

CREW DETAILS

IN AN EMERGENCY CALL:

| | |
|---------------------|------------------------------|
| Crew Leader: | Project Phone Number: |
| Crew: | |

PROJECT OVERVIEW

| | |
|---|-------------------------|
| Purpose of Project: | Date of Project: |
| <p>Benefit of Project: Enhances the efficiency of traffic flow and congestion management. Ensures safe and smooth transportation for users. Improves environmental sustainability through responsible maintenance. Prevents deterioration and extends the lifespan of roadways. Reduces the likelihood of traffic accidents and hazards. Supports economic growth by maintaining key infrastructure.</p> | |

HAZARDS

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|----------------------|-----------------------------------|---|--|----------------------|--|
| Chemical spills | Skin irritation, inhalation risks | Ensures the ability to work with necessary substances safely. | Store chemicals securely with clear labeling and provide spill kits at work locations. Train workers in spill response procedures, including containment and cleanup, and ensure the use of appropriate PPE to minimize exposure risks. (ALL) | Workers, environment | Before Measure: High After Measure: Med |
| Confined space entry | Suffocation, entrapment | Allows maintenance in areas like culverts and manholes. | Conduct risk assessments for confined spaces and implement permit-to-work systems. Ensure proper ventilation, continuous atmospheric monitoring, and provide rescue equipment and training. (ALL) | Workers | Before Measure: High After Measure: Med |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|----------------------------------|----------------------------------|---|--|---------------------|--|
| Electrical hazards | Electrocution, burns | Enables the use of electrical tools and equipment necessary for tasks. | Ensure all electrical equipment is properly maintained and insulated. Provide training on electrical safety, use of lockout/tagout procedures, and ensure compliance with regulatory standards. (ALL) | Workers | Before Measure: High After Measure: Med |
| Exposure to biological hazards | Infections, illnesses | Enables work in diverse environments where such hazards may exist. | Assess work areas for potential biological hazards such as mold or sewage. Provide vaccinations where applicable, appropriate PPE, and training on hygiene practices. (ALL) | Workers | Before Measure: High After Measure: Med |
| Exposure to extreme weather | Hypothermia, heat stroke | Allows flexibility in scheduling to maintain project timelines. | Monitor weather forecasts and adjust work schedules accordingly. Provide appropriate clothing and shelter for workers, and establish protocols for work cessation during severe conditions. (ALL) | Workers | Before Measure: High After Measure: Med |
| Exposure to hazardous substances | Chemical burns, inhalation risks | Enables the use of necessary materials for maintenance tasks. | Provide Material Safety Data Sheets (MSDS) for all chemicals and ensure proper storage and handling procedures are followed. Equip workers with appropriate personal protective equipment (PPE) and conduct regular training on hazard communication. (ALL) | Workers | Before Measure: High After Measure: Med |
| Exposure to hazardous waste | Chemical exposure, contamination | Allows remediation of contaminated sites essential for public safety. | Identify and assess areas for potential hazardous waste presence. Provide appropriate PPE, training on handling hazardous materials, and ensure proper disposal methods are in place. (ALL) | Workers | Before Measure: High After Measure: Med |
| Exposure to moving traffic | Collisions, injuries | Enables maintenance activities without complete road closures, reducing public inconvenience. | Establish well-marked work zones with barriers and signage to separate workers from traffic. Implement traffic control measures such as speed reductions and flaggers to enhance worker safety. (ALL) | Workers, road users | Before Measure: High After Measure: Med |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|--|-----------------------------------|---|--|-----------------|--|
| Fuel or flammable substance handling | Fires, explosions | Supports operations requiring combustible materials. | Store flammable materials in fire-rated containers and conduct regular inspections for leaks. Train workers in safe handling and fire response, and maintain accessible fire extinguishers at all work locations. (ALL) | Workers | Before Measure: High After Measure: Med |
| High-pressure equipment failure | Injuries, equipment damage | Enables the use of efficient tools necessary for maintenance tasks. | Implement regular maintenance and inspections of equipment. Train workers on safe operation procedures and establish emergency response plans for equipment failures. (ALL) | Workers | Before Measure: High After Measure: Med |
| Inadequate emergency planning | Panic, prolonged harm | Prepares the team for prompt action, minimizing risks in emergencies. | Develop detailed emergency response plans, including evacuation routes and contact protocols. Conduct regular drills to ensure worker familiarity and review plans after incidents for improvements. (ALL) | Workers, public | Before Measure: High After Measure: Med |
| Inadequate personal protective equipment (PPE) | Injuries, non-compliance | Protects workers from specific hazards, ensuring compliance and reducing injury risks. | Conduct PPE assessments to determine specific requirements for each task. Provide appropriate PPE such as high-visibility clothing, helmets, gloves, and goggles. Train workers on correct usage and inspect PPE regularly for wear and tear, replacing as necessary. (ALL) | Workers | Before Measure: High After Measure: Med |
| Inadequate supervision | Non-compliance, unaddressed risks | Enhances worker accountability, ensures adherence to safety protocols, and fosters a culture of safety on-site. | Assign trained supervisors to monitor activities, ensure compliance with safety procedures, and provide immediate guidance in emergencies. Conduct regular safety briefings and site inspections, and establish clear escalation protocols for potential hazards. (ALL) | Workers | Before Measure: High After Measure: Med |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|--|---|---|--|---------------------|--|
