

# HILLSBOROUGH AREA REGIONAL TRANSIT



## TECO LINE STREETCAR SYSTEM





## MISSION STATEMENT

The mission of the Hillsborough Area Regional Transit Authority (HART) is to provide public transportation services, which are safe, dependable, and cost effective, thereby enhancing the quality of life in our community.







Service carries passengers to and from numerous businesses, major hotels and entertainment venues throughout the Ybor and Channelside districts. The line also provides service to the Tampa Convention Center, Tampa Aquarium, Port of Tampa Cruise Ships, and the St. Pete Times Forum – home of the Tampa Bay Lightning .





- Phase I – 2.3 miles of service began 10-19-02.
- 20th Street and 8th Avenue in Ybor City to Ice Palace Drive and Franklin Street in downtown Tampa.
- Phase II, currently in the planning stages, will extend service an additional 1/3 mile into the downtown central business district.



- Average Annual Ridership: 419,878
- Average Monthly Ridership: 34,989
- 63% of Ridership is Tourism
- 61% of Ridership occurs on Weekends
- Current statistics show an increase of approximately 40,000 for fiscal year 07.
- Several key special events generate increased ridership.





|                               | 2007        | 2006         | 2005         | 2004        | 2003        | Total         | Average        |
|-------------------------------|-------------|--------------|--------------|-------------|-------------|---------------|----------------|
| <b>4<sup>th</sup> of July</b> | <b>4376</b> | <b>4637</b>  | <b>3081</b>  | <b>4343</b> | <b>4750</b> | <b>21,187</b> | <b>4237.4</b>  |
| <b>Knight Parade</b>          | <b>6302</b> | <b>4037</b>  | <b>7006</b>  | <b>8229</b> | <b>8512</b> | <b>34,086</b> | <b>6817.2</b>  |
| <b>New Years Eve</b>          |             | <b>9508</b>  | <b>10164</b> | <b>9037</b> | <b>6078</b> | <b>34,787</b> | <b>8696.75</b> |
| <b>Octoberfest</b>            |             | <b>10641</b> | <b>6084</b>  | <b>7008</b> | <b>5025</b> | <b>28,758</b> | <b>7189.5</b>  |
| <b>Guavaween</b>              |             | <b>5019</b>  | <b>4604</b>  | <b>5117</b> | <b>4985</b> | <b>19,725</b> | <b>4931.25</b> |



Streetcars can also be chartered for special occasions such as conventions, weddings, parties.











- HART owns ten historic replica streetcars: nine Birney cars and one breezer-style car all purchased from the Gomaco Trolley Company in Ida Grove, Iowa.
- In addition to the ten Gomaco cars, a restored standard single truck Birney Safety Car owned by the Tampa & Ybor City Street Railway Society is also housed at the Ybor Station facility.



## Ten Station Stops

### Base Service

- Monday (11:00 am – 10:00 pm)
- Tuesday (11:00 am – 10:00 pm)
- Wednesday (11:00 am – 10:00 pm)
- Thursday (11:00 am – 11:00 pm)
- Friday (11:00 am – 1:00 am)
- Friday (1:00 am – 2:00 am)
- Saturday (9:00 am – 11:00 am)
- Saturday (11:00 am – 1:00 am)
- Saturday (1:00 am – 2:00 am)
- Sunday (12:00 pm – 8:00 pm)

### Headway

15 minutes  
15 minutes  
15 minutes  
15 minutes  
15 minutes  
30 minutes  
30 minutes  
15 minutes  
30 minutes  
15 minutes





- |                          |                 |
|--------------------------|-----------------|
| ■ Construction:          | Steel Uni-body  |
| ■ Length:                | 46 feet         |
| ■ Width:                 | 8 feet 6 inches |
| ■ Empty Weight:          | 48,000 pounds   |
| ■ Seated Passenger Load: | 44 passengers   |
| ■ Full Passenger Load:   | 84 passengers   |
| ■ Maximum Speed:         | 30 MPH          |



- Conventional electric rail (600V DC OCS).
- Single-track, bi-directional system with six sidings (passing tracks) to permit the passing of streetcars traveling in opposite directions.
- Streetcars operate by line of sight with one direction having right over the other.
- Streetcars traveling in the opposite direction must enter designated sidings and await the arrival of the streetcar traveling in the opposite direction.





- Line of sight operation





The Rail Barn – Ybor Station – houses  
Maintenance, Operations.

Executive offices are currently being  
constructed on the third floor.







- Two 1 ½ megawatt substations





A key feature of the alignment is an at-grade crossing (Ybor Interlocking) of the CSX Railroad's Tampa Terminal Subdivision located near the old alignment of 13th Street between 4th and 5th Avenues in Ybor City.







- CSX personnel conduct training on interlocking to student motormen.



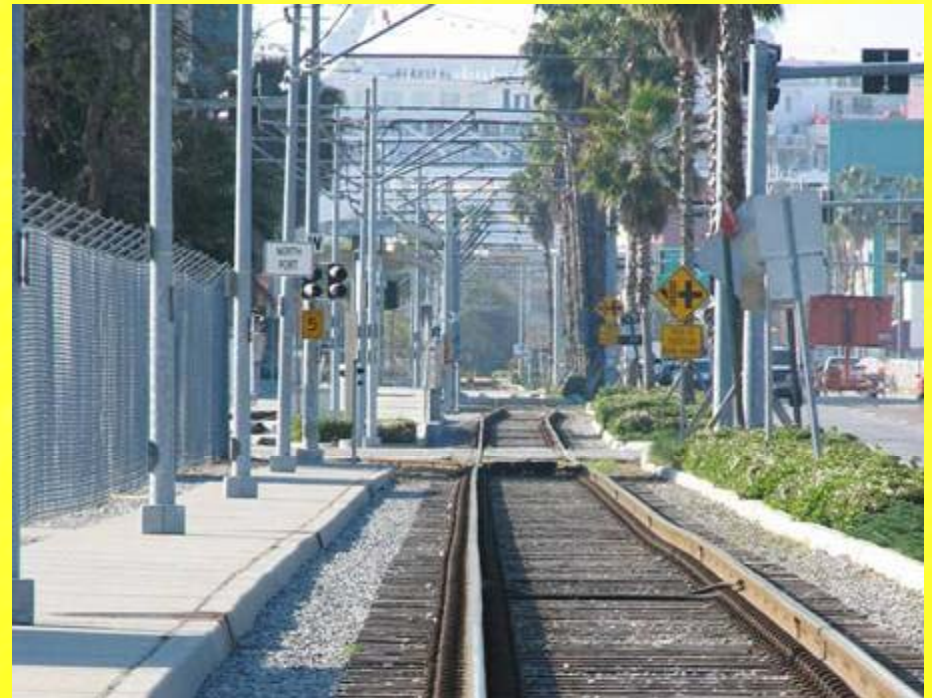


- The streetcar tracks do not share vehicle travel lanes, and are separated from street traffic by low barriers and landscaping. At signalized intersections, a separate signal (Opticom) is linked to the traffic control system.
- You would think that the possibility of accident involvement would be limited to driveways and intersections.





Low barriers - Signage - Signalization - Traffic Control





They still find a way!







**"REGULATORY COMPLIANCE"**

**WHY?**



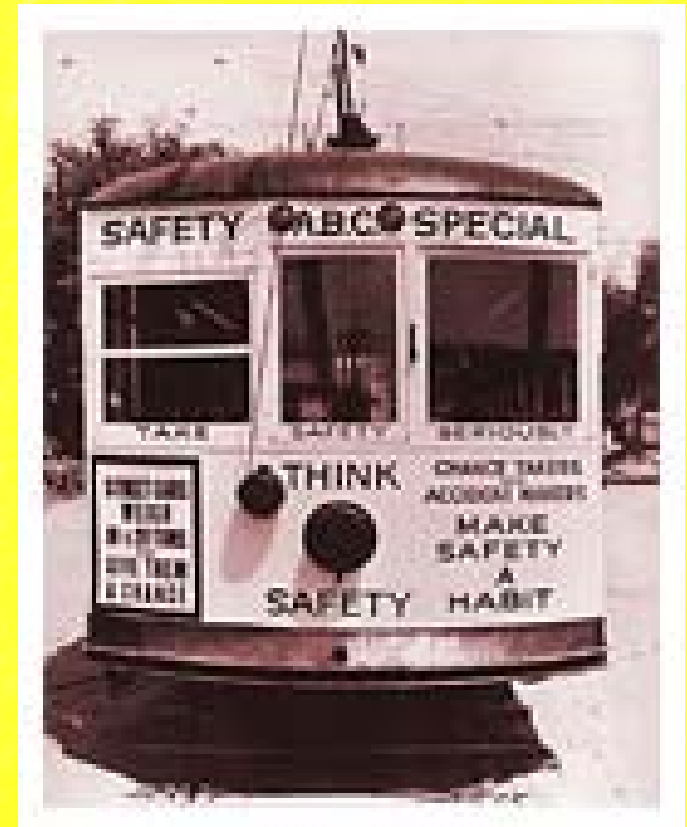
To provide our employees, customers, and the general public with a safe and secure environment, free from hazards.







- 49 CFR Part 659
- Federal Transit Administration (FTA), Department of Transportation
- Rules Governing State Safety Oversight of Rail Fixed Guideway Transportation Systems





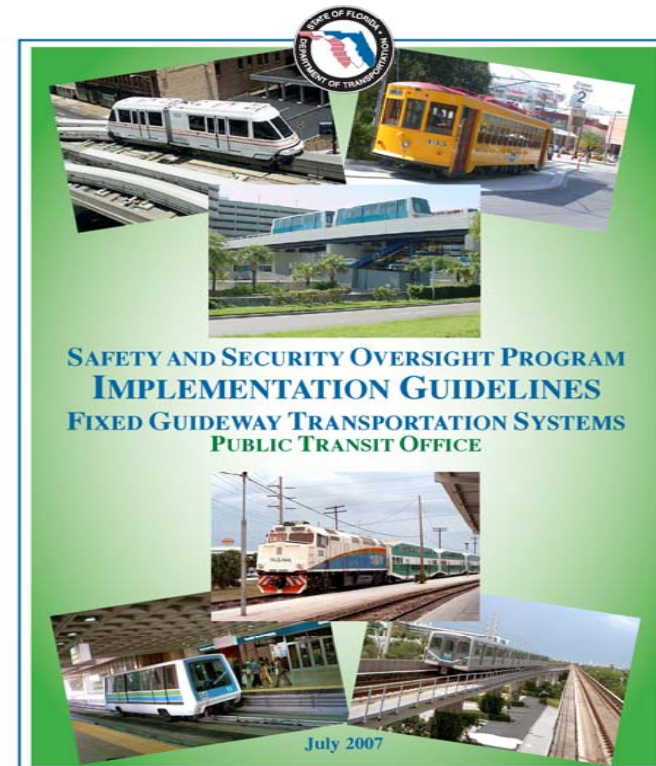
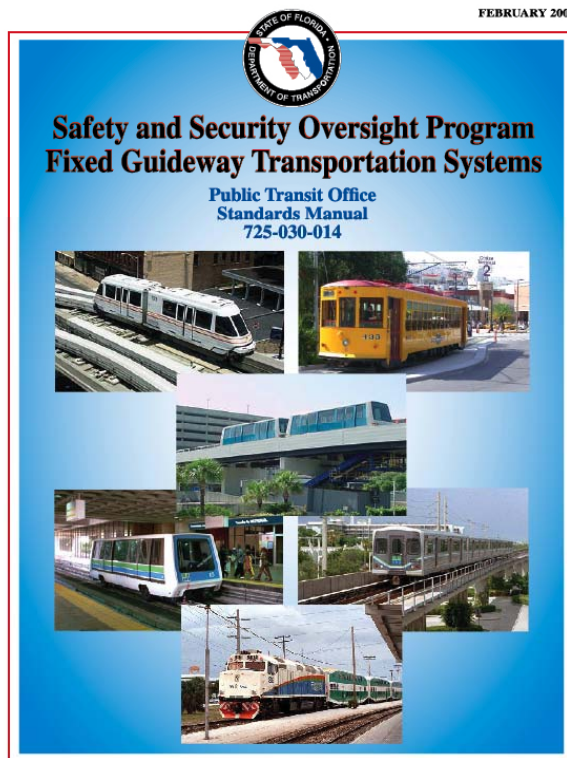
- Florida Department of Transportation (FDOT) has been designated as the State Safety Oversight Agency for the State of Florida.
- TECO reports to HART, HART reports to FDOT, FDOT reports to FTA.







Florida Department of Transportation (FDOT)  
provides Florida Rail Properties:





EXTERNAL AND INTERNAL  
CONTROLS AND PROCESSES  
TO PREVENT ACCIDENTS AND  
HAZARDOUS CONDITIONS  
SUCH AS.....





THIS..





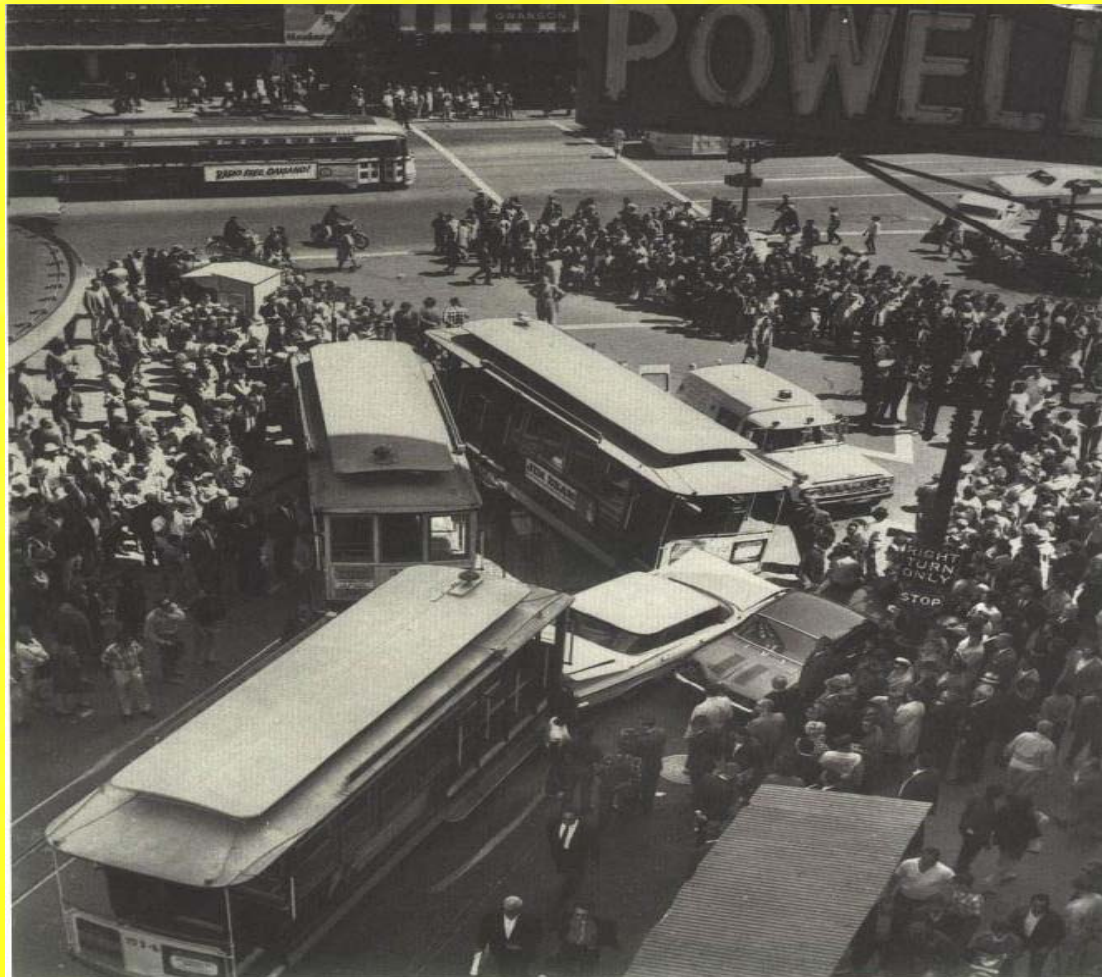
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AND THIS...





