

# ***EFFECTIVE ACCIDENT RESPONSE, INVESTIGATION AND DOCUMENTATION***

**CASTA Spring Conference, Greeley, CO**

**May 18. 2018**

**Presented by: SWTA, GET, City of Greeley,  
RFTA & Cobbs-Allen**



# WELCOME

## ▶ Introduction

- ▶ Effective Accident Response, Investigation and Documentation or
- ▶ Accident Investigation (A/I) for transit operations

## ▶ Audience profile

- ▶ Mode of service
- ▶ Jurisdiction
- ▶ Scale



# WORKSHOP AGENDA

## ▶ Panel Presentations:

- ▶ Agency requirements, approaches & procedures
- ▶ Accident response, investigation & documentation

## ▶ Field Exercise:

- ▶ Investigate simulated crash
- ▶ Report



# TODAY'S OBJECTIVES

## ▶ To better understand:

- ▶ Transit accident investigation requirements & challenges
- ▶ Accident chain of events & response & investigation processes
- ▶ Roles & intents of transit agency & local law enforcement (or state OSHA) & importance of working relationships
- ▶ Need for information & the facts for learning & loss control
- ▶ A/I's relationship to our public transportation mission, vision & core values

# PANEL INTRODUCTIONS

- ▶ **Officer Jack Drey**, City of Greeley Police Dept.
- ▶ **Patrick Moore**, Safety & Training Supervisor, Greeley-Evans Transit
- ▶ **John Filippone**, Safety Manager, Roaring Fork Transit Authority
- ▶ **Eddie Thomas**, Risk Consultant, Cobbs Allen
- ▶ **Walt Diangson**, Lead Trainer & CSO, SWTA



# EFFECTIVE ACCIDENT RESPONSE, INVESTIGATION AND DOCUMENTATION OR ACCIDENT INVESTIGATION

## An Overview



# THE STARTING POINT: THE MISSION

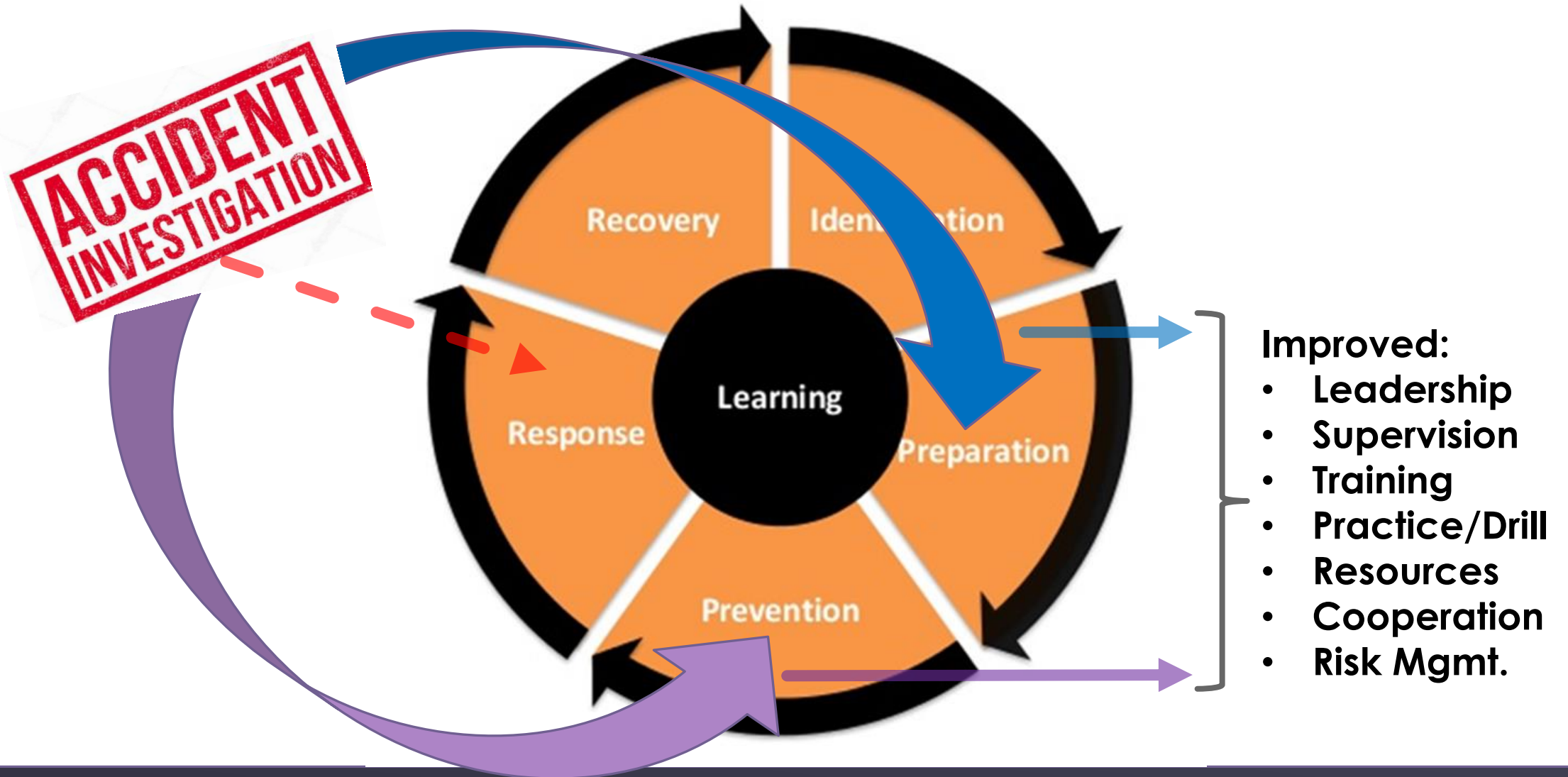


- ▶ *To be a customer-oriented system that provides safe, dependable and responsive services through positive interactions.*



- ▶ *To pursue excellence and innovation in providing preferred transportation choices that connect and support vibrant communities.*
  - ▶ **Core Value:** *Safety is RFTA's highest priority.*

