### **SAFETY AWARENESS**

This survey was created by Cisco-Eagle's Safety Products Division to help you review existing areas of pedestrian and vehicle interaction. The completion of this survey will not only help you become more conscious of the risks, but also will help start your company down the pathway of safety improvement.

### PRINCIPAL INQUIRY

Do records indicate that pedestrians are adequately protected from vehicle traffic in this area? (Answering yes to one or more of these questions indicate serious need for safety review.)

Question	YES	NO	N/A
Has an accident or near miss involving forklifts or other equipment occurred in this area?			
Are there unprotected or unguarded pedestrians interacting with vehicles in this area?			
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### **TERMINOLOGY\***

**Guarded by location** – An area that is separated from another by equipment, wall or other barrier with reasonable expectation of being guarded from impact from a vehicle.

**Pedestrian** – Any person, including workers, contractors and visitors. This includes their cargo taken with them when carried by unpowered means and not larger than an average person in size and weight.

**Signage** – Written language and symbols that warn of hazards. Should be legible, clear and concise and appropriate for hazard. **Sufficient guarding / sufficient physical barrier** – Permanently affixed guarding or other barrier that would have expectation of demarcation, separation and guarding against damage to equipment or injury to personnel. Includes guardrail, large equipment, pallet racking, etc.

**Vehicle** – Any powered industrial equipment or other powered or unpowered means of transporting people and/or goods that is larger than an average person in weight and size.

## **AREAS OF CONCERN**

## **SECTION 1. - TRAFFIC DENSITY & FLOW**

This section reviews the amount, types, speeds and detectability of traffic in an area of concern. Interaction of vehicles and pedestrians should be avoided whenever is possible. When it's not possible, risks can be mitigated by limiting factors that cause the interactions to be more dangerous, such as the speed of vehicle traffic and the number of interactions.

### **Amount of Traffic**

The number of pedestrians and vehicles interacting in a common space, and vehicles interacting with one another is one factor of how risky an area can be to move through.

### Inquiry

How often do pedestrians move through a space also occupied by vehicles? (Check one answer below)

Interaction of pedestrians and vehicles in a common space is 5-25% (3-15 mins/hr).  Interaction of pedestrians and vehicles in a common space is 1-5% (30 seconds-3 mins/hr).  Interaction of pedestrians and vehicles in a common space virtually never happens.	Question	YES
Interaction of pedestrians and vehicles in a common space is 1-5% (30 seconds-3 mins/hr).  Interaction of pedestrians and vehicles in a common space virtually never happens.	Interaction of pedestrians and vehicles in a common space is 25% (15 mins/hr) or more.	
Interaction of pedestrians and vehicles in a common space virtually never happens.	Interaction of pedestrians and vehicles in a common space is 5-25% (3-15 mins/hr).	
	Interaction of pedestrians and vehicles in a common space is 1-5% (30 seconds-3 mins/hr).	
NOTES:	Interaction of pedestrians and vehicles in a common space virtually never happens.	
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## **Type of Traffic**

By nature, objects that have more mass stand to cause more damage if they strike another object. A heavier object poses more risk than a lighter object.

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What types of traffic utilize the area?

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## **Speed of Traffic**

By nature, objects that travel faster stand to cause more damage if they strike another object. A faster object poses more risk than a slow object.

### **Inquiry**

What are the speeds of vehicle traffic that utilize the area? This includes all non-pedestrian traffic including golf carts, loaded pallet jacks, forklifts, tuggers, cranes, rail cars, etc. (Check one answer below)

Question	YES
Vehicles that utilize the area travel in excess of 5 mph (8 km/h).	
Vehicles are limited from 3 to 5 mph (5 to 8 km/h).	
Vehicles are limited to less than 3 mph (less than 5 km/h).	
Vehicle traffic never utilizes this area.	
NOTES:	

### **Detectability**

A vehicle that that cannot be seen and/or heard by a pedestrian, or a pedestrian that cannot be seen or heard by a vehicle operator poses a very high level of risk. If mixed traffic is made aware of the presence of one another with ample time to react, it may mitigate this risk.

#### <u>Inquiry</u>

Do vehicles and their operators utilize tools to alert other vehicles and pedestrians of their presence? Do pedestrians follow safety protocol to allow them to react to these warnings?