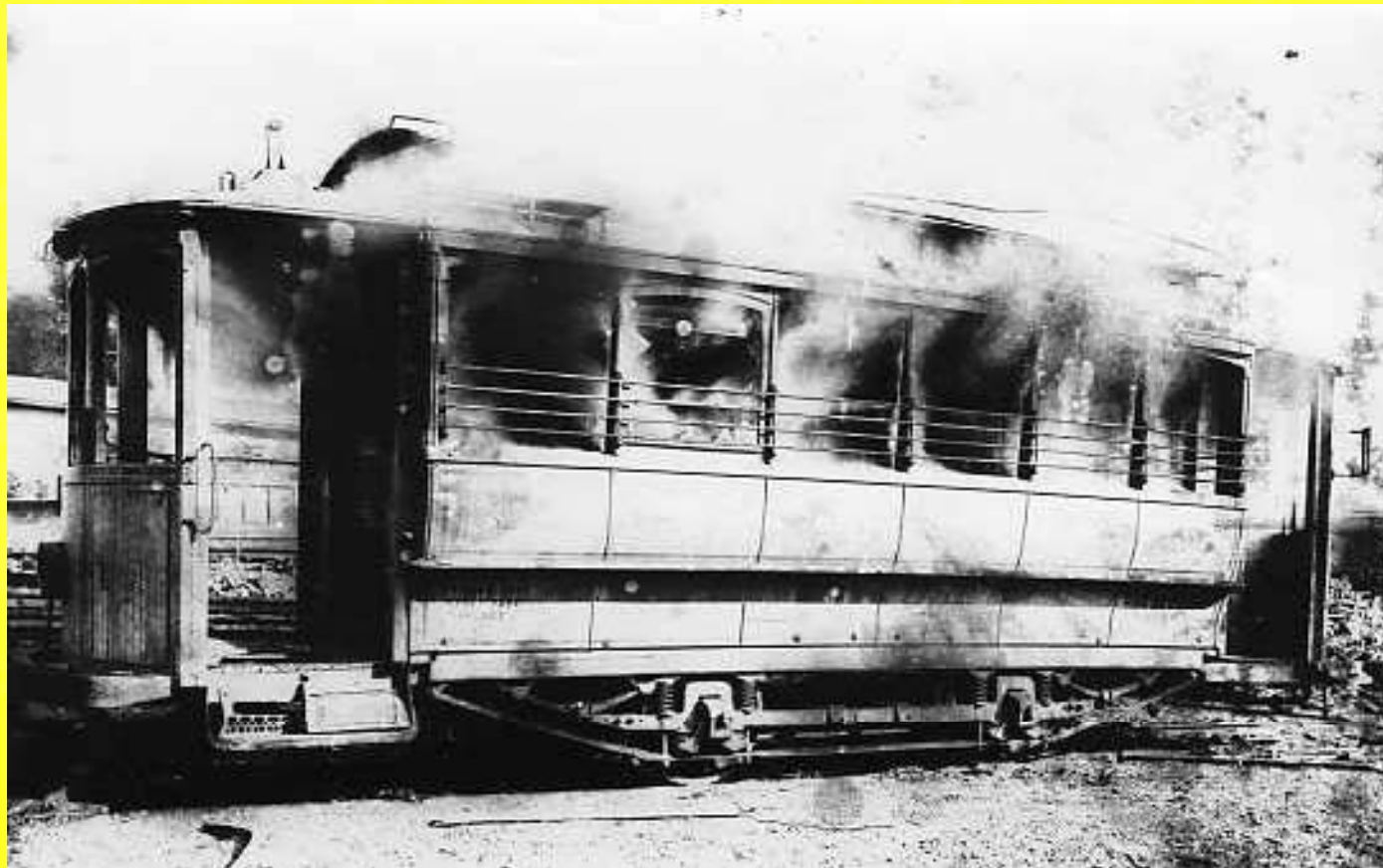
AND THIS...







THIS...





AND THIS!







**\$ 659.7 Withholding of funds for noncompliance. \$**



- (a) The Administrator of the FTA may withhold up to five percent of the amount required to be distributed to any state or affected urbanized area in such state under FTA's formula program for urbanized areas, if:
  - (1) The state in the previous fiscal year has not met the requirements of this part; and
  - (2) The Administrator determines that the state is not making adequate efforts to comply with this part.
- (b) The Administrator may agree to restore withheld formula funds, if compliance is achieved within two years (See 49 U.S.C. 5330).



What are the elements required to keep the system safe and secure?







The goal during acquisition/start up is to ensure safety and security have been designed into The system and that all specified safety and security features have been certified: Planning, Design, Construction, Testing.





The *Joint Task Force on Safety and Security Certification*, established between the Federal Transit Administration (FTA) and the American Public Transportation Association (APTA), prepared a Handbook to support the efforts of the transit industry to achieve continuous improvement in safety and security performance. The Handbook provides a guide for establishing a certification program to address safety and security that:

- Identifies the key activities
- Incorporates safety and security more fully into transit projects
- Highlights resources necessary to develop and implement a certification program for safety and security
- Provides tools and sample forms to promote implementation of the safety and security certification process

<http://www.transit-safety.volpe.dot.gov/Publications/safety/SafetyCertification/html/ssc.htm#20>





- Step 1: Identify Certifiable Elements
- Step 2: Develop Safety and Security Design Criteria
- Step 3: Develop and Complete Design Criteria Conformance Checklist
- Step 4: Perform Construction Specification Conformance
- Step 5: Identify Additional Safety and Security Test Requirements
- Step 6: Perform Testing and Validation in Support of the SSC Program
- Step 7: Manage Integrated Tests for the SSC Program
- Step 8: Manage "Open Items" in the SSC Program
- Step 9: Verify Operational Readiness
- Step 10: Conduct Final Determination of Project Readiness and Issue Safety and Security Certification



## Step 1: Identify Certifiable Elements

Safety certifiable elements include all project elements that can affect the safety and security of transit agency passengers, employees, contractors, emergency responders, or the general public.







## **Step 2: Develop Safety and Security Design Criteria**

Safety and security are addressed during project design through identification of safety and security design criteria for each certifiable element.





### **Step 3: Develop and Complete Design Criteria Conformance Checklist**

This process involves the creation of a checklist for each certifiable element to record requirements generated from safety and security design criteria. These checklists – referred to as Design Criteria Conformance Checklists – provide a format to verify compliance with identified safety and security requirements.







### Design Verification for Safety and Security Certifiable Items

Element: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_  
 Sub-Element: \_\_\_\_\_ Prepared by: \_\_\_\_\_  
 Revision: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contract Number: \_\_\_\_\_

| Status                 |             | Means of Verification - Design |                         |                     |         |      |                       |
|------------------------|-------------|--------------------------------|-------------------------|---------------------|---------|------|-----------------------|
| C = Compliance         |             | S = Submittal                  |                         |                     |         |      |                       |
| N = Noncompliance      |             | D = Design                     |                         |                     |         |      |                       |
| P = Partial Compliance |             |                                |                         |                     |         |      |                       |
| Item No.               | Description | Safety Design Criteria         | Design Cross References | Design Verification |         |      | Means of Verification |
|                        |             |                                |                         | Status              | Initial | Date |                       |
|                        |             |                                |                         |                     |         |      |                       |
|                        |             |                                |                         |                     |         |      |                       |
|                        |             |                                |                         |                     |         |      |                       |
|                        |             |                                |                         |                     |         |      |                       |
|                        |             |                                |                         |                     |         |      |                       |

### DESIGN VERIFICATION APPROVAL

Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Organization \_\_\_\_\_

### NOTES/EXCEPTIONS:



### **Step 4: Perform Construction Specification Conformance**

The construction specification conformance process is used to verify that the as-built facilities and systems incorporate the safety and security-related requirements identified in the specifications and other contract documents, including approved changes since the final design.







### **Step 5: Identify Additional Safety and Security Test Requirements**

Integrated testing verifies the functional interface between different equipment or systems. Both contractor and integrated testing are subject to certification.





| REQUIRED SAFETY AND SECURITY<br>TEST DESCRIPTION SHEET |             |  |
|--|-------------|--|
| Test Name:   |             |  |
| Test Procedure:  |             |  |
| Contracts Involved:                                    |             |  |
| Test Objectives:                                       |             |  |
| Test Description:                                      |             |  |
| Test Prerequisites:                                    |             |  |
| Resources<br>Required                                  | Personnel:  |  |
|  | Equipment:  |  |
|  | Facilities: |  |
| Time Required:   |             |  |





## **STEP 6: Perform Testing and Validation in Support of the SSC Program**

Appropriate documentation supporting verification of the safety and security requirements should be submitted or available for review by the project team with its location clearly identified.





Streetcar Certifiable Items List

Vehicle # 428

| <u>Item</u>          | <u>Procedure</u>  | <u>Results</u>                      |
|----------------------|---|-------------------------------------|
| Propulsion System    | Top speed from Start to 150' (measured in time and mph)                           | 18 seconds - 21mph                  |
| Friction Braking     | Distance and Time from Top Speed in 150' to complete stop                         | 7 seconds - 112 feet                |
| Hand Brake           | Operation of hand brake   | Holds car at one notch acceleration |
| Doors                | Normal operation, door override and emergency release<br>Sensitive edge operation | All working satisfactory            |
| Controller Interlock | Emergency controller is disabled when door is open                                | OK                                  |
| Auxiliary Electric   | Operation of items operated by battery power<br>(i.e. emergency lights, doors)    | All working order                   |

Compressed Air Systems    Air build up time, compressor "cut in" and "cut out"  
PSI, air gauge operation    3 minutes build up time  
35psi cut-in  
70psi cut-out

Interior Lighting    Operation of all lighting    OK

Exterior Lighting    Operation of all installed lighting    OK

Communications    Operation of radios, whistles, bells    OK

Safety    Fire Extinguisher, Opticom system    OK

Signature: *JM Carroll*  
HARTline Representative

Date: 9/29/02

Signature: *[Signature]*  
GOMACO Representative

Date: 9/29/02





## Step 7: Manage Integrated Tests for the SSC Program

Integrated tests are any tests or series of tests, which require the interface of more than one element and are designed to verify the integration and compatibility between system elements.





## Step 8: Manage “Open Items” in the SSC Program

As the certification proceeds, open items will be identified and will need to be managed. During pre-revenue testing and start-up activities, requests for work-arounds and temporary permits of occupancy and/or notices will be made. The SSC Program must have the tools available to ensure that the safety and security designed into the system are realized in the delivered, tested, and validated project.







| STATUS REPORT FOR CLOSE-OUT |                 |                    |                        |           |
|-----------------------------|-----------------|--------------------|------------------------|-----------|
| Item No.                    | System Element: | Sub-system:        | Reference Information: | Date:     |
| Description of Condition:   |                 | Required Controls: |                        |           |
| Status:                     |                 | Responsibility:    |                        | Approved: |
|                             |                 | Name:              | Department:            |           |



## **Step 9: Verify Operational Readiness**

Operational readiness includes activities to verify the following:

- Operations, maintenance, and emergency rules, procedures, and plans have been developed, reviewed, and implemented
- Manuals have been developed, reviewed, approved
- Safety/security-related training for operations and maintenance personnel has been developed, performed, and successfully completed by all personnel as required
- Emergency training has been developed, performed, and successfully completed by all personnel as required, including public safety personnel (if appropriate)
- Emergency drills and training have been conducted with outside agencies
- In addition, during this period, the project team should conduct a final “walk-through inspection” of completed facilities and systems.







## **STEP 10: Conduct Final Determination of Project Readiness and Issue Safety and Security Certification**

Before revenue service begins, prior to completing its formal certification, the project team and supporting committees should review all safety and security certification documentation to determine if any outstanding items remain.

Approval of certifiable elements occurs when work has been completed in conformance with criteria and hazards have been reduced to an acceptable level.

Any remaining work-arounds affecting a certifiable element require a hazard management plan to be initiated that will analyze the hazard and control the risk to an acceptable level for a defined period of time.









## Operations Goal:

To ensure that safety and security are maintained in transit operations and that all system elements are performing to safety specifications and/or established procedures.





## REQUIRED:

- Approved SSPP and SSEPP – 21 safety and 14 security elements
- Written procedure for conducting annual self-audits
- Written procedure for conducting accident and unacceptable hazardous condition investigation
- Procedure for documenting corrective action
- Process for communicating with Oversight Agency
- Annual updates – recertification of SSPP and SSEPP signed by CEO





## 1.1 System Safety Program Plan (SSPP)

- 1.1.1 Applicable FGTS  
Section 1.1 applies to all FTA and Non-FTA funded FGTS.
- 1.1.2 Minimum Requirements
- Each FGTS shall develop, adopt, implement, and maintain a written SSPP that complies with this SSO Manual and FTA's SSO regulations in *49 CFR 659.17* and *49 CFR 659.19*. The adopted SSPP shall include at a minimum:
  - (1) A policy statement signed by the Chief Executive of the FGTS that endorses the safety program and describes the authority that establishes the SSPP.
  - (2) A clear definition of the goals and objectives for the safety program and stated management responsibilities to ensure that they are achieved.
  - (3) An overview of the management structure of the FGTS, including: (i) an organization chart; (ii) a description of how the safety function is integrated into the rest of the FGTS organization; and (iii) clear identification of the lines of authority used by the FGTS to manage safety issues.
  - (4) The process used to control changes to the SSPP, including: (i) specifying and documenting an annual assessment of whether the SSPP should be updated; and (ii) required coordination with the Department, and timeframes for submission, revision and approval.
  - (5) A description of the specific activities required to implement the system safety program, including: (i) tasks to be performed by FGTS safety function, by position and management accountability, specified in matrices and/or narrative format; and (ii) safety-related tasks to be performed by other FGTS departments, by position and management accountability, specified in matrices and/or narrative format.
  - (6) A description of the process used by the FGTS to implement its hazard management program, including activities for: (i) hazard identification; (ii) hazard investigation, evaluation, and analysis; (iii) hazard control and elimination; (iv) hazard tracking; and (v) requirements for on-going reporting to the Department relating to hazard management activities and status.
  - (7) A description of the process used by the FGTS to ensure that safety concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety certification but which may have safety impacts.
  - (8) A description of the safety certification process required by the FGTS to ensure that safety concerns and hazards are adequately addressed prior to the initiation of passenger operations for any new starts project and subsequent major projects to extend, rehabilitate, or modify an existing system, or to replace vehicles and equipment.
  - (9) A description of the process used to collect, maintain, analyze, and distribute safety data, to ensure that the safety function within the FGTS receives the necessary information to support implementation of the system safety program.
  - (10) A description of the process used by the FGTS to perform incident notification, investigation and reporting, including: (i) notification thresholds for internal and external organizations; (ii) investigation process and references to procedures; (iii) the process used to develop, implement and track corrective actions that address investigation findings; (iv) reporting to internal and external organizations; and (v) coordination with the Department.





- (11) A description of the process used by the FGTS to develop an approved, coordinated schedule for emergency management program activities, which include: (i) meetings with external agencies; (ii) emergency planning responsibilities and requirements; (iii) process used to evaluate emergency preparedness, such as annual emergency field exercises; (iv) after action reports and implementation of findings; (v) revision and distribution of emergency response procedures; (vi) familiarization training for public safety organizations; and (vii) employee training.
- (12) A description of the process used by the FGTS to ensure that planned and scheduled internal safety reviews are performed to evaluate compliance with the SSPP, including: (i) identification of departments and functions subject to review; (ii) responsibility for scheduling reviews; (iii) process for conducting reviews, including the development of checklists and procedures and issuing of findings; (iv) review of reporting requirements; (v) tracking the status of implemented recommendations; and (vi) coordination with the Department.
- (13) A description of the process used by the FGTS to develop, maintain, and ensure compliance with rules and procedures having a safety impact, including: (i) identification of operating and maintenance rules and procedures subject to review; (ii) techniques used to assess the implementation of operating and maintenance rules and procedures by employees, such as performance testing; (iii) techniques used to assess the effectiveness of supervision relating to the implementation of operating and maintenance rules; and (iv) process for documenting results and incorporating them into the hazard management program.
- (14) A description of the process used for facilities and equipment safety inspections, including: (i) identification of facilities and equipment subject to regular safety-related inspection and testing; (ii) techniques used to conduct inspections and testing; (iii) inspection schedules and procedures; and (iv) description of how results are entered into the hazard management process.
- (15) A description of the maintenance audits and inspections program including identification of the affected facilities and equipment, maintenance cycles, documentation required, and the process for integrating identified problems into the hazard management process.
- (16) A description of the training and certification program for employees and contractors, including: (i) categories of safety-related work requiring training and certification; (ii) a description of the training and certification program for employees and contractors in safety-related positions; (iii) process used to maintain and access employee and contractor training records; and (iv) process used to assess compliance with training and certification requirements.
- (17) A description of the configuration management control process, including: (i) the authority to make configuration changes; (ii) process for making changes; and (iii) assurances necessary for formally notifying all involved departments.
- (18) A description of the safety program for employees and contractors that incorporates the applicable local, state, and federal requirements, including: (i) safety requirements that employees and contractors must follow when working on, or in close proximity to, FGTS controlled property; and (ii) processes for ensuring the employees and contractors know and follow the requirements.
- (19) A description of the hazardous materials program, including the process used to ensure knowledge of and compliance with program requirements.
- (20) A description of the drug and alcohol program and the process used to ensure knowledge of and compliance with program requirements.
- (21) A description of the measures, controls, and assurances in place to ensure that safety principles, requirements, and representatives are included in the FGTS procurement process.



## 2.1 Security Program Plans

### 2.1.1 Applicable FGTS

Chapter 2 applies to all FTA funded FGTS. Non-FTA funded FGTS are exempt from the requirements of this Chapter.

