
ADDENDUM No.2

January 20, 2025

TO: All Tender Takers

RE: ***Tender 2025-03-124 - Inkerman Bridge Replacement***

Clarification for SP3 Traffic Management

DELETE:

706.05.05 Temporary Traffic Signals

A mechanical flagging system, Model PTL 2.4 manufactured by RC Flagman, or approved equal per the Designated Sources for Materials listing DSM # 6.70.60, shall be used for single lane closures.

REPLACE WITH:

706.05.05 Temporary Traffic Signals

A mechanical flagging system, Model PTL 2.4 manufactured by North America Traffic Inc., or approved equal per the Designated Sources for Materials listing DSM # 6.70.60, shall be used for single lane closures.

Questions and Answers:

- Q1. On Drawing Sheet 18, the private entrance North of Station 9+950 is shown to receive 2x50mm and 1x40mm of HL3 as per the New Construction Legend. Could you please confirm if three (3) lifts are required as noted above, or if one (1) 50mm HL3 is acceptable?
- A1. One 50mm HL3 lift is to be placed in this area and administered under Item 20 – Asphalt Sidewalk (50mm)
- Q2. Could you please confirm that item 20 would be to replace the sidewalk at both approaches and the bridge on the West side of the structure? If so, would this be elevated like the proposed concrete sidewalk, or would it be flush with the roadway?
- A2. The intention of item 20 is for reinstatement behind the curb. 50mm of Asphalt shall be placed behind the curb in the 10+036 area and driveway reinstatement in the 9+950

area. Concrete sidewalk will be reinstated similarly to the existing conditions matching curb height on the wingwall and depressing down to tie into the boulevard asphalt grade.

- Q3. Can you please indicate if Tack Coat will be required between lifts of asphalt? If so, under which item will this be paid under?
- A3. Tack coat will not be required between asphalt lifts. Note that tack coat required as part of the waterproofing operations shall be as specified in OPSS 914 and is included as part of that item.
- Q4. Are there any records that show the depth of the existing asphalt on the approaches, off any concrete structure
- A4. No existing data is available. As stated in SP7 under Cutting Existing Pavement the thickness is expected to vary up to a maximum of 150mm. The item will be prorated based on the varying thickness if the total exceeds 150mm.
- Q5. What is the weight for the rebar items?
- A5. Item 37 - Reinforcing Steel Bar is revised from 1 LS to 18 tonne.
Item 38 - Stainless Steel Reinforcing Bar is Revised from 1 LS to 0.5 tonne.
- Q6. Can you please clarify which form liner to use. DWG S13 and S14 says No.454 Sika Spring Creek Stone and SP15 states sika Split Face Block No 342.
- A6. The form liner shall be as specified in the Drawings – No. 454 Sika Spring Creek Stone.
- Q7. As the floor area of the site trailers are measured in square feet and are available in 10' x 20' = 200ft² or 18.58m² and not the 20m² in the item. Will this size trailer be acceptable?
- A7. Yes, this size of trailer will be acceptable.
- Q8. Would you be able to provide the detour route for the full closures.
- A8. The detour can be found on page 21 of the special provisions.
The detour route and associated signage shall be setup, maintained and removed by the Contractor in conformance with OTM Book 7. The detour route shall follow County Road 3 > County Rd 1 > County Rd 43 or County Rd 16 > County Rd 5 > County Rd 31 > County Rd 38. (See detour update on question 10)
- Q9. As a follow up to first question, if the 454 Spring Creek Stone is required the panels come in 4' x 8' sheets and there appears to be nowhere on the form liner to cut and make the

stone look complete. The drawings are showing a 21" in-lay. We can cut the liner in half and have an unfinished stone look. Can you clarify if the dimensions of the in lay can be adjusted. See attached picture of the liner. It would be easier if the No.342 Split Face Block was used but the size question still remains. Can this be adjusted?

A9.

No. 454

U,M

8' x 4' Sheets • **Spring Creek Stone**

Relief: 3/4" maximum 1/2" - 3/4" average



We can accept a revised 'in-lay'. It appears that a 24 in. Inlay would work well for this formliner. This can be submitted to the Contract Administrator for approval during construction.

Q10 Would the Counties consider using the following detour. SDG 3> Cameron Rd> Development Rd> SDG 3?

A10 Yes, the suggested detour is acceptable.

End of Addendum No. 2

Section E: Special Provisions

NOTICE TO CONTRACTOR – REFERENCE PLANS AND REPORTS – for information purposes only

The Contractor is hereby notified that the following plans and reports are available digitally to the Contractor during the tender period:

- Original Design Drawings: *Bridge over North Branch, South Nation River, Dwgs 1 – 5, August 1964*
- Rehabilitation Drawings: *Inkerman Bridge Repairs, Project 18-0480, Dwgs 1 – 11, April 1991*
- Bridge Inspection Reports for Inkerman Bridge for the following years: *2019 and 2021.*
- Structural Steel Drawings: *Supply of Structural Steel – Inkerman Bridge, Dwgs 1-2*
- Structural Steel Shop Drawings: *Supply of Structural Steel – Inkerman Bridge, Dwgs 1-19*

NOTICE TO CONTRACTOR – WATER ELEVATIONS

Water levels shown on the Contract Documents were observed at a specific time of year. The water levels are seasonal and may fluctuate during completion of the work. The Contractor shall implement appropriate construction techniques and/or methods to complete the work based on the actual site conditions.

NOTICE TO CONTRACTOR - CONCRETE DISCHARGE TIME

For all concrete placed under this Contract, OPSS.MUNI 904, November 2023, and OPSS.MUNI 1350, November 2023, shall govern except as amended or extended as follows:

All concrete materials and mixes shall be designed for an extended discharged time from the time of initial batching. As a minimum, the mix design shall include a retarding admixture to meet a minimum discharge time of 2 hours after introduction of mixing water to cement and aggregate. These times may be further extended using a set retarder, provided the Owner approves such use.

NOTICE TO CONTRACTOR – ADVANCED PROCUREMENT OF STRUCTURAL STEEL

The Contractor is advised that all structural steel (girders, diaphragms, etc) have been pre-purchased by the County under a separate Contract. All structural steel is currently in storage pending delivery request. The Contractor shall provide four weeks advance notice for delivery to Iron Bridge Fabrication for delivery of the steel (two separate deliveries to suit staging requirements), as specified elsewhere in the Contract Documents.

Fabricator contact is as follows:

Erich Schliecher
 Iron Bridge Fabrication Inc.
 (519)-595-6830 x 42
eschliecher@ironbridgefab.com

For questions during bidding please contact:
 Dwayne Mikel
 Iron Bridge Fabrication Inc.
 (519) 595-6830 x 35
dmikel@ironbridgefab.com

OPERATIONAL CONSTRAINT - Notification of Emergency Service Providers, School Boards, Area Businesses & Residents

The Contractor shall notify the stakeholders below 14 days in advance of work commencing regarding the construction schedule and if any changes to traffic flow are anticipated.

All notification shall be in writing and copied to the Contract Administrator. A draft of the notification shall be submitted to the Contract Administrator for approval a minimum of five (5) days prior to distribution. The notification shall include the contact information of the Contractor and the Contract Administrator.

The Contractor shall notify the Contract Administrator of any inquiries received from the public within 48 hours.

Public Information Session

SDG Counties will be scheduling a public information night sometime in March in the Inkerman/Winchester Area (date and location to be confirmed after award). The Contractor is to provide a member of their management staff to attend the public information session (3 hours) to assist in fielding local questions about the project. No presentation or material preparation is required. Costs relating to the Public Information Session are to be included in the General Site Work Item.

Contact information is provided below:

Emergency Services	
OPP – opp.er.mailroom@opp.ca	Fire – fire@northdundas.com Fire Chief: 613-614-2450
EMS – SDG – emsdutyofficer@cornwall.ca	

School Boards and Transportation	
Upper Canada District School Board (613-342-0371) Catholic District School Board of Eastern Ontario (613-258-7757)	Student Transportation General – transportation@steo.ca
Interest Groups/Businesses	
<u>Enbridge</u> Laverne Hanley Laverne.Hanley@enbridge.com (613-449-5857) <u>New Life Mills</u> Kirk Hunter, Plant Manaer khunter@newlifemills.com (613-989-2003)	<u>Bell</u> Chad Dockstader Chad.dockstader@bell.ca (343-540-9729) <u>Hydro One</u> Sean Mooney Sean.Mooney@HydroOne.com (613-913-5238)

OPERATIONAL CONSTRAINT - Installation and Relocation of Temporary Concrete Barrier and Energy Attenuators

Installation and relocation of temporary concrete barriers for staged construction, as indicated in the contract drawings, including end treatments, shall be carried out during one single lane closure period.

The Contractor may be required to adjust, reposition, or relocate the temporary barriers to accommodate the Contractor’s own daily entry and exit from the work area. No additional payment will be made for any adjustments to the Temporary Concrete Barriers and Energy Attenuators, unless specified elsewhere in the Contract.

OPERATIONAL CONSTRAINT - Working Around Existing Utilities

The locations of all utilities shown are approximate only. Prior to proceeding with the work, the exact locations / depth of all utilities affected by the work shall be determined by the Contractor. The Contractor shall be responsible for locating the utilities and for providing protection to existing utilities during all construction operations. The locations of existing utilities within the project limits shall be determined by contacting the concerned utility companies.

The Contractor shall be aware of the following, but not limited to:

- a) Overhead Hydro on the east side of the bridge and south approach crossing County Road 3. There is an overhead guy wire support cable crossing the north approach. Hydro utility poles are located in all four quadrants near the wingwalls.
- b) Underground Hydro in the southwest quadrant originating from the southwest hydro

- pole.
- c) PVC ducts embedded in the west sidewalk are empty.
 - d) Overhead Bell along the east side of the bridge.
 - e) Underground Bell below both the north and south approaches.
 - f) Buried Enbridge gas main along the east side of the roadway which transitions underground below the watercourse.

The Hydro lines along the east side of County Road 3 across the structure will be de-energized for the duration of construction other than emergencies as determined by Hydro One. Line markers will be placed on the east spanning lines to serve as a warning for operators. SDG will cover the costs of the Guy Wire Removal and Pole Stabilization for girder removal and erection. The Contractor shall provide 3 weeks advance notice to SDG Counties prior to Stage 1 and Stage 2 removal and erection operations. Any other Guy Wire Removal and Pole Stabilization costs as required to suit the site operations will be the responsibility of the Contractor to carry within the appropriate Item.

SDG Counties has engaged Regional Crane to review constructability issues relating to girder removal and installation on Stages 1 and 2. Regional Crane provided a preliminary plan with two cranes that eliminate the requirement for de-energizing the southern hydro crossing. The Contractor will be responsible for developing the final lift plans for demolition of the existing structure and erection of the new girders to facilitate the work to suit Contractor specific operations. De-energizing of the southern hydro crossing will not be permitted.



REGIONAL CRANE RENTALS LTD.

December 12, 2024

Representative Jerry Brown from Regional Crane was contacted by SDG Counties to provide a crane study on the project of Inkerman Bridge Replacement.

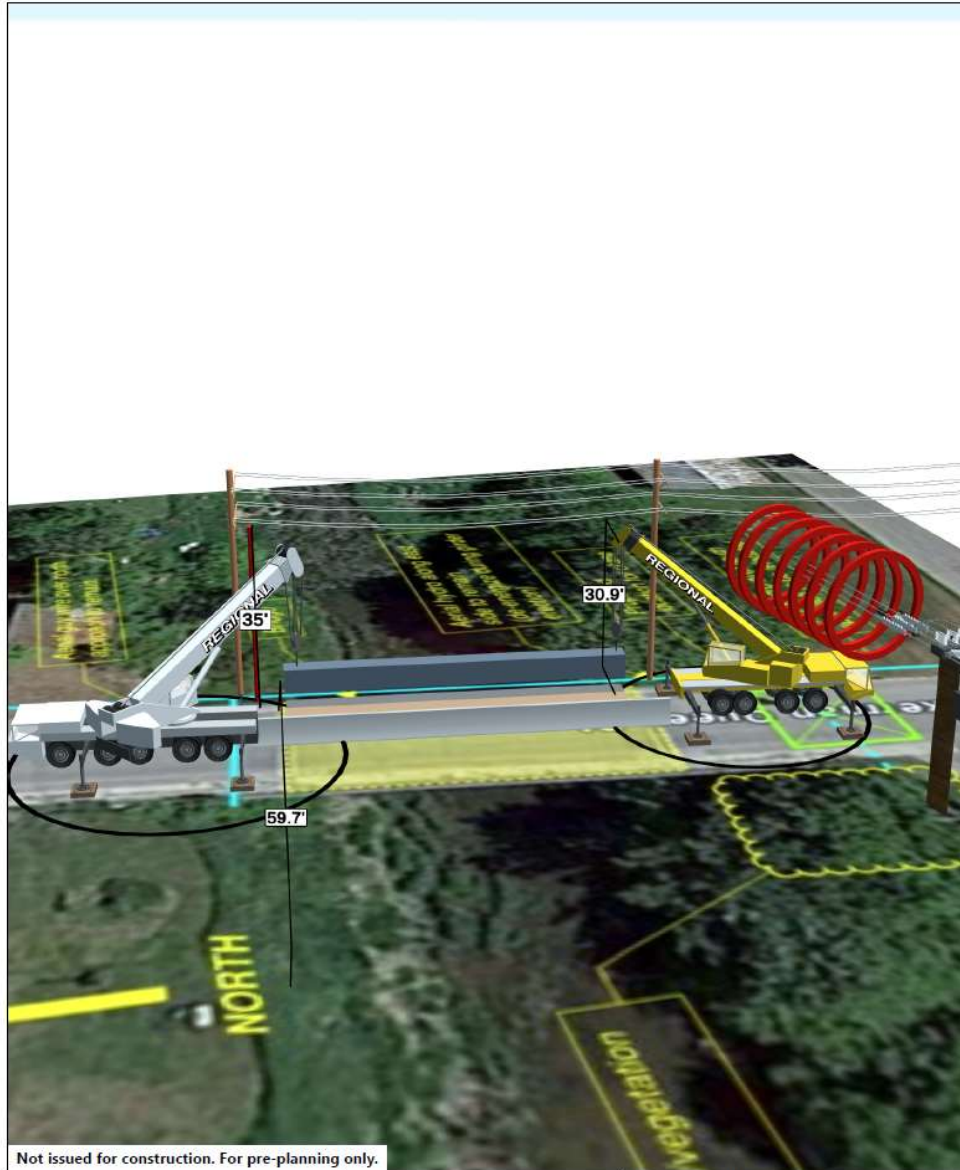
Upon our investigation we have made lift plans and here are our recommendations:

- Hydro One was met onsite and it was confirmed that the wires that run along the East side of the bridge can stay but need to be deenergized.
- Northeast Poles guide wire would need to be removed – Hydro One to stabilize the pole during craning periods.
- Hydro lines on the South side of the bridge can stay.

