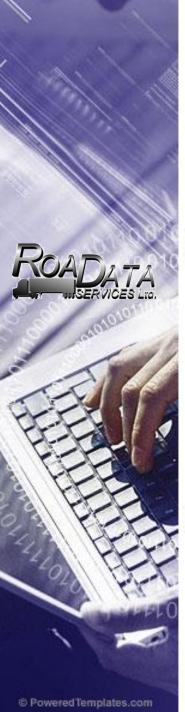
For <u>EACH</u> Municipality



Infrastructure Protection 101

The Science



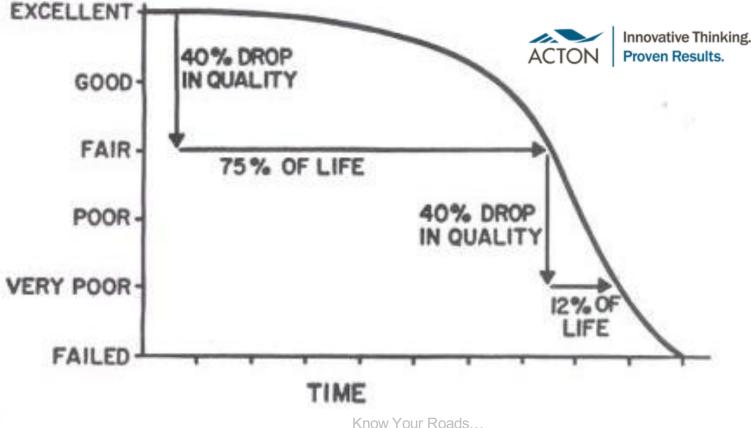


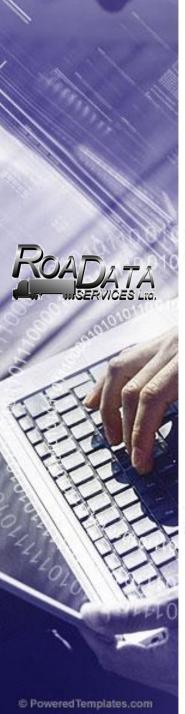
Infrastructure ProtectionThe Deterioration Curve

 Endorsed by the Transport Association of Canada and the United States Department of Transportation

Control Your Roads

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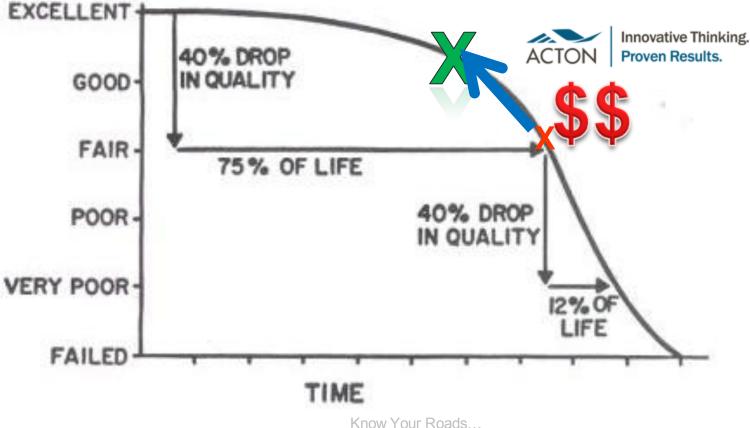


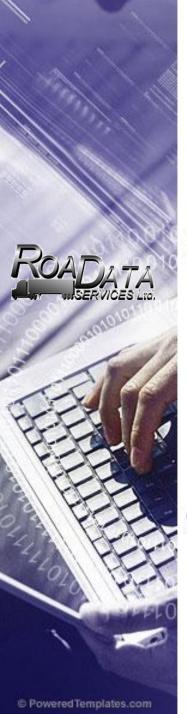
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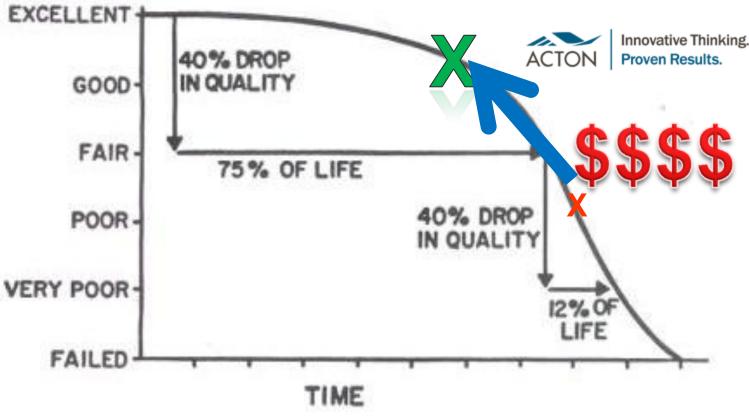
Protect Your Roads.





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Know Your Roads...

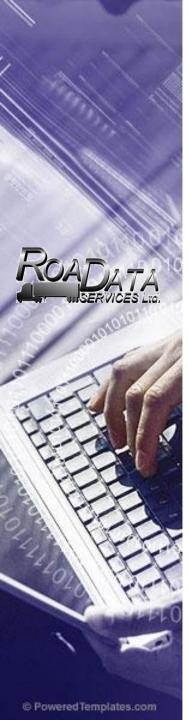
Control Your Roads

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What influences your Roadway Infrastructure?