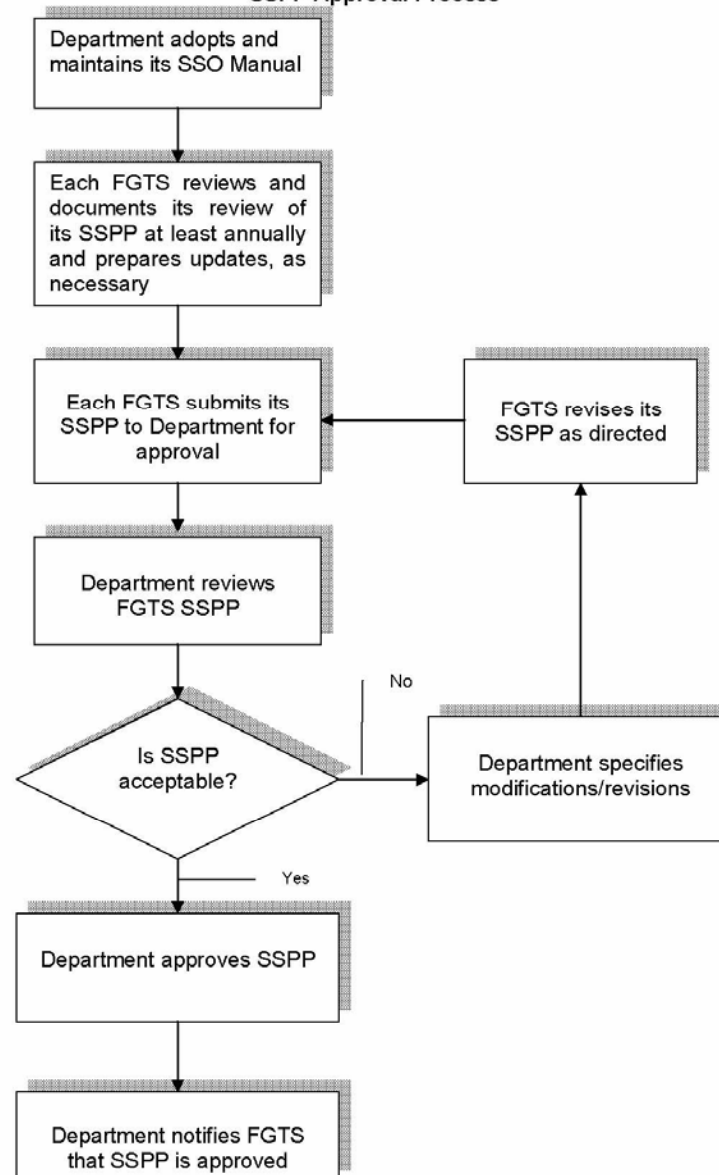
### 2.1.2 Minimum Requirements

Each FGTS shall develop, adopt, implement, and maintain a written Security Program Plan (SPP) that complies with this SSO Manual and FTA's SSO regulations in *49 CFR*

*659.21* and *49 CFR 659.23*. The adopted SPP shall include at a minimum:

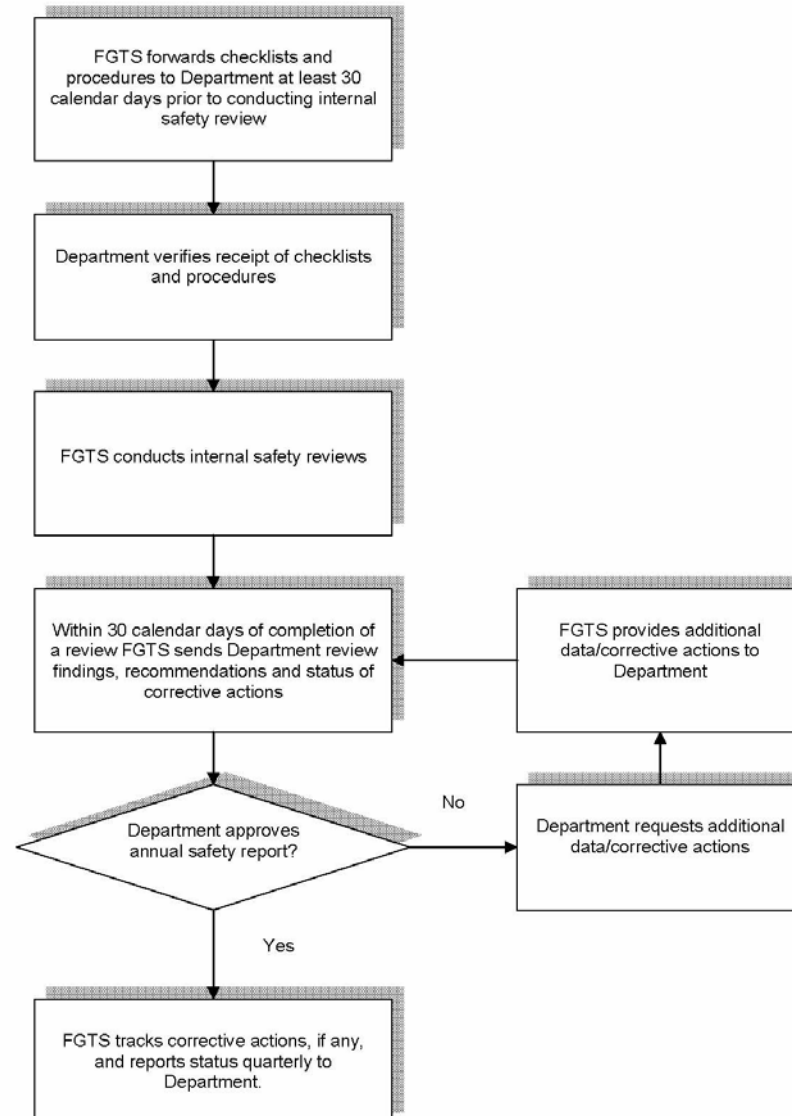
- (1) A policy statement signed by the Chief Executive of the FGTS that endorses the safety program and describes the authority that establishes the SPP.
- (2) A clear definition of the goals and objectives for the security program and stated management responsibilities to ensure that they are achieved.
- (3) An overview of the management structure of the FGTS, including: (i) an organization chart; (ii) a description of how the security function is integrated into the rest of the FGTS organization; and (iii) clear identification of the lines of authority used by the FGTS to manage security issues.
- (4) The process used to control changes to the SPP, including: (i) specifying and documenting an annual assessment of whether the SPP should be updated; and (ii) required coordination with the Department, and timeframes for submission, revision and approval.
- (5) A description of the specific activities required to implement the system security program, including: (i) tasks to be performed by FGTS security function, by position and management accountability, specified in matrices and/or narrative format; (ii) security-related tasks to be performed by other FGTS departments, by position and management accountability, specified in matrices and/or narrative format; and (iii) security-related tasks to be performed by other law enforcement agencies, if applicable.
- (6) A description of the process used by the FGTS to manage threats and vulnerabilities during operations and for major projects, extensions, new vehicles and equipment, including integration with the safety certification process.
- (7) A description of the process used by the FGTS to ensure that security concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety certification but which may have security impacts.
- (8) A description of the safety certification process required by the FGTS to ensure that security concerns are adequately addressed prior to the initiation of passenger operations for any new starts project and subsequent major projects to extend, rehabilitate, or modify an existing system, or to replace vehicles and equipment.
- (9) A description of the process used to collect, maintain, analyze, and distribute security data, to ensure that the security function within the FGTS receives the necessary information to support implementation of the system security program.
- (10) A description of the process used by the FGTS to perform security event/incident notification, investigation and reporting, including: (i) notification thresholds for internal and external organizations; (ii) investigation process and references to procedures; (iii) the process used to develop, implement and track corrective actions that address investigation findings; (iv) reporting to internal and external organizations; and (v) coordination with the Department.
- (11) A description of the process used by the FGTS to ensure that planned and scheduled internal security reviews are performed to evaluate compliance with the SPP, including: (i) identification of departments and functions subject to review; (ii) responsibility for scheduling reviews; (iii) process for conducting reviews, including the development of checklists and procedures and issuing of findings; (iv) review of reporting requirements; (v) tracking the status of implemented recommendations; and (vi) coordination with the Department.
- (12) A description of the security training and certification program for employees and contractors, including: (i) categories of security-related work requiring training and certification; (ii) a description of the training and certification program for employees and contractors in security-related positions; (iii) process used to maintain and access employee and contractor training records; and (iv) process used to assess compliance with training and certification requirements.
- (13) A description of the controls in place that address the personal security of passengers and employees.
- (14) A description of the FGTS process for making available its system security plan and accompanying procedures to the Department for review and approval.

Figure 1  
SSPP Approval Process



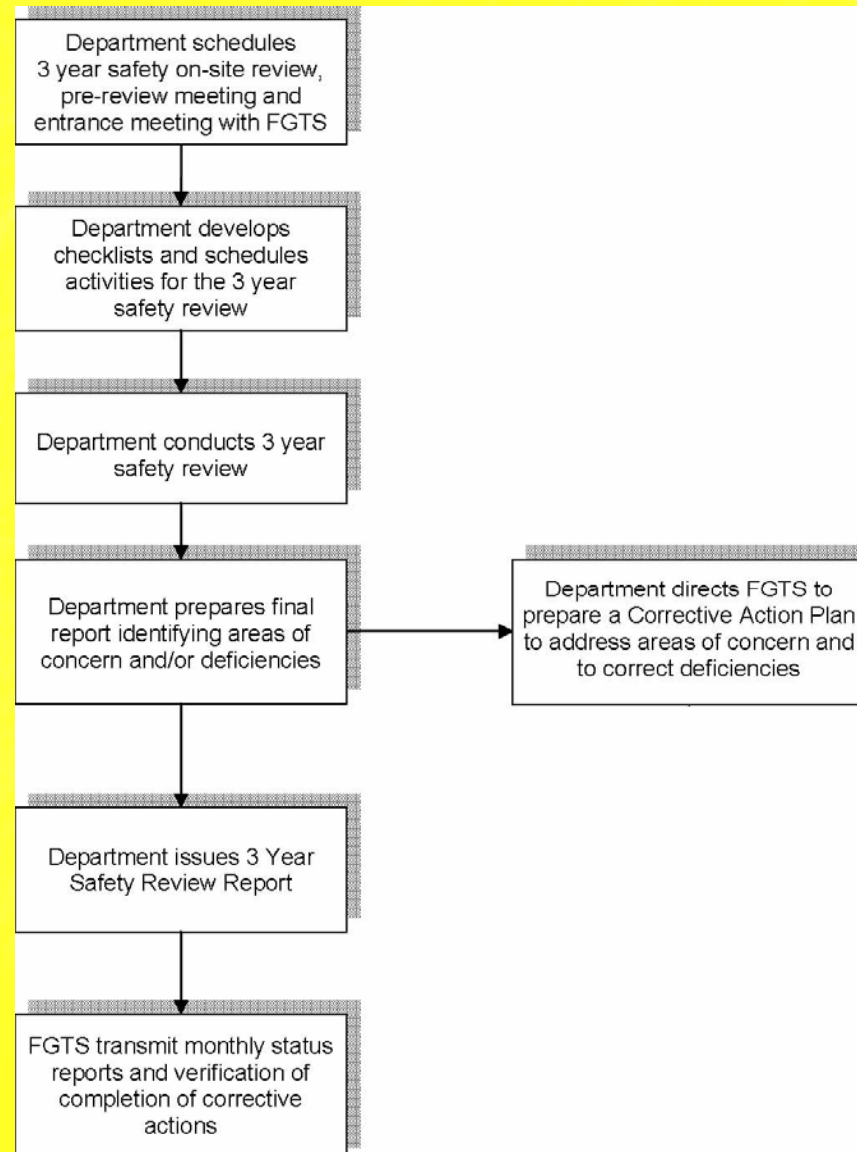


**Figure 2**  
**Internal Safety Review Process**



**Figure 3**

**3 Year Safety Review Process**





During all Operations and Maintenance daily processes, all personnel must be constantly observant of any unsafe hazardous conditions, accidents, incidents, and must report these in writing so that they can be evaluated by responsible personnel.







To date, the TECOLine Streetcar System has had very few reportable unacceptable hazardous conditions.





What we do experience are at-grade collisions/accidents with POV's.







The FGTS shall notify the Department within 2 hours of any safety or security event involving a rail transit vehicle or taking place on FGTS controlled property where one or more of the following occurs:

- (a) A fatality at the scene; or where an individual is confirmed dead within 30 calendar days of a transit-related incident;
- (b) Injuries requiring immediate medical attention away from the scene for two or more individuals;
- (c) Property damage to FGTS vehicles, non-FGTS vehicles, other FGTS property or facilities, and non-FGTS property that equals or exceeds \$25,000;
- (d) An evacuation due to life safety reasons;
- (e) A collision at a grade crossing;
- (f) A main-line derailment;
- (g) A collision with an individual on a FGTS right of way; or
- (h) A collision between a FGTS vehicle and a second FGTS vehicle or a FGTS non-revenue vehicle.





GOMACO Birney Car





GOMACO Breezer Car







Can you guess what this is?







Restored Birney Safety Car





At 48,000 pounds, the Streetcar always wins.







# **TECO LINE STREETCAR SYSTEM**

## **Investigation of Incidents and Hazardous Conditions**

**Procedure No. 2**

**Version 8**

**January 2007**







## Purpose

- This document provides procedures for all incident investigations conducted by the HART Office of Safety and Security for Streetcar Operations. The procedures are also utilized for any identified hazardous condition.
- A second purpose of the document is to provide a uniform policy for the establishment and assembly of a HART Incident Investigation Team.





- Major incidents are investigated by the HART Incident Investigation Team, as directed by the HART Office of Safety and Security.
- Minor incidents are investigated by front-line supervisory personnel, as directed by the Office of Safety and Security.





Investigations are organized based on the seriousness of the event or condition, according to the following criteria:

- **TYPE A: MAJOR INCIDENTS (Team Investigation)**
  - A fatality or multiple injuries
  - A collision, derailment or fire that causes property damage in excess of \$25,000
  - Hazardous Condition
- **TYPE B: MINOR INCIDENTS (Transit Supervisor)**
  - Includes all other incidents and Hazardous Conditions (HC's)



## Minor Incident







## Minor Incident







## Major Incident





The Team!





- The System Safety and Security Officer shall be the Team Leader.
- Permanent members of the HART Incident Investigation Team are designated by the Office of Safety and Security and include the following:
  - System Safety and Security Officer
  - Manager of Streetcar Services
  - Risk Management
  - Transit Supervisor
- A minimum of three (3) team members are used for investigation when activated.





## **Responsibility**

- It is the responsibility of all HART personnel to enhance safety by accomplishing the following objectives during incident investigation:
- Identify, collect, assemble and preserve all equipment, documents, facts and information relevant to incidents involving HART property or any persons involved in such incidents.



- Determine the cause(s) of the incident, together with contributing factor(s) and/or conditions.
- Identify corrective actions required to help prevent future similar incidents.
- Provide written reports (interim, preliminary and final) identifying probable cause(s) of the incident and remedial actions required.



Information to be collected at the scene.