# A/I & THE CRISIS/EMERGENCY PROCESS





# A/I DEFINITION

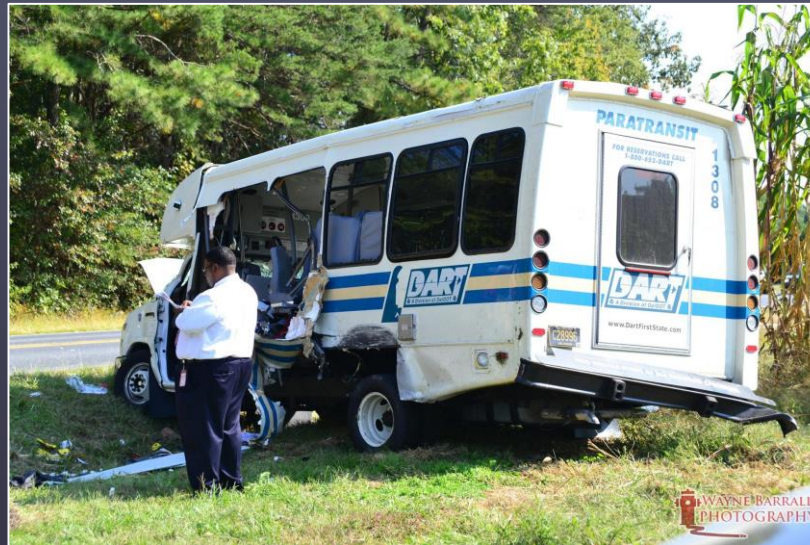
- ▶ **“Accident Investigation” \* → analysis of the facts that occurred during an accident, which produces:**
  - ▶ Vital information to identify contributing factors & root cause;
  - ▶ Determination of fault & consequences;
  - ▶ Learning: recommended corrective actions & controls to prevent or minimize future occurrences of the same or a similar events.
- ▶ **Transit Accidents → Collisions/Crashes & Incidents:**
  - ▶ Vehicle contact;
  - ▶ Near miss or close call incident;
  - ▶ Other incidents, property damage, crime or other losses & events.

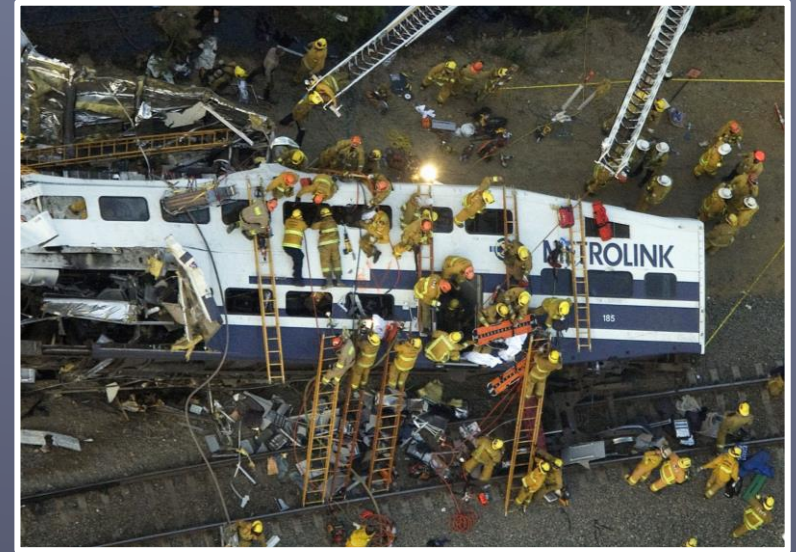
# VARIOUS TYPES OF ACCIDENTS

- ▶ **Vehicle collisions/crashes: other vehicles, people & fixed objects**
- ▶ **Incidents: ST&F, property damage, securement, crime, confrontations, work. comp. injuries & close calls**
- ▶ **Measure of seriousness & response:**
  - ▶ **Frequency & severity**
  - ▶ **Major - \$500 - \$5,000 damage, towing, medical treatment**
  - ▶ **Minor – “fender benders”**
  - ▶ **Near misses or close calls**



# Variety of Transit Accident Situations







# AN INCIDENT: BUS FIRES

# FOCUS BUS COLLISIONS



# CHALLENGES TO EFFECTIVE A/I

- ▶ Distance & time between accident scene & responders (e.g. road supervisors, law enforcement, fire)
- ▶ Accident scene cleared & removed before investigators arrive
- ▶ Environmental conditions (weather, traffic circulation)
- ▶ Staffing & training to competency
- ▶ Preparedness & communications



# ELEMENTS OF A GOOD ACCIDENT INVESTIGATION PROCESS

- Documented procedures in place
- Procedures include medical attention, towing, D&A testing, insurance, legal & evidence chain of custody
- Event management
- Accurate & complete Information (not fault finding)
  - Accident report
  - Witness statements
  - Declinations for medical treatment
  - Dispositions of all involved
  - Scene & asset photographs
  - Accident scene sketch
  - Descriptions of accident “sequence of events”



# ELEMENTS OF A GOOD ACCIDENT INVESTIGATION PROCESS (CONT'D)

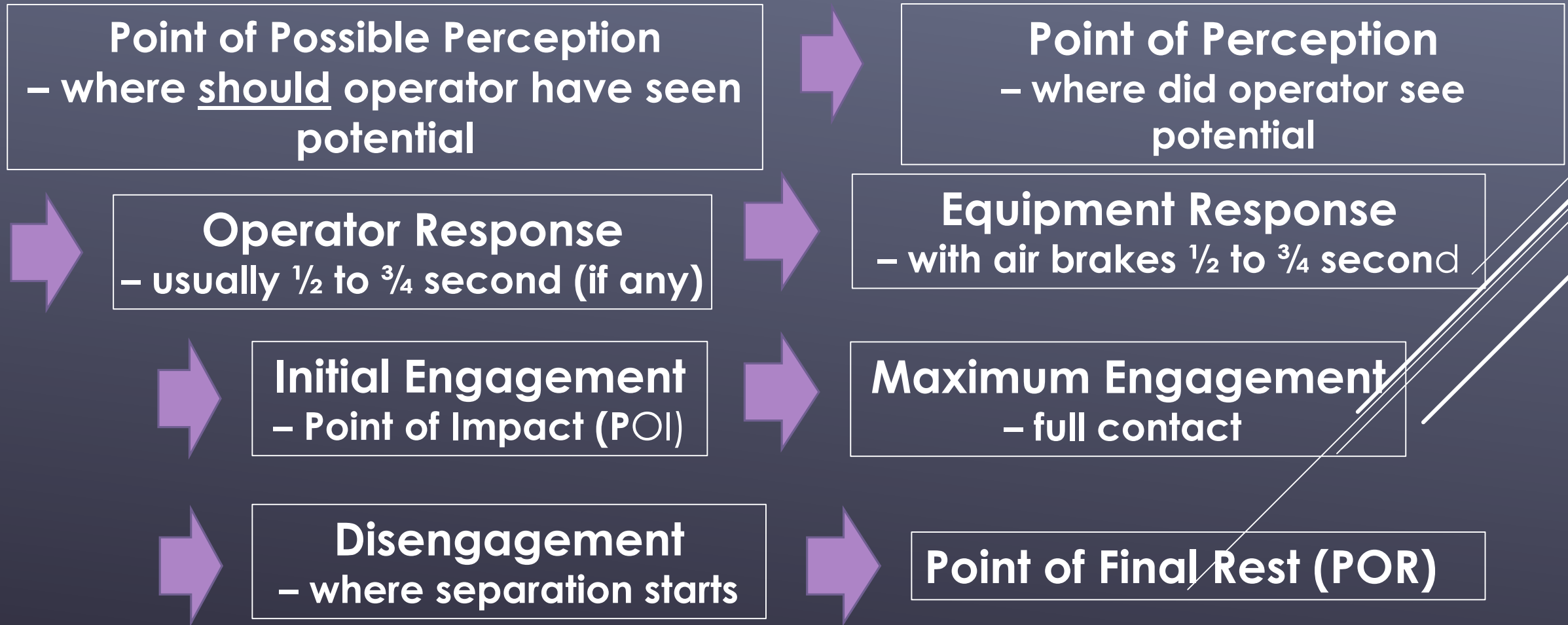
- Identification of contributing factors
- Dispatcher communications, records & support
- Supervisory safety leadership – communications, coaching
- **Root causes and corrective actions are identified in timely manner**
  - Investigation report & file reviewed by management, legal, safety group, accident committee & then all departments
  - Incident trends & statistical analysis conducted
  - Safety data updated & maintained
  - Training reviewed & updated
  - Related accident drills & table-top exercises conducted
  - Root causes & corrective actions implemented & communicated