KNOW YOUR ROADS





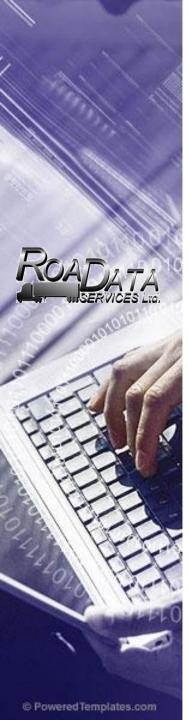
Where are:

Weak Road Structures



Control Your Roads

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· Where are:

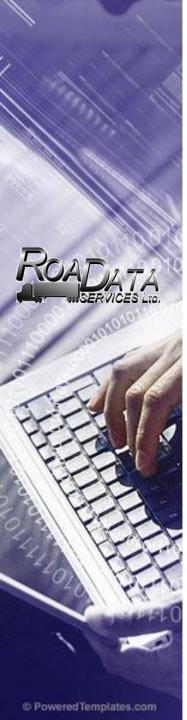
Dust Control Segments



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· Where are:

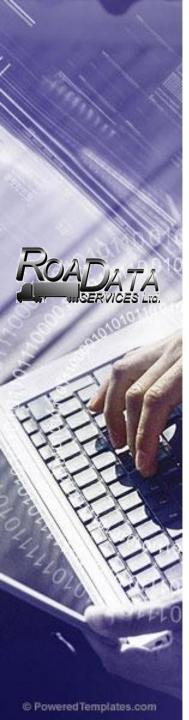
High Risk Roads



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Where are:

Construction Areas



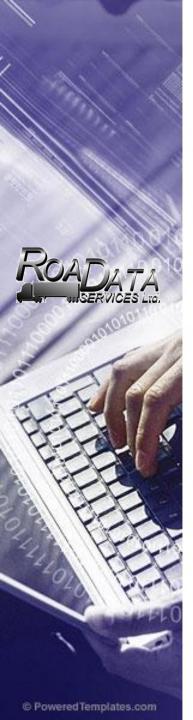




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Where are:

Bridges

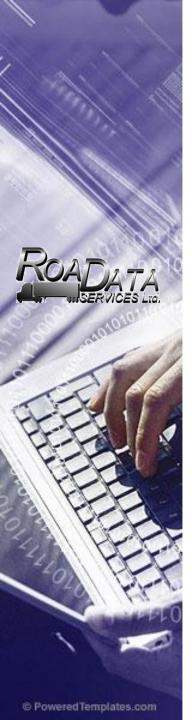




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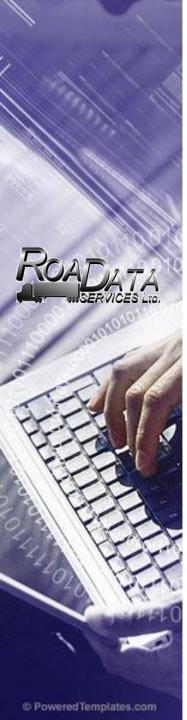


Where are:

Problem Areas

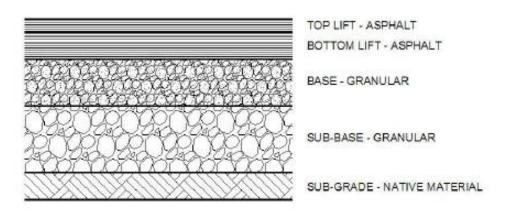




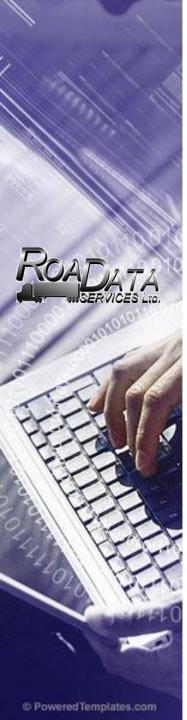


· Where are:

Road Types (Structure & Strength)



Typical paved road construction depiction



· Where are:

Location of Lease Approach



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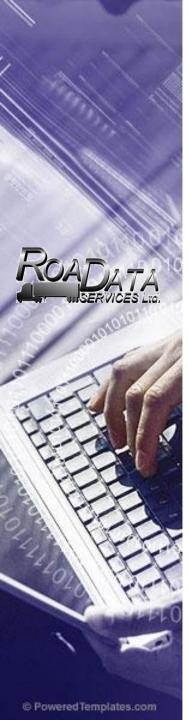
What are the components that can improve "Infrastructure Protection"?

CONTROL YOUR ROADS



What tools do you use to "Control your Roads"?





Tools used:

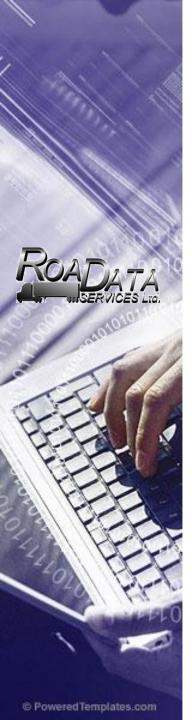
Restrictions



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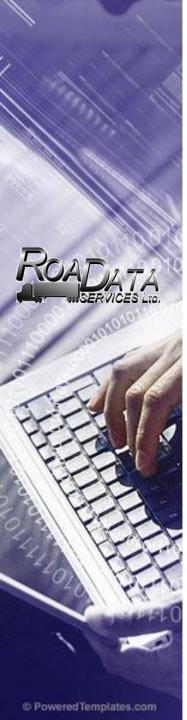
Infrastructure Protection CONTROL YOUR ROADS Restrictions

TRAVIS ADVANTAGE:

Active part of route checking on every permit.



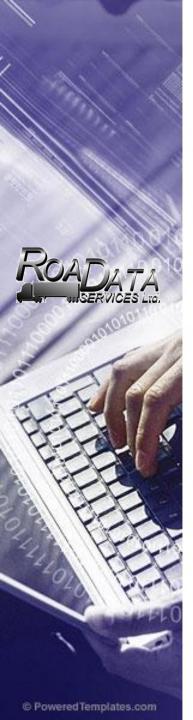
TRICK – Set roadway to "legal weight" to route overweight traffic away from that segment.



Tools used:

Bylaws



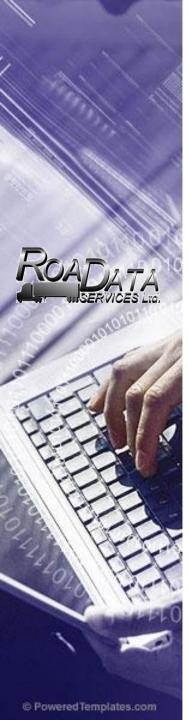


TRAVIS ADVANTAGE:

• If the Bylaw restricts weight etc, TRAVIS can be used to create the "rule".

TIP - You can create a Bylaw that allows for fines without impacting a "Carrier Profile".

TRICK – Some Municipalities use these Bylaws to mail out notices based on information from TRAVIS – no approval.