For crane sizes and sequence for the removal of the bridge you can contact Jerry Brown for additional information (613) 292-5667.

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3D Lift Plan



Not issued for construction. For pre-planning only.



Title	Lift Plan
Project	Inkerman Bridge Replacement
Customer	Morrison Hershfield
Description	Girder Erection
Drawn By	Jerry Brown 11/29/2024

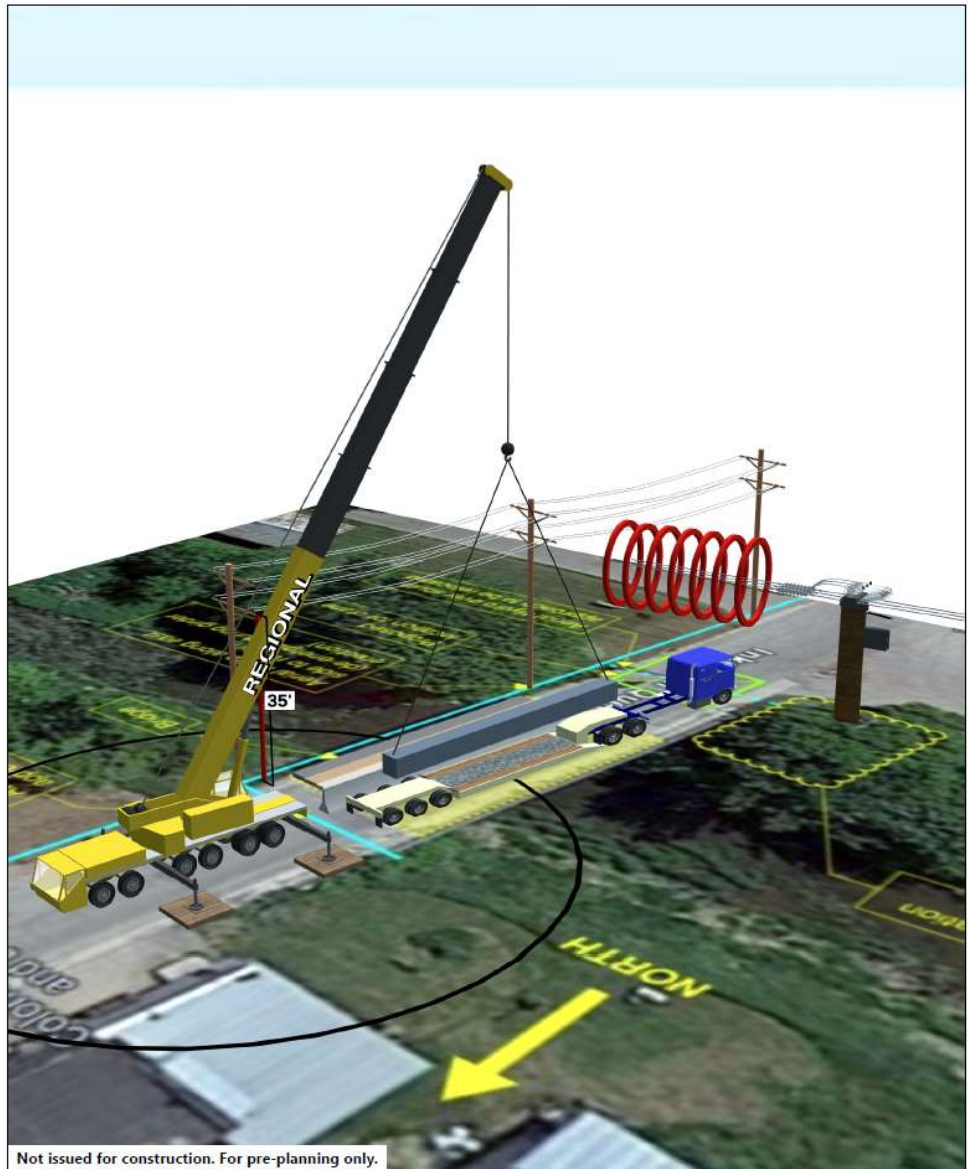
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<https://www.3dliftplan.com/Print/LiftPlan.aspx>

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12/2/24, 1:49 PM

3D Lift Plan



Not issued for construction. For pre-planning only.



Title	Lift Plan
Project	Inkerman Bridge Replacement
Customer	Morrison Hershfield
Description	Girder Erection
Drawn By	Jerry Brown 12/2/2024

Created with 3D Lift Plan www.3dliftplan.com

<https://www.3dliftplan.com/Print/LiftPlan.aspx>

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OPERATIONAL CONSTRAINT – Control of Emissions

This operational constraint describes the requirements for the control of emissions including but not limited to; dust, abrasive blast medium and other debris generated from work on structures involving abrasive blast cleaning of concrete, structural steel and reinforcing steel, and the cutting and grinding of concrete.

The Contractor shall give the Contract Administrator written notice 3 working days prior to the start of abrasive blast cleaning of concrete, reinforcing steel and structural steel, and of the cutting and grinding of concrete. The Contractor shall submit with the written notice a proposal describing the procedures/plans to control the emissions of dust, abrasive blast medium and other debris from these operations.

The Contractor shall take whatever measures necessary to ensure that dust, abrasive blast medium, and other debris from work on structures involving abrasive blast cleaning of concrete, reinforcing steel and structural steel, and the cutting and grinding of concrete, do not enter any watercourse; or escape beyond the right-of-way.

The measures may include:

- (a) termination of operations during periods of high wind;
- (b) the use of low dust generating technologies such as vacuum abrasive blasting;
- (c) vacuuming of surfaces to remove dust and debris; and
- (d) the use of temporary barrier walls or enclosures.

Excess materials shall be managed as specified in the Contract Documents.

Payment for the control of emissions during work on structures involving abrasive blast cleaning of concrete, reinforcing steel and structural steel, and the cutting and grinding of concrete, shall be deemed to be included in the tender items requiring such control.

OPERATIONAL CONSTRAINT – Control Measures during Removal of Concrete, Concrete Repair/Construction, and Concrete Sawcutting

This operational constraint describes the requirements for control measures during removal of concrete, concrete repair/construction, and concrete sawcutting.

The requirements of this operational constraint are in addition to those specified elsewhere in the contract.

For materials resulting from concrete removal, and materials resulting from concrete repair/construction, the Contractor shall take the appropriate measures and provide such protection system or systems to ensure that such materials do not.

- (a) fall into or enter the waterbody;
- (b) cause damage to any portion of the structure not designated for removal.

For concrete sawcutting, the Contractor shall take appropriate measures and provide such protection system or systems to:

- (a) contain any removed material until it is disposed of; and
- (b) minimize the escape of dust such that no visible dust reaches the waterbody, adjacent wetlands, or property outside the right-of-way limits.

The following work shall not commence until the Contract Administrator has given permission to proceed in writing.

- (a) removal of concrete;
- (b) concrete repair/construction;
- (c) concrete sawcutting; and

The Contractor shall give the Contract Administrator written notice a minimum of 14 calendar days prior to the date that permission is required to proceed with any of the above-specified work operations. The notice shall include four copies of written descriptions, drawings and schedules that provide the following:

- (a) The sequence and method of control measures during:
 - (i) removal of concrete;
 - (ii) concrete repair/construction;
 - (iii) concrete sawcutting; and

Permission to proceed with the above will be provided if the Contract Administrator determines that the details of the notice meet the requirements of this special provision.

At the conclusion of the work, the control measures shall be removed.

OPERATIONAL CONSTRAINT – Species at Risk and Wildlife Protocol

The site is deemed as low risk for encountering SAR and bird nesting. No bird nesting has been observed on the structure. No SAR have been identified at the site, however, there is habitat suitable for SAR and wildlife may be encountered within the work area. Evidence of racoon presence was noted on the bearing seat between the deck end and the ballast wall. The Contractor will be required to implement provisions required to prevent entry / nesting / habitancy of wildlife on the structure.

The Contractor shall implement general provisions as outlined below.

General Provisions:

- Use caution when driving to and from the work site – watch out for turtles and other small animals on the road surface and shoulder. Avoid hitting them, provided that it is safe to do so.
- Ensure sediment and erosion control measures (i.e., silt fencing) are in place prior to beginning work. Inspect them regularly, and particularly after storm events, to ensure their effectiveness.
- Silt fencing may also be used to prevent turtles and other small animals from entering the work area. Lightweight silt fencing is preferred for this purpose (nylon netting on heavy duty silt fencing may entrap some species of wildlife). Make sure it is securely embedded at the bottom.
- Prior to beginning work each day, check for wildlife by conducting a thorough visual inspection of the work area and immediate surroundings.
- Restrict all activities, vehicles, and materials to the designated work area.
- Litter and other waste materials must be appropriately contained and disposed of.
- Do not feed any wildlife or leave food out where it could attract them.
- Avoid or minimize disturbances to any natural features adjacent to the work area to the extent possible. DO NOT cut or damage any trees (of any size) unless the absence of Butternut (which is protected under the Endangered Species Act, 2007) has been confirmed by an expert.

Wildlife Encounters:

- Do not harass or harm any wildlife.
- Turtles are among the most likely animals to occur on or adjacent to roads, especially during the spring. See attached Turtle Identification sheets for more information.
- Eastern Musk, Painted, Map and Snapping Turtles are protected under the Fish and Wildlife Conservation Act, 1997. If one is encountered within the work area, it should be gently removed and placed in the roadside ditch at a safe distance from the work site. Wear gloves or use a broom to steer the turtle into a bucket or other container. Handle with care to avoid injury to the turtle or yourself, particularly when dealing with Snapping Turtles, which may bite or scratch. Turtles may also wet themselves when handled. Inspect the silt fencing to determine whether repairs or extensions are needed.

- Blanding's, Spiny Softshell, and Spotted Turtles are protected under the Endangered Species Act, 2007. If one is seen near the work site, all work must stop immediately. Take a photograph of the animal, if possible, to confirm the sighting, and contact the Contract Administrator.
- Barn Swallows and some other birds that nest in or around culverts and bridges are protected under the federal Migratory Birds Convention Act. Bank Swallows and some bats are protected under the Endangered Species Act, 2007. Bank Swallows colonies are seen nearby, or if bird nests or roosting bats are found in or on a culvert or bridge, stop work, take a photo, and contact the Contract Administrator.
- Where work has stopped due to Endangered Species Act issues, it must remain stopped until authorised to resume by the MECP. Additional mitigation measures may be required by the Ministry.
- Snakes may also be found on or adjacent to roads. Many snakes are protected under the Fish and Wildlife Conservation Act, 1997. None of the local species are venomous, so their bites are not dangerous. Some snakes will produce a foul-smelling musk when handled, instead of biting. Snakes will usually try to escape or hide when disturbed, and only defend themselves when trapped. If a snake is found in the work area, it should be gently removed or herded out to a safe location.

Turtle Identification:

Turtles are usually found in or near water. During the spring and summer, however, turtles may travel overland to find new homes, search for food, or lay their eggs. Many turtles use the soft shoulders of roads for nesting, burying their eggs in the gravel. Eggs are usually laid in June and hatch in September, although some turtles may overwinter in the nest.

If turtles are found within the work area, the Contract Administrator shall be notified to determine if they are protected species.