# ACCIDENT CHAIN OF EVENTS (COE)

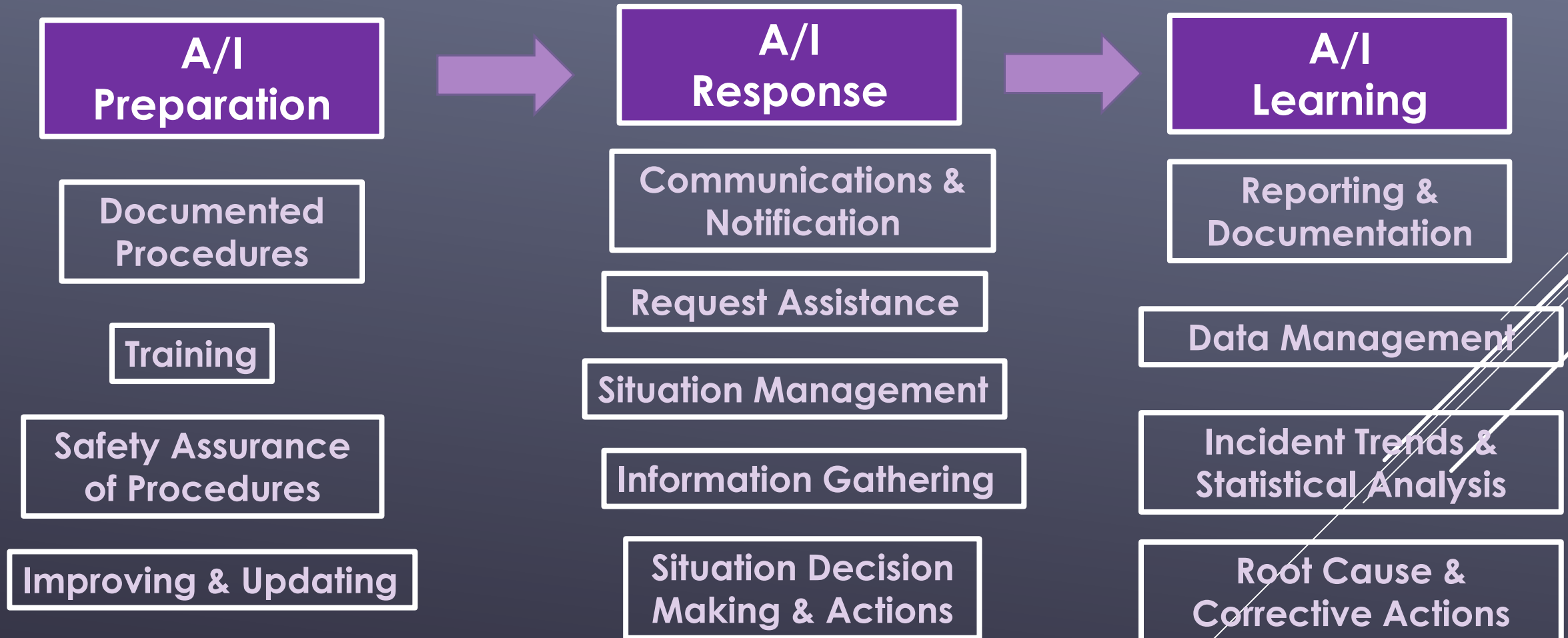
- ▶ COE = chain of errors = contributing factors leading to an undesired outcome
  - ▶ Unsafe conditions & unsafe behaviors
  - ▶ E.g. Tight schedules + multitasking → rushing & distractions → speeding → crash & injuries or worse
- ▶ Accident typically at end of sequence of events leading to an accident
- ▶ Interruption of COE could eliminate the accident



# CHAIN OF EVENTS IN A COLLISION



# GENERAL A/I PROCESS



# CITY OF GREELEY POLICE DEPARTMENT PERSPECTIVE

Police Officer Jack Drey



# LOCAL LAW ENFORCEMENT RESPONSE

- ▶ Sequence of events in responding
- ▶ Traffic investigative process
- ▶ Crime scene
- ▶ Objective – What's to be determined?
- ▶ Determining speed & possible violations
- ▶ Working with transit agency



# Determining the Facts



Striking Vehicle Start of Skid Speed

$$S_c = \sqrt{[(30)(d_1)(f)] + [(30)(d_2)(cf)]}$$



# GET TRANSIT OPERATOR PERSPECTIVE

Patrick Moore, Safety and Training Supervisor,  
Greeley-Evans Transit (GET)





# GET'S ACCIDENT PROCEDURES

1. ACCIDENT AND INCIDENT PROCEDURES
2. KEEP CALM
3. CHECK FOR INJURIES/SAFETY VEST ON FIRST
4. CALL BASE ONE/DISPATCH
5. PROTECT YOURSELF AND YOUR PASSENGERS