The Initial Incident Reports shall include:

- HART Primary Person Conducting the Investigation (Name, Title)
- Event Type (collision, derailment, fire, explosion, security, other)
- Location, Time, Date, Direction of Travel
- Fatalities, Injuries
- HART Vehicle(s) Involved (Type, Number)
- Other Vehicle(s) Involved (Type, Number)
- Property Damage Estimate
- FDOT Reportable
- Description of the Event/Narrative/Synopsis
- Photos
- Diagrams
- Witness Statements
- Post Accident Drug and Alcohol
- Police Report Number



**HILLSBOROUGH AREA REGIONAL TRANSIT  
TECO Line Streetcar System  
Rail Dispatch Report of Streetcar Accident/Incident**

Updated 6-8-07

|  |  |   |                |
|--|--|---|----------------|
| <i>Time of Acc./Inc</i>  |  | <i>Date of Acc./Inc.</i>                  |                |
| <i>Dispatcher Completing Report and Notifying FDOT:</i>  |  |   |                |
| <b><i>FDOT Notification Within Two (2) Hours of Occurrence:</i></b><br>A fatality at the scene; or where an individual is confirmed dead within 30 calendar days of a transit-related incident <ul style="list-style-type: none"> <li>Injuries requiring immediate medical attention away from the scene for two or more individuals</li> <li>Property damage to HART vehicles, non-HART vehicles, other HART property or facilities, and non-Hart property that equals or exceeds \$25,000</li> <li>An evacuation due to life safety reasons</li> <li>A collision at a grade crossing</li> <li>A main-line derailment</li> <li>A collision with an individual on a HART right-of-way</li> <li>A collision between a HART vehicle and a second HART vehicle or a HART non-revenue service vehicle</li> </ul> <b><i>If unable to contact directly, leave message for both –also notify Joe Diaz.</i></b><br><b><i>Elba Lopez 813 975-6403      Michael Brown 813 975-6406</i></b> |  |   |                |
| <i>Employees Name:</i>   |  |   | <i>P.R. #</i>  |
| <i>Unit #:</i>   | <i>Cab End:</i>  | <i>Run #</i>                              | <i>Block #</i> |
| <i>Accident/Incident Location Specific – Driveway/Intersection:</i>  |  |   |                |
| <i>Direction of travel- Streetcar:</i>   | <i>Was Other Vehicle traveling in the same direction as Streetcar:</i> | <i>Number of Patrons aboard:</i>          |                |
| <i>Other Vehicle:</i>  |  |   |                |
| <i>Injuries on the SC: Yes / No</i>  | <i>How many:</i>   | <i>Who Was Cited:</i>                     |                |
|  |  | <i>Cited For:</i>                         |                |
| <i>Description of Other Vehicle:</i>   |  |   |                |
| <i>Approximate Damage: Type &amp; \$\$</i>   | <i>Streetcar:</i><br><i>Other Vehicle:</i>                             |   |                |
| <i>Extent of any other property damage:</i>  |  |   |                |
| <i>Description of what happened:</i>   |  |   |                |
| <i>Level of accident / incident:</i>   | <i>Was operator instructed to pass out courtesy cards?</i>             |   |                |
| <i>Who responded and / or was notified:</i>  |  | <i>Dispatcher receiving initial call:</i> |                |
|  |  | <i>Name:</i>                              | <i>Unit #:</i> |
| <b><i>DOT Signal 39 Performed? Yes / No</i></b>  |  | <b><i>DOT CRITERIA</i></b>                |                |
| <b><i>*Fatality / *Any involved vehicle incurs disabling damage &amp; is towed from scene / *One person immediately receives medical attention away from accident scene (including operator) / *Reasonable Suspicion</i></b>   |  |   |                |
| <i>Additional Information:</i>   |  |   |                |

# HARTline

Hillsborough Area Regional Transit

|  |                         |                             |              |                                 |  |
|--|-------------------------|-----------------------------|--------------|---------------------------------|--|
| <b>Supervisor Report of Accident For Streetcar</b>   |                         |                             |              | <b>File No.</b>                 |  |
| <b>HARTline Vehicle</b>  |                         |                             |              |                                 |  |
| Date / /   |                         | AM<br>PM                    |              | Location & Direction of Travel: |  |
| Motorman's Name:   |                         |                             | PR #         | Streetcar #                     | Regular Route: _____<br>Charter: _____ |
| Run #  | Block #                 | Motorman Injured ? Yes / No | # Passengers | # Courtesy Cards                |  |
| Position of Controller at time danger of collision first became apparent to Motorman? . . . . .      |                         |                             |              |                                 |  |
| Speed of Streetcar at time danger of collision first became apparent to Motorman ? . . . . . MPH     |                         |                             |              |                                 |  |
| Speed of Streetcar when first contact with other vehicle occurred? . . . . . MPH                     |                         |                             |              |                                 |  |
| How far was Motorman from point of accident at the time he applied brakes ? . . . . . Feet           |                         |                             |              |                                 |  |
| At this time, how far was the other vehicle from the point of accident ? . . . . . Feet              |                         |                             |              |                                 |  |
| Did the Motorman initiate: First Emergency Procedures Yes / No Fourth Emergency Procedures Yes / No  |                         |                             |              |                                 |  |
| Was sand observed on the track: Yes / No If Yes, what was the measured distance of sand trail: _____ |                         |                             |              |                                 |  |
| Motorman was operating from: "A" end _____ or "B" end _____  |                         |                             |              |                                 |  |
| <b>Other Vehicle</b>   |                         |                             |              |                                 |  |
| Driver's Name:   |                         |                             | SS #         |                                 |  |
| DL #   |                         |                             | D.O.B. / /   |                                 |  |
| Address:   |                         | City:                       | State:       | Zip:                            |  |
| Phone/Home: ( )  |                         | Work: ( )                   | Mobile: ( )  |                                 |  |
| Owner's Name:  |                         |                             | Phone: ( )   |                                 |  |
| Address:   |                         | City:                       | State:       | Zip:                            |  |
| Vehicle Make:  |                         | Model:                      | Year:        | Color:                          |  |
| Tag #  | County:                 | State:                      | Vin #        |                                 |  |
| Insurance Co. Policy #   |                         |                             |              |                                 |  |
| Agent Name:  |                         |                             | Phone: ( )   |                                 |  |
| Injuries ? Yes / No  | Names of Injured:-----> |                             | 1.)          |                                 |  |
| 2.)  |                         |                             | 3.)          |                                 |  |
| Direction of Travel:   |                         |                             |              |                                 |  |
| Speed of vehicle at time danger of collision first became apparent to driver? . . . . . MPH          |                         |                             |              |                                 |  |
| Speed of vehicle when first contact with Streetcar occurred. . . . . MPH                             |                         |                             |              |                                 |  |

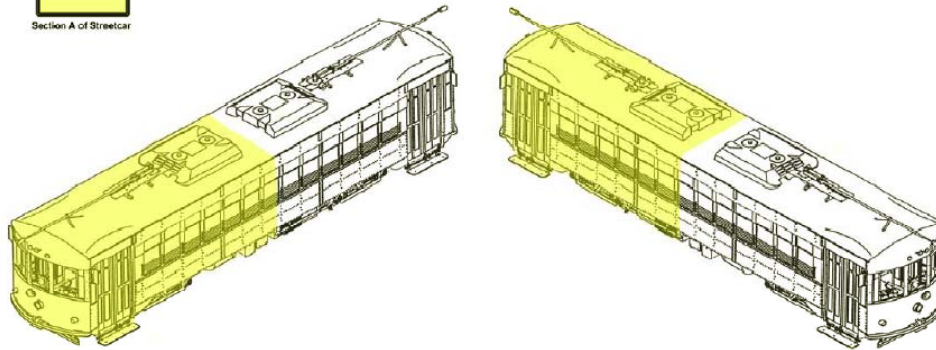
**SIGNATURE OF SUPERVISOR:** \_\_\_\_\_ **Date:** \_\_\_\_\_





[illegible]

MARK "X" FOR AREAS OF DAMAGE OR NO VISIBLE DAMAGE ☐

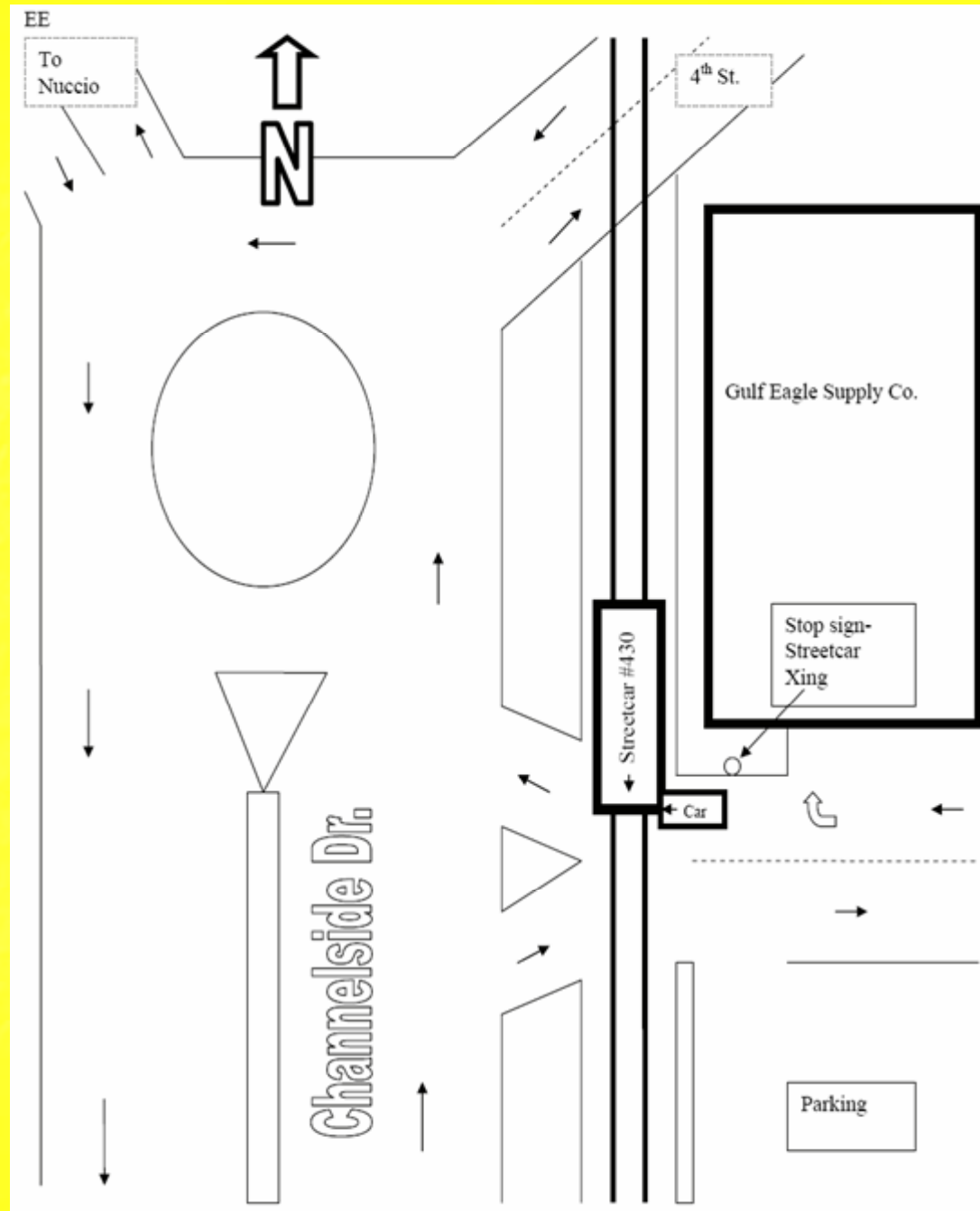


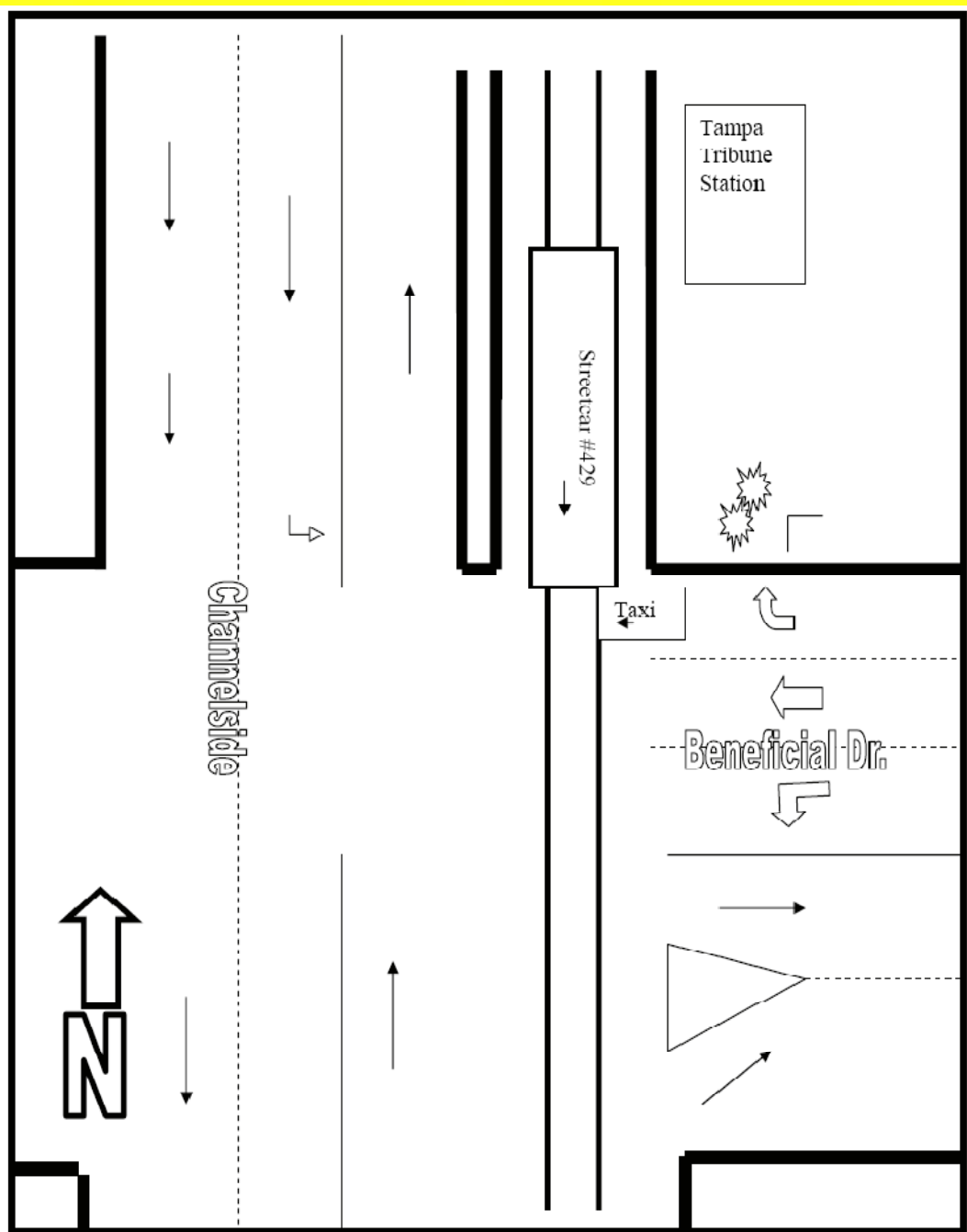
|  |     |                  |     |       |
|--|-----|------------------|-----|-------|
| Police Report #  | TPD | HCSO             | FHP | Other |
| Officer/ Badge #   |     | Officer/ Badge # |     |       |
| Who Was Cited:   |     | Charge:          |     |       |
| Emergency Unit:  |     | Name:            |     |       |
| Emergency Unit:  |     | Name:            |     |       |
| List Names, Addresses, Phone #'s of Witnesses Other Than Vehicle's                                     |     |                  |     |       |
| 1.)  |     |                  |     |       |
| 2.)  |     |                  |     |       |
| 3.)  |     |                  |     |       |
| List Unit #'s, Names of Other HARTLINE Personnel Present At Scene                                      |     |                  |     |       |
| Unit #/Name:   |     | Unit #/Name:     |     |       |
| Unit #/Name:   |     | Unit #/Name:     |     |       |
| Unit #/Name:   |     | Unit #/Name:     |     |       |
| FTA Post Accident Drug & Alcohol Test Performed: Yes / No  |     |                  |     |       |
| (Circle One) Fatality / EMS Transport / Towed/Disabling Damage / trolley car is removed from operation |     |                  |     |       |
| FTA Reasonable Suspicion Drug & Alcohol Test Performed: Yes / No                                       |     |                  |     |       |

