

WORK PLAN METHODOLOGY TEMPLATE CPG-PGM-FRM-277

All Sections of the Work Plan Methodology Template (WPM) is to be filled by the Contractor except for Section 2. Project Delivery Team and/or Consultant to verify the contents of the form.

SECTION 1 - COVER PAGE

SECTION 1.1 - WORK OVERVIEW

Work Plan Name		Project Name	
Work Plan Number		Project Number	
Work Plan Revision No.		Contract Number	
Contractor		Subdivision	
WPM Author		Mileage Limits (Start and End)	
Metrolinx PDT Contact		Corridor	
Consultant / Technical Advisor		Competent Supervisor	
Major or Minor Work		Shifts (Day / Night / Continuous)	
Work Start	Date	Work End	Date
	Time (24hr)		Time (24hr)
Total Work Duration (Hours)		Total Number of Work Days / Nights	
Track Protection Requested		Track Work Block Requested	
Comments on Work Duration			

Dates are displayed in Day / Month / Year format and times are displayed in Military Time format (range 0000 to 2359). Disclaimer: Calculated total work duration and total number of work days/nights are estimates and are subject to Metrolinx's operational restrictions.

SECTION 1.2 - SUBMISSION STAGE GATE

Stage No.	Stage Description	Work plan Submission Deadline	Work plan Submission Date	Submission Deadline Met / Missed	Work Plan Revision No.	Status (Reviewed, Review with Comments, Revise and Resubmit, Scope Change)
1	WPM Submittal (40 Days in advance of Track Block)					
2	WPM Review Finalized (21 Days prior to Track Block)					
3	WPM Final Approval (7 Days prior to Track Block, decision subject to change)					
4	Pre-block Meeting (4 Days in Advance of the Track Block)					
5	Support Staff Conference (24 Hrs. in Advance of the Track Block)					

Pre-Block Meeting and Support Staff Conference to conform to specifications outlined in Track Closures, Railway Track Construction, Temporary Track Protection and other related documents. Dates are displayed in Day / Month / Year format

SECTION 1.3 – CORRIDOR ACCESS

Who is the Constructor for this work?	
Has Corridor Access been granted for this work?	
Are there other works to be coordinated with in the work area?	

SECTION 2 - STAKEHOLDER DISTRIBUTION AND REVIEW

SECTION 2.1 - REVIEW LOG

This section is to be completed by the Project Delivery Team. Please identify the status of the WPM Review.

Stage Description	Work Plan Revision No.	Submission Date	Name of Reviewer	Status (Reviewed, Review with Comments, Revise and Resubmit)
WPM Submittal				
WPM Received and distributed by Contract Administrator				
WPM Reviewed by Consultant				
WPM Reviewed by CPG				
WPM Reviewed by ICHST				
WPM Reviewed by RCI				
WPM Review Finalized				

SECTION 2.2: STAKEHOLDERS

This section is to be completed by the Project Delivery Team. Please check stakeholders that are impacted by the work outlined in this WPM. Add any missing stakeholders where required.

Metrolinx Internal Stakeholders

Capital Projects Group (CPG) Project Delivery Team	For INFO	For Review	RCI Track and Structures	For INFO	For Review
CPG Track and Structures	For INFO	For Review	RCI Signals & Communications	For INFO	For Review
Rail Services	For INFO	For Review	RCI Bridges and Structures	For INFO	For Review
Rail Operations	For INFO	For Review	Community Services	For INFO	For Review
Integrated Construction Health and Safety Team	For INFO	For Review	Transit Safety	For INFO	For Review
Network Infrastructure Electrification	For INFO	For Review	Station Operations	For INFO	For Review
Network Infrastructure Signals	For INFO	For Review	Customer Communications	For INFO	For Review
Service Planning	For INFO	For Review	Bus Operations	For INFO	For Review
StratComm	For INFO	For Review		For INFO	For Review
	For INFO	For Review		For INFO	For Review

External Stakeholders (Railways)

Canadian National Railway (CN)	For INFO	For Review	VIA Rail	For INFO	For Review
Canadian Pacific Railway (CP)	For INFO	For Review	Amtrak	For INFO	For Review
Goderich-Exeter Railway (GEXR)	For INFO	For Review		For INFO	For Review

External Stakeholders (Other Transit, Cities, Townships, Governments, Public Interest)