Tools used:

Enforcement





DRILLING RIG ACTIVITY REPORT

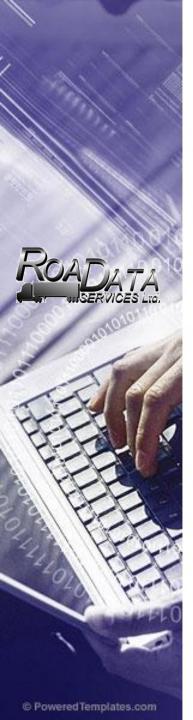
JURISDICTION: RED DEER COUNTY

Date Range Selected:

Start Date: 12/18/2008 End Date 12/20/2008

ERCB DRILLING INFORMATION					LAND LOCATION				RDS PERM	RDS PERMIT INFORMATION					
LICENCE #	LICENSEE	Contractor_NAME	RIG #	LSD	SEC	TWP	RGE	MER	Permit #	Date	CompanyName	Muni	Rig Owner	Rig#	
0383246	HUSKY OIL OPERATIONS LI	Technicoll Corporation	2116	5	12	36	23	4	12312747	05-Jan-08	HUSKY ENERGY	RED DEER	TECHNICOIL	2116	
0383039	ENCANA CORPORATION	Akuna Drilling Inc.	311	6	22	36	23	4	12301371	31-Oct-07	ENCANA (PAN CANADIAN)	RED DEER	AKUNA DRILLING INC.	311	
0403687	ARC RESOURCES LTD.	Blackwatch Energy Services O	4	6	32	36	23	4	12375788	09-Dec-08	ARC RESOURCES LTD	RED DEER	Blackwatch Energy Servi	4	
0393198	ENCANA CORPORATION	Trailblazer Drilling Corporation	17	6	16	36	23	4	12321763	25-Feb-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	17	
0399797	981384 ALBERTA LTD.	Technicoil Corporation	2118	5	11	36	23	4	12358780	19-Sep-08	TRIDENT EXPLORATION	RED DEER	TECHNICOIL (GOLD)	2118	
0393198	ENCANA CORPORATION	Trailblazer Drilling Corporation	17	6	16	36	23	4	12334808	16-May-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	17	
0393881	ENCANA CORPORATION	Trailblazer Drilling Corporation	17	2	22	36	23	4	12320631	19-Feb-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	17	
0388615	ENCANA CORPORATION	Trailblazer Drilling Corporation	9	6	33	36	23	4	12312685	05-Jan-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	9	
0404144	ARC RESOLUBOES LTD	Blackwatch Energy Sendoes O	g	41	21	36	23	A	12376714	12-Dec-08	ARC RESOURCES LTD	DED DEED	Blackwatch Energy Servi	. 0	
0404158	ARC RESOURCES LTD.	Blackwatch Energy Services O	9	4	31	36	23	4							
0400023	ARC RESOURCES LTD.	Blackwatch Energy Services O	4	8	32	36	23	4	12370251	13-Nov-08	ARC RESOURCES LTD	RED DEER	Blackwatch Energy Servi	i 4	
0382028	ENCANA CORPORATION	Precision Drilling Corporation	255	9	17	36	23	4			1.5		E)		
0383260	HUSKY OIL OPERATIONS LI	Technicoil Corporation	2116	13	12	36	23	4	12313177	08-Jan-08	HUSKY ENERGY	RED DEER	TECHNICOIL (GOLD)	2116	
0383028	ENCANA CORPORATION	Akuna Drilling Inc.	311	11	22	36	23	4	12301033	29-Oct-07	#Deleted	RED DEER	AKUNA DRILLING INC.	311	
0383826	HUSKY OIL OPERATIONS LI	Technicoll Corporation	2116	9	14	36	23	4	12309970	14-Dec-07	HUSKY ENERGY	RED DEER	TECHNICOIL (GOLD)	2116	
0386955	ENCANA CORPORATION	Trailblazer Drilling Corporation	13	14	17	36	24	4	12315866	22-Jan-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	13	
0403455	SOUTH BAY RESOURCES CA	Chinook Drilling Inc.	10	2	15	36	24	4	12369637	10-Nov-08	SOUTH BAY RESOURCES	RED DEER	CHINOOK DRILLING (BRO	10	
0384896	ENCANA CORPORATION	Nabors Drilling Limited	22	6	19	36	24	4					- F.)	1	
0384312	ENCANA CORPORATION	Trailblazer Drilling Corporation	13	8	19	36	24	4	12316161	23-Jan-08	ENCANA (PAN CANADIAN)	RED DEER	TRAILBLAZER DRILLING	13	
0386133	ENCANA CORPORATION	Precision Drilling Corporation	298	10	15	36	24	4	12358433	18-Sep-08	ENCANA (PAN CANADIAN)	RED DEER	PRECISION DRILLING	298	

Know Your Roads...



Tips

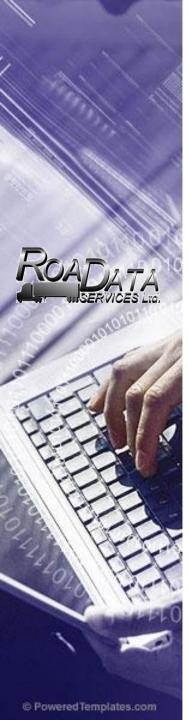
Infrastructure Protection CONTROL YOUR ROADS Enforcement

TRAVIS ADVANTAGE:

 Can potentially provide tools to provide enforcement <u>WITHOUT</u> the need to have a Peace Officer on staff.

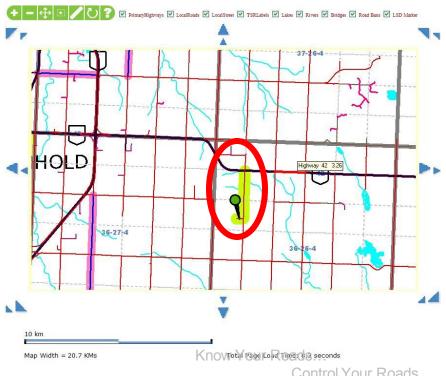
TIP - You don't need an officer to have effective "Enforcement".

TRICK – With TRAVIS you can impose movement or notification restrictions on Trucking Companies AND share this information with other Municipalities.