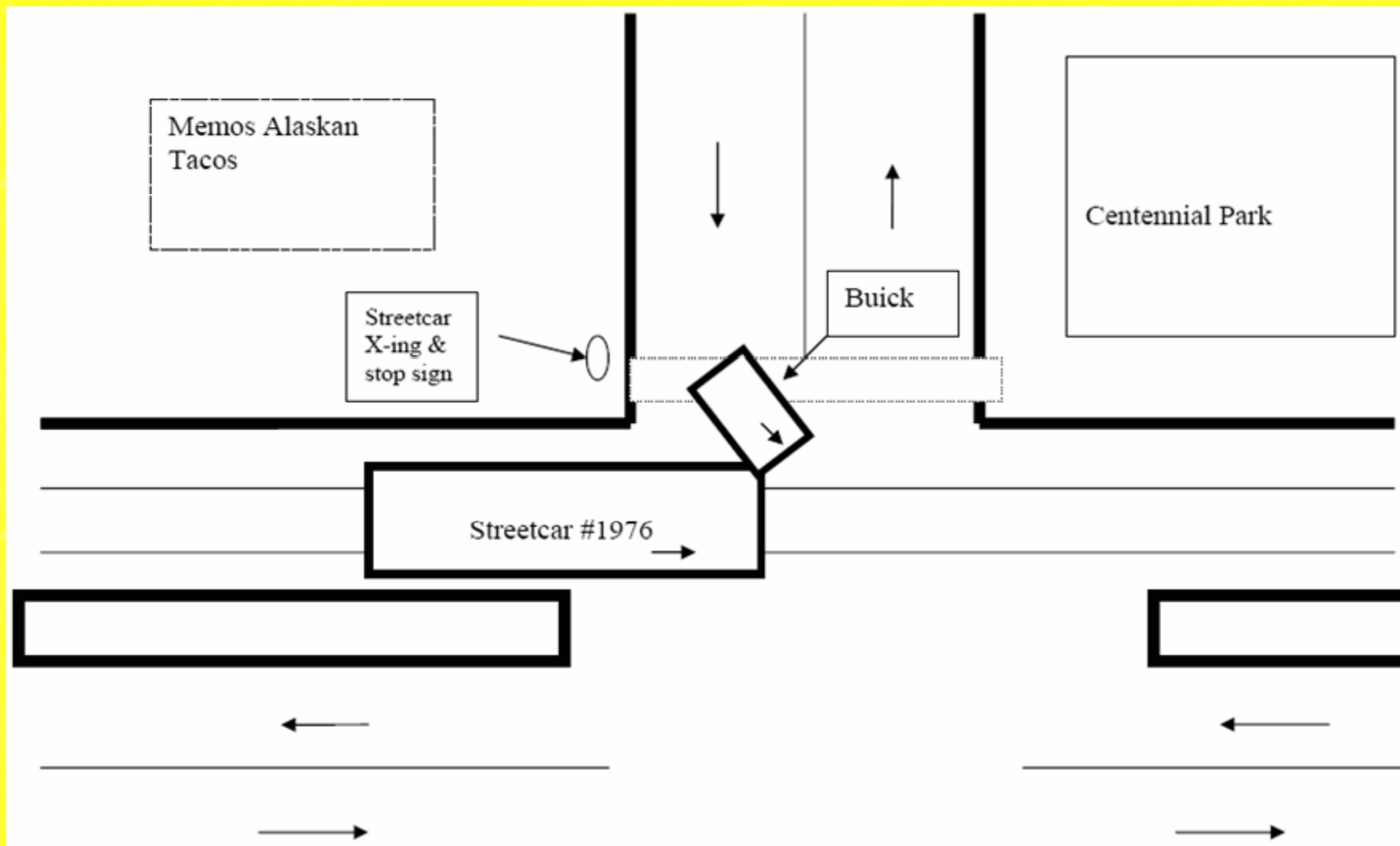
MARK "X" FOR AREAS OF DAMAGE OR NO VISIBLE DAMAGE ☐













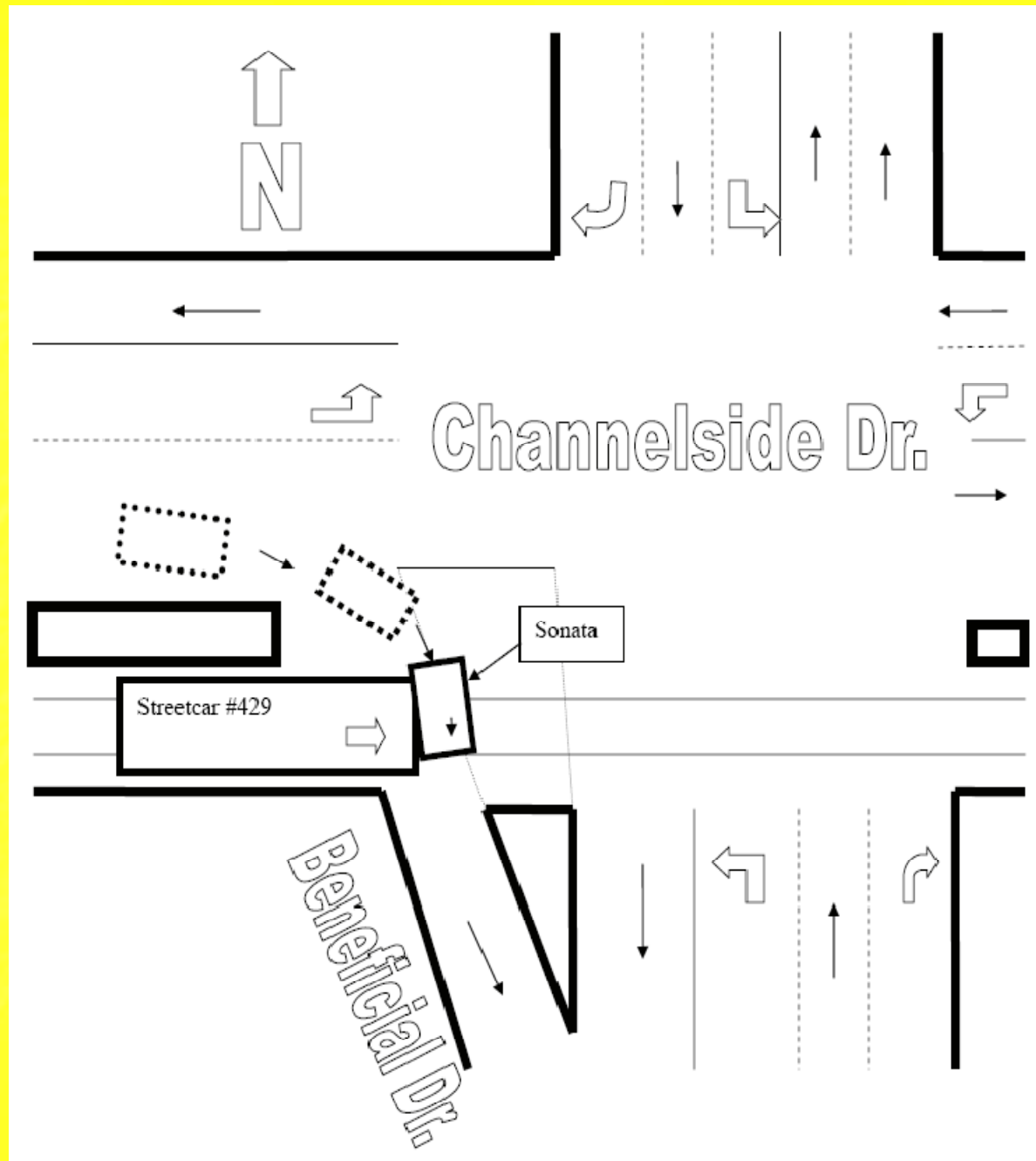
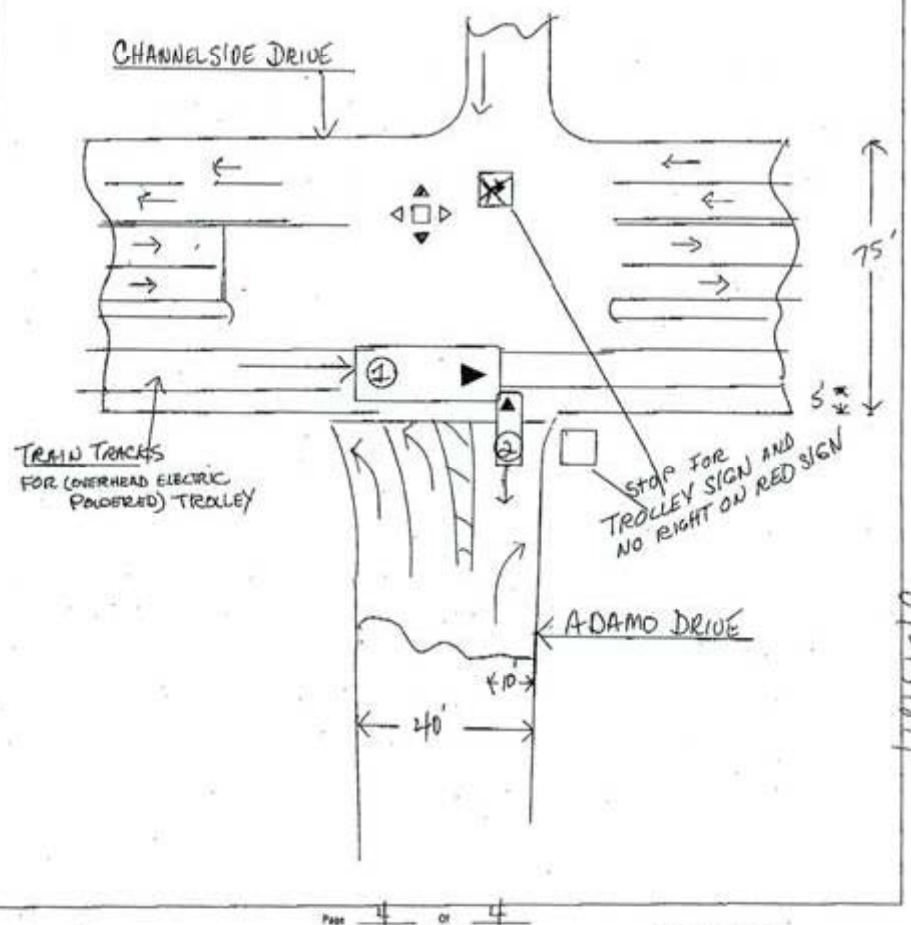


DIAGRAM AND  
MEASUREMENTS  
ARE NOT TO SCALE

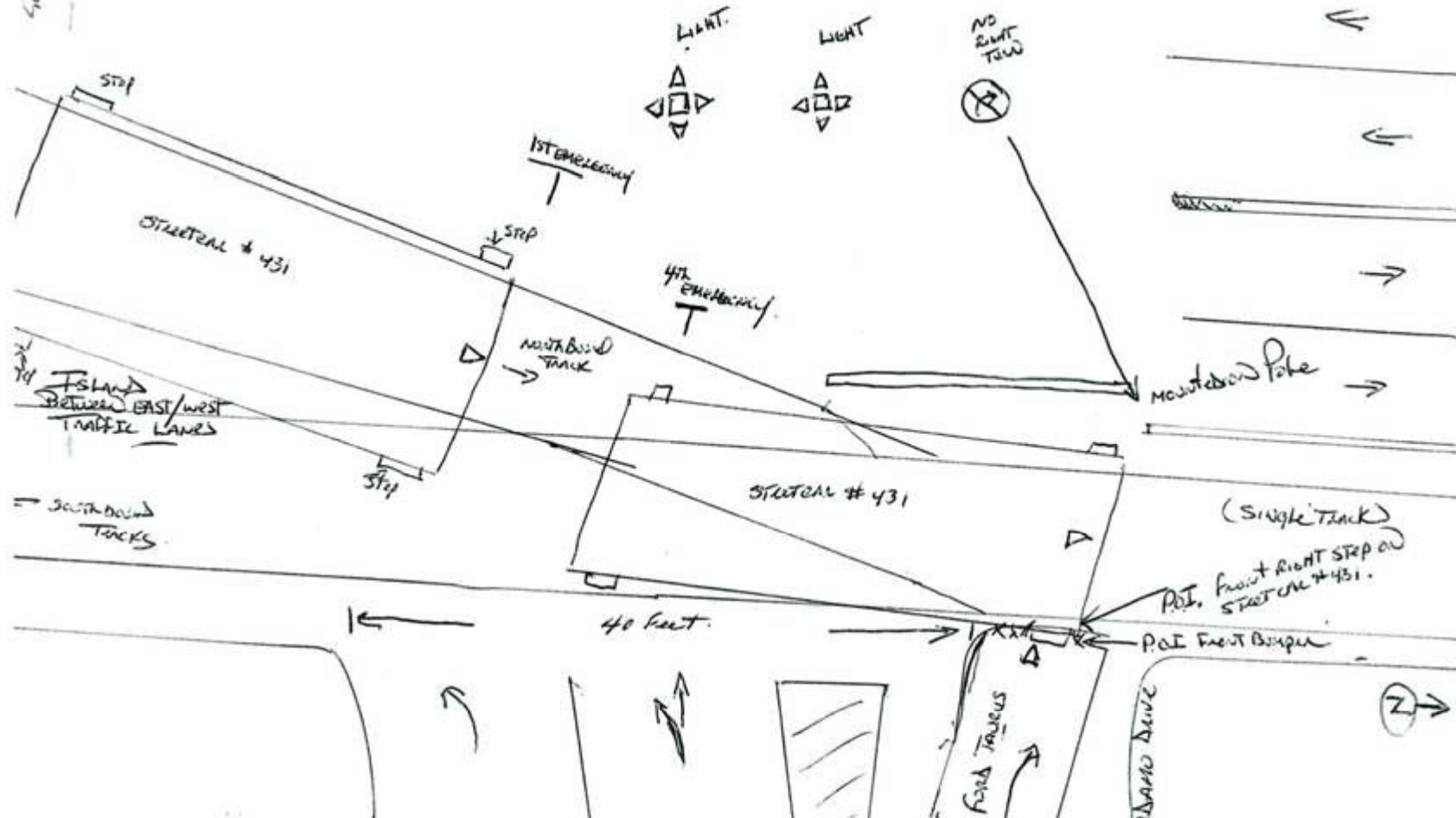


Approximate Distance to Ford Towers #1500' <sup>SW</sup>  
Approximate Distance to Station #431 #1000' <sup>SE</sup>

Report Submitted By  
Robert Roy #40  
Date 03-16-2007

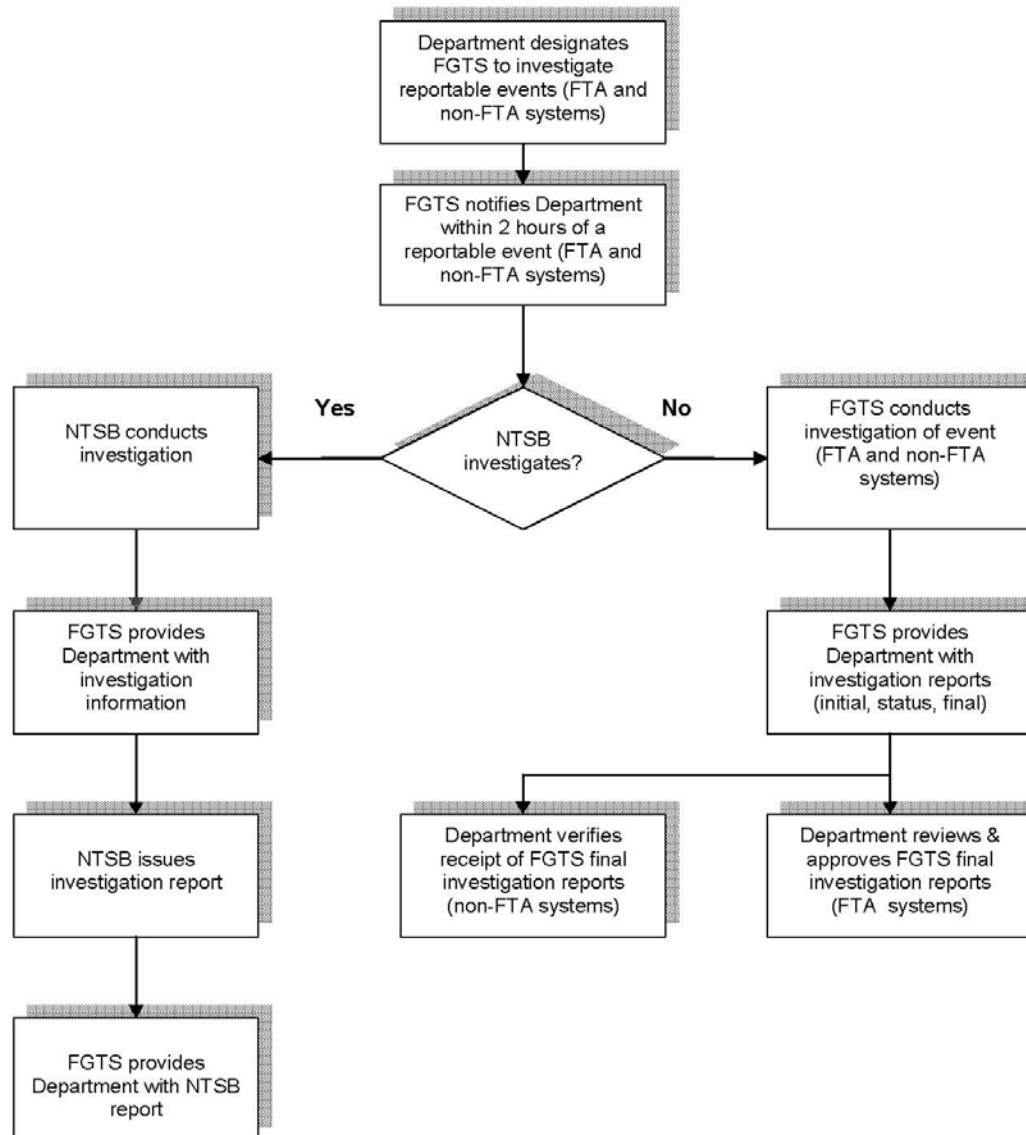
Section

Channelside Drive



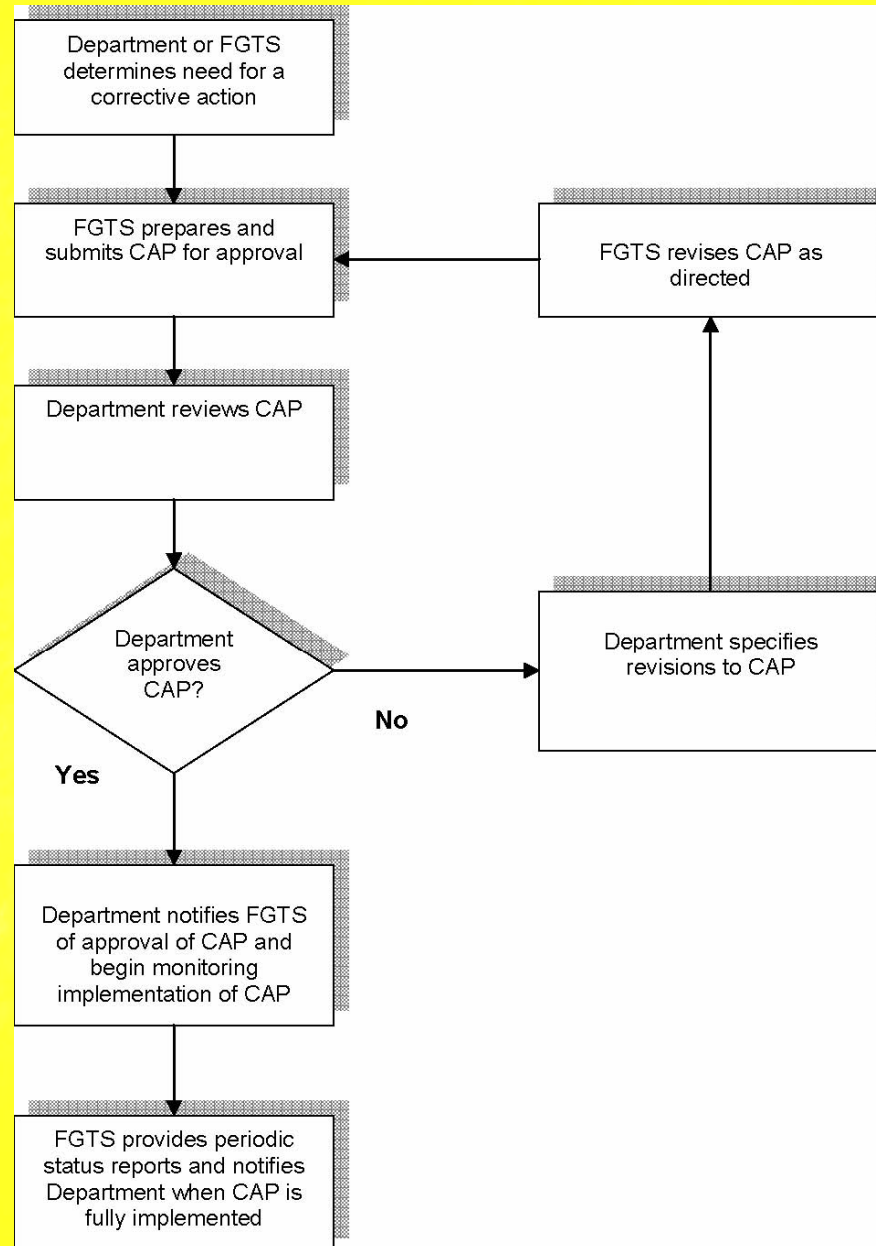


**Figure 4**  
**Reportable Event Notification Process**



**Figure 5**

**CAP Process**





- All Motorman Accident Reports are submitted to Dispatch for time and date stamp on the same day of event.
- All Transit Supervisor Accident Investigation Report/Materials are placed in a manila envelope with checklist label to identify all items contained in envelope:

- \_\_\_ Supervisor Narrative
- \_\_\_ Supervisor Diagram
- \_\_\_ Police Report Number
- \_\_\_ Accident/Incident Notification
- \_\_\_ Photos (memory card)
- \_\_\_ Courtesy Cards







- Risk Department personnel pick up all reports twice daily Monday through Friday.
- Risk Department provides Safety Department with copies of all reports daily.
- Safety Department reviews all reports and records them categorically.





MONTHLY OCCURRENCE SUMMARY - JULY - 2007  
SAFETY AND SECURITY INCIDENT INFORMATION LOG

| FILE #      | DATE     | TIME     | PR #      | EMPLOYEE    | EMPLOYEE              | LOCATION               | LOCATION               | CROSS STREET | GRAPHICS | SC # | CAR # | BUS # | VAN # | RT  | DIR | RATING | CURVED INJURY   | DESCRIPTION   | DUI UNK'S & ALCOHOL | DUI REPORTABLE | CORRECTIVE ACTION | CLOSED DATE |
|-------------|----------|----------|-----------|-------------|-----------------------|------------------------|------------------------|--------------|----------|------|-------|-------|-------|-----|-----|--------|---|---|---------------------|----------------|-------------------|-------------|
|             |          |          |           | FIRST NAME  | LAST NAME             | ON                     |                        |              | YES/NO   |      |       |       | FLEX  |     |     |        | YES/NO  |   | YES/NO              | YES/NO         |                   |             |
| IF-07-01-01 | 07/01/07 | 7:29 AM  | 2418      | EAL         | CHASSI                | NERRASKE AVE           | HILLSBOROUGH           |              | NO       |      | 2603  |       |       | *   | S   | NBH    | NO  | THREE TENSAGERS DOARDED UNIT AND FELL ASLEEP. DISPATCH CALLED BY TO HAVE UNIT PULL OVER AND TO WAIT FOR THE SHERIFF DEPUTY TO TAKE THE TENSAGERS HOME BECAUSE THEY RAN AWAY.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-02 | 07/01/07 | 8:00 AM  | 2818      | COREY       | MONTALVO              | MTC                    | ROUTE 5 SPOT           |              | NO       |      | 2506  | 1     | S     | JC  |     |        | NO  | UNIT MADE CONTACT WITH POLE WHILE BACKING OUT OF PARKING SPACE.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-03 | 07/01/07 | 10:16 AM | 3613      | MICHELLE    | WATERS                | WATERS AT MARKET RD    |                        |              | NO       |      | 3307  | 36    | S     | JC  |     |        | NO  | PATRON ON BUS WAS GROOMING ANOTHER PATRON ON UNIT. H.C.S.D. ARRESTED HIMY THIRTEEN GALVIZ.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-04 | 07/01/07 | 2:40 PM  | 724       | DANIEL      | BELANDRO              | DURHAM STREET          | 24TH ST/STATE ST       |              | NO       |      |       |       |       | 46  | W   | NBR    | NO  | UNIT MADE CONTACT WITH BRANCH AND DRAGGED IT SCRATCHING A TRUCK. ALSO ONE OF THE WITNESS SAID THAT THE BRANCH HIT HIS RIGHT LEG WHILE THE ONECAR. PICTURES WERE TAKEN. OPERATOR WAS GIVEN A TICKET FOR CARELESS DRIVING.                              | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-05 | 07/01/07 |          | * 362     | ERNESTO     | CABRERA               | REARUS AVE             | 22ND STREET            |              | YES      |      | 719   |       |       | 2   | N   | NBH    | NO  | TRESPASS 07/0107-01   | NO                  | NO             | YES               | 8/13/2007   |
| IF-07-01-07 | 07/01/07 | 4:30 AM  | 2913      | HENRY       | HOLLS                 | HART PROPERTY          | READY ROW              |              | NO       |      | 715   |       |       | RR  | *   | NBH    | NO  | OPERATOR WAS HIT BY A MOTORCYCLEWHILE SITTING ON READY ROW. OPERATOR TRIED TO KILL IT AND IT LANDED ON WINDSHIELD AND HE SMASHED IT CRACKING THE WINDOW.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-08 | 07/01/07 | 8:10 AM  | * L.R.    | DE ARMAS JR | 7TH STREET            | CAUSEWAY SHOPPING CTR. |                        |              | * *      |      |       |       |       | *   | NBH | NO     | SUPERVISOR WAS CHECKING THE AREA REGARDING TRUCKS BLOCKING THE ROUTES & #4 STOP AREA. A DOG ATTEMPTED TO ATTACK MEN BUT IT WAS CREAINED. SUPERVISOR TOOK PICTURE OF THE AREA.   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-09 | 07/01/07 | 8:27 AM  | 1084      | COLLIS      | MCINTYRE              | PALMERLYN RD           | 7TH STREET             |              | YES      |      | 3123  | 8     | E     | NB  |     |        | NO  | PATRON HAD A HEART ATTACK ON UNIT. EMS WAS CALLED AND WAS TRANSPORTED TO THE HOSPITAL.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-10 | 07/01/07 | 8:31 PM  | 2311      | RONALD      | ENGLISH               | COLLINGSBURG           | HOME AVE               |              | YES      |      | 2104  | 44    | N     | NB  |     |        | NO  | PATRON ATTEMPTED TO STORE HIM AND LEAP HIM REEF AND REFUSE UPSET AND PULLED DOWN HIS PANTS AND CAUSE THE FINGER AND CURSED AT THE POLICE. THE POLICE AND DISPATCH WAS CALLED.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-11 | 07/01/07 | 5:05 PM  | * LORENZO | NEWSON      | WESTPA TRANSFER CTR.  |                        |                        |              | * *      |      |       |       |       | *   | NBH | NO     | TRESPASS 07/0107-01   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-12 | 07/01/07 | 5:43 PM  | 3013      | RODRIGUEZ   | CARLOS                | NERRASKE AVE           | BUSCH BLVD             |              | NO       |      | 2118  | 2     | N     | NP  |     |        | NO  | MOTORIST RAN ENDED UNIT AT A BUS STOP. 11 COURTNEY CARDS WERE COLLECTED & NO INJURIES.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-13 | 07/01/07 | 5:50 PM  | 3061      | RAUL        | RODG                  | HART PROPERTY          | PROBE FAREBOX VAULT    |              | NO       |      |       |       |       | *   | NBH | NO     | EMPLOYEE TADING FARE BOX TO VAULT CLOSED HIS FINGERS WITH DOGR. HIS FINGERS SWELLED UP.   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-14 | 07/01/07 | 12:10 PM | 2513      | LOREDA      | MCINDEEY              | 7TH AVENUE             | 10TH STREET            |              | NO       |      | 2416  | 8     | E     | NP  |     |        | NO  | PATRON LOST HIS BALANCE AND FELL AFTER EXITING UNIT. REFUSED EMS.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-15 | 07/01/07 | 1:30 AM  | 2890      | MICHAEL     | TOKRES                | HART PROPERTY          | 1683 PARKING SPOT      |              | NO       |      |       |       |       | *   | NBH | NO     | EMPLOYEE FELL DOWN AND HURT HIS BACK AND LEG DUE TO THE RAIN.   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-16 | 07/01/07 | 12:47 AM | 1884      | MICHAEL     | MCCOY                 | UATC                   |                        |              | * *      |      | *     |       | 1     | N   | NBH | NO     | PATRON COULD DRIVE THAT WAY & HE WAS BEING AS REQUESTED BY THE OPERATOR TO EXPLAIN WHY OPERATOR RELEASED IT FROM \$5 TO 10 DOLLARS AND PATRON SAID UATC IS NOT CONTENT.   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-17 | 07/01/07 | 2:03 PM  | 1884      | MIKE        | MCCOY                 | UATC                   | 1ST STOP NORTH OF      |              | NO       |      | 2408  | 1     | N     | NBH |     |        | NO  | OPERATOR STOPPED AT NEXT STOP DUE TO THERE REQUIRE.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-18 | 07/01/07 | 2:03 PM  | 1884      | MCCOY       | FLORIDA AVE           | HANDA                  |                        |              | NO       |      | 2408  | 1     | S     | NP  |     | YES    | PATRON GOT OUT OF SEAT TRYING TO RUN. OPERATOR MADE A SUDDEN STOP TO PICK UP A PATRON. PATRON WAS UPSET AND REFUSED ASSISTANCE.   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-19 | 07/01/07 | 8:22 PM  | 1716      | DIAMOND     | COLLISON              | 1 UNION PKW            | ROUTE 9 SPURS          |              | YES      |      | 2002  | 9     | S     | NP  |     |        | NO  | PATRON MISSED HER STEP WHILE BOARDING THE UNIT AND FELL. PATRON WAS OK AND REFUSED EMS.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-20 | 07/01/07 | 6:01 PM  | 2305      | RIITA       | TRUITT                | GIBSONTON DR           | 41 & 7                 |              | YES      |      | 2262  | 31    | N     | NP  |     |        | NO  | PATRON ON UNIT HIT HIS HEAD ON SEAT BUT WAS OK.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-21 | 07/01/07 | 8:02 AM  | 2973      | NORMAN      | GALLON                | FLORIDA AVE            | COLUMBUS DR            |              | NO       |      | 2407  | 6     | N     | P   | YES |        | NO  | OPERATOR ATTEMPTED TO MAKE A RIGHT TURN CONTACT WITH A TRUCK VULCAN POLE. OPERATOR MADE A U-TURN THINKING IT WAS A FLORIDA AVE. ONE PERSON COLLECTED.   | NO                  | NO             | YES               | 8/13/2007   |
| IF-07-01-22 | 07/01/07 | 12:46 PM | 372       | GLORIA      | SETTEMBRE             | 40TH STREET            | RYERHILLS              |              | NO       |      | 2750  |       |       | *   | P   |        | NO  | STOPPED DUE TO THE CAR IN FRONT OF HER MAKING A SUDDEN STOP TO MAKE A TURN.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-23 | 07/01/07 | 3:13 PM  | 2812      | COURTNEY    | KARASKEA              | FLORIDA AVE            | JEFFERSON STREET       |              | NO       |      | 2696  | 6     | N     | NP  |     |        | NO  | PATRON GOT OUT OF SEAT RAN A STOP AND RAN INTO THE RIGHT FRONT OF THE UNIT. THE MOTORIST WAS CITED FOR VIOLATING THE SIGN OF WAY. COURTNEY CARDS COLLECTED.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-24 | 07/01/07 | 2:53 PM  | 2971      | BELASSIA    | LAW                   | BUSCH BLVD             | LINERLAUGH AVE         |              | YES      |      | 2619  | 36    | N     | NP  |     |        | NO  | PATRON FELL WHILE EXITING THE UNIT. PATRON WAS OK AND REFUSED MEDICAL ATTENTION.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-25 | 07/01/07 | 2:20 AM  | 2314      | JEIUS       | GONZALEZ              | HART PROPERTY          | SHIP                   |              | NO       |      | 1728  |       |       | *   | P   |        | NO  | EMPLOYEE BACKED UP THE SHOP TRUCK AND HIT THE BAY DOORCK AND DAMAGED IT AND TOOK IT OFF TRACK. THERE WAS NO DAMAGE TO THE TRUCK.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-26 | 07/01/07 | 10:53 AM | 3648      | THELMA      | NEW PARK TRANSFER CTR |                        |                        |              | NO       |      | 811   | 83    | E     | NBR |     | NO     | PATRON STATED TO TELLER OPERATOR THAT N. GONZALEZ BUMPED HIM WITH THE BUS WHEN HE WAS PUTTING HIS BACKPACK IN HIS TRUCK.  | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-27 | 07/01/07 | 10:45 AM | 1413      | GALE        | MAGARE                | MTC                    | LOBBY                  |              | NO       |      |       |       |       | *   | NBH | NO     | PATRON THEATEN CUSTOMER SERVICE REP.  | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-28 | 07/01/07 | 11:01 AM | * ANTON   | MURPHY      | DIAMOND SECURITY      | UATC                   |                        |              | NO       |      |       |       |       | *   | NBH | NO     | TRESPASS 07/0107-01   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-29 | 07/01/07 | 4:09 PM  | 2203      | RIIA        | DEWITT                | NATION TRANSIT WAY     | CASSELL STREET STATION |              | NO       |      | 2099  | 31    | S     | NP  |     |        | NO  | OPERATOR STATED THAT KD SUPERVISOR STATED THAT SHE DIDN'T MAKE HER ANNOUNCEMENT.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-30 | 07/01/07 | 4:11 PM  | 2401      | ROBERT      | ROBERT                | FLETCHER AVE           | BRUCE B DOWNS BLVD     |              | NO       |      | 2114  | 6     | N     | NBH |     |        | NO  | PATRON RUNNING TO CATCH THE BUS FELL AT BUS STOP. PATRON STATED HE WAS ON A BOARDED UNIT.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-31 | 07/01/07 | 4:30 PM  | 2374      | GREGORY     | BULLOCK               | PALMAVE                | MORGAN STREET          |              | NO       |      | 3236  | 18    | W     | NBH |     |        | NO  | PATRON TRIED TO CLIMB INTRY AFTER OPERATOR REJECTED HIS PASS AND TOLD HE TO PAY FARE.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-32 | 07/01/07 | 5:14 PM  | 3613      | CARLOS      | RODRIGUEZ             | NERRASKE AVE           | PALIN AVE/11TH ST      |              | NO       |      | 2123  | 2     | N     | NP  |     |        | NO  | TRUCK HIT LEFT MIRROR OF UNIT WHILE BOARDING PATRON. INJUROR BROKE A AND PATRON CLAIMED INJURY BUT NO INJURIES CLAIM WERE COLLECTED.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-33 | 07/01/07 | 5:21 PM  | 2442      | MANUEL      | TEADA                 | UATC                   | ROUTE 18 RAMP          |              | YES      |      | 3231  |       |       | 18  | N   | NBH    | NO  | OPERATOR WAS TRYING TO GET A W/C PATRON AND ANOTHER PATRON TRIED TO BOARD THE UNIT. OPERATOR ASKED HER TO WAIT UNTIL THE W/C PATRON EXITED UNIT. BUT PATRON PROCEEDED TO BOARD UNIT AND GOT STUCK BETWEEN SEATS AND W/C PATRON BECAME RUDE AFTERWARD. | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-34 | 07/01/07 | 8:30 PM  | 3393      | THOMAS      | KONERSLEY             | HANDLEY WATERS         | TRANSIT CENTER         |              | YES      |      | 2110  | 34    | W     | NBH |     |        | NO  | HEIDISTHANS FOUND CONSUMING BEER AT A SHELTER AND ONE OF THEM WAS ISSUED A TRESPASS.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-35 | 07/01/07 | 8:50 PM  | 2393      | THOMAS      | KONERSLEY             | HANDLEY WATERS         | TRANSIT CENTER         |              | NO       |      |       |       |       | *   | NBH | NO     | TRESPASS 07/0107-01   | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-36 | 07/01/07 | 10:33 PM | 2445      | GREGORY     | WALKER                | FLORIDA AVE            | YUKON STREET           |              | NO       |      | 2307  | 1     | N     | NBH |     |        | NO  | A PEDESTRIAN EXPOSED HIMSELF TO A YOUNG LADY.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-37 | 07/11/07 | 8:30 PM  | 1144      | DAYANNE     | PAXMAN                | CAUSEWAY               | US 41                  |              | NO       |      | 2229  | 46    | W     | NBH |     |        | NO  | PATRON LANE UP TO OPERATOR STANDING NEXT TO BUS. TELL HER TO BACK UP IF HE COULD PUT IT BACK ON THE RACK. OPERATOR CHECKED FOR DAMAGE AND ONLY FOUND THE REAR TIRE OF BITE BITE.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-38 | 07/11/07 | 8:51 AM  | * MIGUEL  | ACEVEDO     | MTC                   |                        |                        |              | NO       |      |       |       |       | *   | NBH | NO     | PATRON WAS WITH A TING TRUCK AND WAS ARRESTED.  | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-39 | 07/11/07 | 8:30 AM  | * MIGUEL  | ACEVEDO     | MTC                   |                        |                        |              | NO       |      |       |       |       | *   | NBH | NO     | PEDESTRIAN CLAIMED TO HAVING CHEST PAIN THEN TO HAVING WALKING PNEUMONIA BEING A MANIC DEPRESSIVE OF DRUG ADDICTION. SHE WAS TREATED AND TRANSPORTED TO TAMPA GENERAL AND HAD TO BE BAKED. ACCIDENT WAS INVESTIGATED. | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-40 | 07/11/07 | 10:11 AM | * MIGUEL  | ACEVEDO     | MTC                   |                        |                        |              | NO       |      |       |       |       | *   | NBH | NO     | TRESPASS 07/107-01  | NO  | NO                  | NO             | 8/13/2007         |             |
| IF-07-01-41 | 07/11/07 | 8:30 AM  | 1866      | THOMAS      | MCKINLEY              | WESTHOLME PLAZA        |                        |              | NO       |      | 2412  | 36    | S     | JC  |     |        | NO  | A FEMALE PATRON THREATENED TO COMMIT SUICIDE. THE TRANSPORTED HER TO THE HOSPITAL.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-42 | 07/11/07 | 11:24 AM | 217       | PATRICK     | MCKEON                | TAMPA STREET           | 7TH AVENUE             |              | NO       |      | 2508  | 1     | S     | JC  |     |        | NO  | OPERATOR HIT BUS STOP SIGN WITH RIGHT MIRROR WHILE PULLING OUT. MIRROR GLASS WAS CRACKED.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-43 | 07/11/07 | 12:14 PM | 2317      | ANTHUS      | MILLER                | 78TH STREET            | CAUSEWAY               |              | NO       |      | 2418  | 8     | N     | NBH |     |        | NO  | OPERATOR WENT TO TELL THE PATRON AND RENT A TRUCK AND A PATRON ASKED IF HE WOULD BUY FOR HER TO PURCHASE A NUTTY BUDDY. PATRON GOT LOUD WITH OPERATOR WHEN HE WAS HEADING TO UNIT. BUT OPERATOR EXPLAINED THAT HE WOULD NOT LEAVE HER.                | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-44 | 07/11/07 | 1:01 PM  | 234       | CHARLES     | SETTEMBRE             | UNIVERSITY MALL        |                        |              | NO       |      | 2426  | 44    | N     | NP  |     |        | NO  | INJURED HIM THE LEFT SIDE OF THE UNIT AND LEFT THE VEHICLE AFTER BEING INFORMED THAT THE ATTRIBUTES WERE BEING NOTIFIED. DAMAGE TO VEHICLE & A SCRATCH FROM THE CENTER TO THE REAR.   | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-45 | 07/11/07 | 4:01 PM  | 2402      | JAMAR       | BERKIN                | UNIVERSITY MALL        |                        |              | YES      |      | 2318  | 12    | S     | NBR |     |        | NO  | TRES. NO COURTNEY CARDS COLLECTED.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-46 | 07/11/07 | 10:37 PM | 1247      | DENISE      | HILTON                | 29TH STREET            | GONZALEZ               |              | NO       |      | 2310  | 18    | S     | NBH |     |        | NO  | PATRON BOARDED UNIT AND BACKED AGAINST FRONT BY THE FAIRBOX.  | NO                  | NO             | NO                | 8/13/2007   |
| IF-07-01-47 | 07/11/07 | 10:37 PM | 1247      | DENISE      | HILTON                | 29TH STREET            | GONZALEZ               |              | NO       |      | 2310  | 18    | S     | NBH |     |        | NO  | OFF DASH. INVESTIGATING THEREIN AN OBJECT AT THE UNIT. OPERATOR CHECKED AND NOTIFIED THAT ONE OF THE WINDSHIELD WAS CRACKED.  | NO                  | NO             | NO                | 8/13/2007   |



