3.3 Project Category Determination

A structured process is used to determine the Project Category.

1. **Initial Category Assessment** — Assess the roadway and traffic features.
2. **Risk Analysis** — Identify the project-specific risks.
3. **Final Category Determination** — Combine the initial project assessment with the risk analysis to determine the final project category.

Project Categories are defined as:

- **Category 1** - minimal impact on the travelling public, are typically located on simple terrain, and involve two-lane highways or roads, often with lower speeds and traffic volumes.
- **Category 2** - may be located on higher-speed or higher-volume corridors and involve some complexity. Impacts on the travelling public may be moderate because of the roadway characteristics or the type of work.
- **Category 3** - complex and have a significant impact on the travelling public because of factors such as higher volumes and speeds, project duration, active night work, mountainous terrain, and/or a requirement for lane closures and/or detours.

3.3.1 Initial Project Category Assessment

The initial project category assessment considers road and traffic characteristics, as well as specific work activities.

Table 3.1: Initial Project Category Assessment on the following pages is used to determine the initial project category.

The total point value calculated at the end of Table 3.1 indicates that the project is initially assessed as a Category 1, 2, or 3.

Table 3.1: Initial Project Category Assessment

Traffic Consideration	Value	Point Value	Score
Posted or Statutory Speed Regular posted speed limit of the roadway	≤ 50 km/hr	1 point	
	60 - 70 km/hr	3 points	
	≥ 80 km/hr	4 points	
Traffic Volume Traffic volume (both directions) in peak hours	< 1,000 vehicles/hr	1 point	
	1,000 to 3,000 vehicles/hr	3 points	
	> 3,000 vehicles/hr	4 points	
Lanes Number of lanes in both directions (including auxiliary lanes)	2 lanes	0 point	
	3 lanes	2 points	
	4 lanes or more	3 points	
Encroachment Location of work	Off roadway	0 point	
	Shoulder work/partial lane closure	3 points	
	Full lane closure, ramp closure, or intersection closure	4 points	
Detours	No detour during construction	0 point	
	Detour traffic on temporary roadway during construction next to work zone.	3 points	
	Detour route during construction takes traffic off regular route away from work zone; requires detour signing	4 points	
Duration of Work	Short-duration work (no more than one day-time shift).	1 point	
	Long-duration work (less than 2 weeks)	2 points	
	Long-duration work (2 or more weeks)	4 points	
Allowable Delays Delay time plus time to travel through work zone in minutes	< 20 minutes	1 point	
	≥ 20 minutes	3 points	
	No allowable delay	4 points	

Traffic Consideration	Value	Point Value	Score
Time of Day Time of day that work will occur	Day-time only work	1 point	
	Active day-time work, with traffic control devices in place at night	3 points	
	Active night-time work	4 points	
Vertical Alignment	Flat terrain	0 point	
	Rolling terrain	1 point	
	Mountainous terrain	2 points	
Horizontal Alignment	Tangent	0 point	
	Horizontal curves, no curve advisory speeds	1 point	
	Horizontal curves, with curve advisory speeds	2 points	
Intersections	No intersections or stop-controlled intersection(s)	0 point	
	Signalized intersection(s) with no left or right turn phases, or single lane roundabout	2 points	
	Signalized intersection(s) with left or right turn phase(s), or multi-lane roundabout	4 points	
	Interchange(s)	5 points	
Runaway Lanes	No runaway lanes	0 point	
	Runaway lanes in or near the work zone; they will not be blocked at any time during course of work	1 point	
	Runaway lanes in or near work zone; they may be blocked by work or queues during course of work	4 points	
Pedestrians and Cyclists	No pedestrians or cyclists	0 point	
	Possible pedestrians and cyclists	2 points	
	Designated cycle route, sidewalk or multi-use pathway	3 points	

Traffic Consideration	Value	Point Value	Score
HOV or Bus Lane	No HOV or bus lane	0 point	
	HOV or bus lane	4 points	
Counter-Flow Lane	No counter-flow lane	0 point	
	Counter-flow lane	4 points	
		Total Score	
		Category 1	< 16
		Category 2	16 to 25
		Category 3	> 25
		Initial Project Category	

3.3.2 Project Risk Analysis

A project risk analysis is the process of reviewing site-specific characteristics and considering the likelihood and consequence of each item listed. It is able to highlight potential hazards that are not captured in the Initial Project Category Assessment.

Each project has a unique combination of site-specific characteristics, and the risk analysis considers potential hazards associated with the specific project and/or location.

Table 3.2: Project Risk Analysis on the following pages is used to determine whether each potential hazard creates a low, medium, or high risk for the project and location.

The total point value calculated at the end of Table 3.2 indicates that the project is assessed as a low-risk, medium-risk, or high-risk project.