Do vehicles operate with flashing beacon or other warning lights?  Do vehicles operate with horns and/or audible alarms?  Do pedestrians in the area wear reflective vests and/or other PPE to increase visibility?	Question	YES	NO	N/A
Do vehicles operate with horns and/or audible alarms?  Do pedestrians in the area wear reflective vests and/or other PPE to increase visibility?	Do vehicles operate with lighting to increase operator visibility?			
Do pedestrians in the area wear reflective vests and/or other PPE to increase visibility?	Do vehicles operate with flashing beacon or other warning lights?			
	Do vehicles operate with horns and/or audible alarms?			
NOTES:	Do pedestrians in the area wear reflective vests and/or other PPE to increase visibility?			
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## **SECTION 2. - TRAFFIC MITIGATION/SEGREGATION**

This section reviews pedestrian and vehicle traffic areas, traffic flows, and interactions. In this section we review pedestrian walkways and vehicle aisles, restricted zones, warning systems, and traffic flow control. Each of these areas of concern are important to review and evaluate in order to help improve safety in your facility.

### **Pedestrian Walkways**

Pedestrian Walkways are pathways that are designated specifically for pedestrians to travel from one area to another are essential for separating pedestrians from vehicle traffic and therefore mitigating the risk of a collision.

### Inquiry

If pedestrians are present, does the area in question have designated, segregated and guarded pedestrian walkways?

YES	NO	N/A
	YES	YES NO

### **Vehicle Aisles**

Vehicle Aisles are pathways that are designated specifically for vehicles to travel from one area to another are essential for separating them from pedestrian traffic and therefore mitigating the risk of a collision.

#### Inquiry

If pedestrians are present, does the area in question have designated, segregated and guarded pedestrian walkways?

Question	YES	NO	N/A
Are there clearly designated vehicle pathways?			
Do vehicles sometimes share/impede into pedestrian pathways?			
Are vehicle pathways separated from pedestrians with handrail, guardrail or guarded by location?*			
NOTES:			

### **Restricted Zones**

Restricted Zones are areas that are designated for a specific group. Examples of a Restricted Zone is a "No Vehicles" zone for areas with work cells for assembly or a "No Pedestrians" zone for a receiving dock where heavy pallets are regularly being unloaded.

#### Inquiry

Are Restricted Zones clearly demarcated with signage, painted lines, etc. and/or are physical barriers present?

Question	YES	NO	N/A
Is signage present clearly notating the restricted zone?			
Are there painted lines or other demarcations present showing the physical border of the restricted zone?			
Are there sufficient physical barriers such as handrail, guardrail, or other barriers present to restrict access to the restricted zone?			
NOTES:			

## **Warning Systems**

Warning Systems are generally comprised of visible and auditory alarms where there are blind corners or level of safety may change suddenly. Examples of warning systems are sense-and-warn systems for blind corners and traffic light systems used to meter vehicle and pedestrian traffic, but may also be lights and alarms that warn of a machine state.

#### Inquiry

Are Warning Systems used in the area in question, where safety level may suddenly change?

YES	NO	N/A
	YES	YES NO

### **Traffic Flow Control**

Gating and supplemental guarding are important to control the flow of pedestrian and vehicle traffic through potentially hazardous areas. Ideally, pedestrian traffic is always 100% segregated from vehicle traffic. In scenarios where this is not possible and pedestrians must move through areas where vehicle traffic is normally present, or vehicles must travel through areas where pedestrian traffic is normally present, gate systems and guarding can be ideal means to funnel and meter traffic. Gate systems may also include the use of personnel and vehicle doors. Gates must utilize some form of barrier to funnel traffic in order to be effective.

### Inquiry

Is the area normally utilized by vehicles guarded and gated to meter pedestrian traffic, or is the area normally utilized by pedestrians guarded and gated to meter vehicle traffic?

Are there barriers or guarding to funnel traffic to a designated crossing path?  Is there a warning system in place (e.g. traffic lights) to meter/warn traffic in the area?  Are manually-actuated gates in place at entry points into the area?		
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Is a powered or automated (with sensors) gate system in place in the area?		
Are there any machine or door interlocks with the gate or warning system(s)?		
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