Migratory Bird Nesting Prevention:

As part of the work under this item, commencing on April 15, 2025 and extending until the completion of the Contract, the Contractor shall ensure that no migratory birds nest on the bridge structure. The Contractor shall solely determine the required methodology to ensure that no migratory birds nest (e.g., bird netting, daily sweeps, etc.). Nesting prevention shall be the responsibility of the Contractor upon execution of the signed contract, should they deem appropriate for the site.

OPERATIONAL CONSTRAINT – Limitation of Operations

Section GC7.14. Limitations of Operations, of the OPS General Conditions, is amended by the addition of the following:

Pursuant to this Contract, commencement of construction activities shall not be permitted until notification is given to the South Nation Conservation Authority (SNCA), advising them of a

projected start and finish date.

Prior to commencement of work, the Contractor shall submit an erosion and sediment control plan to the SNCA for review. No in-water or near-water works shall commence prior to the issuance of a permit or written approval to proceed by the SNCA. Submissions may be made to:

South Nation Conservation Authority
38 Victoria Street. P.O. Box 29. Finch. ON. K0C 1K0
Tel. 613-984-2948 - Fax. 613-984-2872

No in-water works shall be permitted between March 15 and July 1.

Submission of the Tender will be construed as the Tenderer's declaration that they have discussed with SNCA and are aware of SNCA's approval requirements with respect to the in-water or near-water works and associated construction methodologies required to complete the work.

All costs incurred by the Contractor associated with the compliance with the above shall be borne by the Contractor. No additional compensation shall be granted for this work. Payment for the above shall be deemed to be included as part of the Temporary Erosion and Sediment Control Measures.

The Contractor is hereby notified that the SNCA has been pre-consulted and advised of the project; nonetheless, the Contractor shall not make any claim for additional compensation due to delays in commencing the work due to compliance with the above.

Other

Although water levels are shown on the contract documents at specific times of the year, the water levels are seasonal and fluctuate.

SP1 - SITEWORK

Payment at the Contract Lump Sum Price for the Item “Sitework” shall be full compensation for all labour, materials and equipment required to complete the following work:

- Mobilization and demobilization of equipment, material and Contractor’s forces;
- Provisions for insurance;
- Site preparation for work;
- Site security;
- Obtain all necessary approvals and permits as applicable;
- Preparation of construction lay down area in location acceptable to Owner;
- Locating, protection, temporary support or temporary relocation and reinstallation of utilities, as applicable and not specified in other areas of the Contract;
- Coordination with Hydro One as required during construction particularly for de-energizing of utility line(s), guy wire removal(s), support/stabilization of hydro utility pole(s) and providing flagging/warning markers for hydro lines;
- Installation and removal of temporary barricades, hoarding and other protection required, unless specified elsewhere in the Contract;
- Installation, maintenance and removal of preventative bird netting or wildlife preventative measures as outlined elsewhere in the Contract.
- Layout of Work including any required survey;
- Contractor’s office;
- Supplying and maintenance of adequate sanitary facilities;
- Submission of shop drawings, product submissions etc;
- Obtaining access to private properties as required and obtaining written release from the affected property Owners. Copy to be submitted to Contract Administrator prior to entering the property.
- Maintaining and reinstatement of existing road signs, mailboxes, etc;
- Advertising of Substantial Completion in the Daily Commercial News;
- Reinstatement of the Contractor’s lay down area and office sites to their original conditions;
- Localized vegetation and tree removal and reinstatement required for execution of the work, including at the southwest quadrant to facilitate girder erection;
- All incidental work not specifically mentioned in the Contract Documents but required by virtue of the work;
- All work associated with environmental protection or species at risk mitigation measures except as specifically mentioned for other Items of work;
- Quality Control testing and reporting; and
- Submission of required reports, releases, and documentation for the release of holdback.
- Attend Public Information Session (Management Staff)

All work is to be carried out within right of way without encroachment onto private properties, unless specified otherwise. Advise Contract Administrator where construction of work is to interfere with private property and seek direction prior to the work being undertaken.

The Contractor shall submit a Baseline Work Schedule to the Contract Administrator at the Pre-Construction Meeting and provide an updated schedule on a monthly basis or as directed by the Contract Administrator.

The Contractor is advised that no additional payment will be made for repeated mobilization and demobilization for any of the construction activities covered by this Contract, interrupted by weather, or by any other construction activity within this Contract.

BASIS OF PAYMENT

Payment for this Item shall be full compensation for all labour, materials and equipment required to carry out the work. A 30% portion shall be paid in first progress payment. Remainder will be prorated over the scheduled duration of the Contract per the approved schedule.

Contractor shall bear all immediate, subsequent and consequential costs associated with change in the schedule, staging, and methodology of the work, unless Contract Administrator requested such change.

SP2 – FIELD OFFICE FOR CONTRACT ADMINISTRATOR 20-34M2

SCOPE

Under this tender item, the Contractor shall supply and maintain a field office (20-34m²) and its associated items for the sole use of the Contract Administrator and staff.

LOCATION

Prior to the commencement of work on this tender item, the Contractor shall receive approval from the Contract Administrator for the location of the field office and shall have the field office installed and operational.

FIELD OFFICE DIMENSIONS AND CONDITION

The field office shall have a minimum floor area as specified in the Schedule of Items and Prices. It shall have an inside minimum clearance of two (2) metres.

All doors shall be solid and capable of being locked with a 25 mm throw dead bolt lock, and two sets of keys will be supplied to the Contract Administrator.

The inside of the field office shall be moisture tight and capable of being lit to a level that is satisfactory to the Contract Administrator. It shall have adequate windows, heating and ventilating equipment capable of maintaining the working area at 21°C during both summer and winter weather conditions.

It is the Contractor's responsibility to provide and maintain adequate sanitary facilities in accordance with Sections 28 and 29 of the Ontario Regulation 145/00 under the Occupational Health and Safety Act.

FIELD OFFICE EQUIPMENT

The Contractor shall supply for the sole use of the Contract Administrator the following furnishings for the appropriate trailer size:

Floor Area 20-34 m²

- 1 desk
- 2 meeting tables (2 m² ea.)
- 5 chairs

The Contractor shall supply or arrange to supply a water cooler capable of maintaining a water supply at 7 deg C. Water shall be potable and supplied at a minimum rate of 18L/week.

UTILITIES

The Contractor shall provide within the floor area of the field office hydro facilities for the sole use of the Contract Administrator. The Contractor shall provide a generator large enough to power all trailer requirements.

The field office is to have a high-speed internet connection for the sole use of the Contract Administrator.

MEASUREMENT FOR PAYMENT

Measurement for the supply of a field office, its utilities, services and associated equipment shall be by the week. The Contractor shall also be paid for any portion of a week as one week. Measurement for payment will be made when all utilities and services have been provided.

BASIS OF PAYMENT

Payment at the Contract price for the tender item “Field Office for Contract Administrator” shall be full compensation for all labour, equipment and materials required to supply and maintain a field office.

The Contractor shall bear all expenses in connection with the above facilities, including but not limited to:

- a) Service and connection charges for utilities and services.
- b) Heating and ventilating costs.
- c) All rental costs for the field office.
- d) The provision of at least five (5) parking spaces adjacent to field office, with at least a gravel surface.
- e) Removal of the field office, clean-up and reinstatement of the area occupied by the field office and parking area.

SP3 – TRAFFIC MANAGEMENT

OPSS.MUNI 706, April 2018, shall govern except as amended or extended herein.

706.01 SCOPE

Section 706.01 of OPSS 706 is amended by the addition of the following:

Work under this tender item shall include, but not be limited to the following:

- Preparation and submission of a Traffic Control Plan (TCP);
- Supply, installation, monitoring, operation, maintenance and removal of temporary traffic signals – 2 units required, including temporary illumination;
- Supply, installation, monitoring, operation, maintenance and removal of all temporary construction signage; and
- Coordination and execution of all traffic control activities required to complete the work.
- Road closure and implementation of detour for key operations, as specified herein including supply, installation, monitoring, and removal of all detour signage.

The Contractor shall be responsible for construction means, methods, techniques, sequences, procedures, coordination and maintenance of all requirements for traffic signing.

706.02 REFERENCES

Section 706.02 of OPSS 706 is amended by the addition of the following:

Ontario Traffic Manual (OTM): All reference in this Special Provision and the Contract Documents to the Ontario Traffic Manual will indicate the most recent version(s) of the OTM including, and not necessarily be limited to, as applicable:

- Book 1 – Introduction of the Ontario Traffic Manuals
- Book 5 – Regulatory Signs
- Book 6 – Warning Signs
- Book 7 – Temporary Conditions
- Book 11 – Markings and Delineations
- Book 12 – Traffic Signals.

706.03 DEFINITIONS

Section 706.03 of OPSS 706 is amended by the addition of the following:

Traffic Control Device(s) (TCD): A generic term used to describe any person, sign, signal, marking or device placed upon, over or adjacent to a roadway by or at the direction of a public authority

or official having jurisdiction (such as The United Counties of Stormont Dundas and Glengarry) or their designate, for the purpose of regulating, warning, guiding or informing a vehicle operator or pedestrian of an existing condition or hazard.

Traffic Control Plan (TCP): A detailed plan for the control of traffic, including vehicular and pedestrian movements, required to allow the Contractor to fulfil all conditions of the contract, taking into account the organized, systematic safe conduct of the project. This includes, as applicable, detours, staging sequences, work, public and emergency vehicle access and egress, public access and separation from hazardous areas, temporary barriers, removal of old pavement markings, and the selection of appropriate typical layouts and devices necessary for traffic control. The traffic control plan shall contain the information respecting how the applicant intends to complete the work and satisfy the requirements of the Contract including but not limited to the following:

- a) start and completion times of work;
- b) specific location of work;
- c) lane use requirements;
- d) requirements for road closure;
- e) public notification undertaken;
- f) requirement for temporary no stopping signs;
- g) traffic routing and detour requirements where required

Traffic Control Persons (TCP's): A person duly trained and authorized to direct traffic at a work zone through the use of the Traffic Control Sign (STOP/SLOW Paddle)

Traffic Protection Plan (TPP): A plan required by the Occupational Health and Safety Act and its regulations for the protection of workers in a work zone. The plan must contain a written description of the traffic hazards to which workers may be exposed and measures used to protect them.

706.04 DESIGN AND SUBMISSION REQUIREMENTS

706.04.01 Submission Requirements

Subsection 706.04.01 of OPSS 706 is deleted and replaced with the following:

Two (2) weeks prior to commencing construction, the Contractor shall prepare and submit to the Contract Administrator a Traffic Control Plan that details the specific traffic control layout(s) necessary for the completion of the works. The Traffic Control Plan shall be in the form of drawing(s) and written description(s) of how the Contractor intends to control traffic through and around the work zone. The TCP shall include, and not necessarily be limited to:

- Monitoring and Repair (24 hour contact number);
- Reference to Applicable OTM Book 7 Typical Layouts;

- Traffic control signs (regulatory, warning and temporary);
- Traffic control delineation;
- Traffic Control vehicles and devices (TC-12, Crash Trucks, Temporary Lighting etc.);
- Contract-specific operational requirements;
- Traffic staging and scheduling;
- Construction vehicle access/egress;
- Maintaining public access/egress for all existing entrances and side roads and for river bank access at the structure. Full access to New Life Mills is to be maintained throughout construction.
- Pedestrian safety; barriers and barricades;
- Emergency Vehicle access;
- Locations for removal of existing line painting and proposed temporary pavement markings;
- Parking for Contract Administrator; and
- Any other traffic control measures.

The Contract Administrator will accept the submission of the TCP, and review it to identify any errors, omissions, or improvements as it relates to maintaining public safety and mobility. The acceptance and review of the TCP by the Contract Administrator will make no representation and/or warranty that the document is accurate, complete, or compliant with all applicable legislation. Any errors, omissions or deficiencies within the TCP will remain the sole responsibility of the Contractor. Work shall not commence until the Contract Administrator has reviewed the TCP and the Contractor has addressed all comments.

OPSS 706 is amended by the addition of Subsection 706.04.02 as follows:

706.04.02 General Requirements

The Ontario Traffic Manual supersedes all references to the Ministry of Transportation, Manual for Uniform Traffic Control Devices, or MUTCD in the Contract Documents.

The Contract Administrator reserves the right to ask for revisions to the Traffic Control Plan at submission time, or reject it if the Plan does not meet the Contract language. In addition, the Contract Administrator reserves the right to instruct the Contractor to revise it at any time during the Contractor's execution of the plan, when the Contract Administrator finds that the Contractor is not providing the commitments shown in the original Traffic Control Plan submission, or the Contractor's Traffic Control Plan proves to be insufficient to address the field conditions.

The Contractor shall be required to review and modify the TCP for errors, omissions, deficiencies, or because of any new hazards that are identified and not previously addressed within the document.

It is the responsibility of the Contractor to ensure that all necessary training has been provided prior to commencement of the work.

The Contractor shall ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the Traffic Control Plan measures.

706.05 MATERIALS

Section 706.05 of OPSS 706 is amended by the addition of the following subsections:

706.05.05 Temporary Traffic Signals

A mechanical flagging system, Model PTL 2.4 manufactured by North America Traffic Inc., or approved equal per the Designated Sources for Materials listing DSM # 6.70.60, shall be used for single lane closures.