	For INFO	For Review		For INFO	For Review
	For INFO	For Review		For INFO	For Review
	For INFO	For Review		For INFO	For Review

Regulators

Ministry of Environment (MOE)	For INFO	For Review	Transport Canada	For INFO	For Review
Toronto and Region Conservation (TRCA)	For INFO	For Review		For INFO	For Review
	For INFO	For Review		For INFO	For Review

Public Services

Fire Department	For INFO	For Review	Schools	For INFO	For Review
Emergency Medical Services (EMS)	For INFO	For Review	Police Department	For INFO	For Review
	For INFO	For Review		For INFO	For Review

External Stakeholders (Utility Companies - Crossings or Parallel to track within WPM limits)

Hydro	For INFO	For Review	BELL	For INFO	For Review
TransCanada (Pipelines)	For INFO	For Review	COGECO	For INFO	For Review
Enbridge	For INFO	For Review	Rogers	For INFO	For Review
Water Lines	For INFO	For Review	Storm Sewer Lines	For INFO	For Review
Sanitation Sewer Lines	For INFO	For Review		For INFO	For Review
	For INFO	For Review		For INFO	For Review

SECTION 3: MAIN CONTENT**SECTION 3.1 - STAKEHOLDER CONSIDERATIONS**

Construction work on Metrolinx / GO Property can impact services, operations and the public. The Contractor shall ensure that their work will not impact operations or put public safety at risk. In relation to the tasks, all mitigating measures to eliminate or reduce operational and public impacts shall be described here. Risks to operations and public shall be identified in detail and evaluated in Section 6 Risk Assessment (RA) and Site Safety. The Contractor shall allocate enough time to clean up site after completion of work, to make site safe for operations and the public.

Service and Operational Impact**Surrounding Community Impact**

Describe any impact the work can impose on the community in the surrounding area (such as noise, dust, traffic control). Inform if special signage for the operation will be posted where and which kind, who will provide the signage, etc. Direct all communications with the public through Metrolinx PDT.

Roadway and Private Property Impact

Describe any traffic control, road closures and private property encroachments that are required for the work. List all permits required for the work and confirm if they have been obtained. A Traffic Plan shall be appended, and identified in Section 5 Attachments and Personnel List.

SECTION 3.2 - SCOPE OF WORK

Please provide a description of the work to be completed, including all objectives that are to be accomplished. Please include any multi-disciplinary involvement.

Superseded

SECTION 3.3 - DETAILED TASK DESCRIPTION (Gantt Chart to be Appended)*Provide a detailed description of the work, including pre-work and post-work activities, in a chronological order to be performed.*

Task No.	Activity/Task	Task Location and Detailed Task Description	Start Date	Start Time	Duration
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

SECTION 3.4 - RESOURCES

Based on the Detailed Task Description, specify the labour, machinery, equipment and materials required to complete each task.

A - LABOUR

[illegible]

B - MACHINERY

[illegible]

C - MATERIALS

[illegible]

SECTION 3.5 - WORK GROUPS INVOLVED

Identify the work groups (Contractor and Subcontractors) from the list below that are to be coordinated with for this work

[illegible]

SECTION 3.6 - SCHEDULE RISK DESCRIPTION

List the milestone tasks to be completed before the next task can be started.

List the outside influences, including Weather and General Public constraints (ex. Road Closures, Public Events, etc.)

Can the work be stopped halfway through?

Can the block be extended without impacting operations?

If any of the above responses are Yes, please explain:

SECTION 3.7 - CONTINGENCY PLAN

Please identify and list additional resources that can be utilized if required

Please identify the amount of hours allocated to contingency:

Please provide the contingency plan for each milestone:

SECTION 3.8 - POINT OF NO RETURN DECISION (GO OR NO GO)

Recovery Plan to be appended with the WPM.

Critical Milestone	Meeting Location, Time and Date	Rail Operations Notified	Stakeholders Notified

Point of No Return	<i>Describe when the point of no return is reached in the schedule. Provide a date and time for the point of no return.</i>
How is the Decision Made	<i>Describe in detail exactly who makes the call and when it is to happen. Who from the contractor is allowed to make the call? Who from the stakeholders should be consulted?</i>
What Influences this Decision?	<i>Describe the influences that trigger the point of no return. (Examples: Weather, delay in pre-work, service disruption, funding, schedule, etc.)</i>

SECTION 3.9 - TRACK BLOCK

Identify Tracks Required for Track Block. Please see the accompanying document for the WPM which describes each block type.