| Lone working | Delayed emergency response, isolation risks | Ensures flexibility to perform isolated tasks when necessary. | Implement a buddy system or regular check-ins for lone workers. Provide mobile communication devices and establish clear emergency procedures. Assess tasks to determine if lone working is appropriate. (ALL) | Workers | Before Measure: High After Measure: Med |
| Overhead hazards | Falling objects, head injuries | Allows work in elevated or scaffolded areas essential for maintenance. | Use hard hats and conduct regular site inspections to secure loose materials or equipment. Employ netting or barriers to catch falling objects and train workers on maintaining awareness of overhead risks. (ALL) | Workers | Before Measure: High After Measure: Med |
| Proximity to heavy machinery | Crushing injuries, collisions | Facilitates the use of machinery to expedite work progress. | Establish exclusion zones around operating machinery, use spotters to guide movements, and ensure machinery has functioning safety alarms. Provide training on safe machinery operation and situational awareness. (ALL) | Workers | Before Measure: High After Measure: Med |
| Uneven road surfaces | Tripping, vehicle damage, accidents | Allows for continuous road use while maintenance is planned and executed, maintaining traffic flow. | Implement regular inspections and prompt repairs of road surfaces to prevent accidents and vehicle damage. Utilize appropriate signage to warn drivers of uneven areas, and schedule maintenance during low-traffic periods to minimize disruption. (ALL) | Workers, road users | Before Measure: High After Measure: Med |
| Utility strikes (e.g., gas, electricity) | Explosions, electrocution | Enables necessary excavation work with informed precautions. | Conduct thorough utility surveys before excavation and use detection equipment to locate underground services. Liaise with utility companies for accurate mapping and provide workers with training on recognizing and avoiding utility hazards. (ALL) | Workers, public | Before Measure: High After Measure: Med |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|--------------------------------------|--------------------------------|--|--|---------------------------|--|
| Vehicle collisions within work zones | Injuries, fatalities | Facilitates ongoing traffic movement alongside maintenance activities. | Develop and implement traffic management plans, including clear signage, barriers, and designated entry/exit points for construction vehicles. Coordinate with local authorities to manage traffic flow and provide worker training on situational awareness. (ALL) | Workers, road users | Before Measure: High After Measure: Med |
| Vehicle reversing incidents | Collisions, injuries | Enables safe and efficient material transport within work zones. | Designate reversing areas and use trained spotters to guide vehicle movements. Equip vehicles with reversing alarms and cameras, and ensure workers are visible with high-visibility clothing. (ALL) | Workers, operators | Before Measure: High After Measure: Med |
| Working at height | Falls, injuries | Allows maintenance of elevated structures like signs and bridges. | Use scaffolding or elevated work platforms with proper guardrails and ensure workers are trained in fall protection. Conduct regular equipment inspections and enforce the use of personal fall arrest systems. (ALL) | Workers | Before Measure: High After Measure: Med |
| Working near water | Drowning, slips | Allows maintenance near critical water infrastructure or drainage systems. | Conduct site-specific risk assessments and provide flotation devices. Establish rescue procedures, train workers in water safety, and ensure clear signage and barriers to prevent accidental falls. (ALL) | Workers | Before Measure: High After Measure: Med |
| Dust inhalation | Respiratory issues, discomfort | Enables essential maintenance activities that may generate dust. | Implement dust suppression techniques such as water spraying and provide respiratory protective equipment. Monitor air quality and schedule work during favorable weather conditions to minimize dust dispersion. (ALL) | Workers, nearby residents | Before Measure: Med After Measure: Low |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|---------------------------------|-------------------------------------|---|---|---------|--|
| Exposure to UV radiation | Sunburn, heatstroke | Facilitates outdoor work while managing sun exposure risks. | Provide sunscreen, UV-protective clothing, and schedule tasks to avoid prolonged exposure during peak hours. Educate workers on the importance of skin protection and monitor for signs of heat-related illnesses. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Fatigue from long working hours | Accidents, decreased performance | Allows for extended work periods when necessary to meet deadlines. | Design work schedules that include adequate rest periods and rotate tasks to prevent monotony. Encourage workers to report fatigue and provide training on recognizing its symptoms. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Fatigue from repetitive tasks | Muscle strain, reduced productivity | Supports long-term worker health while maintaining productivity. | Rotate tasks frequently to prevent strain, provide ergonomic tools, and encourage regular breaks to reduce fatigue. Monitor for signs of musculoskeletal disorders and adjust workflows to minimize repetitive motions. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Inadequate first aid | Untreated injuries, increased harm | Enables immediate response to injuries, reducing severity and downtime. | Ensure sufficient first aid kits are available and accessible at all work locations, stocked with necessary supplies. Train workers and supervisors in first aid response, including CPR. Assign designated first aiders for each shift and conduct regular reviews of first aid provisions. (ALL) | Workers | Before Measure: High After Measure: Low |
| Inadequate lighting | Reduced visibility, accidents | Enables maintenance work to continue during nighttime or poor weather. | Use portable lighting to illuminate work areas during low-light conditions. Ensure proper placement to minimize shadows and provide high-visibility PPE for all workers in dim environments. (ALL) | Workers | Before Measure: Med After Measure: Low |