706.05.06 Temporary Illumination

Temporary illumination shall be according to the following:

- a) Minimum of one luminaire mounted over each temporary traffic signal trailer.
- b) Each luminaire shall have an output of 22,000 lumens.
- c) Each luminaire shall be mounted a minimum of 9 meters vertically from the roadway surface.
- d) The temporary luminaire shall be powered by generator.
- e) Switch on shall be set at 16 Lux and switch off shall be set at 50 Lux.

706.05.07 Temporary Housing

The Contractor shall supply and install suitable housing and sound reduction measures to enclose the generator and reduce external noise levels to less than 45 dbA measured at a distance of 7m from the generator. The housing shall provide sufficient ventilation to prevent overheating and permit exhausting of any hazardous fumes.

706.07 CONSTRUCTION

Section 706.07 of OPSS 706 is amended by the addition of the following subsections:

706.07.07 Additional Requirements

Prior to commencing any construction, on or adjacent to a County Road, the supply and placement of all necessary temporary traffic control devices shall be performed under the sole direction of the Contractor and in accordance with the Contractors submitted/reviewed TCP. The TCP shall be

developed in accordance with guidelines established by the most recent version of the OTM, the Occupational Health and Safety Act (OHSA), and the Contract Documents which details the required contents and submission of the TCP.

The Contractor shall designate a person to be responsible for traffic control and work zone safety. The designated person shall be a competent worker who is qualified because of knowledge, training, and experience to perform the duties; is familiar with Book 7 of the OTM; and has knowledge of all potential or actual danger to workers and motorists. Prior to the commencement of construction, the Contractor shall notify the Contract Administrator of the name; address; position and telephone numbers of the designated person, and update as necessary. The designated person may have other responsibilities, including other construction sites, and need not be present in the Working Area at all times.

The condition of all traffic control devices shall be maintained for the duration of the Contract, in accordance with the OTM.

The Contractor shall immediately repair, replace or otherwise make good the practice deemed unsafe or non-compliant when the Owner (or his delegated authority) makes the Contractor aware of any violation of the TCP (or applicable regulations). Should the Contractor disagree, the Ministry of Labour will be consulted to provide clarification of the observed deficiency.

Vehicular and pedestrian traffic control shall remain the sole responsibility of the Contractor as the County delegates this authority to the Contractor in accordance with the submitted/reviewed TCP. Notwithstanding the foregoing, the Contractor shall, at his own expense, remove any equipment or material, which in the Contract Administrator's opinion constitutes a hazard to traffic or pedestrians.

The Contractor shall be fully and solely responsible to ensure the development and implementation of a submitted/reviewed traffic control plan as specified elsewhere in the Contract. The TCP and all required traffic control devices shall be designed/installed, monitored, operated/maintained and removed by the Contractor, utilizing only competent persons and workers as defined under the OHSA.

The Contractor shall not store any equipment or materials on the road or the roadway shoulders or boulevards, unless the storage areas are identified in the TCP and appropriate traffic control devices protect the equipment or materials. The Contract Administrator shall review and approve any storage of equipment and /or materials within the right of way.

The Contractor shall remove all dirt and debris from all paved or concrete surfaces at the close of each workday, to the satisfaction of the Contract Administrator.

Lane Closures

Lane closures shall be carried out by the Contractor at the Contractor's expense. The Contractor shall give forty-eight (48) hours notice to the Contract Administrator prior to the day on which the lane closures will be required. Single lane closures shall be permitted from one hour after sunrise to one hour before sunset when an approved mechanical flagging system is not in use.

Road Closures

Full road closure is permitted for the following operations:

- Stage 1 girder erection ((1 Day Closure between the hours of 5:00am and 10:00pm.)
- Stage 2 girder erection (1 Day Closure between the hours of 5:00am and 10:00pm.)
- Stage 1 demolition operations including saw-cutting of deck/girders, severing of transverse post-tensioning tendons, and lifting out girders (1 Day Closure between the hours of 5:00am and 10:00pm.)
- Stage 2 demolition operations including saw-cutting of deck/girders, severing of transverse post-tensioning tendons, and lifting out girders (1 Day Closure between the hours of 5:00am and 10:00pm.)

The Contractor shall notify all Emergency Services, as specified elsewhere in the contract, a minimum of fourteen (14) calendar days in advance of the scheduled roadway closure.

During the above closures, the Contractor shall implement a temporary detour and provide associated signage. During the Closure, the Contractor shall be prepared to accommodate emergency to cross the structure vehicles, as required.

2- TC-64 Signs shall be erected with the traffic control plan to provide advanced notification for the 24hr closures. Additional date tabs shall be created to advertise each closure 2 weeks in advance. When the signs are not advertising a closure the information is to be covered.

Proposed closure dates shall be clearly stated in the TCP and is subject to approval by the County.

The detour route and associated signage shall be setup, maintained and removed by the Contractor in conformance with OTM Book 7. The detour route shall follow County Road 3 > County Rd 1 > County Rd 43 or County Rd 16 > County Rd 5 > County Rd 31 > County Rd 38.

SDG will also permit usage of SDG 3 > Cameron Rd > Development Rd > SDG.

Traffic Control Delineation and Operation

Prior to commencing any construction pursuant to this Contract, the Contractor shall supply and place all necessary temporary traffic control devices.

Vehicle Access to Entrances and Side Roads

The Contractor shall not block access to private entrances. Should temporary loss of access/egress be necessary to complete the work outlined in the Contract, the Contractor must provide a minimum of 24 hr prior notification to the business or resident(s), notifying them of the work being undertaken. Such notification regarding the temporary loss of access/egress is the sole responsibility of the Contractor.

This requirement will not be considered for separate payment.

Line Painting

Temporary line painting treatments required for this Contract shall be in accordance with OTM Book 7 and 11 and shall be shown in the TCP. Payment for the temporary line painting shall be paid under the appropriate item, as defined elsewhere under the Contract.

Signage

The Contractor shall be responsible for all aspects of traffic control during construction. This includes the removal, installation or modification of any necessary regulatory signage due to the requirements of the traffic control plan and the supply, installation, maintenance and removal of all temporary regulatory/construction signage.

The Contractor shall post no parking signs throughout the limits of the Construction Zone.

Project information signage will be supplied and installed by the County. The County will provide and install all regulatory signage required after the completion of construction.

The Contractor shall not make any claim for extra compensation for the cost of fulfilling the obligations set out in this Special Provision.

Notification to Concerned Bodies

The Contractor shall notify emergency services, applicable school boards and stakeholders of the construction duration and restrictions to regular traffic conditions as specified elsewhere in the Contract.

This requirement will not be considered for separate payment.

706.10 BASIS OF PAYMENT

706.10.01 Traffic Control Signing

Subsection 706.10.01 of OPSS 706 is deleted in its entirety and replaced by the following:

Payment at the Contract price for the above item shall be full compensation for all labour, equipment and material required to do the work. All research, preparation, implementation of the TCP, supply, installation, monitoring, operation, maintenance and removal of required traffic control devices, including signage, are deemed to be included with the item.

Payment shall be based upon the following schedule:

- a) 25% upon satisfactory submission of the TCP and installation of the control measures; and
- b) 75% pro-rated into equal payments over the term of the contract.

This payment schedule may only be modified as agreed upon in writing between the Contractor and the Contract Administrator.

SP4 – TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

OPSS.MUNI 805, November 2021, shall govern except as amended or extended herein.

805.01 SCOPE

Section 805.01 of OPSS 805 is amended by the addition of the following:

The work under this item includes completing and submitting the required documentation to the South Nation Conservation Authority (SNCA) to support the Conservation Authority Permit and the preparation, implementation and monitoring of an Erosion and Sediment Control Plan (ESCP) to prevent construction debris and sediment-laden runoff resulting from the Contractor's construction operations from entering all watercourses within or downstream of the Working Area.

805.04 SUBMISSION AND DESIGN REQUIREMENTS

Section 805.04 of OPSS 805 is amended by addition of the following:

Before commencing the Work, the Contractor shall submit to the Contract Administrator two (2) copies of a detailed Erosion and Sediment Control Plan (ESCP). The ESCP will consist of a written description and detailed drawings indicating the on-site activities and measures to be used to control erosion and sediment movement for each step of the Work, including provisions outlining the debris containment as part of the structure removal operations.

The County has applied for the 'Permit for Development Activity within a Regulated Area' and a copy of the permit and its conditions is attached.

Once the ESCP and other supporting documentation has been reviewed by the Contract Administrator (CA), the Contractor will submit the required documentation to the SNCA containing all information needed to satisfy the conditions of the permit.

805.07 CONSTRUCTION

Section 805.07 is amended by the addition of the following subsection:

805.07.19 General

The Contractor acknowledges that surface erosion and sediment runoff resulting from his construction operations will have a detrimental impact to any downstream watercourse, and that all construction operations that may impact upon water quality shall be carried out in a manner that strictly meets the requirements of all applicable legislation and regulations. As such, the

Contractor shall be responsible for carrying out his operations, and supplying and installing any appropriate control measures, so as to prevent sediment laden runoff or construction debris from entering watercourse within or downstream of the Working Area.

Where, in the opinion of the CA or Regulatory Agency, the installed control measures fail to perform adequately, the Contractor shall supply and install additional or alternative measures as directed by the CA or Regulatory Agency. As such, the Contractor shall have additional control materials on site at all times which are easily accessible and may be implemented by him at a moment's notice.

The Contractor shall ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the erosion and sediment control measures and informed of the consequences of the failure to comply with the requirements of all Regulatory Agencies and the specifications detailed herein.

The Contractor shall periodically, and when requested by the CA, clean out accumulated sediment deposits as required at the sediment control devices, including those deposits that may originate from outside the construction area. Accumulated sediment shall be removed in such a manner that prevents the deposition of this material into any watercourse and avoids damage to the control measure. The sediment shall be removed from the site at the Contractor's expense and managed in compliance with the requirements for excess earth material, as specified elsewhere in the Contract.

The Contractor shall immediately report to the Contract Administrator any accidental discharges of sediment material into a watercourse. Failure to report will be constitute a breach of this specification and the Contractor may also be subject to the penalties imposed by any applicable Regulatory Agency. Appropriate response measures, including any repairs to existing control measures or the implementation of additional control measures, shall be carried out by the Contractor without delay.

The sediment control measures shall only be removed when, in the opinion of the Contract Administrator, the measure or measures is no longer required. No control measure may be permanently removed without prior authorization from the Contract Administrator. All sediment and erosion control measures shall be removed in a manner that avoids the entry of any equipment, other than hand-held equipment, into any watercourse, and prevents the release of any sediment or debris into any sewer or watercourse within or downstream of the Working Area. All accumulated sediment shall be removed from the Working Area at the Contractor's expense and managed in compliance with the requirements for excess earth material, as specified elsewhere in the Contract.

805.09 MEASUREMENT FOR PAYMENT

Section OPSS 805.09 of OPSS 805 is deleted in its entirety. No measurement for payment shall be required.

805.10 BASIS OF PAYMENT

Section 805.10 of OPSS 805 is deleted in its entirety and replaced by the following:

Payment at the contract price shall be full compensation for all equipment, materials, and labour to do the work. Partial payment shall be made on the following basis:

- 15% upon receipt of SNCA approval of designed ESCP;
- 15% for the submission of the ESCP and initial installation;
- 60% for maintenance, pro-rated over the course of the project;
- 10% for removal.

Where, in the opinion of either the Contract Administrator or a Regulatory Agency, any of the terms specified herein have not been complied with or performed in a suitable manner, or at all, the Contract Administrator or Regulatory Agency has the right to immediately suspend work at the site until appropriate measures are implemented to rectify the defaults or deficiencies at the site. No compensation will be owed or paid to the Contractor for suspension of the work resulting from noncompliance with the requirements of this specification or the Regulatory Agencies.



SOUTH NATION
CONSERVATION
DE LA NATION SUD

Permit No. 2024-NDU-R204

PERMIT FOR DEVELOPMENT ACTIVITY WITHIN A REGULATED AREA

Section 28.1 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27
& Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits



Permit Holder: The United Counties of SDG
Attn: Matthew Brownell
26 Pitt Street
Cornwall, ON
K6J 3P2

Decision: **Approved With Conditions**

Issued: December 13, 2024
Expires: December 13, 2026

Work Description: Inkerman Bridge Superstructure Replacement

Location: Inkerman, Township of North Dundas
45°02'04.3"N 75°23'42.6"W
Lot 18, Concession 3, Geographic Township of Mountain

The attached Schedules form part of this permit for the approved work and must be implemented in accordance with the stated conditions. A copy of this permit must be kept at the worksite.

The Permit Holder, by acceptance and in consideration of the issuance of this permit, agrees to the permit conditions.

Dated at Finch, Ontario, this 13th day of December 2024.



