











Date Revised:	March 2020	Overall Task Risk Rating:	<b>A</b>
Description:	Asphalt paving places hot mix asphalt through the use of mechanical equipment with manual touch ups as required. Equipment includes dump trucks, shuttle buggy, asphalt paver and rubber / steel drum compaction rollers operating in conjunction with one another. Behind the asphalt paver crew members undertake minor asphalt work / repairs prior to compaction by rollers. There will be traffic control measures involved and signal person will be used.		
Location(s):	Construction Projects		
Associated Documents: Hazardous Agents WTS, Noise WTS, Traffic Control WTS, Driving and Vehicle Operation WTS, Equipment and Machinery Operation WTS, Night Work WTS, Manual Material Handling WTS, Fitness for Duty Policy			

**RED FLAGS (HOLD WORK UNTIL CORRECTED):**

Note:

- Do not commence work if there is inadequate Traffic Protection
- Do not commence work if the Operator is not trained nor authorized

**PERSONAL PROTECTIVE EQUIPMENT (CSA COMPLIANT)**

									
Head Protection	Foot Protection	High-Vis Protection	Hearing Protection	Hand Protection	Eye Protection	Respiratory Protection	Skin Protection	Face Protection	Fall Protection
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note:

- All personnel involved with paving equipment and asphalt handling must wear long pants and shirts with sleeves.
- Additional PPE may be required based on project specific hazards - saw cutting asphalt will require eye, face and respiratory protection; hand protection may be required depending on task.
- For night work ensure workers are visible. Leg Bands are provided for night work. Ensure workers high visibility PPE is clean and has maximum reflectivity. High visibility coveralls meeting CSA Class 3 are also available to workers.

**SAFE WORK PRACTICES (SWP)**

General Paving Practices:



- Start the work only when you are certain that you understand the work, the hazards and you have implemented the appropriate controls
- Unsafe conditions and situations must be reported to Foreman/Superintendents immediately (and stop work until the hazard is controlled)
- The most experienced asphalt rake person should work adjacent to traffic, the less experienced person should work in the protected area
- Use the 'buddy system' and watch out for co-workers who may be unaware of a hazard
- Unauthorized personnel are not permitted on the screed or platform of the paver
- Employees must not ride on mobile equipment if there is no passenger seat

Traffic Control:

- Traffic protection measures shall be implemented in accordance with Ontario Traffic Manual Book 7
- Refer to the Traffic Control WTS for more information

Equipment and Machinery Operation:

- Do not leave the paving machine unattended while the screed is heating
- Paving machine operators must signal any time they intend to resume travel from a stationary position
- Never operate a paving machine at excessive speeds that may cause ground personnel to work carelessly
- Workers and equipment operators will follow the Safe Limit of Approach – not entering within 10 metres of mobile equipment. Operators to slow to walking speed when approaching workers on foot within 10 metres.

**Night Work:**

- Ensure lighting is adequate for visibility of the workers and for the workers to complete the task at hand
- Lighting used to illuminate the worksite shall not be aimed at drivers (making it more difficult for them to see their intended path)
- Refer to Night Work WTS for more details

**Signalers:**

- Signalers are required for backing vehicles when the operator's view of the path of travel is obstructed
- Signallers are required when the dump truck with a raised box is within the 3 meters of overhead powerlines/structures

**Path of Travel:**

- Be aware of the sequence of operation and stay out of the Path of Travel of moving vehicles and equipment
- Do not walk between the Asphalt Paver or Buggy and reversing trucks
- Exercise caution when trucks are delivering asphalt, the truck driver may not be familiar or experience with paving operations

**Environmental Considerations:**

- Asphalt Paving cannot proceed in rainy conditions, Superintendents and Management shall monitor weather conditions
- Be aware of heat stress related hazards while working outside in the summer season with hot asphalt
- For more information, refer to the Hazardous Agents WTS

**Manual Material Handling:**

- Shovelling and raking asphalt can result in a Repetitive Strain Injuries (RSI) - when possible workers should rotate between repetitive job tasks

**Inspections:**

- A pre-operational safety inspection is to be completed prior to using equipment
- Do not use defective equipment or machinery, inform your foreman / superintendent - they will arrange for the equipment to be serviced
- Before starting machines or equipment, ensure guards and safety devices are in place, adjusted and functioning properly

**Training:**

- Employee Orientations (including roles, responsibilities, applicable workplace task standards, WHMIS, etc.)
- Only trained, authorized personnel are allowed to operate vehicles / machinery / equipment
- Only trained, authorized personnel are allowed to perform maintenance / repairs

**PPE:**

- Workers on construction projects must wear, at a minimum, head, foot, and high visibility PPE. Eye protection as necessary.
- Wear the appropriate personal protective equipment for the job at hand (i.e. hearing protection, respirator, etc...)