| HAZARD | RISK | RISK BENEFIT | MEASURE | RISK TO | RISK LEVEL |
|--------------------------|---|--|--|---------|---|
| Manual handling injuries | Strains, musculoskeletal injuries | Facilitates necessary manual tasks essential for maintenance operations. | Provide training on proper lifting techniques and use mechanical aids to handle heavy materials. Encourage team lifting for awkward loads and conduct ergonomic assessments to minimize strain. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Noise exposure | Hearing loss, fatigue | Allows the use of necessary machinery to complete tasks efficiently. | Supply workers with appropriate hearing protection and schedule noisy operations during daytime to limit exposure. Regularly monitor noise levels to ensure compliance with safety standards. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Slips, trips, and falls | Injuries, sprains | Allows work to proceed in various environments where such risks are present. | Maintain clean and organized work areas, promptly address spills, and ensure proper footwear is worn. Use signage to indicate slippery or uneven surfaces and conduct regular site inspections to identify hazards. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Vibration exposure | Nerve damage, musculoskeletal disorders | Allows the use of necessary machinery for efficient work completion. | Use low-vibration tools and limit exposure time. Provide anti-vibration gloves and conduct health surveillance to monitor for symptoms of vibration-related conditions. (ALL) | Workers | Before Measure: Med After Measure: Low |
| Unpredicted risks | Illness, injury, death | | Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL) | All | N/A |

NOTES

Extra notes & activity evaluation:

Completed by

Reviewed/Approved by

Risk Assessment Date

Review Required Date