Type of Track Block	Partial Block	Split Block	Total Block
Multi-Track	Single Track	Other Railroads?	
List the tracks required:		Location	
From Mileage		To Mileage	
Length of time required to complete work:			
Length of time available to complete the work:			
If time required is greater than time available, can the work be completed in stages?			

SECTION 3.10 - TRACK PROTECTION

Identify which company will provide flagging from the list below and Identify as Track Flagging and / or Signals Support

Track Protection	Track or Signals		Track Protection	Track or Signals	
A&B Rail	Track Flagging	Signals Support	GEXR	Track Flagging	Signals Support
TTR		Signals Support	CNR	Track Flagging	Signals Support
PNR	Track Flagging	Signals Support	CPR	Track Flagging	Signals Support
	Track Flagging	Signals Support		Track Flagging	Signals Support

When will the flagman be on site?		Is flagging continuous?	
When will the flagman leave site?			

SECTION 3.11 - PRE-WORK

Pre-work includes delivery and assembly of track materials, day lighting of utilities and/ or fibre optic cables.

List tracks to be affected during pre-work.

[illegible]

Has pre-condition assessment been completed?

Will the work be completed in stages?

If the work will be completed in stages, do any of the stages include Pre-Work?

List, in order of criticality, the work to be completed before the track block:

eedea

SECTION 3.12 - IN-SERVICE INSPECTION

Please mark which of the following inspections are required:

Walking Detailed	Required	Installed Turnout	Required
Rail Flaw Detection	Required	Switch Pressure Test - No. 22 Switch Stand	Required
Track Geometry - Hand	Required	Track In-Service Certificate	Required
Track Geometry - Vehicle	Required	Bridge Span	Required
Tunnel	Required	Culvert	Required
Retaining Wall	Required	Grade Build-up for Track	Required
Signal Bridge Structure	Required	Signals In-Service Certificate	Required
	Required		Required
	Required		Required
	Required		Required

Please list the Inspectors, along with their qualifications and which Company they represent

[illegible]

SECTION 3.13- POST-WORK

Identify any work that must be completed after the track block.

[illegible]

SECTION 3.14- UTILITY IMPACT

Are utility locates required for this work?

If required; identify if utility locates are current and complete.

List any Utility companies that are impacted by the work. Copies of locates to be appended, and identified in Section 5 Attachments.

[illegible]

SECTION 4 - ADDITIONAL REQUIREMENTS FOR SIGNAL WORK

Complete this section in addition to previous sections if the scope of work involves signal work components. Signal work methodology should be described in detail in Section 3.3 - Detailed Task Description.

SECTION 4.1 - TESTING DOCUMENTS

[illegible][illegible]

SECTION 4.2 - DESIGN DOCUMENTATION AND SUPPLEMENTAL DRAWINGS

[illegible]

SECTION 4.3 – CROSSING DEACTIVATION

List all crossings that will be deactivated. Identify if the deactivated crossings have pre-emption.

[illegible]

SECTION 4.4 – SIGNAL TEST EQUIPMENT AND TOOLS

[illegible]

SECTION 5 - ATTACHMENTS AND PERSONNEL LIST

SECTION 5.1 - OVERVIEW OF SITE

Append to this WPM the following diagrams, provide confirmation that they have been added and indicate where they are located.

	Diagram Provided?	Attachment / File Name
Material Laydown Area		
Muster Point		
Lighting Plan		
Designated Parking Area		
Access to Corridor		
Site Sketches		
Route to the Nearest Hospital		

SECTION 5.2 - ADDITIONAL REQUIRED PROCEDURES / SAFETY PLANS

Append to this WPM the following documents, provide confirmation that they have been added and indicate where they are located.

	Document Provided?	Attachment / File Name
Competent Supervisor Declaration		
Site Specific Emergency Plan (SSEP)		
Crane Lift Plan		
Traffic Plans/Permits		
Rescue Plan(s)		
Safe Work Procedures		
Equipment Specifications		
Training Records		
Temporary Rail Bypass Coupler (TRBC) Application Form		

SECTION 5.3 – ADDITIONAL ATTACHMENTS

List all additional documents submitted with this WPM.

