Safety Hazard Identification, Safety Assessment & Matrix, and Mitigation Strategy Report

SECTION 1 – Completed by person initiating report	
DATE AND TIME;	
REPORTER NAME; Person initiating report.	
LOCATION; Address, intersection, bus unit number, bus stop, route number.	
SAFETY HAZARD DESCRIPTION; Identify hazards and hazardous behavior or actions consequences of the hazards.	
SAFETY HAZARD ASSESSMENT; Assess the safety risks associated with identified safety hazards. **Level 1** - Immediate: A deficiency, threat or hazard requiring immediate attention to mitigate risk either temporarily until further action can be taken or complete mitigation. **Level 2** - Short Term: Action is needed within seven days to mitigate an identified deficiency, threat or hazard. The deficiency, threat or hazard does not pose immediate danger but if no action is taken could elevate to an Immediate level risk. **Level 3** - Long Term: A deficiency, threat or hazard has been identified but does not pose a threat currently but could at a later time. Continued monitoring and awareness are required.	
SECTION 2 - Chief Safety Officer /Transit Director	
SAFETY RISK ASSESSMENT; Assessment of the likelihood and severity of the consequences of the hazards. *See Matrix and Guidance.*	
SAFETY HAZARD MITIGATION; Identify mitigations or strategies necessary as a result of safety risk assessment. *See Matrix and Guidance.*	
SAFETY COMMITTEE MITIGATION REVIEW AND APPROVAL;	**Signature:** **Date:**
COMMUNICATION; Method used to convey safety hazard and mitigation	
ACCOUNTABLE EXECUTIVE; Acknowledgement and Approval	**Signature:** **Date:**

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MATRIX GUIDANCE	
Hazard Category Type	**Hazard Examples**
Organizational – Inability of the agency to staff and resource departments, Lack of transition planning to manage turnover in key management and skilled labor positions, Lack of qualified personnel in key operational positions, Inadequate parts and materials available to maintain equipment and Lack of qualified engineers to support maintenance functions	**Procedural** – Lack of procedures and manuals for conducting maintenance activities, Incorrect, incomplete, or outdated procedures or manuals for conducting operations and maintenance activities, Confusing or overly complicated procedures and manuals, Overly cumbersome process for updating manuals and procedures, Lack of or ineffective procedures to address fatigue in employee work scheduling, Lack of or ineffective procedures to ensure employee fitness for duty and medical qualification, Lack of or ineffective policies and procedures for managing substance abuse, over the counter medications, and prescription medications and Lack of or ineffective procedures for reporting hazards and safety concerns
	Training -Lack of or incomplete training on current procedures , Outdated training that no longer reflects current operating practices, Inconsistent, incorrect, or ineffective training, Unavailable training on a new technology, Lack of internal and external communication to support training delivery, including language barriers -and Lack of skill or qualification in training delivery
	Supervisory – Lack of employee performance monitoring, Inaccurate or confusing work instructions or verbal directions, Lack of or poor management and labor relations, Lack of employee compliance with operating and maintenance rules and Lack of or ineffective audit and work observation procedures
Technical – Conditions of equipment, facilities, and infrastructure needed to deliver transit service. The condition of a public transportation system's capital assets, rolling stock, infrastructure, and facilities, If the transit assets are not in a state of good repair, the consequences may include decreased system reliability, higher maintenance costs, and lower system performance.	**Operational** – Bicycle lane adjacent to a stop, Entrance to an alley, private road, or driveway mid-block, on a curve or hill, or in another difficult-to-see location, Construction work zones and detours, Obstructions on the road i.e. debris, and tree limbs, Other drivers following a bus too closely or speeding, Pedestrian crossings, Rail grade crossings, Bicyclist turning beside or behind a bus, Pedestrian Crossings, Sun glare, Tight clearances and narrow lanes, Bus stops on hills and curves, and Vegetation blocking signs and limiting visibility
	Maintenance / Equipment- Inoperable communications equipment,
	Design – Difficulty of using and interpreting information on a visual display board, Inability to use rear view and side mirrors on a bus, Tripping obstacles for passengers, Emergency kits not maintained
Environmental – Natural environment causes conditions that result in environmental hazards, such as snow, ice, rain, and wind.	**Weather** - Rain, Fog, Freezing rain, snow, icing conditions Flooding and Thunderstorms
	Natural – Wildlife (deer on roadway) and Adverse terrain (hills, curves, bridges)

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RISK ASSESSMENT MATRIX				
LIKELIHOOD / SEVERITY	**Catastrophic (1)**	**Critical (2)**	**Marginal (3)**	**Negligible (4)**
Frequent (A)	A1	A2	A3	A4
Probable (B)	B1	B2	B3	B4
Occasional (C)	C1	C2	C3	C4
Remote (D)	D1	D2	D3	D4
Improbable (E)	E1	E2	E3	E4

Safety Risk Index	
HIGH	**Unacceptable – Action Required: A deficiency, threat or hazard requiring immediate attention to mitigate risk either temporarily until further action can be taken or complete mitigation. Safety risk must be mitigated or eliminated.**
MEDIUM	**Undesirable - Action is needed within seven days to mitigate an identified deficiency, threat or hazard. The deficiency, threat or hazard does not pose immediate danger but if no action is taken could elevate to an Immediate level risk. Management Decision: Executive management must decide whether to accept safety risk with monitoring or require additional action.**
LOW	**Acceptable - A deficiency, threat or hazard has been identified but does not pose a threat currently but could at a later time. Continued monitoring and awareness are required with Review. Safety risk is acceptable pending management review.**

Severity		
Catastrophic	1	**Could result in one or more of the following: multiple deaths, permanent total disability, irreversible significant environmental impact or monetary loss**
Critical	2	**Could result in one or more of the following: death, permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss**
Marginal	3	**Could result in one or more of the following: injury or occupational illness resulting in one or more lost workday(s), reversible moderate environmental impact, or monetary loss**
Negligible	4	**Could result in one or more of the following: injury or occupational illness not resulting in a lost workday, minimal environmental impact, or minimal monetary loss**

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Description	Level	Pedestrian Passenger	Equipment item Bus Conflict	System or Vehicle Fleet
Frequent	A	Continuously experienced	Likely to occur often in the life of an item.	Continuously experienced. Potential consequence may be experienced more than once in 250 operating hours or weekly.
Probable	B	Will occur frequently	Will occur several times in the life of an item.	Will occur frequently. Potential consequence may be experienced once between 250 and 1,200 operating hours or monthly
Occasional	C	Will occur several times	Likely to occur sometime in the life of an item.	Will occur several times. Potential consequence may be experienced once between 3,000 and 6,000 operating hours or bi-monthly
Remote	D	Unlikely but can reasonably be expected to occur.	Unlikely, but possible to occur in the life of an item.	Unlikely but can reasonably be expected to occur. Potential consequence may be experienced once between 6,000 and 8,000 operating hours or yearly.
Improbable	E	Unlikely to occur, but possible	So unlikely, it can be assumed occurrences may not be experienced in the life of an item.	Unlikely to occur, but possible.