6. Have a safety vest on when outside your vehicle
7. Get information from passengers
8. Have license and registration ready
9. Fill out proper forms at the office



**GET'S ACCIDENT PROCEDURES (CONT'D)**



# EXAMPLES OF GET COLLISIONS



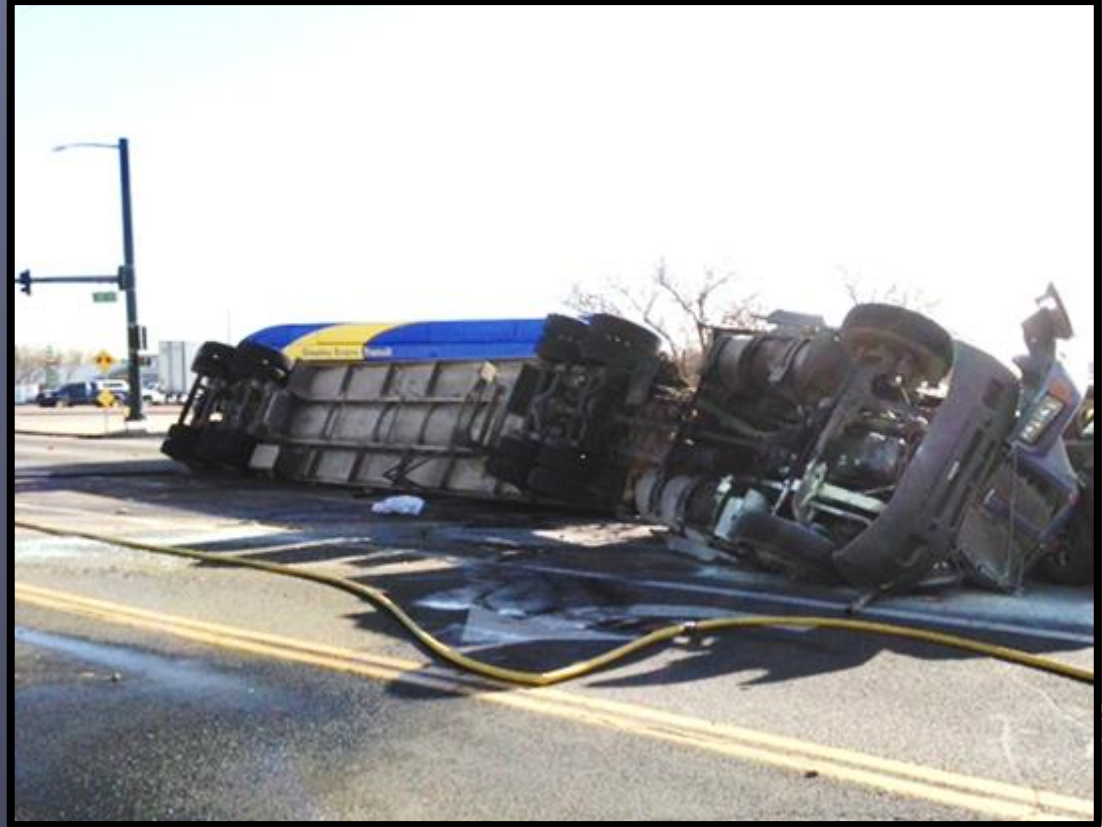


# EXAMPLES OF GET COLLISIONS



# EXAMPLES OF GET COLLISIONS





# EXAMPLES OF GET COLLISIONS





# TRANSIT OPERATOR PERSPECTIVE

John Filippone, Safety & Training Manager, Roaring  
Fork Transportation Authority (RFTA)





# RFTA'S APPROACH TO A/I

- ▶ RFTA's adopted policies, procedures and practices
- ▶ Accident response and investigation procedures
- ▶ RFTA accident reporting forms and process
- ▶ Photographic record
- ▶ Accident scene sketch
- ▶ Operator & supervisor reports



# EXAMPLES OF COLLISION EVENTS





# Incident/Unusual Occurrence Report

Please complete electronically or print legibly.

## INTERVIEW TECHNIQUES

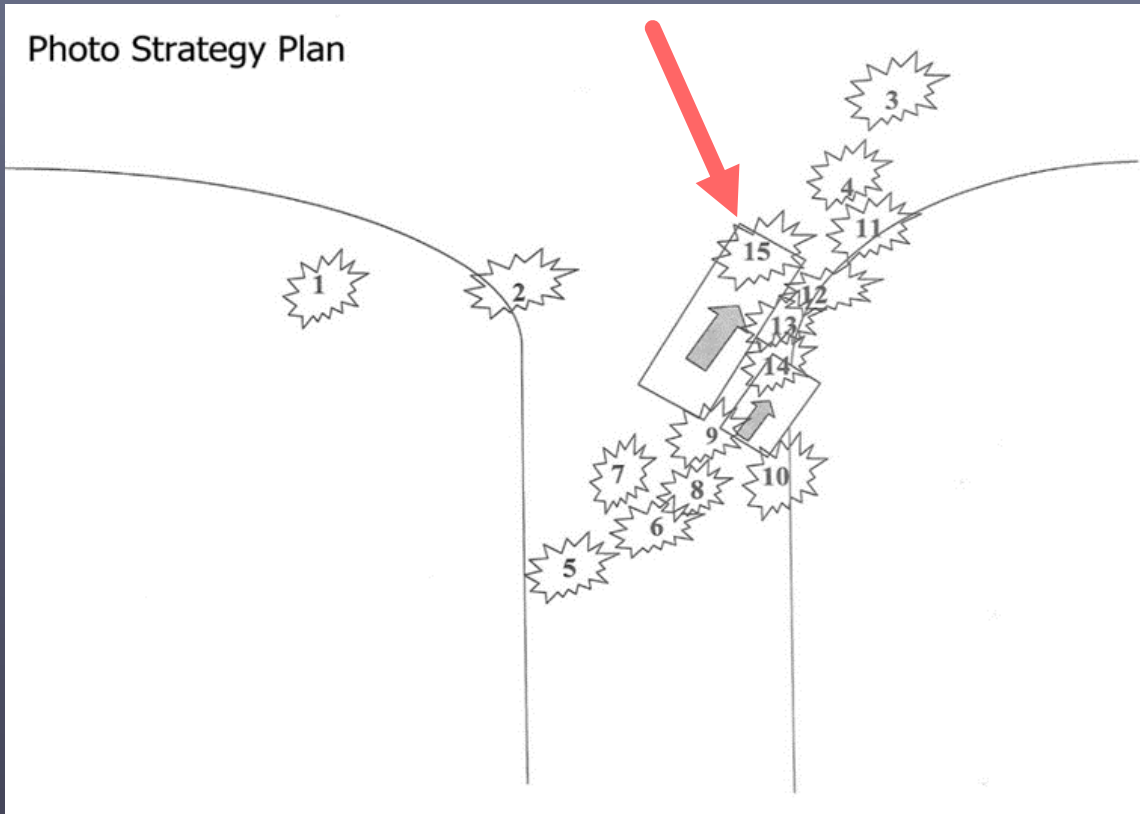
### WHOM DO WE INTERVIEW?