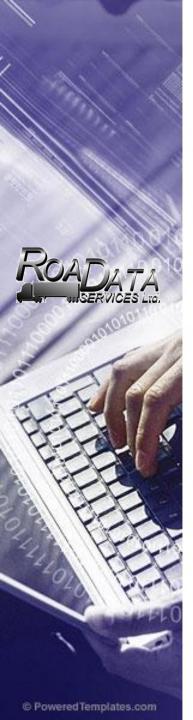


Tools used:

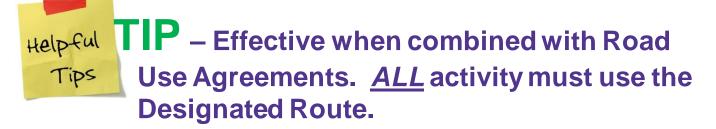
Designated Routes



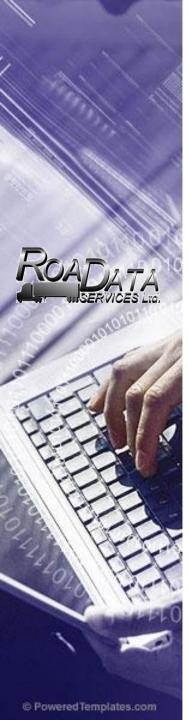
Control Your Roads
Protect Your Roads.



Infrastructure Protection CONTROL YOUR ROADS Designated Routes



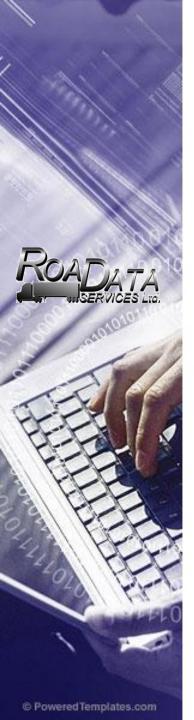
TRICK – If you properly track activity and there is damage due to a permit load (even if multiple Oil Companies use road) you can usually recover damage cost from the correct company.



Tools used:

Bonding Roads



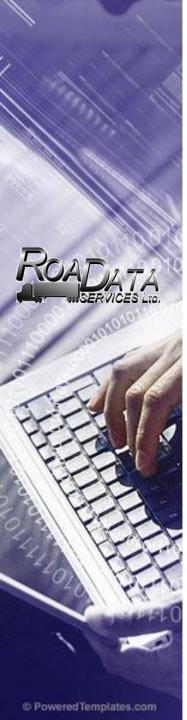


Infrastructure Protection CONTROL YOUR ROADS Road Bonds

Many options – by segment, by LSD, by location, blanket for all Roads. Intended to provide some level of assurance funds will be available in the event damage occurs.

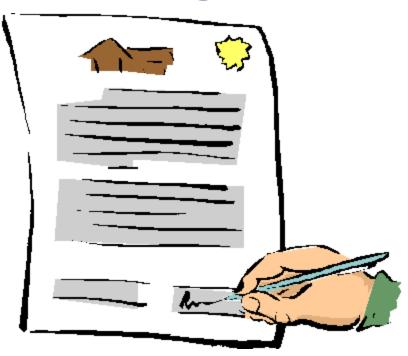
TIP – Useful to implement restrictions (bans etc) but let the "good guys" continue to move.

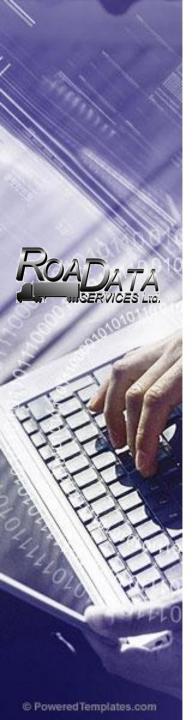
TRICK – Reduce admin cost and confusion by having a blanket bond amount for movement, regardless of distance.



Tools used:

Road Use Agreements





Helpful

Infrastructure ProtectionCONTROL YOUR ROADS

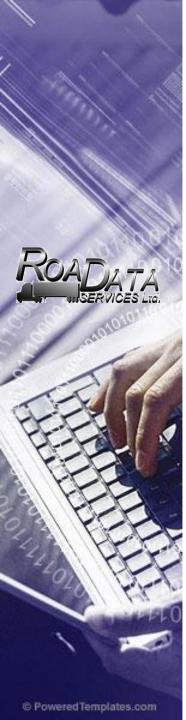
Road Use Agreements

TRAVIS ADVANTAGE:

 Can force the entry of an RUA number and it can be set as a "rule" for various permit types, commodities, road type etc.

P – Use annual RUA rather than single trip and identify the LSD and ROUTE to be followed.

TRICK – Automate the process to apply for and RUA to make compliance simple.



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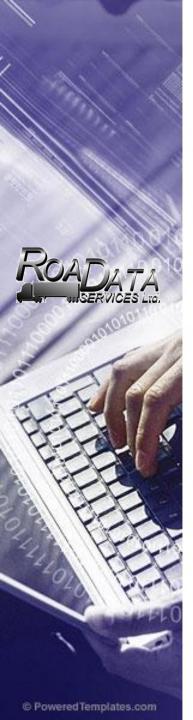
Tools used:

Permit Policy



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Infrastructure Protection CONTROL YOUR ROADS Road Use Agreements TRAVIS ADVANTAGE:

 In many cases policy can be implemented or supported through TRAVIS.

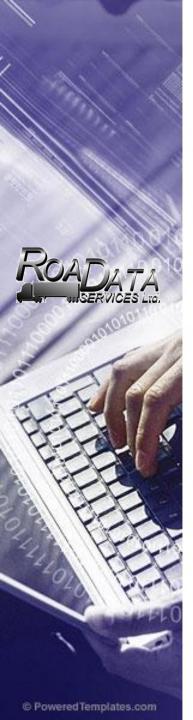
Tips Tips Tips Municipalities as compliance improves.

TRICK – Draw on what others have already implemented, find out what is good and bad before you draft your policy.

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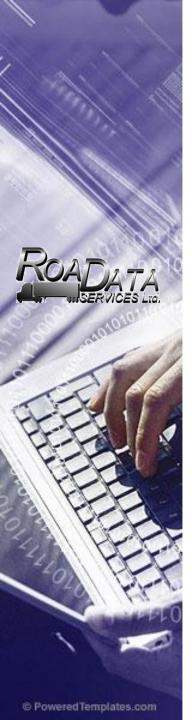
Tools used:

Weight Restrictions



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Infrastructure Protection CONTROL YOUR ROADS Weight Restrictions

TRAVIS ADVANTAGE:

 You can set rules specific to weight. Can be by axle group or gross weight.