Combining the results of the initial project category assessment and the risk analysis will determine the final project category (see *Section 3.3.3: Final Project Category Determination*).

Table 3.2: Project Risk Analysis

The Project Risk Analysis is a general guideline, applicable to most projects. If significant project-specific hazards are not included in the risk analysis below, the Evaluator may consider increasing the final risk rating. This modification and the justification for it should be documented.

All high-risk, project-specific hazards should be addressed and mitigated in the Traffic Management Plan.

Item	Risk	Definition	Point Value	Score
Falling object	Low	Potential of falling object through course of work (i.e., overhead works, slung loads, or equipment boom/bucket work)	1 point	
	Medium	Working within a known avalanche or rock fall area; no recent evidence of activity	2 points	
	High	Recent evidence of rock or material entering work site or overhead work that may impact travelling public or worker safety (i.e., overhead structures) Vehicle queues may back into a rock fall or avalanche area	3 points	
Nature of work activity	Low	Work activity is not expected to create a significant hazard	1 point	
	Medium	Work activity will create excessive dirt, dust, or gravel on the road surface, and will thereby create a potential hazard	2 points	
	High	Work activity such as blasting, scaling, or excavation < 2 metres from active travelling lanes will create a potential hazard	3 points	
Removal of safety devices	Low	No removal of safety devices	1 point	
	Medium	Removal of safety devices such as pavement markings, signage, traffic signal, or reflectors	2 points	
	High	Removal of containment devices, such as barrier, guard rail, crash attenuators, fencing, etc.	3 points	
Equipment movement through work zone	Low	Minimal conflict with traffic (e.g., work commencing off travelled roadway)	1 point	
	Medium	Conflict with normal traffic flow; no queuing or traffic stoppages	2 points	
	High	Conflicts with normal traffic; may create queuing and require traffic stoppages. Difficult for equipment to enter and exit site	3 points	

Item	Risk	Definition	Point Value	Score
Roadway surface condition during construction	Low	Roadway surface is maintained	1 point	
	Medium	Roadway surface, such as milling and grinding (consistent surface), creates a hazard for road users	2 points	
	High	Roadway surface is inconsistent, with multiple changes or work tasks (manholes, culvert installation, etc.)	3 points	
Storage of equipment and material	Low	Stored outside the shoulder	1 point	
	Medium	Stored on the shoulder but outside travelled roadway	2 points	
	High	Stored on shoulder but encroaching on travelled roadway	3 points	
Load restrictions as a result of construction	Low	No load restrictions	1 point	
	Medium	Narrow lanes restrict wide loads	2 points	
	High	Overweight/overheight vehicles restricted (may result in structural damage)	3 points	
Lane widths	Low	Maintain existing lane widths	1 point	
	Medium	n/a	n/a	
	High	Lane width not maintained throughout work zone, or Single-lane alternating traffic	3 points	
Work zone or queues block access (active or inactive site)	Low	None	1 point	
	Medium	Side street or business access	2 points	
	High	Major public facility and/or major secondary roadway	3 points	
Transit access	Low	No transit or school bus stops	1 point	
	Medium	Community shuttle or school bus stops	2 points	
	High	Express transit or major bus route	3 points	
Impacts of special events	Low	No known event	1 point	
	Medium	Moderate public event with attendance under 5,000	2 points	
	High	Major public event with attendance over 5,000 or moderate public event (under 5,000) with no alternative access or route	3 points	

Item	Risk	Definition	Point Value	Score
Overlapping work	Low	No overlapping work	1 point	
	Medium	Another work site within 3 km; traffic control for the projects could impact one another	2 points	
	High	Work sites adjacent or overlapping	3 points	
Emergency facility (ie. hospital, police, ambulance, and fire stations)	Low	No emergency facility near work site	1 point	
	Medium	24-hour manned emergency facility	2 points	
	High	Volunteer-staffed emergency facility; consider responder access through work zone to the facility, and emergency response from facility through the work zone	3 points	
			Total Score	
			Low Risk	< 23
			Medium Risk	23 to 28
			High Risk	> 28
			Project Risk	

3.3.3 Final Project Category Determination

The matrix in *Table 3.3: Final Project Category Determination* should be used to make the final project category determination.

It combines the initial project category assessment with the results of the risk analysis to identify a final project category based on roadway and traffic characteristics and risks.

It may be appropriate to increase the final category level for high-risk projects to reflect the complexity or hazards associated with the work.

Table 3.3: Final Project Category Determination

		Initial Project Category Assessment		
		1	2	3
Project Risk	Low	Category 1	Category 2	Category 3
	Medium	Category 1	Category 2	Category 3
	High	Category 2	Category 3	Category 3

The final project category determination should be used to identify required and recommended sub-plans and special conditions addressed in the Traffic Management Plan.

This process is a guide and may not capture all components of the project which should be considered when determining the Project Category.