#### ON SCENE INTERVIEWS

When conducting an interview at the scene, it is important for the investigator to respond to the needs of the operator as much as possible. If the operator is available at the scene, he or she should be interviewed out of the presence of other witnesses and persons. Depending on labor contract agreements, the operator may wish to have a third party present, such as a union representative. If the operator can be interviewed at the scene, his or her first impressions will probably be more accurate than testimony given at a later time.

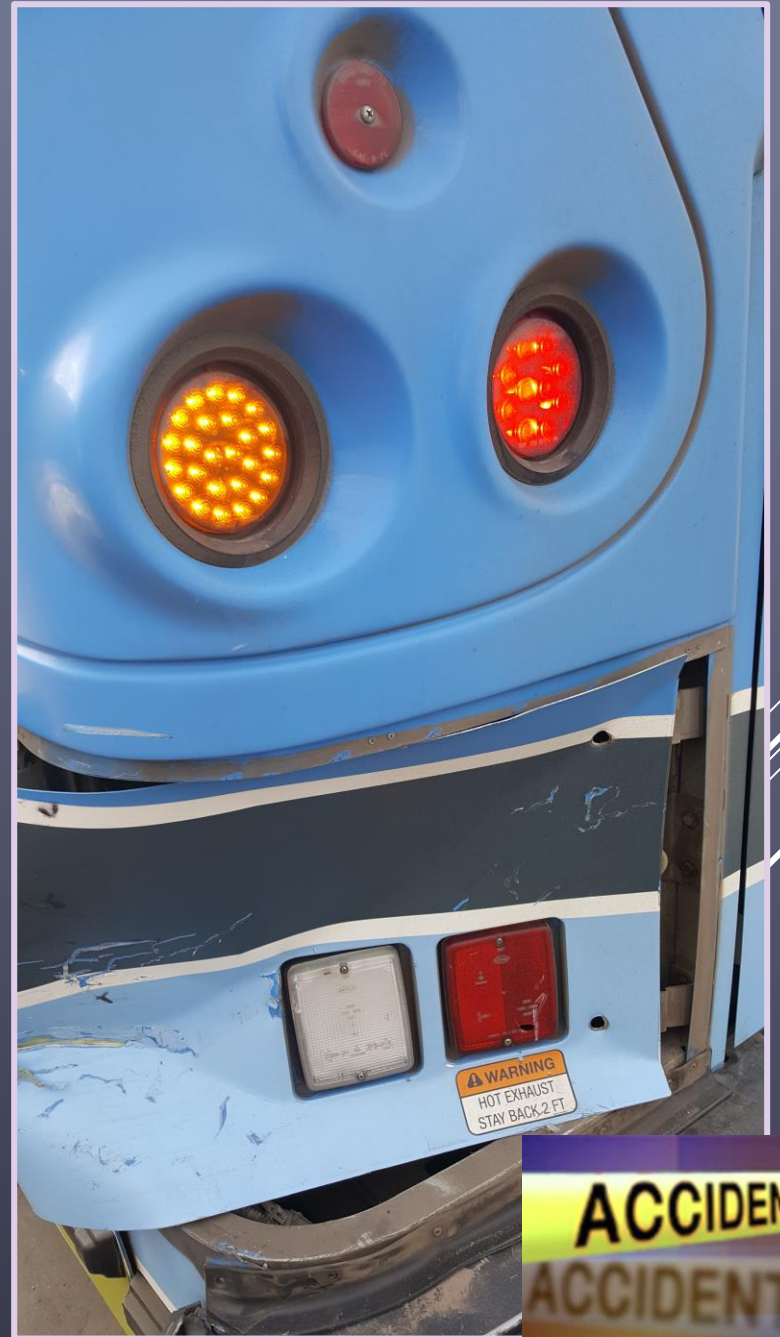
# PROCEDURES & FORMS





# PHOTOGRAPHIC RECORD





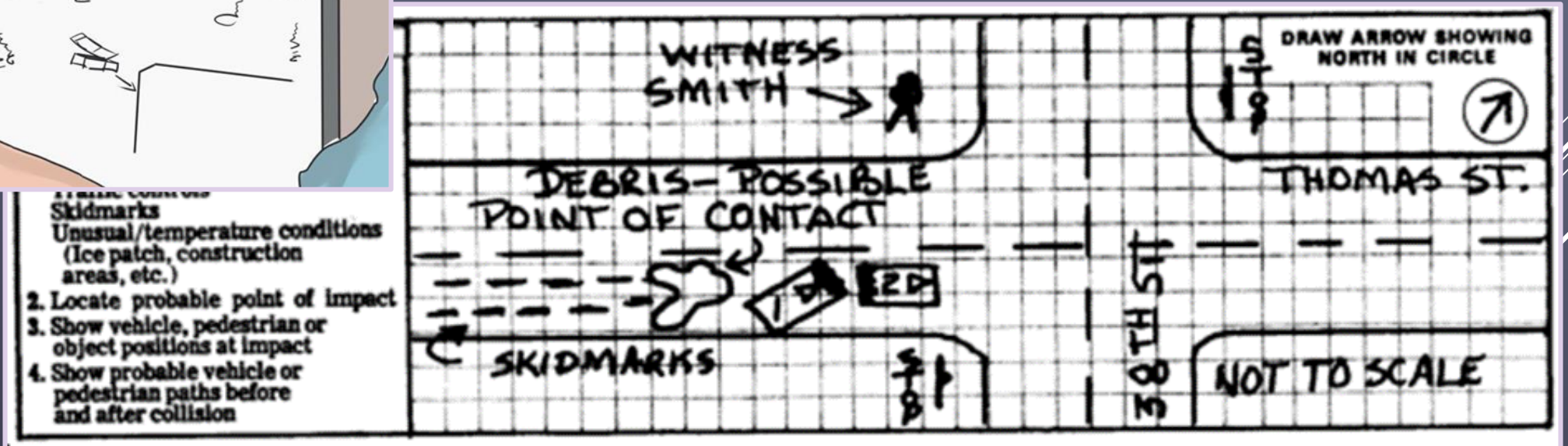
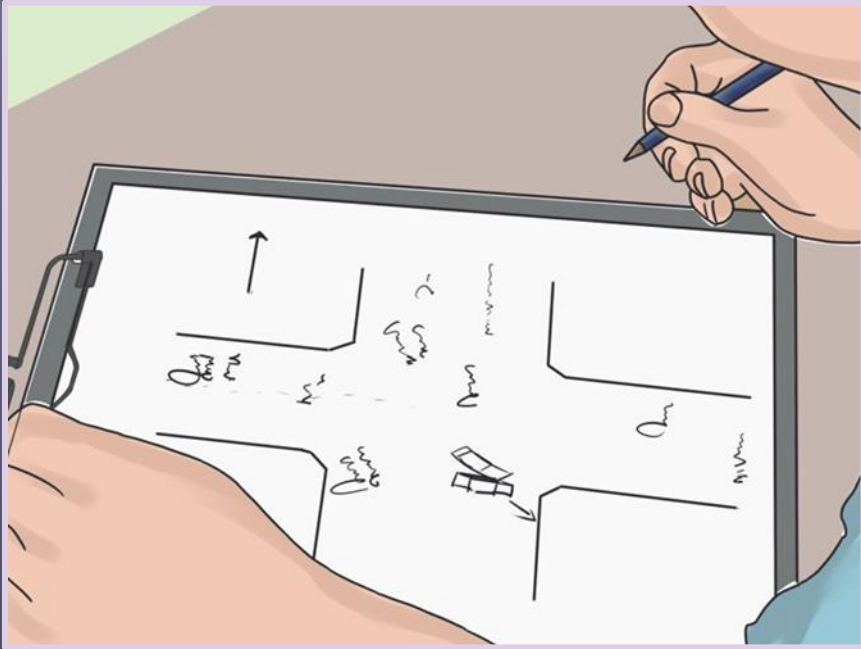
**ACCIDENT**  
**ACCIDENT**