[illegible]

SECTION 5.4 - CONTRACTOR STAFF & SIGN OFF (add all required personnel)

All persons on site must hold a valid GO-Safe Orientation training. Contractor to list all staff and subcontractors and their workers anticipated to be working on the task and their related contact information and associated company. Contractor must ensure that a briefing contain the main elements of this WPM (including safety and emergency measures) take place on site prior to the work commencing. Workers involved in task to sign-off on Work Plan prior to commencing work.

[illegible]

SECTION 5.5 - EXTERNAL CONTACT LIST (add all required personnel)

Role	Name	Phone Number
Contract Administrator		
Contract Administrator		
Contract MTCE Provider Superintendent		
Contract MTCE Provider Track Supervisor		
Contract MTCE Provider Inspector		

SECTION 5.6 - METROLINX CONTACT LIST (add all required personnel)

Role	Name	Phone Number
Metrolinx Project Manager(CPG)		
Metrolinx Project Coordinator(CPG)		
RCI Track Specialist		
RCI Signal Specialist		
RCI Bridges & Structures Specialist		

SECTION 5.7 - EMERGENCY CONTACT LIST

Role	Name	Phone Number
Nearest Hospital		
Emergency Services		911
GO CMO Emergency		416-601-3611
GO Transit Control Centre(GTCC)		416-601-2147 (Rail) & 416-638-6776 (Bus)
CN Police / Railway		800-465-9239 (CN Railway) & 800-661-3963 (CN Police)
CP Police / Railway		800-716-9132
GO Transit Safety & Security		877-297-0642
Ontario OneCall		
Emergency Spill Response		

SECTION 6 - RISK ASSESSMENT (RA) AND SITE SAFETY

6.1 – REQUIRED CMO PERMITS

Check off all activities for which CMO work permits are required. **NOTE: Append updated training records where applicable**

	Activities	Regulatory Reference/ Additional Info
	Hot Work	O. Reg. 632/05, s.2
	Working requiring Fall protection	O. Reg. 297/13 Note: Provide site specific fall rescue plan
	Confined Space Entry	O. Reg. 632/05 Proof of Confined Space Training required Note: Provide site specific CSE rescue plan
	Trenching or Excavation	(1) Proof of Utility Locates (30 day validity) required for all contractors and subcontractors (1) Proof of MoL Trench Notice (Form 0070) may be required
	Crane/ or Hoist Operations	O. Reg. 213/91, s.150 Proof of Crane/ Hoisting Training required
	Tunnels , Shafts, Caissons or Cofferdam	O. Reg. 213/91, s.245 Proof of MoL Notification (Form 0077) required
	Designated Substances	O. Reg. 278/05, s.11 Proof of MoL Notification for Asbestos Removal Work (0072) may be required
	Site Visitor	Any visitor(s) access must be approved by CMO via the Site Visitor Permit.
	Shut Down (HVAC, electric power, fire alarm & sensors, fire suppression)	Permit required for all operations affecting building occupants and fire safety
	Electrical Work (live or not)	Permit required for work on or around equipment (live or not).

6.2 – EMERGENCY RESCUE PLANS

Provide detailed rescue procedures in the event of fall from **working at heights** (O. Reg. 213/91); in the event where a worker needs to be extracted from a **confined space** (O. Reg. 632/05) and; where **trench work** is deeper than 2.4 meters (O. Reg. 213/91). Provide details/sketches in the available space below or as an attachment to this work plan with reference made in Section 5.