Jennifer Boyer, M.Sc., MCIP RPP
Managing Director, Approvals

South Nation Conservation
jbover@nation.on.ca



Permit No. 2024-NDU-R204

SCHEDULE A: WORK DESCRIPTION

SNC understands the following work will be completed (the "Work"):

1. The Inkerman bridge will be replaced and there will be miscellaneous repairs of the abutments.
2. There will be no in-water work.

The details of the Work are outlined in the following documents forwarded to SNC:

1. South Nation Conservation Section 28.1 Permit Application Form – Signed by Mike Jans, dated October 28, 2024.
2. Drawing Package: "Inkerman Bridge Replacement", Structure No. 03-124, prepared by Morrison Hershfield, dated December 2023, rev. November 17, 2023.



Permit No. 2024-NDU-R204

SCHEDULE B: CONDITIONS

The Permit Holder must adhere to the following conditions for permit compliance:

1. Prior to work commencement, the Contactor shall submit an erosion and sediment control plan to SNC, containing the following:
 - a) Identify who is responsible to install inspect, maintain and remove the control measures;
 - b) Identify the inspection and maintenance schedule (how, when, how often i.e. daily/weekly);
 - c) Indicate which control measures are proposed, their location and corresponding OPSD number; and
 - d) Indicate that it is to be considered a "Living Document" which may be modified in the event the control measures are insufficient.



Permit No. 2024-NDU-R204

SCHEDULE C: ADDITIONAL COMMENTS

SNC makes the following additional comments:

1. This permit does not review, certify, or provide permission for any works that may be located outside the above noted property boundary.
2. Nothing in this permit relieves the Permit Holder(s) from obtaining, where necessary, regulatory approval from any other agency, government including the Majesty the King in Right of Ontario, municipality, landowner, or authority having legal jurisdiction regarding development at the above noted location or any adjacent lands that may be impacted by the Work. SNC makes no representation and has made no representation as to whether the Permit Holder(s) must obtain any other approval(s) regarding the Work. SNC hereby confirms that it is the Permit Holder(s)' sole and complete responsibility to ensure that it applies for and obtains all necessary regulatory approvals prior to undertaking the Work.
3. Permit review completed by L. Crites. Technical review completed by F. Forough.



Permit No. 2024-NDU-R204

SCHEDULE D: GENERAL CONDITIONS

1. Term

This permit is valid for 24 months from the date of issuance. No notice will be issued on expiration. It is the responsibility of the Permit Holder to ensure a valid permit is in effect at the time the Work is occurring. The Permit Holder may, at least 60 days before the expiry of the permit, apply to SNC and pay a fee for an extension of the permit.

2. Other Permits and Permissions

This permit does not relieve the Permit Holder of the responsibility to obtain any other documents or permits that the Work may require from the Government of Canada, the Government of Ontario, or the local municipality. It is the responsibility of third-party agents to secure property owner permission to undertake the Work.

3. Right to Hearing

A Permit Holder who disagrees with the conditions attached to their permit has the right to request a hearing before the SNC Board of Directors. Please contact our office for further details.

4. Property Entry

SNC may enter the subject property where the Work is taking place during the permit's period of validity to ensure compliance with the conditions of the permit. SNC shall give reasonable notice of the entry to the Permit Holder or occupier of the property.

5. Cancellation of Permit

SNC may cancel a permit or change the permit conditions if:

- a) false information was submitted as part of the permit application; or
- b) the Work deviates from the conditions of the permit without SNC's prior written approval.

6. Offences

It is an offence to undertake work in a regulated area without a permit or to contravene the conditions of a permit. A person who commits an offence under the *Conservation Authorities Act* is liable on conviction:

- a) in the case of an individual,
 - (i) to a fine of not more than \$50,000 or to a term of imprisonment of not more than three months, or to both, and



Permit No. 2024-NDU-R204

- (ii) to an additional fine of not more than \$10,000 for each day or part of a day on which the offence occurs or continues; and
- b) in the case of a corporation,
 - (i) to a fine of not more than \$1,000,000, and
 - (ii) to an additional fine of not more than \$200,000 for each day or part of a day on which the offence occurs or continues.

Despite the maximum fines, a court that convicts a person of an offence may increase the fine it imposes on the person by an amount equal to the amount of the monetary benefit that was acquired by the person, or that accrued to the person, as a result of the commission of the offence.

In addition to any other remedy or penalty provided by law, the court, upon convicting a person of an offence, may order the convicted person to,

- a) remove, at the convicted person's expense, any development within such reasonable time as the court orders; and
- b) take such actions as the court directs, within the time the court may specify, to repair or rehabilitate the damage that results from or is in any way connected to the commission of the offence.

7. Liability

The Permit Holder acknowledges that the sole function of this permit is to confirm the Work is consistent with Part VI of the *Conservation Authorities Act*, O. Reg. 41/24, and SNC policies. SNC makes no representations or warranties regarding any other aspect of the Work.

By accepting this permit, the Permit Holder agrees:

- a) to indemnify and save harmless, SNC and its officers, employees, and agents, from and against all damage, injury, loss, costs, claims, demands, actions, and proceedings, arising out of or resulting from any act or omission of the Permit Holder or of any of their agents, employees, or contractors relating to any of the particular terms or conditions of this permit; and
- b) that this permit shall not release the Permit Holder from any legal liability or obligation and remains in force subject to all limitations, requirements, and liabilities imposed by law.

SNC assumes no responsibility or liability for flood, erosion, or slope failure damage that may occur to the subject property, nor any activity undertaken by the Permit Holder affecting the property interests of adjacent landowners.

SP5 – TEMPORARY CONCRETE BARRIER, RELOCATION & ADDITIONAL RELOCATIONS

OPSS.MUNI 741, November 2021, shall govern except as amended or extended herein.

741.01 SCOPE

Section 741.01 of OPSS 741 is amended by the addition of the following:

Work under the tender item ‘Temporary Concrete Barrier, Relocation’ shall include the relocation of temporary concrete barriers from the Stage 1 alignment to the stage 2 alignment.

Work under the tender item “Temporary Concrete Barrier, Additional Relocations” shall include any necessary relocations as chosen by the contractor of temporary concrete barriers to accommodate the stage 1 & 2 girder removal and erections.

741.09 MEASUREMENT FOR PAYMENT

741.09.01 Actual Measurement

741.09.01.02 Temporary Concrete Barrier, Relocation (m)

Clause 740.09.01.02 of OPSS 741 is amended by the addition of the following:

Should the Contractor be required to relocate or reposition the barriers to suit the Contractor’s own daily entry and exit from the work area or for other operations not specified above, no measurement will be made for any adjustments to the Temporary Concrete Barriers.

Clause 741.09.01.01 is amended by the addition of **Temporary Concrete Barrier, Additional Relocations (LS)**. Clause 741.09.01.03 is added as seen below.

Temporary Concrete Barrier, Additional Relocations (LS)

The Contractor may be required to adjust, reposition, or relocate the temporary barriers to accommodate the equipment required for girder removal and erection. Should the Contractor be required to relocate or reposition the barriers to suit the Contractor’s own daily entry and exit from the work area or for other operations not specified above, no measurement will be made for any adjustments to the Temporary Concrete Barriers.

Payment at the Contract price for the lump sum item shall be full compensation for all labour, Equipment, and Materials to remove, reposition and re-install the temporary concrete barriers throughout the duration of the project.

SP6 – ENERGY ATTENUATOR, RELOCATION, NARROW

OPSS.MUNI 723, November 2021, shall govern except as amended or extended herein.

723.01 SCOPE

Section 723.01 of OPSS 723 is amended by the addition of the following:

Work under the tender item ‘Energy Attenuator, Relocation, Narrow’ shall include the relocation of energy attenuators from the Stage 1 alignment to the stage 2 alignment.

Work under the tender item “Energy Attenuator - Additional Relocations, Narrow” shall include any necessary relocations as chosen by the contractor of the energy attenuators to accommodate the stage 1 & 2 girder removal and erections.

723.09 MEASUREMENT FOR PAYMENT

723.09.01 Actual Measurement

723.09.01.03 Energy Attenuator, Relocation, Narrow (Each)

Clause 723.09.01.03 of OPSS 723 is amended by the addition of the following:

Should the Contractor be required to relocate or reposition the Energy Attenuators to suit the Contractor’s own daily entry and exit from the work area or for other operations not specified above, no measurement will be made for any adjustments to the Energy Attenuator.

Clause 723.09.01.01 is amended by the addition of **Energy Attenuator, Additional Relocations (LS)**. Clause 723.09.01.04 is added as seen below.

Energy Attenuator, Additional Relocations (LS)

The Contractor may be required to adjust, reposition, or relocate the temporary energy attenuators to accommodate the equipment required for girder removal and erection. Should the Contractor be required to relocate or reposition the energy attenuators to suit the Contractor’s own daily entry and exit from the work area or for other operations not specified above, no measurement will be made for any adjustments to the Energy Attenuators.

Payment at the Contract price for the lump sum item shall be full compensation for all labour, Equipment, and Materials to remove, reposition and re-install the temporary energy attenuators throughout the duration of the project.

**SP7 – REMOVAL OF ASPHALT PAVEMENT – FULL DEPTH
REMOVAL OF ASPHALT PAVEMENT – PARTIAL DEPTH
SAW-CUTTING OF ASPHALT**

OPSS.MUNI 510, November 2018, shall govern except as amended or extended herein.

510.01 SCOPE

Section 510.01 of OPSS 510 is amended by the addition of the following:

Work under the tender item ‘Removal of Asphalt Pavement – Full Depth’ shall include the full depth removal of the asphalt at the structure approaches to the limits detailed in the Contract Documents.

Work under the tender item ‘Removal of Asphalt Pavement – Partial Depth’ shall include the partial depth removal of the asphalt at the limits of asphalt removal at the approaches to the limits detailed in the Contract Documents.

Work under the tender item ‘Saw Cutting of Asphalt’ shall include the following:

- a) Transverse full depth saw cutting of the existing asphalt at the limits of removals at the approaches as identified in the Contract Documents; and
- b) Longitudinal partial depth saw cutting of the existing asphalt on the approaches between stages.

510.07 CONSTRUCTION

510.07.06 Pavement Work

510.07.06.02 Cutting Existing Pavement

Clause 510.07.06.02 of OPSS 510 is amended by the addition of the following:

The thickness of asphalt for removals at the approaches shall be assumed to vary up to a maximum thickness of 150 mm which shall be validated by the Contractor upon commencement of saw-cutting operations.

SP8 – EARTH EXCAVATION, GRADING

OPSS.MUNI 206, April 2019, shall govern except as amended or extended herein.

206.01 SCOPE

Section 206.01 of OPSS 206 is amended as follows:

Work under this item shall include all miscellaneous grading and earth excavation required for this project, including, but not limited to, the following:

- a) Grading of the shoulders and to facilitate construction of the new curb and gutter.
- b) Grading, earth excavation and disposal of excavated materials as required on the roadway, shoulders and side slopes as part of the reinstatement of hot mix asphalt.
- c) Re-grading of side slopes for placement of topsoil.
- d) Any other grading as required as part of site restoration.

Earth excavation to facilitate modification of the existing substructure and construction of the new semi-integral deck end shall be as specified elsewhere in the Contract Documents.

206.05 MATERIALS

Section 206.05 of OPSS 206 is added as follows:

Granular A shall conform to OPSS 1001.

206.09 MEASUREMENT FOR PAYMENT

Section 206.09 of OPSS 206 is deleted in its entirety and replaced with the following:

There shall be no measurement for payment required for this item.

206.10 BASIS OF PAYMENT

Section 206.10 of OPSS 206 is deleted in its entirety and replaced with the following:

Payment at the Contract price for the lump sum item shall be full compensation for all labour, Equipment, and Materials to do the work.

Payment for Granular shall be paid under the appropriate item.

SP9 – HL3 HOT MIX PAVING (3x 2-50mm Base & 40mm Surface, 140mm total)

OPSS.MUNI 310, November 2017 shall govern except as amended or extended herein.

The Contractor is hereby advised that the Owner invokes Appendix 310-B, November 2017 of OPSS.MUNI 310. The supplementary requirements of Appendix 310-B shall apply to the Contract.

Under this item and for the Contract Unit price, the Contractor shall supply all labour, equipment, materials and transportation necessary to complete the item.

Anticipated Work Flow

It is anticipated that upon completion of Stage 1 construction that only the necessary amount of base lift asphalt will be reinstated to switch to Stage 2 configuration. All edges are to be properly ramped and maintained for the period of Stage 2 construction. It is anticipated that the remaining asphalt removal, grading & paving will be completed upon removal of the temporary concrete barriers and energy attenuators. Appropriate ramping, signage and surface drainage is to be maintained during these times.

Material

1. **Asphalt: HL-3 as per OPSS.MUNI.1150: where specified in the 'Form of Tender'**
2. **Performance Graded Asphalt Cement: PG-AC 58-34 as per OPSS.MUNI.1101**

Amendment to OPSS.MUNI 1101 November 2016 – Material Specification for Performance Graded Asphalt Cement

1101.04 Design and Submission Requirements

1101.04.01 Submission Requirements

1101.04.01.01 PGAC Test Documentation

Clause 1101.04.01.01 of OPSS.MUNI 1101 is amended by the addition of the following:

- Test results for the product demonstrating compliance to the requirements of Table 1.
- A two (2) litre sample of the asphalt cement for each grade of asphalt cement for possible owner testing.