**ACCIDENT**  
ACCIDENT



**ACCIDENT**  
**ACCIDENT**



- 1. Locate probable point of impact
  - 2. Locate probable point of impact
  - 3. Show vehicle, pedestrian or object positions at impact
  - 4. Show probable vehicle or pedestrian paths before and after collision
- Skidmarks  
Unusual/temperature conditions (Ice patch, construction areas, etc.)

# ACCIDENT FIELD SKETCHES





**POINT OF IMPACT / POINT OF REST  
REFERENCE POINTS / MEASUREMENTS  
“NOT TO SCALE”**

- ▶ When unable to get to scene in timely manner
- ▶ Review of vehicle operator's accident report & sketch
- ▶ Interview of vehicle operator
- ▶ Receipt of police report
- ▶ Other



# SUPERVISOR'S ACCIDENT REPORT



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## INTERVIEW TECHNIQUES

### WHOM DO WE INTERVIEW?

#### ON SCENE INTERVIEWS

In locating persons requiring interview at the scene, it is important for the investigator to respond to the scene as soon as possible. If the operator is available at the scene, he or she should be interviewed out of hearing distance from the scene. Depending on labor contract agreements, the operator may wish to have a union representative. If the operator can be interviewed at the scene, his or her testimony will be more accurate than testimony given at a later time.



# INTERVIEWING



# INSURANCE PERSPECTIVE

Eddie Thomas, Risk Consultant, Cobbs Allen Insurance Brokers



# INSURANCE'S APPROACH TO A/I

- ▶ Insurance for collisions & related losses
- ▶ Claim process
- ▶ Insurer's expectations & information needs
- ▶ Role of insurer in litigation or that of agency's legal services
- ▶ Risk management & loss control
  - ▶ Prevention
  - ▶ Loss minimization
  - ▶ Resources → OutFront 365

# OUTFRONT 365 OVERVIEW

- ▶ Web-based
- ▶ Features a variety of risk management tools:
  - ▶ Job Hazard Analysis Library
  - ▶ Safety Data Sheet Management
  - ▶ Certificate of Insurance Management
  - ▶ Employee Training Program
  - ▶ Risk Management Library
  - ▶ Incident Tracking and Claims Reporting
  - ▶ HR & Benefits Platform

The screenshot displays the Outfront 365 web application interface. At the top, there is a navigation menu with links for Home, Applications, Resources, Services, Administration, and Help, along with a notification icon. Below the navigation is a search bar labeled "Search the Risk Management Library" with a magnifying glass icon. The main content area features a grid of six images: a woman in a blue lab coat, a field of green crops, a construction site with a crane, a white semi-truck on a road, and two men in blue work clothes and white hard hats. Below the images are two panels: "Portal / Quick Links" and "Notifications and Alerts".

**Portal / Quick Links**

- Video Training Library
- Risk Management Content
- Free Educational Webinars
- Schedule Online Training
- HR Library

**Notifications and Alerts**

- There is 1 received certificate that expired.
- There are 2 open incidents.
- There are 196 new documents in the library.

## ▶ JHA Library

- ▶ Helps create job hazard analyses (JHAs), which are essential in HR for recruiting and hiring
- ▶ Complete library of pre-loaded JHAs

## ▶ SDS Management

- ▶ Organize your safety data sheets online
- ▶ Ability to search by appearance, name and more

# RISK MANAGEMENT RESOURCES



## Certificate of Insurance Management

Upload and manage your inbound COIs

Send reminders to vendors that a COI is about to expire

## Risk Management Library

Includes PowerPoint programs, safety posters, policies and procedures

Many of the resources are offered in Spanish as well as English

# RESOURCES



▶ Incident Track create efficiencies with its online recording, management and analysis of incidents.

▶ Features of Incident Track:

- ▶ Immediate reporting of all claims
- ▶ Easy to access loss history
- ▶ Ability to print OSHA logs

The screenshot shows a web form titled "Add new incident". At the top, there are fields for "Incident ID:", "Type: Work-Related injury (Recordable)", and "Employee:". Below this is a sidebar menu with options: "Basic Information", "Additional Information", "Claims Diary", "Investigation", and "Save". The main content area is divided into two sections: "Who" and "What". The "Who" section includes "Site employee based: Caitlin Miley Enterprises" with an "Edit company information" link, a dropdown menu for "\*Employee Involved:" with the placeholder text "Begin typing employee involved", and a checkbox for "I do not want the name of the employee on the OSHA log for this incident.". The "What" section has two text input fields: "\*Short Description:" and "\*Description:". At the bottom of the form are three buttons: "Save", "Save & Close", and "Cancel".