| July '07    |          |          |      |                        |                       |                |                          |                    |      |       |       |       |            |
|-------------|----------|----------|------|------------------------|-----------------------|----------------|--------------------------|--------------------|------|-------|-------|-------|------------|
| FILE #      | DATE     | TIME     | PR # | EMPLOYEE<br>FIRST NAME | EMPLOYEE<br>LAST NAME | LOCATION<br>ON | LOCATION<br>CROSS STREET | GRAPHICS<br>YES/NO | SC # | CAR # | BUS # | VAN # | RT<br>FLEX |
| IF-07-07-01 | 07/01/07 | 7:20 AM  | 2439 | EL                     | CHAHBI                | NEBRASKA AVE   | HILLSBOROUGH             | NO                 |      |       | 2603  |       | *          |
| IF-07-07-02 | 07/02/07 | 8:03 AM  | 2838 | COREY                  | MONTALVO              | MTC            | ROUTE 8 SPOT             | NO                 |      |       | 2506  |       | 1          |
| IF-07-07-03 | 07/02/07 | 10:18 AM | 2932 | MELISSA                | WILLIAMS              | HIMES AVE      | WATERS AVE/MLK BLVD      | NO                 |      |       | 2307  |       | 36         |
| IF-07-07-04 | 07/02/07 | 2:40 PM  | 724  | DANIEL                 | SERRANO               | DURHAM STREET  | 24TH ST/26TH ST          | NO                 |      |       | 719   |       | 46         |
| IF-07-07-05 | 07/02/07 | 10:30 PM | *    | MIGUEL                 | ACEVEDO               | HIMES AVE      | DR. MLK BLVD             | NO                 |      |       |       |       | *          |
| IF-07-07-06 | 07/03/07 | *        | 362  | ERNESTO                | CABRERA               | BEARSS AVE     | 22ND STREET              | NO                 |      |       | 2507  |       | 2          |
| IF-07-07-07 | 07/03/07 | 4:30 AM  | 2933 | HENRY                  | HOLLIS                | HART PROPERTY  | READY ROW                | NO                 |      |       | 715   |       | RR         |
| IF-07-07-08 | 07/03/07 | 8:19 AM  | *    | L.H.                   | DE ARMAS JR.          | 78TH STREET    | CAUSEWAY SHOPPING CTR.   | NO                 |      |       |       |       | *          |
| IF-07-07-09 | 07/03/07 | 8:27 AM  | 1084 | CORLIS                 | MCINTYRE              | PALM RIVER RD  | 78TH STREET              | YES                |      |       | 2123  |       | 8          |
| IF-07-07-10 | 07/03/07 | 4:15 PM  | 2931 | RONALD                 | ENGLISH               | COLUMBUS       | HIMES AVE                | YES                |      |       | 2104  |       | 44         |





| DIR | RATING | CLAIMED INJURY | DESCRIPTION   | DOT DRUG & ALCOHOL | DOT REPORTABLE | CORRECTIVE ACTION | CLOSED    |
|-----|--------|----------------|---|--------------------|----------------|-------------------|-----------|
|     |        | YES/NO         |   | YES/NO             | YES/NO         | YES/NO            | DATE      |
| S   | NBH    | NO             | THREE TEENAGERS BOARDED UNIT AND FELL ASLEEP. DISPATCH CALLED IN TO HAVE UNIT PULL OVER AND TO WAIT FOR THE SHERIFF DEPUTY TO TAKE THE TEENAGERS HOME BECAUSE THEY RAN AWAY.  | NO                 | NO             | NO                | 9/13/2007 |
| S   | IC     | NO             | UNIT MADE CONTACT WITH POLE WHILE PULLING OUT OF PARKING SPOT.  | NO                 | NO             | YES               | 9/13/2007 |
| S   | NBH    | NO             | PATRON ON BUS WAS GROPING ANOTHER PATRON ON UNIT. H.C.S.O. ARRESTED RUDY FUENTES GALVEZ.  | NO                 | NO             | NO                | 9/13/2007 |
| W   | NBH    | NO             | UNIT MADE CONTACT WITH A BRANCH AND DRAGGED IT SCRATCHING A TRUCK. ALSO ONE OF THE WITNESS SAID THAT THE BRANCH HIT HIS RIGHT LEG BELOW THE KNEECAP. PICTURES WERE TAKEN. OPERATOR WAS GIVEN A TICKET FOR CARELESS DRIVING. | NO                 | NO             | NO                | 9/13/2007 |
| *   | NBH    | NO             | TRESPASS #070207-01   | NO                 | NO             | NO                | 9/13/2007 |
| N   | NBH    | NO             | OPERATOR WAS UNAWARE OF ANY ACCIDENTS THAT DAY.   | NO                 | NO             | YES               | 9/13/2007 |
| *   | NBH    | NO             | OPERATOR WAS BIT BY A MOSQUITO WHILE SITTING ON READY ROW. OPERATOR TRIED TO KILL IT AND IT LANDED ON WINDSHIELD AND HE SMASHED IT CRACKING THE WINDOW.   | NO                 | NO             | NO                | 9/13/2007 |
| *   | NBH    | NO             | SUPERVISOR WAS CHECKING THE AREA REGARDING TRUCKS BLOCKING THE ROUTES 8 & 46 STOP AREA. A DOG ATTEMPTED TO ATTACK HIM BUT IT WAS CHAINED. SUPERVISOR TOOK PICTURES OF THE AREA.   | NO                 | NO             | NO                | 9/13/2007 |
| F   | NRH    | NO             | PATRON HAD A HEART ATTACK ON UNIT. EMS WAS CALLED AND WAS TRANSPORTED TO THE HOSPITAL.  | NO                 | NO             | NO                | 9/13/2007 |
| N   | NBH    | NO             | PATRON ATTEMPTED TO STOP BUS AND LOAD HIS BIKE AND BECAME UPSET AND PULLED DOWN HIS PANTS AND GAVE THE FINGER AND CURSED AT HIM. THE POLICE AND DISPATCH WAS CALLED.  | NO                 | NO             | NO                | 9/13/2007 |



## Accidents 2003

|  |          |
|--|----------|
| ■ POV turns/pulls in front of streetcar:               | 8        |
| ■ Streetcar on Streetcar:                              | 3        |
| ■ Yard derailment:                                     | 3        |
| ■ Streetcar on shop truck:                             | 1        |
| ■ Pedestrian walks into side of streetcar (no injury): | 1        |
| ■ POV strikes streetcar:                               | <u>4</u> |
| ■ Total:   | 20       |



## ■ Corrective Action



- Re-training/Written Safety Warning
- Clearance Lines in Barn and Yard





## Accidents 2004

|  |          |
|--|----------|
| ■ POV turns/pulls in front of streetcar: | 11       |
| ■ POV strikes streetcar:                 | 3        |
| ■ Mainline derailment:                   | <u>1</u> |
| ■ Total:                                 | 15       |



- Corrective Action
- Repaired switch
- Put in Speed Restriction
- Acquired outside contractor to inspect switch and provide written documentation of switch condition.





## Accidents 2005

|  |          |
|--|----------|
| ■ POV turns/pulls in front of streetcar:   | 11       |
| ■ Streetcar on Streetcar:  | 1        |
| ■ Pedestrian walks in front of streetcar (no injury)                                     | 1        |
| ■ Passenger struck by Breezer safety bar:  | 2        |
| ■ Yard derailment:   | 1        |
| ■ Pedestrian attempts to jump on step of moving streetcar (fatality several days later): | <u>1</u> |
| ■ Total:   | 17       |





- Corrective Action
- Investigation Team Activated
- Reconstruct accident using contracted reconstruction specialist

**HART/TECO LINE STREETCAR SYSTEM  
SAFETY PROGRAM  
HAZARD IDENTIFICATION/CORRECTIVE ACTION PLAN MATRIX**

Implementation of Corrective Action (s) Results in a Residual Risk Index of 1D - Undesirable.

| DATE | SY'S<br>OPRTN                  | HAZARD INCIDENT<br>DESCRIPTION  | CAUSE  | STY<br>PTY | CNDTN       | CORRECTIVE ACTION  | STATUS    |
|------|--------------------------------|---|--|------------|-------------|--|-----------|
| 2/05 | Mainline<br>Revenue<br>Service | Non-Grade Crossing Incident Involving a Streetcar and Pedestrian. A power outage in the downtown area earlier that night resulted in the streetlights in this area being out. By the time the motorman saw the pedestrian coming towards the streetcar from the sidewalk area, he could not implement emergency braking fast enough to slow the vehicle down and stop prior to contact. | Intoxicated pedestrian attempted to jump up onto the side step of a moving streetcar. Pedestrian fell backwards from step, hit head on rail, expired several days later in the hospital. | 1D         | Undesirable | 1. Request City of Tampa install back-up street lighting in case of power outage.<br>2. Request City of Tampa install guard railing to separate sidewalk area from track area. | Requested |



## Accidents 2006

- POV turns/pulls in front of streetcar: 5
- Pedestrian walks into side of streetcar (no injury): 1
- Split switch/derailment: 2
- Total: 8

Motormen went seven months straight without involvement in an accident.



- Corrective Action
- Painted clearance lines throughout entire mainline.
- Changed/added additional signage.







## Accidents 2007

- POV turns/pulls in front of streetcar: 8
- Passenger slips and falls (no injury): 1





- Total incidents to date: 69
- POV turns/pulls in front of streetcar: 43

Statistically, the POV turning/pulling in front of the Streetcar is the biggest safety threat to system safety.

Through careful analysis, it has been determined there is only one definitive corrective action.









## ■ Accident Review Procedures

- All accidents/incidents involving any Authority vehicle are reviewed by the Safety Officer to determine preventability.
- Prior to the rating, the Safety Officer meets with the employee to discuss the accident/incident.
- At the meeting, the employee is informed of the rating. The employee receives written notification of rating and if preventable, penalty.
- The employee is entitled to appeal the preventable rating to the Tampa Area Safety Council.

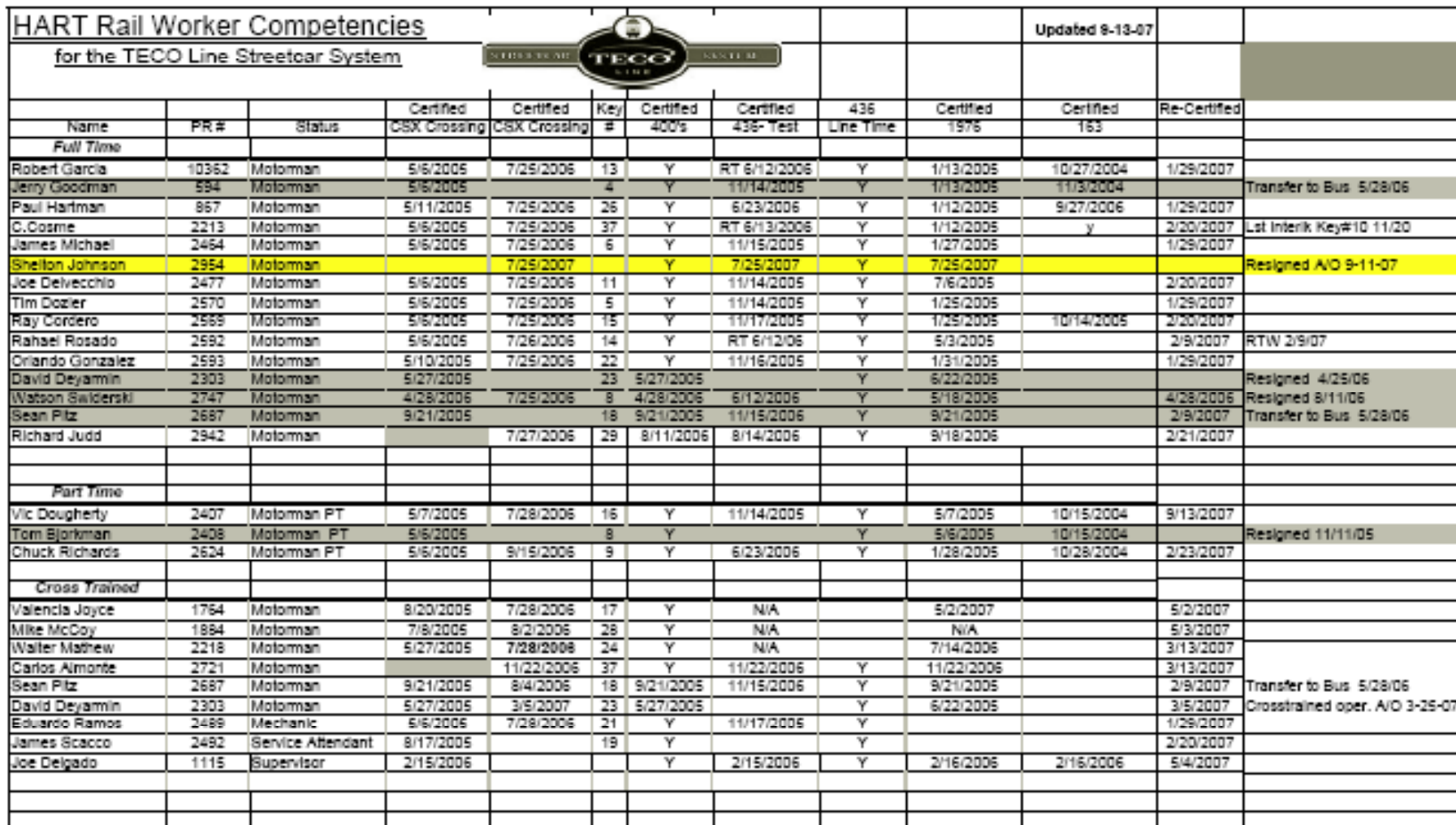


## ■ Discipline for involvement in a preventable accident:

- |                  |   |
|------------------|---|
| ■ First Offense  | Retraining  |
| ■ Second Offense | Reprimand – mandatory attendance in<br>defensive driving course |
| ■ Third Offense  | One day suspension  |
| ■ Fourth Offense | Three day suspension  |
| ■ Fifth Offense  | May Discharge   |

Above penalties are based on preventable accident involvement within a 12 month period.