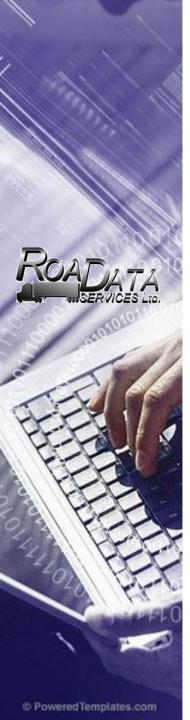
Help-ful TIP – Identify roadways that seem to be more prone to overweight damage.

TRICK – Set the "trigger" for the manual review based on roadway structure and strength.

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Tools used:

Roadway Inspection

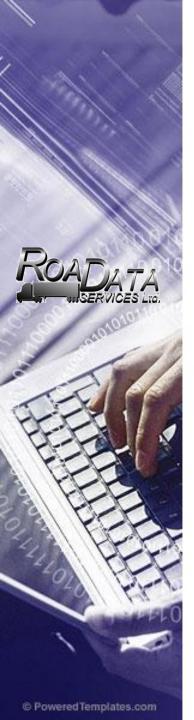




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Helpful

Tips

Infrastructure Protection CONTROL YOUR ROADS Roadway Inspection

TRAVIS ADVANTAGE:

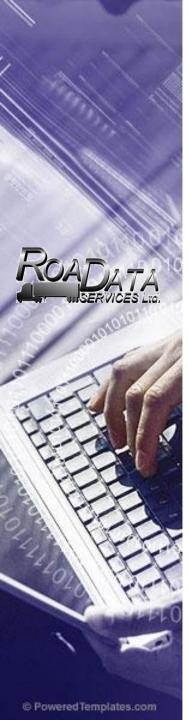
 Has been recognized as a process and future releases of TRAVIS may actually collect inspection fees on behalf of the Municipality.

TIP – Post move inspections do not need to enforce a notification period. That combined with a proper permit condition work well.

TRICK - You can set any "Rig Component" to require manual review to prevent "cheating" by industry to avoid fee or notice.

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Tools used:

PERMITS

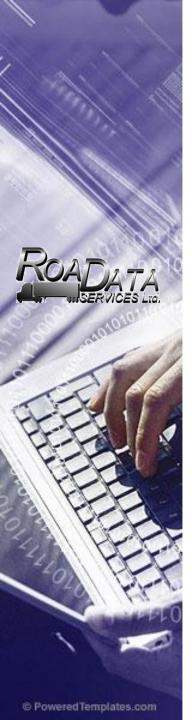




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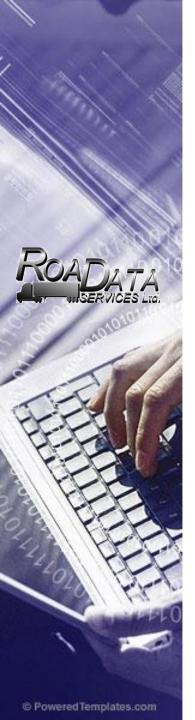
Infrastructure Protection CONTROL YOUR ROADS PERMITS

TRAVIS ADVANTAGE:

 A central system to allow multiple departments to access permit documents.



TRICK – You may be able to contract
TRAVIS MJ expertise at a cost LOWER than
doing the work yourself.



Infrastructure Protection CONTROL YOUR ROADS PERMITS

TRAVIS ADVANTAGE:

 A central system to allow multiple departments to access permit documents.

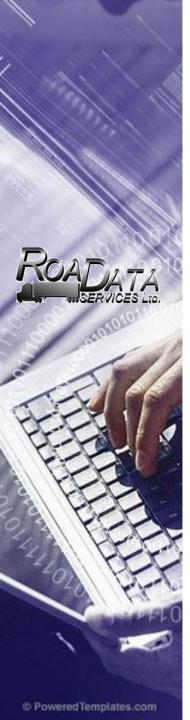
TRAP – The more you have any automated system "check" & approve, the more important some level of AUDIT must occur. Reviewing ALL approvals will show patterns and may uncover the inevitable "I never thought of that" situations.



What are the ultimate GOALS to achieve with Infrastructure Protection?

PROTECT YOUR ROADS





• GOALS:

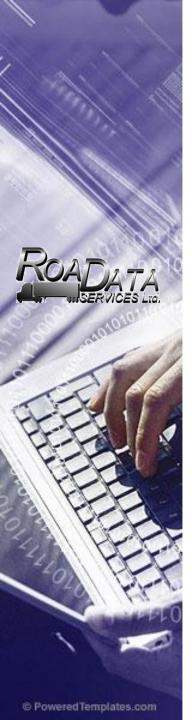
Extend the Life of the Asset



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• GOALS:

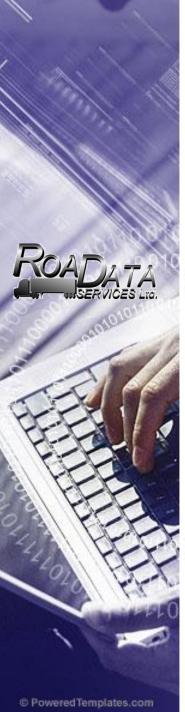
Lower Maintenance Cost



Know Your Roads...