RESOURCES: INCIDENT TRACKING

- ▶ Training Track allows you to schedule online trainings and safety videos to your employees.
- ▶ Once you have scheduled trainings, you may track the status and download certificates.

The screenshot shows a web form titled "Schedule training course". It has two main sections: "\*Due Date:" with a calendar icon and a text input field; and "\*Employee selection:" with a dropdown menu. The dropdown menu is open, showing options: "-- Select employees by --", "-- Select employees by --" (highlighted), "Entire Site", "Department", "Position", "Employee", and "Classification". Below the dropdown is a "Remove" button. At the bottom of the form, it says "No training courses have been selected", "0 seats scheduled for a total of \$0.00", and a checkbox for "Send employee notifications immediately". There are "Confirm" and "Cancel" buttons at the bottom.

The screenshot shows a web page titled "Risk Management Library". It has a search bar at the top. Below the search bar, there are several categories listed with icons and descriptions:

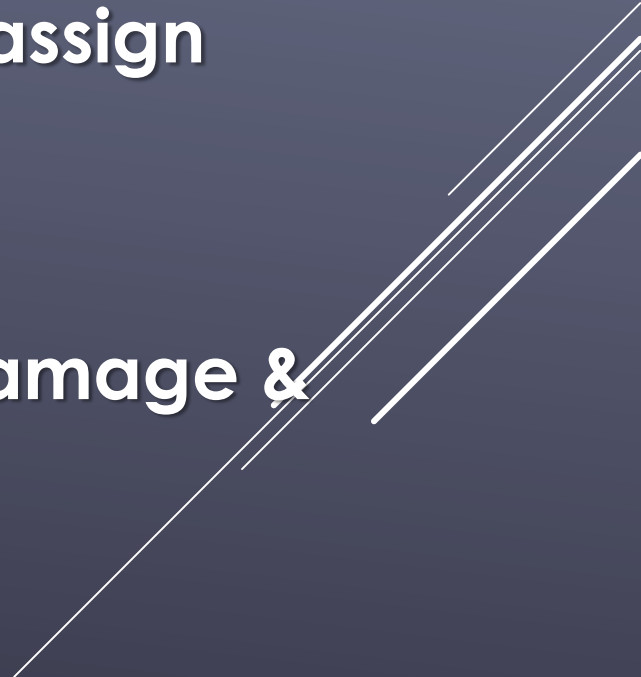
- Online Training Library**: A collection of comprehensive online e-learning training courses. Quizzes are included.
- Safety Videos**: A library of workplace safety and compliance videos.
- Policies and Procedures**: Documents to provide organizational direction.
- Training Materials**: PowerPoint programs for instructor-led training and presentations.
- Posters**: One-page safety pointers on a wide range of topics.
- Training Shorts**: Short instructional documents and toolbox talks, perfect for group-lead safety meetings.
- Quizzes**: Test employee knowledge with quizzes that complement the training materials.
- Links**: A selection of helpful websites and useful links.
- My Content**: Your personal directory of customized content and documents.
- Cobbs Allen Content**: Resources and content provided by your insurance company.

# RESOURCES: EMPLOYEE TRAINING



# WRITING AN ACCIDENT REPORT

# WRITING UP AN ACCIDENT REPORT

- ▶ Be specific. Answer the 5 W's (Who, What, Where, When & Why).
  - ▶ Just explain what happened. Don't editorialize, assign blame or fault.
  - ▶ Draw the field sketch (note "note to scale")
  - ▶ Include all photos (perpendicular of vehicles, damage & characteristics of the scene's area).
- 

# WRITING UP AN ACCIDENT REPORT

- ▶ Use the correct form – accident (collision) or incident (other)
- ▶ Do your report as soon as possible.
- ▶ Just tell the truth.
- ▶ Get names of witnesses and statements if possible.

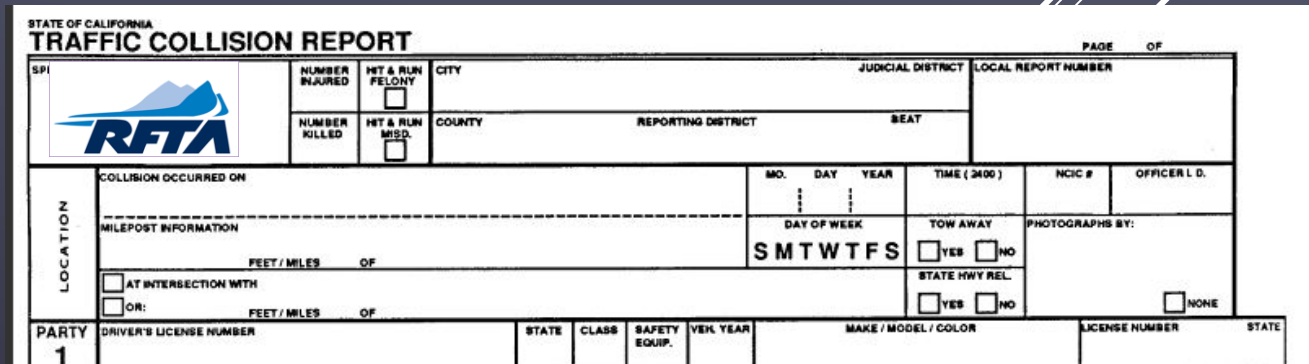


**GET** Incident Report Form

*To be received by staff within 12 hours of incident/accident*


Operator's Name: \_\_\_\_\_ Vehicle #: \_\_\_\_\_

Date of Incident: \_\_\_\_\_ Time of Incident: \_\_\_\_\_



STATE OF CALIFORNIA  
**TRAFFIC COLLISION REPORT**

PAGE \_\_\_\_\_ OF \_\_\_\_\_

SFI		NUMBER INJURED	HT & RUN FELONY <input type="checkbox"/>	CITY	JUDICIAL DISTRICT	LOCAL REPORT NUMBER	
		NUMBER KILLED	HT & RUN MISD. <input type="checkbox"/>	COUNTY	REPORTING DISTRICT	BEAT	

LOCATION	COLLISION OCCURRED ON			MO.	DAY	YEAR	TIME (2400)	NCIC #	OFFICER I. D.
	MILEPOST INFORMATION			DAY OF WEEK			TOW AWAY	PHOTOGRAPHS BY:	
	FEET / MILES OF			SMTWTFS			<input type="checkbox"/> YES <input type="checkbox"/> NO	STATE HWY REL.	