The Contract Administrator shall review the test results submitted and may elect to have quality assurance testing undertaken at the same time on the sample(s) provided. No asphalt mix shall be placed until the Contract Administrator provides written confirmation of the conformance of the PGAC to the requirements of the Contract Documents based on the submitted test results and owner quality assurance testing. Within ten (10) Business Days of receipt of the Contractor samples and test results, the Contract Administrator shall provide confirmation of conformance or shall advise of any non-conformance to the Contract requirements. Confirmation of

conformance to Contract requirements does not constitute any guarantee that the mix can be produced or constructed or both to Contract requirements and does not relieve the Contractor of the responsibility for ensuring the specified quality of materials and workmanship.

1101.05 Materials

Delete:

“The asphalt cement shall not contain any of the following additives added for PGAC modification: atactic polypropylene; carbon black; polyisobutylene; polyisoprene; natural rubber; alkaline bases; insoluble particulates or fibres; salts of iron, copper, manganese and/or cobalt; silicates; styrene-butadiene rubber (random copolymer latex); synthetic waxes (paraffin waxes, naphthenic waxes); synthetic and saturated oils (including but not limited to the following: vegetable oils or modified vegetable oils; (paraffin oils, polyalphaolefins (PAO), lube oils, and re-refined lube oils.); waste oils (including but not limited to the following: cracked residues, re-refined high vacuum distillate oils; tall oils, vacuum tower asphalt extenders; waste cooking oils, waste engine oils, waste engine oil residues). Asphalt cement supplier shall declare in writing that they have not added the PGAC additives listed”

And replace with:

“The asphalt cement shall not contain any of the following additives added for PGAC modification: atactic polypropylene; carbon black; polyisobutylene; polyisoprene; natural rubber; alkaline bases; insoluble particulates or fibres; salts of iron, copper, manganese and/or cobalt; silicates; styrene-butadiene rubber (random copolymer latex); synthetic waxes (paraffin waxes, naphthenic waxes); synthetic and saturated oils (including but not limited to the following: vegetable oils or modified vegetable oils; (paraffin oils, polyalphaolefins (PAO), lube oils, and re-refined lube oils.); waste oils (including but not limited to the following: cracked residues, re-refined high vacuum distillate oils; tall oils, vacuum tower asphalt extenders; waste cooking oils, waste engine oils, waste engine oil residues). The asphalt cement supplier shall declare in writing that none of the PGAC additives listed above are contained within the asphalt cement”

1101.08 Quality Assurance

1101.08.03 Sampling

1101.08.03 is amended by the addition of the following:

It shall be the responsibility of the Contractor when using RAP to ensure the liquid asphalt cement in the final mix complies with Table 1.

1101.08.04 Quality Assurance Testing

1101.08.04 is amended by the addition of the following:

The Owner reserves the right to complete quality assurance testing on asphalt cement extracted from the HMA laid in the field as part of this contract. The test results obtained from the extracted asphalt cement may be used by the owner for acceptance.

Table 1 of OPSS.MUNI 1101 is deleted in its entirety and replaced with the following:

Table 1 – Additional testing requirements and acceptance criteria for PGAC grades

PGAC Grade	Property and Attributes (Unit)		Test Method	Results Reported Rounded to the Nearest	Acceptance Criteria	Rejectable
All PGAC Grades	Ash Content, % by mass of residue (%)	PG XX-28	LS-227	0.01	≤ 0.6	> 0.6
		PG XX-34			≤ 0.6	> 0.6
		PG XX-40			≤ 0.6	> 0.6
	Low temperature limiting grade (LTLG) (°C)		LS-308	0.5	$\leq -YY$	$> -YY$
	Grade Loss (°C)		LS-308	0.5	≤ 6.0	> 6.0
	Non-recoverable creep compliance at 3.2 kPa ($J_{nr-3.2}$) (kPa^{-1})		AASHTO T 350 For testing temperature see Note 1	0.01	< 4.5	≥ 4.5
	Average percent recovery at 3.2 kPa ($R_{3.2}$) (%)			0.1	\geq the lesser of [(29.371) ($J_{nr-3.2}$) ^{-0.2633}] or 50	$<$ the lesser of [(29.371) ($J_{nr-3.2}$) ^{-0.2633} -10] or 50
	CTOD, δ_t (mm)	PG XX-28	LS-299	0.1	≥ 8.0	< 8.0
PG XX-34		≥ 12.0			< 12.0	
PG XX-40		≥ 16.0			< 16.0	
Notes: 1. The testing temperature shall be 58°C (Zone 2)						

Amendment to OPSS.MUNI 1150 November 2008– Material Specification for Hot Mix Asphalt

1150.04.01.01.01 Reclaimed Asphalt Pavement Proportions

Clause 1150.04.01.01.01 Reclaimed Asphalt Pavement Proportions, is amended by the addition

of the following:

The use of RAP shall not be permitted in top course mixes. The use of RAP is permitted in base course mixes (where applicable) provided that it can be demonstrated that the extracted AC from the RAP conforms with OPSS MUNI 1101 (above).

Equipment Requirements

Material Transfer Vehicle

Cat AP1000 Paver (Or brand of equivalent size and capabilities)

310.07.11.04 Paving on Bridge Decks

The temperature of the HMA immediately after spreading shall not be less than 115 degrees C. The temperature of the HMA mat ahead of initial rolling shall be measured and recorded. Compaction shall be accomplished using, as a minimum,

- a) a Class S roller with a minimum mass of 9 tonnes and minimum mass of 4.5 kg per mm total roll width, and
- b) Class R roller with a minimum mass of 18 tonnes and minimum mass of 2,500 kg per tire.

The operating speed of Class S rollers shall not exceed 5 km/h and shall be operated in a manner to avoid undue displacement of the HMA. If Class V rollers are used, they shall be used in static mode. Rollers shall operate with the drive wheel forward in the direction of paving.

The mixture shall be uniformly compacted as soon after placing as it can support the rollers without checking or undue displacement. Rolling shall start longitudinally at the lower edge and proceed towards the higher edge of the course, overlapping on successive passes. Alternate passes of the roller shall be staggered.

Passes by the Class R roller shall overlap previous passes. The roller shall be operated to prevent pick-up of the HMA on the tires.

SP10 – PAVEMENT MARKING, TEMPORARY PAVEMENT MARKING, PERMANENT

OPSS.MUNI 710, November 2021, shall govern except as amended or extended herein.

710.01 SCOPE

Section 710.01 of OPSS 710 is amended by the addition of the following:

Work under this item ‘Pavement Marking, Temporary’, shall include all temporary pavement markings required for staging of the work, including, but not limited to, temporary removable stop bars and short-term pavement markings demarcating the travelled lanes between stages (as required).

Work under this item ‘Pavement Marking, Permanent’ shall include reinstatement of all existing pavement markings that are removed or eliminated as part of the construction activities.

710.07 CONSTRUCTION

Subsection 710.07.01 of OPSS 710 is amended by the addition of the following:

The Contractor shall document the location and nature of all existing pavement markings prior to construction. All existing pavement markings are to be reinstated.

SP11 – REMOVAL OF BRIDGE SUPERSTRUCTURE

OPSS.MUNI 510, November 2018, shall govern except as amended or extended herein.

510.01 SCOPE

Section 510.01 of OPSS 510 is amended by the addition of the following:

Work under the above tender item includes full removal of the existing superstructure in stages, as shown in the Contract Drawings. Work shall include but not be limited to the following:

- a) Review of reference drawings pertaining to bridge structures designated for removal and field-verification of all dimensions, details and elevations relevant to the work;
- b) Design, construction, maintenance, monitoring and removal of all required temporary support systems, shoring, falsework, temporary protection systems, including protection platforms, temporary bracing and debris containment systems to suit the Contractors removal operations/sequencing.
- c) Development and submission of detailed work plan as specified in Section 510.04.02.01 and amended herein.
- d) Staged removal of concrete deck/topping slab, sidewalks precast concrete girders, expansion joint system, wearing surface, waterproofing system, bearing assemblies, barrier system, embedded works and all other existing bridge structure elements to the limits shown in the Contract Documents.
- e) Saw cutting superstructure at staged removal limits, including severing transverse post-tensioning tendons.
- f) Removal of the abandoned gas main suspended from the existing structure and wingwalls.
- g) Disposal off site of all removed materials and debris in accordance with OPSS 180.
- h) Collection, containment, and disposal of effluents associated with cutting of concrete (as required).
- i) Earth excavation, grading and backfilling required to facilitate structure demolition that is not specified as earth excavation elsewhere in the Contract Documents.
- j) Pre-construction survey to confirm all existing and theoretical-new elevations reported in the Contract Drawings.

Where stockpiling materials on site is required, the Contractor shall submit a plan to the Contract Administrator for approval prior to construction. The stockpile plan shall detail the type of material, and location where the materials shall be stored with approximate dimensions and distances from roadways, ditches, creeks, rivers, streams, etc. The plan shall also outline the environmental mitigation measures that shall be implemented to prevent sediment and other deleterious materials from being transported beyond the stockpile boundaries.

Full depth removal of substructure elements including on the wingwalls and ballast walls shall be as specified elsewhere in the Contract Documents.

Prior to removal of the bridge superstructure, the Contractor shall salvage the existing plaque in the southeast barrier wall. The salvaged plaque shall be provided to the County.

The Contractor is hereby notified that racoon SKAT is present on the abutment bearing seats and specialized worker protection and removal procedures will be required. All work associated with cleanup of the bearing seats is deemed to be included as part of the appropriate concrete removal items.

510.04 DESIGN AND SUBMISSION REQUIREMENTS

510.04.01 Design Requirements

OPSS 510.04 is amended by the addition of the following subsection:

510.04.03 Survey

At least fourteen (14) days prior to undertaking any removals, the Contractor shall submit to the Contract Administrator, three sets of the Elevation Survey Plan reports, for information purposes only, which shall include the following survey information:

- Top of bridge deck joint elevations at the bottom of existing curbs, existing crown and two intermediate points.
- Top of concrete elevations at top of existing curbs and inside face of curb.
- Top of existing bearing seat elevation at each bearing
- Top of existing wingwalls (taken at the inside face of barrier wall) at the expansion joint and end of wingwall.

All reported elevations shall be within 1mm. The drawing shall report the tolerance of the survey and shall bear the signature and seal of a registered Ontario Land Surveyor.

510.07 CONSTRUCTION

510.07.10 Management of Excess Material

Clause 510.07.01.05 of OPSS 510 is amended by the addition of the following:

Excess material resulting from the removal work or associated construction activities shall remain the property of the Contractor and shall be removed at the Contractors expense. The Contractor is hereby notified that the prestressed box girders may contain original formwork.

SP12 – EARTH EXCAVATION FOR STRUCTURE GRANULAR A BACKFILL TO STRUCTURE

OPSS.MUNI 902, November 2021, shall govern except as amended or extended herein.

902.01 SCOPE

Section 902.01 of OPSS 902 is amended by the addition of the following:

Work under these tender items shall include all labour, Equipment and Material required to complete the earth excavation and backfilling for the removal of the existing superstructure, modification of the existing substructure, and construction of the new superstructure as detailed in the Contract Documents.

Prior to proceeding with the work, the Contractor shall locate all utilities as specified elsewhere in the Contract. The Contractor shall provide protection to existing utilities affected by excavations for the duration of the work so as not to cause damage. Temporary support and protection of utilities shall be to the satisfaction of the Contract Administrator.

All excavation and backfill completed beyond the approach slab shall be as specified elsewhere in the Contract Documents.

902.07 CONSTRUCTION

902.07.05 Excavation

902.07.05.01 General

Clause 902.07.05.02 of OPSS 902 is amended by the addition of the following:

Excavations shall be carried out in accordance with the Occupational Health and Safety Act (OHSA). Most of the native soils may be classified as Type 3 above the water table and Type 4 below the water table. The Contractor shall make their own assumptions as to anticipated protection schemes and sloping requirements at the site.

902.07.09 Management of Excess Soil

Subsection 902.07.09 of OPSS 902 is amended by the addition of the following:

Any surplus excavated soil generated as a result of the Work, that cannot be beneficially reused within the Project Area (subject to approval of the Contract Administrator), shall be disposed of at the following disposal site:

- Boyne Road Landfill, 12620 Boyne Rd., Winchester, ON, K0C2K0, 613-774-5157

The Contractor shall provide 48 hours' notice to the Contract Administrator to allow for coordination of the disposal.

902.09 MEASUREMENT FOR PAYMENT

902.09.01 Actual Measurement

902.09.01.01 Excavation for Structure

The second sentence of Clause 902.09.01.01 of OPSS 902 shall be deleted in its entirety and replaced with the following:

Measurement for excavation shall be based on the limits depth shown on the Contract Drawings. Plan dimensions behind the abutments are bounded by the inside face of wingwalls, inside face of the abutments, and end of approach slab.

SP 13 – AMENDMENTS TO OPSS 904

OPSS.MUNI 904, November 2023, shall govern except as amended or extended herein.