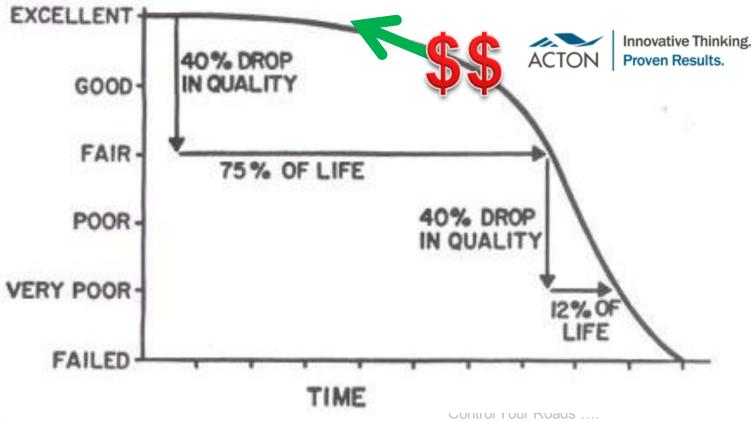
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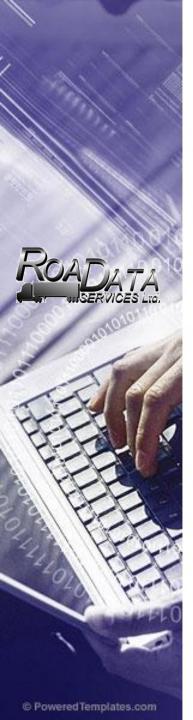


GOALS:

Maximize Benefit



Protect Your Roads.



GOALS:

Spending Wisely



Where is the best "Bang for the Buck"?

Know Your Roads...

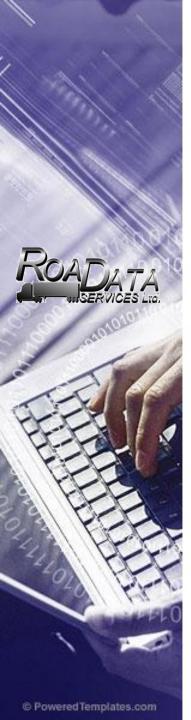
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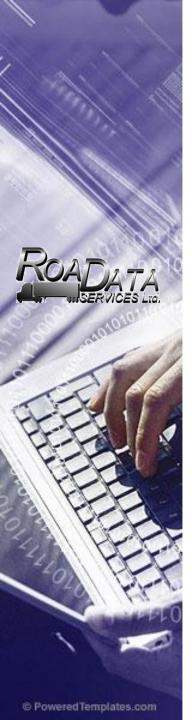
TRAVIS MJ is a powerful tool that can IMPROVE your Infrastructure Protection!





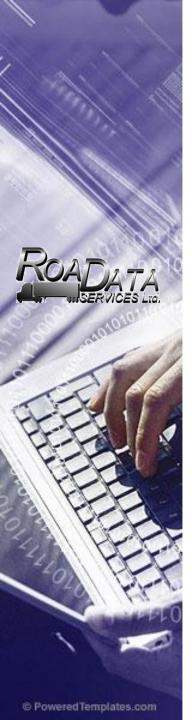
How to "Supercharge" TRAVIS MJ?





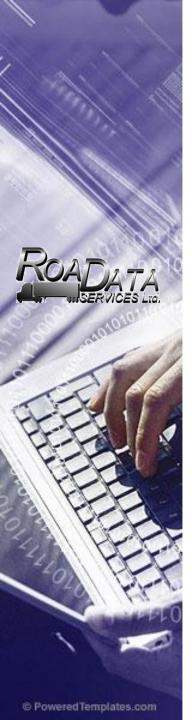
- How to "Supercharge" TRAVIS MJ?
 - Road Use Agreements
 - TRAVIS provides a method to require a RUA number to be entered.
 - Add the Horsepower by automating the RUA application process, identifying LSD's and Designated Routes to be used.





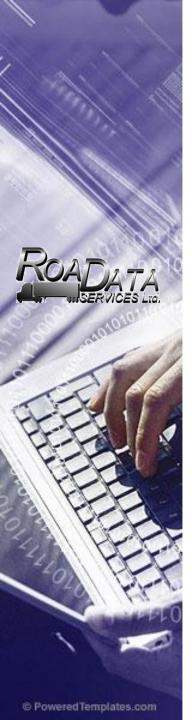
- How to "Supercharge" TRAVIS MJ?
 - Roadway Inspections
 - > Future release of TRAVIS may accommodate.
 - ➤ Increase performance by improving cost recovery of road damage, more immediate repairs.
 - Cost Neutral to the Municipality.





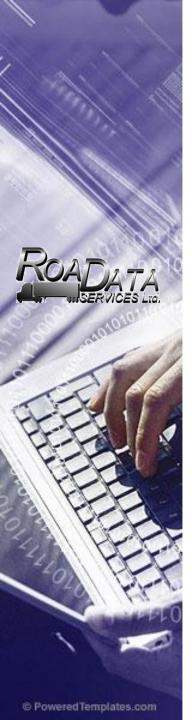
- How to "Supercharge" TRAVIS MJ?
 - Designated Routes
 - Can be added as part of Lease Approach Approval application or RUA.
 - Easier to assign responsibility for road damage.
 - One step below bonding.





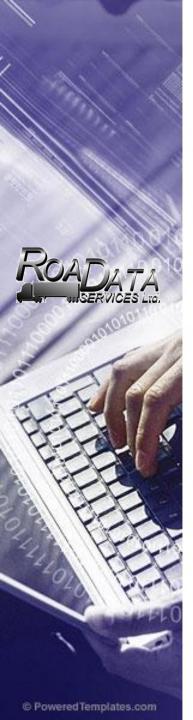
- How to "Supercharge" TRAVIS MJ?
 - Bonding
 - ➤ Allows you to impose restrictions and give the more responsible companies access to move above restrictions.
 - > Stop chasing after funds for recovery of damage.
 - Various options depending on Municipal needs.





- How to "Supercharge" TRAVIS MJ?
 - Data Aggregation
 - ➤ Compare the data that TRAVIS provides from the permit application with other sources, eg: ERCB drilling report.
 - > Powerful enforcement tool.
 - ➤ Identify high volume overweight routes to better plan maintenance cycle, road inspection etc.



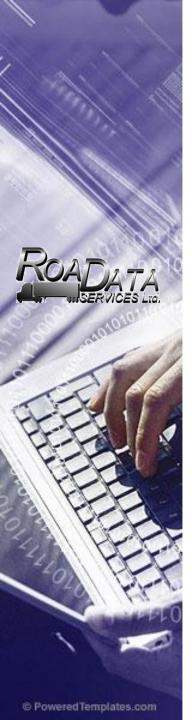


- How to "Supercharge" TRAVIS MJ?
 - Approval Monitoring
 - ➤ Best expectation for Auto Approval in TRAVIS is about 70% for most Rural Municipalities.