PARTY	AT INTERSECTION WITH			STATE HWY REL.		<input type="checkbox"/> YES <input type="checkbox"/> NO		NONE	
	OR:			FEET / MILES OF					

1	DRIVER'S LICENSE NUMBER	STATE	CLASS	SAFETY EQUIP.	VEH. YEAR	MAKE / MODEL / COLOR	LICENSE NUMBER	STATE
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# WRITING-UP AN ACCIDENT REPORT

- Keep information's use & purpose in mind
- Include information desired by management, safety risk management, insurance, legal, training, maintenance and operations
- Include disposition of all parties (e.g. hospital destinations), vehicles (including towed vehicles)
- Vehicle operator write report in native language of proficiency, translate, certify, attach to all accident reports



**ACCIDENT REPORT**

Personal Information

Last Name:	Middle Name:
City:	

# WRITING-UP AN ACCIDENT REPORT

- **Maintain accident & link to related agency files:**
  - Police reports
  - Courtesy cards
  - Declinations for medical attention
  - Any rider & eligibility files
  - Vehicle operator file
  - Vehicle maintenance
  - Safety complaints
  - Customer safety-related complaints
  - Other



**ACCIDENT REPORT**




# FIELD EXERCISE

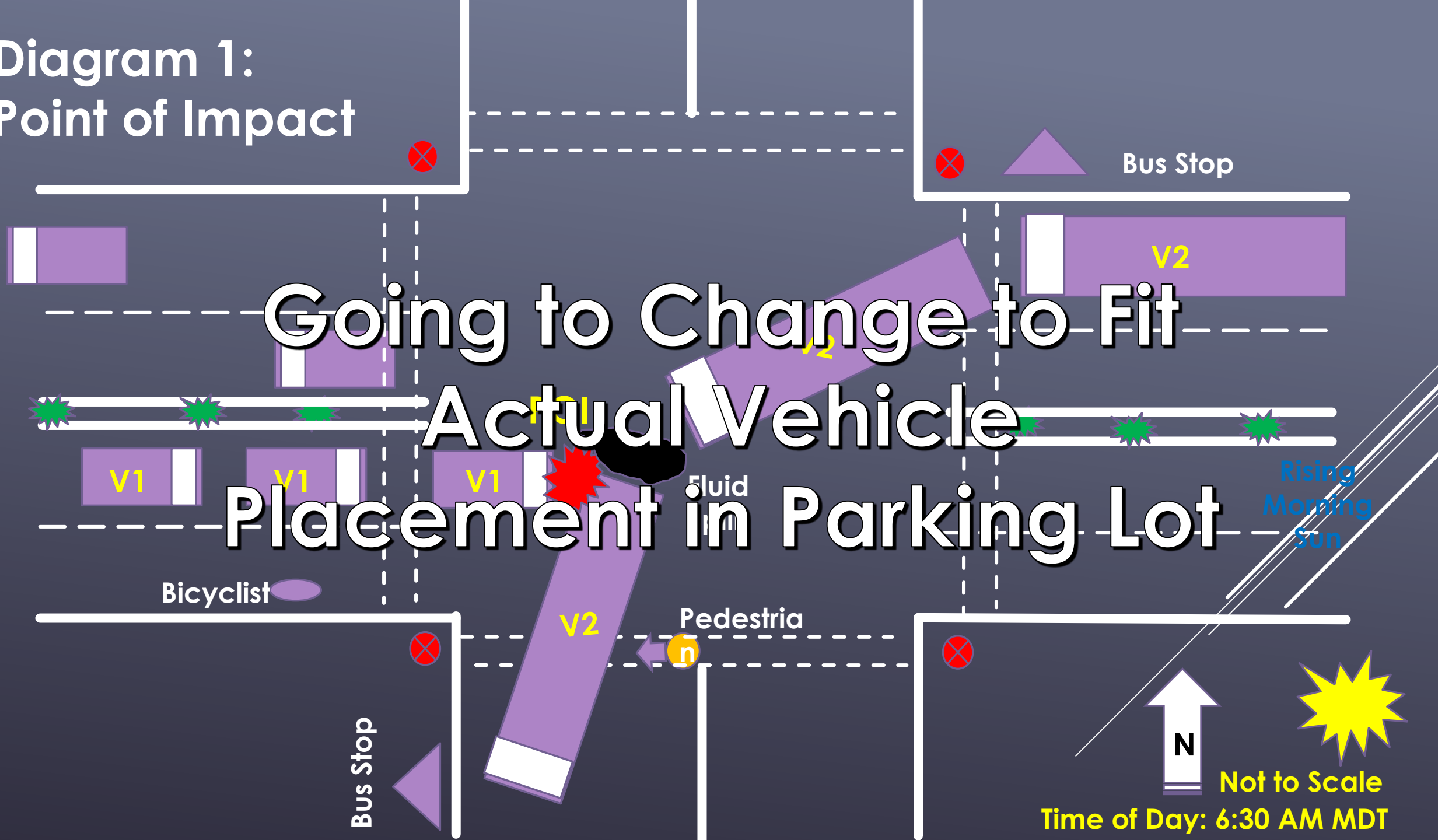
SUV Challenges GET Transit Bus to the intersection



# FIELD EXERCISE PREPARATION

- ▶ **Objective: collect needed accident information as a team of investigators or information collectors**
  - ▶ **Form into three (3) investigating teams**
  - ▶ **Select lead road supervisor, assign duties to team members**
    - ▶ **Interview vehicle operator of Vehicle 2 (V1)**
    - ▶ **Interview**
  - ▶ **Safety vests, cameras, report forms**
- 

# Diagram 1: Point of Impact



Going to Change to Fit  
Actual Vehicle  
Placement in Parking Lot

Not to Scale  
Time of Day: 6:30 AM MDT



4GIFs.com



**WHERE ARE THE POI & POR?**



# AVAILABLE TIME:

	<input type="checkbox"/> Exercise overview and instructions	15 min.
	<input type="checkbox"/> Team preparation	10 min.
	<input type="checkbox"/> Event scene inspections and information gathering	20 min.
	<input type="checkbox"/> Team discussion and summation of findings	10 min.
▶ <b>A</b>	(including self-examination of photos)	
	<input type="checkbox"/> Review of all team findings (facts, no conclusions)	15 min.
▶ <b>B</b>	<input type="checkbox"/> Exercise closing and conclusion	10min.
	<input type="checkbox"/> Summary and closing of conference session	2 min.
▶ <b>C</b>		
▶ <b>D</b>		
▶ <b>E</b>		

# EXERCISE REVIEW & DISCUSSION



**CLOSING**