904.07 CONSTRUCTION

904.07.04.03 Pre-wetting

Clause 904.07.04.03 of OPSS 904 is amended by deleting the first paragraph in its entirety and replacing it with the following:

All concrete surfaces to receive concrete shall be maintained in a wet condition for a period of two (2) hours prior to placing any new concrete.

904.07.04.04 Bonding Agent

Clause 904.07.04.04 of OPSS 904 is deleted in its entirety and replaced with the following:

Bonding agents shall not be permitted. Existing concrete shall be saturated surface dry (SSD) at the time of placement.

904.07.20 Early Loading of Structural Concrete

Section 904.07 of OPSS 904 is amended by the addition of the following subsection:

Full design loads shall not be applied to the structure until the specified 28-day compressive strength has been attained. Early loading of a structural component is not permitted unless expressly stated otherwise in the Contract Documents, subject to the following conditions:

- a) Prior to any early loading the Contractor shall demonstrate that the concrete has reached a compressive strength of 20MPa, by preparing, curing and transporting early strength cylinders, in addition to the cylinders required for 28-Day compressive strength, according to the Testing for Early Strength requirements of this specification.
- b) Subsequent placement of reinforcement, formwork, falsework and concrete on all other structural components shall not be carried out until the concrete has reached a compressive strength of 20MPa, unless otherwise specified in the Contract Documents.
- c) Early loading of concrete is not permitted where cold weather protection is required, with the exception of working slabs.
- d) Construction vehicles shall not be permitted on concrete that has not reached a compressive strength of 20MPa.
- e) Full curing is to be maintained at all times as specified in the Contract Documents, regardless of attainment of design strength prior to the end of the curing period.

904.08 QUALITY ASSURANCE

OPSS 904.08 is amended by the addition of the following:

The Contractor shall be responsible for field sampling and testing of concrete as follows:

- Slump, air content and temperature of plastic concrete;
- The making and curing of concrete cylinders for compressive tests;
- Transportation of the cylinders to the approved testing facilities; and
- All destructive testing including 7- and 28-day strength tests and all early breaks.

Compressive strength tests shall be undertaken at 7 and 28 days at a minimum. Any additional early strength testing shall be undertaken in accordance with OPSS 904.07.16 and this Special Provision.

Persons sampling and field-testing concrete shall have a card issued by the certifying agency in their possession verifying the status of the individual's certification.

SP14 – CONCRETE IN DECK

CONCRETE IN SIDEWALK

OPSS.MUNI 904, November 2023, shall govern except as amended or extended herein.

904.01 SCOPE

Section 904.01 of OPSS 904 is amended by the addition of the following:

Work under the tender item 'Concrete in Deck' includes, but is not limited to, the following:

- a) Supply and placement of all concrete in the deck and girder haunches.
- b) Supply and placement of all concrete in the semi-integral deck thickening and overhang.
- c) Supply and placement of all concrete in the deck ends and abutment diaphragms to the underside of girder.
- d) Installation of drip details in overhangs, as shown on the Contract Drawings.

Work under the tender item 'Concrete in Sidewalk' includes, but is not limited to, the following:

- a) Supply and placement of all concrete in the sidewalk on the superstructure above the deck construction joint as shown in the Contract Drawings.
- b) Supply and placement of all concrete in sidewalk on the approach slabs above the deck construction joint as shown in the Contract Drawings.

All work shall be staged as specified elsewhere in the Contract Documents.

SP15 – CONCRETE IN PARAPET WALLS

OPSS.MUNI 904, November 2023, shall govern except as amended or extended herein.

904.01 SCOPE

Section 904.01 of OPSS 904 is amended by the addition of the following:

Work under this item shall include, but not be limited to, the following:

- a) Supply and placement of all concrete parapet walls on the superstructure and wingwalls.
- b) All work associated with implementing a textured surface using the specified formliner including application of an approved release agent, if required, and any touch-up to the textured surface to the satisfaction of the Contract Administrator.

904.05 MATERIALS

Section 904.05 of OPSS 904 is amended by the addition of Subsection 904.05.15 as follows:

904.05.15 Other Materials

Formliner for the inside face of the parapet walls shall be *Sika Split Face Block (Item#342)*, or approved equivalent. Total relief for the textured surface shall not exceed 20mm.

SP16 – CONCRETE IN SUBSTRUCTURE

OPSS.MUNI 904, November 2023, shall govern except as amended or extended herein.

904.01 SCOPE

Section 904.01 of OPSS 904 is amended by the addition of the following:

Work under this item shall include, but not be limited to, the following:

- a) Supply and placement of all concrete in the reconstructed bearing seats, bearing pedestals, ballast walls and wingwalls (to the underside of parapet).
- b) Supply and placement of the expanded polystyrene, EVA Foam, asphalt impregnated fibre board and joint filler, and filter fabric on and near the deck ends and abutment cleats.
- c) Supply and placement of the elastomeric bearing strip on the ballast wall.
- d) Coring through existing abutment wingwalls for new sleeves to receive perforated subdrains.
- e) Supply and placement of the 150 mm diameter perforated pipe subdrain behind the abutments, including wall drain sleeve and rodent gates.
- f) Supply and placement of the clear stone and geotextile associated with the abutment subdrains.
- g) Supply and placement of the Wabo Inverseal seal (or approved equivalent) at the interface between the wingwalls and superstructure as shown in the Contract Drawings.
- h) Installation of drip detail in wingwall overhangs, as shown in the Contract Drawings.
- i) Supply, installation and removal of figure forms on the wingwall fascia for the site number and date layout.

904.05 MATERIALS

Section 904.05 of OPSS 904 is amended by the addition of Subsection 904.05.15 as follows:

904.05.15 Other Materials

Polystyrene:

Expanded, extruded polystyrene boards shall conform to the requirements of CAN/ULC – S701 Type 4 except for compressive strength. The minimum vertical compressive strength shall be 400 kPa at 5% deflection or yield.

Top of Ballast Wall Elastomeric Bearing Strip:

The elastomeric bearing strip along the top of the ballast wall shall be plain, of natural rubber. Elastomeric bearing strip shall conform to the plain bearing requirements of OPSS 1202 except that the size shall be 25 mm thick x width of the ballast wall as detailed in the Contract Documents.

Subdrain:

Subdrain pipe sleeve shall be galvanized corrugated steel pipe in accordance with OPSS 1801.

Perforated subdrain shall be polyethylene plastic pipe in accordance with OPSS 1840.

Filter Fabric:

Filter fabric shall be a woven Class II geotextile according to OPSS 1860, with an FOS of 125 – 250 µm. Filter fabric shall be installed at the locations and to the dimensions shown on the Contract Drawings. Placement of the filter fabric shall be compatible with the construction sequence.

EVA Foam:

EVA foam means a closed-cell, flexible cellular foam product with a low density, cross-linked copolymers and containing ethylene vinyl acetate. EVA foam shall have a compression-deflection range of 34 to 62 kPa when compressed by 25% or its original thickness (according to ASTM D1056-14). The material does not require any specific resistance to the action of petroleum base oils.

Adhesion shall be commercial grade as recommended by the EVA foam manufacturer and shall be compatible and appropriate for its intended use.

904.07 CONSTRUCTION

Section 904.07 of OPSS 904 is amended by the addition of Subsection 904.07.20 as follows:

904.07.20 Additional Construction Requirements

EVA Foam shall be installed at locations as indicated on the Contract Drawings along the deck end diaphragm and wingwall. Placement of the EVA Foam shall be compatible with the concrete placement sequence. EVA foam shall be uniformly attached to all fixed concrete surfaces by means of an adhesive. Adhesive for EVA foam installation shall be applied to concrete surfaces that are free of dust, dirt, debris, and loose concrete. When EVA foam thickness specified in the Contract Drawings is greater than thickness commercially available, multiple layers of EVA foam may be used to meet the specified thickness. Multiple layers of EVA foam shall be fully bonded to each other using adhesive. The length of continuous EVA foam shall be the lesser of the element length or 1.2 m.

Filter fabric shall be installed at locations as indicated on the Contract Drawings at the deck end diaphragm and wingwall transition. Placement of the filter fabric shall be compatible with the construction sequence.

The joint seal shall be installed at the locations and to the dimensions shown on the Contract Drawings. Placement of the joint seals shall be compatible with the construction sequence.

SP17 – CONCRETE IN APPROACH SLAB

OPSS.MUNI 904, November 2023, shall govern except as amended or extended herein.

904.01 SCOPE

Section 904.01 of OPSS 904 is amended by the addition of the following:

Work under this tender item shall include, but not be limited to, the following:

- a) Supply, placement and curing of concrete for the approach slab;
- b) Supply and placement of the asphalt impregnated fiber board at the end of the approach slabs;
- c) Supply and placement of type 'A' bituminous joint filler between the approach slab and the wingwall;
- d) Supply and placement of approach slab seat elastomer as detailed in the Contract Drawings.

904.05 MATERIALS

Section 904.05 of OPSS 904 is amended by the addition of Subsection 904.05.15 as follows:

904.05.15 Other Materials

Asphalt impregnated fibre board and joint filler shall be in accordance with OPSS 1308.

SP18 – PARAPET WALL RAILING

OPSS.MUNI 908, November 2022, shall govern except as amended or extended herein.

908.01 SCOPE

Section 908.01 of OPSS 908 is amended by the addition of the following:

Work under this tender item shall include, but not be limited to, the following:

- a) Fabrication, supply and installation of a metal railing system including all posts, end caps, connections and appurtenances as shown in the Contract Drawings.
- b) Shop-coating of the railing and posts using an approved low-VOC epoxy-zinc / epoxy / polyurethane coating system in accordance with the MTO Designated Sources for Materials and OPSS 911. Colour shall be black.
- c) All coating repairs of any components damaged during transportation, erection, or any other construction activities to the satisfaction of the Contract Administrator.

SP19 – ERECTION OF STRUCTURAL STEEL

OPSS.MUNI 906, November 2021 shall govern except as amended herein.

906.01 SCOPE

Section 906.01 of OPSS 906 is amended by the addition of the following:

Work under this tender item shall include, but not be limited to, the following:

- a) Coordination with the Fabricator in good faith to establish delivery criteria, obtain dimensional measurements, etc.
- b) Coordination with the Fabricator for delivery of the steel to site including preparation of an area to receive all structural steel that is not being immediately erected. The Contractor shall provide the Fabricator a minimum of 4 weeks of advanced notice prior to delivery. Steel will be supplied in two, separate deliveries.
- c) Unloading, assembly and erection of structural steel in stages.
- d) Field touch-up of any damage to the girder or diaphragm coating caused during unloading or other construction activities to the satisfaction of the Contract Administrator. Damage caused during transportation is the responsibility of the Fabricator.

Upon delivery and prior to unloading, the structural steel and coating system shall be inspected, and any damage shall be identified, photographed and reported to the Contract Administrator. All damage not identified prior to unloading shall be assumed to be the responsibility of the Contractor.

SP20 – BRIDGE DECK WATERPROOFING MEMBRANE REINFORCEMENT FORM AND FILL GROOVES

OPSS.MUNI.914, November 2014 shall govern except as amended herein.

The Contractor is hereby advised that the Owner invokes Appendix 914-B, November 2014 of OPSS 914. The supplementary requirements of Appendix 914-B shall apply to the Contract.

914.07 CONSTRUCTION

914.07.01 General

914.07.01.01 Bridge Deck Waterproofing

Clause 914.07.01.01 of OPSS 914 is amended by the addition of the following:

- i) Application of tack coat between the protection board and base course of asphalt.

914.07.05 Membrane Reinforcement

Subsection 914.07.05 is amended by the addition of the following:

Membrane reinforcement shall be placed over all construction joints in the deck and over the joint between the deck and approach slab at both ends of the structure.

914.07.07 Form and Fill Grooves

Subsection 914.07.07 is amended by the addition of the following:

Form and fill grooves shall be installed above the joint between the deck and approach slab at both ends of the structure approach slabs as detailed in the Contract Drawings.

SP21 – BEARINGS

OPSS MUNI.922, April 2017, shall govern except as amended or extended herein.

The Contractor is hereby advised that the Owner invokes Appendix 922-B, April 2011 of OPSS 922. The supplementary requirements of Appendix 922-B shall apply to the Contract.

922.01 SCOPE

Section 922.01 of OPSS 922 is amended by the addition of the following:

Work under this item shall include all labour, equipment and material to install the new abutment bearings as detailed on the Contract Drawings.

The Contractor is advised that the shoe plates and pintels have been fabricated in advance during a previous Contract. The Contractor shall coordinate with the Fabricator to obtain dimensional measurements and/or physical templates of the shoe plates and pintels and fabricate the bearings to suit. Fit-up issues related to the bearings shall be the sole responsibility of the Contractor.

Survey requirements and validation associated with the bearings shall be as specified elsewhere in the Contract Documents.

Any minor changes to dimensional measurements (thickness) to suit the bearing manufacturer design will not be considered for additional payment.

SP22 – ACCESS TO WORK AREA, WORK PLATFORM AND SCAFFOLDING

OPSS.MUNI 928, April 2019 shall govern except as amended herein.