SECTION 6.3 - RISK ASSESSMENT MATRIX

			Likelihood				
			Very Unlikely	Less than Likely	Likely	More than Likely	Very Likely
			All viable controls in place, no major contributing factors identified, but risk occurrence cannot be ruled out	Strong control in place with a few contributing factors exist	Some controls in place and some contributing factors exist	Limited controls in place and substantial contributing factors exist	A few weak controls in place and several contributing factors
			<10% but not 0% to occur	10% to <40% to occur	40% to <60% to occur	60% to <90% to occur	≥90% but not 100% to occur
Risk Scoring Criteria			1	2	3	4	5
Severity	Very High	<ul style="list-style-type: none"> Major Service Delay > 1 hr. (repeated/several weeks) Loss of Service > 8 hrs. Major Station**/Facility Impact or Closure > 8 hrs. Fatality Widespread/offsite environmental contamination (>1 year cleanup) Damage to property > \$10,000,000 Irreversible equipment damage, unable to operate 	5 Medium	10 Medium	15 Elevated	20 High	25 High
	High	<ul style="list-style-type: none"> Major Service Delay > 1hr. (repeated/multiple weeks) or one delay of several hours Loss of Service 1 to 8 hrs. Major Station**/Facility Impact or Closure 1 to 8 hrs. Minor Station*/Facility Impact or Closure > 8 hrs. or closure of multiple Critical injury Localized environmental contamination (≤ 1 year cleanup) Damage to property \$1,000,000 to \$10,000,000 Substantial equipment damage, significant downtime due to repairs needed 	4 Low	8 Medium	12 Elevated	16 Elevated	20 High
	Moderate	<ul style="list-style-type: none"> Major Service Delay > 1 hr. (repeated/week) or (once/peak period) Minor Service Delay 30 to 60 mins. (repeated/multiple weeks) or (repeated peak period/week) Loss of Service ≤ 1 hr. Major Station**/Facility Impact or Closure ≤ 1 hr. Minor Station*/Facility Impact or Closure 1 to 8 hrs. Significant injury or worker lost time Significant effects on water quality/major damage to ecosystem (≤ 1 month cleanup) Damage to property \$100,000 to \$1,000,000 Moderate damage to equipment, downtime due to repairs needed 	3 Low	6 Medium	9 Medium	12 Elevated	15 Elevated
	Low	<ul style="list-style-type: none"> Major Service Delay > 1hr 1/week Minor Service Delay 30 to 60 mins. (repeated/week) Minor Station*/Facility Impact or Closure ≤ 1 hr. Minor Injury Localized impact to air/water/land (≤ 1 week cleanup) Damage to property \$10,000 to \$100,000 Minor Damage to equipment, minimal downtime due to repairs needed 	2 Low	4 Low	6 Medium	8 Medium	10 Medium
	Very Low	<ul style="list-style-type: none"> Minor Service Delay 30 to 60 mins. First aid Limited effects on air quality (≤ day to cleanup) Damage to property < \$10,000 	1 Low	2 Low	3 Low	4 Low	5 Medium

* A one-line station, ** A station with more than one line or a major support facility

SECTION 6.4 – RISK ASSESSMENT SUMMARY

Based on the Detailed Task Description stated in Section 3.3, populate the table below by listing the associated hazards of each task. Then determine the risk rating by evaluating the severity and likelihood of the hazard which poses a risk and/or consequences to safety, operations, environment etc.

- (1) The following is only a brief summary of instructions. Please review the WPMT user guideline for complete details for developing the Risk Assessment Summary table below.
- (2) Re-list the task numbers and activity/task
- (3) Provide a detailed account of all hazards associated to the activity/task
- (3) Use the RA Matrix above:
- (a) assign a **Severity** level (1 to 5) to the hazard by referencing the **Risk Scoring Criteria** which may best represent the consequence. Provision of other risks and/or consequences which are known to apply to a task can be added to best fit the scenario.
 - (b) assign a **Likelihood** level (1 to 5) by referencing the qualitative and quantitative criteria which may best represent the risk/consequence occurring.
 - (c) multiply **Severity x Likelihood** to obtain the **Risk** rating
- (4) List the control measures to be put in place to reduce the initial uncontrolled **Risk** rating
- (5) Repeat step (3) to re-evaluate the final controlled **Risk** rating with all appropriate control measures in place
- (6) Complete Section 6.5 with the sign-off of all contributors to the Risk Assessment Summary

Task No.	Activity/Task	Hazard / Risk / Consequence	(Initial) Uncontrolled Rating			Control Measure / Comment	(Final) Controlled Rating		
			Severity	Likelihood	Risk		Severity	Likelihood	Risk

SECTION 6.5 – RISK ASSESSMENT SIGN-OFF

NOTE: The development of this RA shall be produced by individuals with knowledge, experience and understanding of the work and associated hazards. This would include but not limited to the General Contractor, H&S Representatives, Sub-contractors etc. The names of the individuals who have contributed to the RA shall be listed below.

RA developed by (Name / Title):	Signature:	
RA developed by (Name / Title):	Signature:	
RA developed by (Name / Title):	Signature:	