JOB HAZARD AND RISK ANALYSIS		RISK RATING SYSTEM
		<span style="background-color: red; color: white; padding: 2px;">A</span> High risk of injury or equipment / property damage. <span style="background-color: yellow; color: black; padding: 2px;">B</span> Medium risk of injury or equipment / property damage. <span style="background-color: green; color: white; padding: 2px;">C</span> Low risk of injury or equipment / property damage.
TASK HAZARDS	TASK CONTROLS	RATING
<ul style="list-style-type: none"> <li>• Lack of, or Improper, Training and Education</li> </ul>	<ul style="list-style-type: none"> <li>• Machine Operators must be authorized and trained</li> <li>• Only trained and competent personnel are permitted to perform maintenance</li> </ul>	C
<ul style="list-style-type: none"> <li>• Poor Housekeeping</li> </ul>	<ul style="list-style-type: none"> <li>• Keep a clean working area, remove any tripping hazards</li> <li>• Ensure that tools are neatly and safely stowed on equipment</li> <li>• Equipment / vehicles should be cleared daily of any garbage so as not to obstruct brakes, accelerator pedals, etc.</li> </ul>	C
<ul style="list-style-type: none"> <li>• Improper Chemical Use/Storage</li> </ul>	<ul style="list-style-type: none"> <li>• Products such as diesel will be stored in appropriate containers and labelled indicating the contents</li> </ul>	B

<ul style="list-style-type: none"> <li>Lack of Spotter</li> </ul>	<ul style="list-style-type: none"> <li>Signalers are required for backing vehicles when the operator's view of the path of travel is obstructed</li> <li>Signalers are required when equipment is within the safe limits of approach to overhead powerlines</li> </ul>	<b>B</b>
<ul style="list-style-type: none"> <li>High Noise Levels</li> </ul>	<ul style="list-style-type: none"> <li>Workers exposed to high noise levels must use hearing protection (CSA approved Ear plugs / Ear muffs)</li> <li>Workers shall wear appropriate hearing protection where the potential exposure of noise cannot be reduced below the occupational exposure limit of 85 dBA over an 8-hour period</li> </ul>	<b>B</b>
<ul style="list-style-type: none"> <li>Musculoskeletal disorders (MSD) &amp; Repetitive Strain Injuries (RSI)</li> </ul>	<ul style="list-style-type: none"> <li>If an object or material appears to be awkward in shape or too heavy, it may require additional help to be handled safely</li> <li>When possible workers should rotate between repetitive job tasks</li> </ul>	<b>C</b>
<ul style="list-style-type: none"> <li>Heat Stress</li> </ul>	<ul style="list-style-type: none"> <li>Drink water throughout the day (don't wait until you're thirsty)</li> <li>Taking rest breaks as needed (in a cool, shady spot)</li> <li>When possible, do the heaviest work at the coolest times</li> <li>Use the Buddy System – watch for signs of heat related illnesses in your co-workers</li> <li>If you think someone has heat stroke or heat exhaustion: call 911, inform the Foreman /Superintendent and begin First Aid</li> </ul>	<b>A</b>
<ul style="list-style-type: none"> <li>Asphalt Burns</li> </ul>	<ul style="list-style-type: none"> <li>All personnel involved with paving equipment and asphalt handling must wear long pants and shirts with sleeves</li> <li>Wear appropriate PPE (i.e. gloves) when risk of burns</li> </ul>	<b>B</b>
<ul style="list-style-type: none"> <li>Lack of Inspection</li> </ul>	<ul style="list-style-type: none"> <li>A pre-operational safety inspection is to be completed</li> <li>Do not use defective equipment or machinery, inform your foreman / superintendent</li> </ul>	<b>C</b>

## SAFE JOB PROCEDURES (SJP)

- Pre-Task Commencement:**
- Gather and wear the required PPE for the task
  - The Superintendent/Foreman will complete the Daily GAZZ Card and conduct a crew huddle to review with all workers the shift's tasks and any associated hazards and control strategies
  - Ensure all workers understand the GAZZ Card contents, and sign off in acknowledgement
  - Ensure controls are in place prior to commencing work so hazards are mitigated / eliminated
  - The Superintendent/Foreman will complete a Traffic Protection Form and ensure that traffic protection measures are in place in accordance with Ontario Traffic Manual Book 7 and communicate the hazards and controls to workers when workers have the potential to be endangered by traffic (refer to Traffic Control WTS for more detail)
  - Determine what equipment / machinery / tools and material, are required for the completion of the task
  - Inspect all equipment / machinery / tools prior to use and document the inspections on appropriate forms when required
  - Ensure preventative maintenance activities have been completed where required, prior to using equipment / machinery / tools
  - If equipment / machinery / tools are observed to be damaged, remove it from use and notify the Foreman / Superintendent
  - Install fencing and hording where needed
  - Locate utilities – Call Before You Dig (when necessary)
  - Overhead hazards (i.e. powerlines) will be identified, signs posted and a signal person appointed as required

## **During Task - Asphalt**

The following steps are for laying asphalt pavement

1. The dump truck loaded with asphalt backs up to shuttle buggy or paver following the directions of a signaler
2. The hopper on the paver or shuttle buggy is loaded with asphalt by the dump truck
3. If the shuttle buggy is used, the asphalt is then processed and loaded into the hopper of the paver.
4. Asphalt is placed down on the surface by the paver and manually shoveled and raked by workers to fill areas not covered by the paver.
5. Paving will be conducted at a pace that ensures efficiency and safety - workers are not to be 'pushed' by equipment operator
6. The surface gets rolled and compacted with rubber tire and smooth drum compacting rollers
7. Street sweepers are used to clean up debris

When paving operations have ended, the crew members will inspect and clean equipment and report malfunctions to supervisors

## **Task Completion:**

1. Ensure all tools are cleaned and stored appropriately in the designated locations
2. Implement any housekeeping or maintenance as required
3. Ensure equipment is properly shut down, secured from movement and parked in a safe location off the travelled portion of the road where possible or clearly marked by traffic control devices to ensure safe movement of traffic.