928.01 SCOPE

Section 928.01 of OPSS 928 is amended by the addition of the following:

- a) All access requirements to complete all surveys, removal work, rehabilitation work and new construction, including provisions for staging, as specified in the Contract.
- b) Supply, placement and removal of all hoarding, debris platforms and required containment systems to accommodate work in the Contract, and to allow the Contract Administrator safe access to the work area(s) for the purpose of delineation, quality assurance, inspection, and measurement of the work.

928.04 DESIGN AND SUBMISSION REQUIREMENTS

928.04.01 Design Requirements

Clause 928.04.01 of OPSS 928 is amended by the addition of the following:

All platforms and scaffolding shall be designed to meet the operational constraints, erosion and sediment control protection measures and hydraulic clearance requirements.

The Contractor is solely responsible for ensuring the work platform and scaffolding meets the hydraulic requirements during construction.

SP23 – CONCRETE REMOVAL – PARTIAL DEPTH – TYPE C CONCRETE REMOVAL – FULL DEPTH

OPSS.MUNI 928, April 2019 shall govern except as amended herein.

928.01 SCOPE

Section 928.01 of OPSS 928 is amended by the addition of the following:

Work under 'Concrete Removal - Partial Depth Type C' shall include partial depth removal of deteriorated concrete from the existing abutment stems and wingwalls as directed by the Contract Administrator.

Work under 'Concrete Removal – Full Depth' (lump sum) shall include the following:

- a) Removal of the bearing seat, ballast wall and cleat to the limits shown on the Contract Drawings.
- b) Removal of the top of wingwalls to the limits shown on the Contract Drawings.
- c) Removal of the approach sidewalks within the plan limits of the wingwalls.
- d) Removal of existing barrier system on the wingwalls/approaches.
- e) Removal of racoon SKAT from the abutment bearing seats.

Removal of the existing superstructure and expansion joint system shall be as specified elsewhere in the Contract Documents.

Concrete removals shall be completed in stages as specified elsewhere in the Contract Documents and as directed by the Contract Administrator.

No concrete removals shall commence until the pre-construction survey has been completed, as specified elsewhere in the Contract Documents.

The Contractor is hereby notified that racoon SKAT is present on the abutment bearing seats and specialized worker protection and removal procedures will be required. All work associated with cleanup of the bearing seats is deemed to be included as part of the appropriate concrete removal items.

SP24 – CONCRETE PATCHES, FORM AND PUMP

OPSS MUNI.930, dated November 2014, shall govern except as amended or extended herein.

930.01 SCOPE

Section 930.01 of OPSS 930 is amended by the addition of the following:

Work under the tender items “Concrete Patches, Form and Pump” shall include, but not be limited, to supply, placement and curing of concrete required for the partial depth concrete repairs to the abutments and wingwalls as identified by the Contract Administrator.

930.03 DEFINITIONS

Section 930.03 of OPSS 930 is amended by the addition of the following:

Form and Pump Placement Methods means a method of placing concrete by pumping directly into formwork through injection ports.

Injection Port means a mechanical device with a manual shut-off that is attached to the formwork and connected to the discharge line of a pump to facilitate delivery of concrete directly into the formwork.

930.04 DESIGN AND SUBMISSION REQUIREMENTS

930.04.02 Submission Requirements

Section 930.04.02 of OPSS 930 is amended by the addition of the following subsection:

930.04.02.05 Placement Methods

When the form and pump placement method is specified in the Contract Documents or self-consolidating concrete is used, 4 copies of the details of the placement method shall be submitted to the Contract Administrator at least 3 Days prior to commencement of the work. The details shall include methodology and equipment to be used and shall bear the seal and signature of an Engineer.

930.05 MATERIALS

OPSS 930.05 is amended by the addition of the following:

Subsection 930.05.06 is deleted in its entirety. Bonding agents shall not be permitted.

930.06 EQUIPMENT

OPSS 930.05 is amended by the addition of the following subsection:

930.06.11 Form and Pump Placement Method Equipment

When the form and pump placement method is specified in the Contract Documents, the pump shall be a positive displacement type pump and shall be capable of delivering adequate volumes of concrete to maintain a continuous placement.

930.07 CONSTRUCTION

Section OPSS 930.07.05 is amended by the addition of the following item:

930.07.05 Concrete Patches, Form and Pump

Section OPSS 930.07.06.07 is amended by the addition of the following item:

930.07.06.07 Concrete Patches, Form and Pump

Section OPSS 930.07.06.07.06 is amended by the addition of the following item:

930.07.06.07.06 Concrete Patches, Form and Pump

SP25 – GLASS FIBRE REINFORCED POLYMER REINFORCING BAR

OPSS MUNI.950, dated November 2017, shall govern except as amended or extended herein.

950.05 MATERIALS

Section OPSS 950.05 is amended by the addition of the following subsection:

950.05.06 Suppliers

The GFRP reinforcing bar supplier shall be an approved supplier on the MTO Designated Sources of Material Index. Suppliers with “Conditional Qualification” are not permitted.

SP26 – SUPPLY AND INSTALL ALCHEMCO BRIDGEDECK WATERPROOFING AGENT ON SIDEWALK, INSIDE FACES AND TOPS OF PARAPET WALLS ACROSS STRUCTURE AND APPROACHES

PART 1 GENERAL

1.1 SECTION INCLUDES

- a) Spray Applied Integral Gel-Forming Concrete Treatment:
 - a. Clear, penetrating, breathable for use on concrete and masonry. No-VOC 0.00. (Alchemco, BridgeDECK Waterproofing Agent)

1.2 REFERENCES

- a) ASTM International (ASTM):
 - a. ASTM C672 - Standard Test Methods for Scaling Resistance
 - b. ASTM E514 - Standard Test Method for Water Permeability Test.
 - c. ASTM 7308 - Standard Test Method for Moisture Vapor Permeability.
 - d. NSF 61 – Potable Water Certification
 - e. Crack Sealing Ability
 - f. Future Crack sealing ability
 - g. ASTM C952 Bond Strength
 - h. Shear adhesion between concrete and asphalt (no issue)
 - i. Tensile strength test (increase by more than 53%)
 - j. Depth of penetration ($\frac{3}{4}$ "
 - k. Hardness test. Mohs Scale (increase by 2)
 - l. Non-Flammable
 - m. Slip Resistance (no change)
 - n. 0.00% VOC

1.3 SUBMITTALS

- a) Submit under provisions of Section 01300.
- b) Product Data: Manufacturer's specifications and technical data including the following:
 - a. Detailed specification of construction and fabrication.
 - b. Manufacturer's installation instructions.
 - c. Certified test reports indicating compliance with performance requirements specified herein.
 - d. Certification by gel-forming agent manufacturer that product supplied comply with local regulations controlling use of volatile organic compounds (VOC).
 - e. Corporate Letter of Compliance for required Product Performance

Characteristics.

- c) Quality Control Submittals:
 - a. Statement of qualifications.
 - b. Statement of compliance with Regulatory Requirements.
 - c. Field Quality Control Submittals as specified.
 - d. Manufacturer's field reports.

1.4 QUALITY ASSURANCE

- a) Installer Qualifications:
 - a. Firm experienced in installation or application of system or trained by manufacturer.
 - b. Acceptable to the manufacturer.
- b) Not less than 3 years' experience with waterproofing systems.

1.5 PRE-INSTALLATION MEETINGS

- a) Convene minimum two weeks prior to starting work of this section.

1.6 DELIVERY, STORAGE, AND HANDLING

- a) Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- b) Products must have lot code and production dates on containers.
- c) Storage and Protection: Comply with manufacturer's recommendations.
- d) Handling: Handle materials to avoid damage.

1.7 PROJECT CONDITIONS

- a) Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
- b) Environmental Requirements:
 - a. Maintain ambient temperature above 40 degrees F during installation.
 - b. Do not proceed with application on materials if ice or frost is covering the substrate.
 - c. Do not proceed with application if temperature of surface exceeds 95-degree F.
 - d. Do not proceed with the application of materials in rainy conditions or if heavy rain is anticipated within 2 hours after application.

- c) Application Coordination:
 - a. Verify compatibility with curing compounds, patching materials, repair mortar, paints, sealants, etc. to be used on concrete surfaces to ensure compatibility with the gel-forming treatment.

1.8 SEQUENCING

- a) Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.9 WARRANTY

- a) The system manufacturer shall furnish the Owner a written single source performance warranty that the Gel-Forming Treatment will be free of defects related to material deficiency from a period from the date of completion of the work provided under this section of the specification.
- b) Warranty Period:
 - a. Bridge Deck Waterproofing Agent 25 years (Project must be registered)

PART 2 PRODUCTS

2.1 MANUFACTURERS

- a) Acceptable Manufacturer: Alchemco, which is located at: 3532 Mayland Court, Henrico, VA 23233. Toll Free: 800-610-2895. info@alchecmo.com, www.alchemco.com
- b) Substitutions: Not permitted.

2.2 GEL-FORMING INTEGRAL CONCRETE TREATMENTS

- a) Product: BridgeDECK Waterproofing Agent as manufactured by Alchecmo.
 - a. Product shall comply with the following standards and performance:
 - b. Color: Clear liquid.
 - c. Surface Appearance - No change in the surface appearance or texture.
 - d. No Change in Surface Friction when comparing treated to untreated.
 - e. NSF 61 Potable Water Approved
 - f. No VOC (0.00)
 - g. Non-Toxic (safe for humans, marine life and plants) & Biodegradable
 - h. Scaling Resistant.
 - i. Seals Cracks up to 2.0mm.
 - j. Seals future cracks up to 0.4mm

PART 3 EXECUTION

3.1 EXAMINATION

- a) Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions that may be detrimental to proper or timely completion.
- b) Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- a) Surface Preparation:
 - a. Surfaces to receive gel-forming agent shall be cleaned of dirt, oil, grease, laitance, and other contaminants. Oil, grease and other automotive contaminants shall be removed with degreasers. All other surfaces shall be cleaned by high pressure water; 3000 psi. High pressure water is the minimum cleaning that will be accepted, other methods, such as blast-tracking, mobile power scrubbing and sandblasting may be submitted for approval.
 - b. Check the compatibility of all caulking, patching, and traffic marking materials to be used with the penetrating sealer.
- b) Sealants, patching materials, and expansion joints shall have been installed and approved by the Architect.

3.3 FIELD QUALITY CONTROL

- a) **Manufacturer's Field Services:**
 - a. Furnish written certification that surface preparation method and final condition has manufacturer's approval and comply with the warranty.
 - b. Furnish results of tests on each type of substrate to the manufacturer. Test results shall determine application rate for the entire project.

3.4 APPLICATION

- a) Product shall be applied as supplied by the manufacturer without dilution or alteration.
 - a. Apply at temperature and weather conditions recommended by the manufacturer or written in this specification.
 - b. Follow manufacturer's recommendations concerning protection of glass, metal and other non-porous substrates. Contractor will be responsible to clean all surfaces that are contaminated by the product.
 - c. Follow manufacturer's recommendation concerning protection of plants, grass and other vegetation. Contractor will be responsible for

replacing all plants, grass or vegetation damaged by the product.

b) Bridge Deck Waterproofing

- a. Make sure concrete is clean and dry. Cleaning can be achieved by power washing with concrete cleaner or mechanically, depending on the deck.
- b. Using a low-pressure sprayer (backpack) flood the cracks with Bridge Deck Waterproofing Agent. Then apply the Agent to entire deck surface at a rate of 200 sq/ft per gallon. Allow product to dry and penetrate into the concrete. Once product has dried go to part c. If product has not dried within 5 ½ hours go to part c. Very important: do not go past 5 ½ hours without watering the concrete surface, even if it is still wet.
- c. Apply water to concrete surface. Different methods can be used as long as the correct amount of water is applied. Do not apply water under pressure. The product creates a look like “soap suds” on the surface when activated. Continue to water until that stops. As a reference, the amount of water for this step is roughly 3 to 6 gals per 100sq/ft.

Once area is dry proceed to step d

- d. Using a low-pressure sprayer flood the cracks with ACR Crack &Void. Then using low pressure sprayer apply ACR Accelerator Agent to the entire surface at a rate of 200 sq/ft per gallon. Once the area is dry go to step 5. This could be the next day or the same day. The area just needs to be dry. No time restrictions.
- e. Apply water to the concrete surface. There is not activation process during this phase of watering. The watering helps the product penetrate further into the concrete. The area is trafficable as soon as watering process is done.

3.5 CLEANING

- a) As work progresses, clean spillage and overspray from adjacent surfaces using materials and methods as recommended by water repellent manufacturer.
- b) Remove and dispose of all materials used to protect surrounding areas and non-application surfaces, following completion of the work of this section.
- c) Clean site of all unused water repellents, residues, rinse water, wastes, and effluents in accordance with environmental regulations.
- d) Repair, restore, or replace to the satisfaction of the Architect, all materials, landscaping, and non-masonry surfaces damaged by exposure to water

repellents.

3.6 COMPLETION

- a) Work that does not conform to specified requirements shall be corrected and/or replaced as directed by the Owners Representative at Contractor's expense without extension of time.