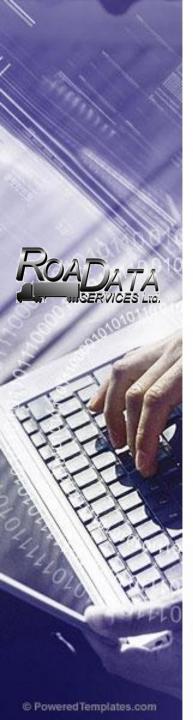
- > Too **few** manual approvals can be problematic.
- Some "simple" applications may still require manual approval.



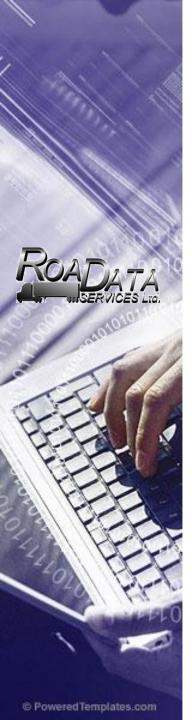


- How to "Supercharge" TRAVIS MJ?
 - 24 Hour Service
 - ➤ TRAVIS is 24 / 7 Industry is 24 / 7 Is it anticipated Municipal participation 24 / 7????
 - ➤ Increased Availability = Increased Compliance.
 - ➤ 44% of permits are obtained during after hours and weekends.



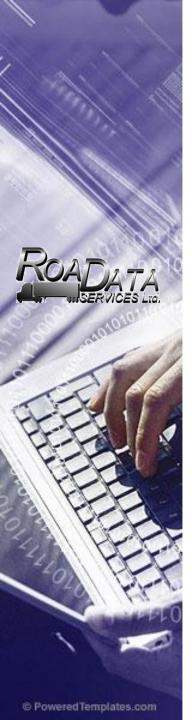


- How to "Supercharge" TRAVIS MJ?
 - Approach Approvals
 - Extremely cost efficient when combined with a Roadway Inspection Program.
 - ➤ Provides a "preview" of activity levels 6 12 weeks ahead.
 - Clarifies what road will be accessed for future permit issuing.



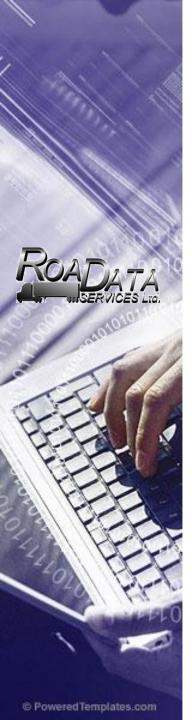
- How to "Supercharge" TRAVIS MJ?
 - Consider if a Professional can help
 - Aggregating information
 - Data Download from TRAVIS MJ
 - Various report
 - » Usage
 - » Enforcement
 - » Non-Compliance
 - » Volume
 - » Load Cycles



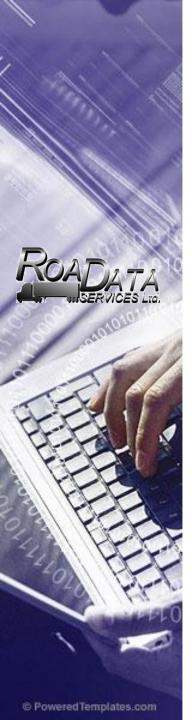


- How to "Supercharge" TRAVIS MJ?
 - Consider if a Professional can help
 - Combining TRAVIS and NON-TRAVIS services
 - Lease Approach Application
 - Roadway Inspections
 - Road Use Agreements
 - Major Well Servicing





- How to "Supercharge" TRAVIS MJ?
 - Consider if a Professional can help
 - Maximize the tools within TRAVIS MJ to the best advantage of the Municipality
 - Manage the data and the permit rules to:
 - » Be more responsive to Industry
 - » Add more power to your rules



- How to "Supercharge" TRAVIS MJ?
 - Consider if a Professional can help
 - Maximize the benefit from the revenue sharing received from the Province
 - Perform services at a lower cost

Infrastructure Protection

It is a combination of knowledge and tools that provides the greatest power.





TRAVIS MJ is a powerful tool but only <u>one</u> of many.



Infrastructure Protection

CHANGE AHEAD

For all Municipalities there will be changes needed



Know Your Roads...
Control Your Roads

Protect Your Roads





Municipality

Permit



Who will perform these new required functions?





Be Ready for TRAVIS MJ

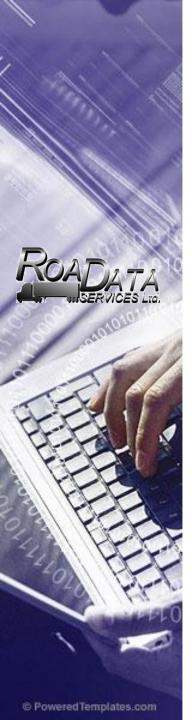






Transition of Municipal Information into TRAVIS MJ





Infrastructure Protection

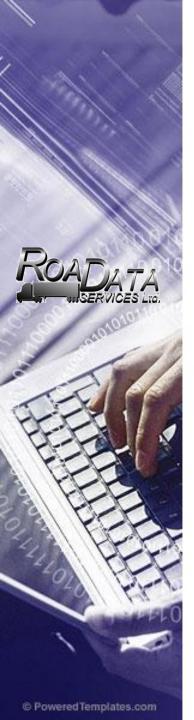
Transition into TRAVIS MJ



Be ready for quick and easy implementation.

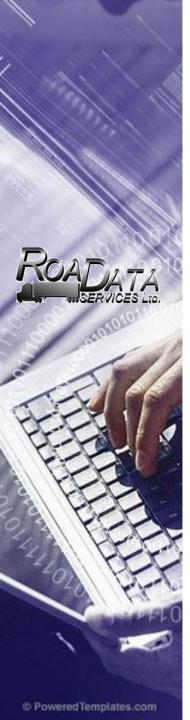
 Plan ahead – know what you can do with this new tool.

- Should I implement other "Protection" related processes or policies?
 - Road Use Agreements
 - Bonding
 - Inspections



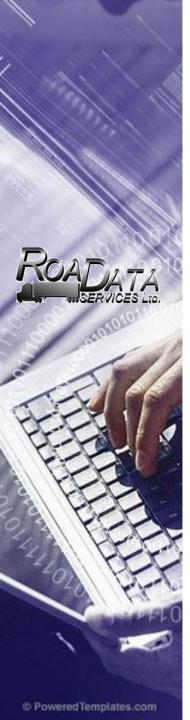


- Do I have my GIS map data?
 - How current is it
 - Surfaces, Width etc
- Do I want to control weight on certain axle groups? eg: 24 wheel Tridem
- Do I have current Bridge Information?
 - Weight Restrictions
 - Vertical Restrictions
- Do I have any other "dimension" related problem areas?



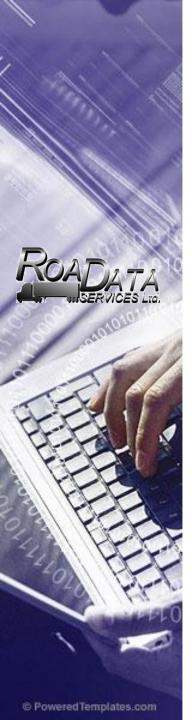


- Do I have defined rules for:
 - Industrial parks
 - Poor Structure Roads
 - "Access only" routes
 - Truck Routes
 - Non-Truck Routes
 - Subdivision Access
 - Road Ban access
 - Gross weight limits



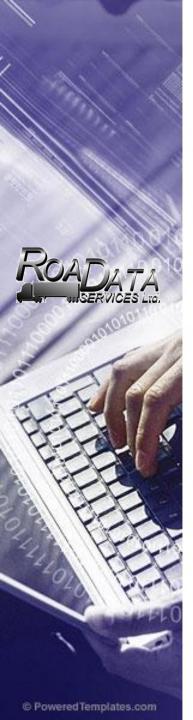


- Do I have Permit Policy?
 - Movement of Drilling Rigs
 - Advanced Notification needed
 - Inspection
 - Conditions for Movement
 - Commodity Specific Policy
 - Buildings
 - Compressors
 - Configuration Policy
 - Gross Weight eg: over 100,000kg



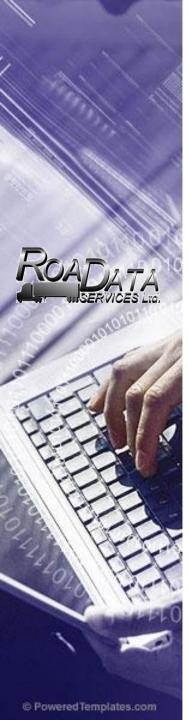


- What will be required to put all this information together
 - Staff Time
 - External resources
- Should I consider a contractor to assist us to prepare for this Transition
 - Existing policy
 - New policy
 - Maximize Benefit
 - Minimize cost





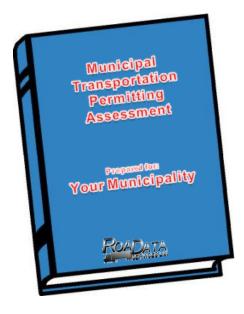
- Do I know how I will process requests in the event TRAVIS MJ is not available?
- Do I know how I am going to handle any applications that come in after hours & on weekends?
 - Staff Time
 - External resources



Transition into TRAVIS MJ



 Municipal Transportation Permitting Assessment



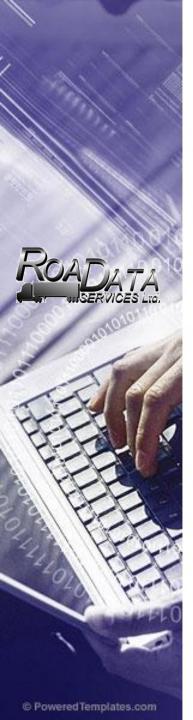


TRAVIS MJ in any Municipality will only be as good as the **data** and the **rules** that are put into it.

It is an opportunity for Municipalities to "supercharge" the protection factor but only if it is done correctly.







RDS can help



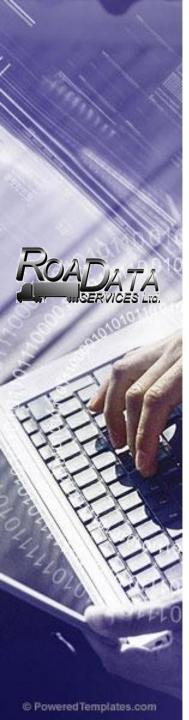


- 24 Hour Call Centre
- Only Agent with TRAVIS MJ experience
- Original TRAVIS Agent Partner with Alberta Transportation
- Currently partnered with almost ½ of ALL Rural Municipalities
- Various Service Levels available

Know Your Roads...

Control Your Roads

Protect Your Roads.



RDS can help



- We are your Infrastructure Protection Experts
- Let us "Supercharge" TRAVIS to more effectively:

Knowyour Roads...

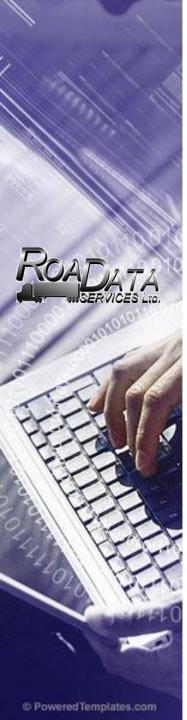
Control Your Roads...

Protect Your Roads

Know Your Roads...

Control Your Roads

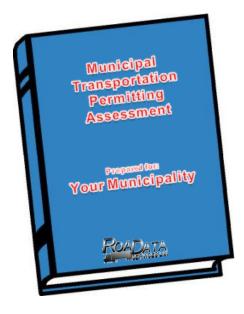
Protect Your Roads.

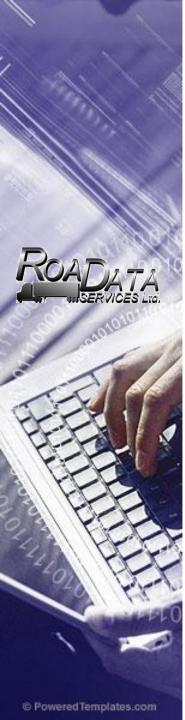


Transition into TRAVIS MJ



 Municipal Transportation Permitting Assessment





TRAVIS MJ



RDS can help

Thank You

Questions?





Know Your Roads...

Control Your Roads

Protect Your Roads.