Individual accidents drop from record after 12 months from date of accident.





## **Streetcar Bulletin #1**

**To:** All Streetcar Workers  
**From:** Joe Diaz, Safety and Security Officer  
Tim Borchers, Manager of Streetcar Services  
Peter Mikos, Assistant Superintendent of Streetcar Operations  
Eric Sitiko, Assistant Superintendent of Streetcar Maintenance  
**CC:** S. Roberts, J. Morais, E. Bart, R. Lavado, Donna Loy, Paul Toth  
G. Brackin, E. Lego, ATU and Teamsters  
**Date:** July 24, 2006 ..... **Bulletin #1**  
**Re:** Phase 2 of HART's current rail waiver conditions.

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The Federal Railroad Administration has granted a waiver extension to proceed to Phase 2 of HART's current rail waiver conditions.

The details of the new operating conditions and subsequent procedures are contained in an updated copy of the "TECO LINE STREETCAR SYSTEM - CSX INTERLOCKING OPERATIONS" manual, "Version 2, dated 07/24/2006".

*The procedure will change officially and affect all rolling stock crossings of the interlock from 0900 Tuesday July 25 2006.*

The most notable changes include it no longer being necessary for any radio communications by the Motorman or Dispatcher when crossing on a proceed (green) indication from the wayside signal, interlock related fault reporting procedures, and an additional emphasis on Operational Performance Monitoring.

Motormen, streetcar mechanics, streetcar management, and streetcar trainers (all personnel who can operate streetcars on the main line) will be retested on the manual in its entirety before being permitted to operate streetcars through the crossing. Supervisors and Dispatchers are required to study the manual upon issue to ensure early familiarity and will also be retested on the updated manual in its entirety by September 20 2006.

During this transition streetcar management, and safety and security staff will be monitoring crossing procedures and providing assistance and mentoring to all.

Opportunities will be available for additional training at scheduled Supervisor/Dispatcher, and Streetcar Worker meetings. For further or more immediate questions please contact any member of streetcar management or the System Safety Officer.

We look forward to a smooth transition during these subtle changes, and thank you for your professionalism.

[illegible]

# TECO Line Streetcar System

## INTRODUCTION

The TECO Line Streetcar System is a rail based, fixed guidway, public transportation system. It requires operational performance monitoring to maintain safe, timely, and quality service delivery.

Responsibilities in monitoring and controlling the system's operation are real. Your attentiveness and decisions influences whether the customers experience is good or not so good – it also affects the systems safe operation.

## OPERATIONAL PERFORMANCE ASSESSMENTS

These sheets allocate duties which need to be performed during your shift. The tasks focus on areas of the system which require improvement, gathers data to monitor operations, which may be used for future operational design.

The tasks listed will change from time to time. These changes will be influenced by a number of factors including areas identified as needing improvements and your comments.

If you are unable to complete any item, please detail reasons in the note section and forward partly completed assessment.

New sheets may be obtained from 21<sup>st</sup> Avenue or the car barn. On completion deposit them in the "IN" mail box at the car barn, or place in inter office mail and address to the Assitant Superintendent of Streetcar Operations.

To help you further understand streetcar operation study the Streetcar Operating Rules and Procedures, Streetcar Bulletins and other streetcar related procedures.

If you can suggest improvements to this form please list in notes section.

## WHEN MUST THESE BE FILLED OUT, AND BY WHOM

Until instructed otherwise, these sheets are to be filled out daily by operational staff supervising the system – typically supervisors and superintendents from the streetcar operations department.

Notes

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# TECO LINE STREETCAR SYSTEM

## OPERATIONAL PERFORMANCE ASSESSMENT CHECKLIST

|              |  |
|--------------|--|
| DAY          |  |
| DATE         |  |
| NAME         |  |
| P/R NUMBER   |  |
| SHIFT START  |  |
| SHIFT FINISH |  |
| S/CAR SUPT   |  |

| # | Items  | Check List   | YES | NO |
|---|--|--|-----|----|
| 1 | Supervisory Staff Member (you)   | Neat tidy appearance (face shaved if applicable)<br>Correct uniform, pressed and clean<br>Well and alert for duty<br>Have a professional, courteous and cheerful approach<br>Motor vehicle fuelled and serviceable<br>Radio, radar serviceable |     |    |
| 2 | Pull Out/In<br>Car # - .....   | Pull Out – On time<br>Pull In – On time  |     |    |
| 3 | Pull Out/In<br>Car # - .....   | Pull Out – On time<br>Pull In – On time  |     |    |
| 4 | Schedule Adherence<br>S/car # - .....<br>M/man - .....                               | <b>Time Check</b><br>Location – .....<br>Direction (N/S) – .....<br>Scheduled Time – .....<br>Actual Time – .....<br>On time   |     |    |
| 5 | Schedule Adherence<br>S/car # - .....<br>M/man - .....                               | <b>Time Check</b><br>Location – .....<br>Direction (N/S) – .....<br>Scheduled Time – .....<br>Actual Time – .....<br>On time   |     |    |
| 6 | Crew Change<br>S/car # - .....<br>M/man 1 - .....<br>M/man 2 - .....<br>Time - ..... | <b>Crew Change</b><br>Location – .....<br>Direction (N/S) – .....<br>Total time car was stopped .....<br>Was total time less than 1 minute   |     |    |



**TECO LINE STREETCAR SYSTEM  
HILLSBOROUGH AREA REGIONAL TRANSIT  
(HART)**

**EMERGENCY RESPONSE PERSONNEL  
SYSTEM OVERVIEW**

1-12-06

**BASIC INFORMATION**

- HART is responsible for the streetcar service operation. HART emergency contact personnel are as follows:

| <u>Name</u>  | <u>Title</u>                                    | <u>Number</u> |
|--------------|---|---------------|
|              |   | 813 Area Code |
| Dispatch     | 24 hour Hotline Number                          | 626-3548      |
| Tim Borchers | Manager of Streetcar Services                   | 309-0195      |
| Peter Mikos  | Assist. Superintendent of Streetcar Ops.        | 309-0971      |
| Eric Sitiko  | Assist. Superintendent of Streetcar Maintenance | 309-3483      |
| Joe Diaz     | System Safety and Security Officer              | 309-1617      |

- The City of Tampa (COT) is responsible for the streetcar right-of-way.
- Southern Power and Control, under contract, provides routine maintenance and emergency service for the streetcar overhead power line. Emergency phone contacts for Southern Power and Control are: 813 620-2700 (office) 813 927-6566 (cell). Additionally, HART has a trained response team and high rail maintenance vehicle for incidents involving the overhead power line.
- In the case of a need to quickly move an immobile/downed streetcar, streetcar is blocking an intersection, etc., HART has a trained response team and high rail recovery vehicle to tow or push the streetcar to a safe location.
- In the case of streetcar derailment, HART has a trained response team for re-railing streetcars. In an extreme situation, Stepps Towing will be called in to assist in the emergency response – 621-8884.
- The current regular hours of streetcar operation are:

|                               |                      |
|-------------------------------|----------------------|
| Monday, Tuesday and Wednesday | 11:00 AM to 10:00 PM |
| Thursday                      | 11:00 AM to 11:00 PM |
| Friday                        | 11:00 AM to 2:00 AM  |
| Saturday                      | 9:00 AM to 2:00 AM   |
| Sunday                        | 12:00 PM to 8:00 PM  |

Although these represent typical operational hours, training, maintenance and special events can dictate extended operations (earlier start, later finish) outside the normal on-line service hours.

# TECO Line Streetcar System

## TRACK & OVERHEAD INSPECTION REPORT

To Be Completed Prior to Performing Overhead Power On Procedures

|        |  |                          |
|--------|--|--------------------------|
| Name   |  | SUPERVISOR<br><br>REPORT |
| Unit # |  |                          |
| Day    |  |                          |
| Date   |  |                          |
| Time   |  |                          |

| No. | Items Checked  | Comment<br>If Problem Exists<br>(Provide Detailed Explanation In<br>Note Section) | OK<br><br>Check<br>Off |
|-----|--|---|------------------------|
|     | <i>Special Instructions</i><br><i>Ensure both Substations are activated by 8 AM</i>  |   |                        |
| 1   | Drive Streetcar System EOL to EOL  |   |                        |
| 2   | Overhead 600 volt conductor and section<br>isolators <ul style="list-style-type: none"> <li>Nothing fouling conductor</li> <li>Fixed in frogs</li> <li>No Kinks</li> <li>Section isolators intact</li> </ul>   |   |                        |
| 3   | Span wires <ul style="list-style-type: none"> <li>Nothing fouling span wires</li> <li>Span fixed in fittings</li> <li>No breaks</li> </ul>   |   |                        |
| 4   | Support poles and bracket arms <ul style="list-style-type: none"> <li>Straight without distortion</li> <li>No automobile damage</li> </ul>   |   |                        |
| 5   | Track (main line) <ul style="list-style-type: none"> <li>No obstructions or debris on rail</li> <li>No breakage's of track or fixtures and no<br/>fixtures missing</li> <li>Correct operation of switches</li> <li>Bumping Post at North EOL</li> <li>Bumping Post at South EOL</li> </ul> |   |                        |

|   |  |  |
|---|--|--|
| 6 | Stations <ul style="list-style-type: none"> <li>No vandalism or graffiti</li> <li>All lights operating</li> <li>Signage correct and undamaged</li> <li>Cleanliness</li> <li>ADA bridge mechanisms working<br/>correctly with no missing or damaged<br/>parts</li> <li>ADA bridge mechanisms locks affixed<br/>and easy to operate</li> </ul>   |  |
| 7 | North Substation <ul style="list-style-type: none"> <li>Fencing, gate and lock intact showing no<br/>sign of damage or forced entry</li> <li>Building and door intact showing no sign<br/>of damage or forced entry</li> <li>Interior lighting and air-conditioning<br/>working</li> <li>Interior clean and tidy</li> <li>List breaker to be activated (1, 2, or 3)</li> <li>Activate power (by 8 AM)</li> </ul> |  |
| 8 | South Substation <ul style="list-style-type: none"> <li>Fencing, gate and lock intact showing no<br/>sign of damage or forced entry</li> <li>Building and door intact showing no sign<br/>of damage or forced entry</li> <li>Interior lighting and air-conditioning<br/>working</li> <li>Interior clean and tidy</li> <li>List breaker to be activated (1, 2, or 3)</li> <li>Activate power (by 8 AM)</li> </ul> |  |
| 9 | Track (yard and Carbarn) <ul style="list-style-type: none"> <li>No obstructions or debris on rail</li> <li>No breakage's of track or fixtures and no<br/>fixtures missing</li> <li>Correct operation of switches</li> </ul>  |  |



## ■ Rail Specific Committees

- Rail Operations and Maintenance Committee
- Rail Safety Committee
- Rail Security Committee
- These three committees meet once per month at the same time
- Meetings average about two hours
- Committee members include mid to high-level managers
- Minutes are recorded
- Tasks are assigned
- Co-chaired by the Safety Officer





Joe Diaz passed out a paper listing those items that need corrective action. That list and comments are now included as part of this record. If the items have already been assigned an issue number, they will keep that number.

#### STREETCAR SAFETY ISSUES/ITEMS NEEDING CORRECTIVE ACTION

| ITEM                                    | COM-<br>PLETED | NOT COMPLETE   | DUE<br>DATE: |
|---|----------------|--|--------------|
| #13A. Radio Handset Lowered             |                | This project is 90 percent complete. The wiring has been completed, and the handset lowered, but it can not be finished until the deadman controls have been relocated. Streetcar 436 will have to go through a redesign of its wiring. FDOT has requested that the doors work like those on the buses. This item is on hold; Mr. Sitko said that the instrument panel also needed to be redesigned. Gomaco agreed to do a redesign. <i>We will have the design by tomorrow (May 23).</i>  | June 2007    |
| #15 Motorman's Curtain                  |                | This is still ongoing. Mr. Roovers suggested that Mr. Sitko look at the curtains on the new buses. Mr. Sitko will contact 21 <sup>st</sup> Avenue to request that an estimate be done to repair the curtains currently in use. The new buses have the same problem. It was suggested that a local upholsterer would be contacted to fix the shades. <i>Eric stated the bub shades were ordered two months ago. Martha and Eric to check with Gomaco on status.</i>   | June 2007    |
| First Two Interior Passenger Lights Cut |                | A design is being developed by maintenance staff. Will be included in modifications to 436, including roof ad lighting and light sensing interior lighting. It will be tested, then adapted to fleet if successful. The blue light was looked at and Maintenance Staff is working on the lights being turned off during the day. Resources are not available to have the first two lights go out since each car is wired differently. Procurement will be directed to find and order bub shields for the cars. Gomaco will supply eight shields to test on two cars at the cost of \$70-\$80 each. It will take two weeks to deliver the items once ordered. <i>Gomaco</i> | June 2007    |

| ITEM   | COM-<br>PLETED | NOT COMPLETE   | DUE<br>DATE: |
|--|----------------|--|--------------|
| #16 Cab Special Event Stander Line;<br>#16 Non-Operating End Restrictive Area Bars |                | <i>has quoted HART to purchase first four. See above item.</i><br><br>These two items have been combined. Whatever the solution is, it will have to provide an easy exit for the motorman. A sketch will be created and sent to Gomaco. 21 <sup>st</sup> Avenue will be asked to repaint the standee lines in the cars. Gomaco will be requested to design the restrictive area bars. Gomaco will supply the components and install them. Eric Sitko will bring the quote to the next meeting. Eric has requested Gomaco to send a final quote.    | June 2007    |
| Pre-Departure/Maintenance Malfunction Form   |                | The form has been finalized. Tim Borchers will design the form. He is currently working on the PM form.  | June 2007    |
| Secondary Safety Jack Stands for Lifts   |                | It is difficult to use secondary jack stands since there are not extra points on a streetcar where it can be lifted. A set of jack stands will be purchased, however, and a risk analysis done from a preventive maintenance and inspection scheme. They will have to be retrofitted and procedures written for their use. Purchasing has the information on the jacks. This project is still on track. Adapters have been found that will extend the cradles on the present lifts six inches and will put the lift further back from the vehicle. | June 2007    |

#### #29 – Severe Weather Conditions

**Discussion:** Following a complaint by a Motorman during severe weather, a discussion was held regarding using a pantograph instead of the trolley poles. We have received one quote for a pantograph for \$7,000.

**Conclusion:** It is recommended by this committee to purchase one pantograph to be tested on a 400 series streetcar. Steve Roberts requested this to be discussed with the THS Board prior to purchase.

**Action Item:** Historic issues need to be discussed with THS. A discussion item will be added to the agenda for the June THS Board meeting.

**Person Responsible:**  
Tim Borchers, Eric Sitko  
Streetcar Meeting Minutes  
May 22, 2007

**Deadline:**  
June 2007

#### #29 A – Corrective Action Plans at Embassy Suites

**Discussion:** A Corrective Action Plan was developed to identify the safety improvement items at Embassy Suites.

**Conclusion:** Although many of the items have been completed, there are remaining outstanding issues.

**Action Item:** Follow-up with the City to ensure 1) They locate the 4" conduit for the future installation of the security cameras for the STP ticket vending machine and provide a contact with their ADT contact for security monitoring and 2) they provide a final copy of the as-built drawings marked with changes to our utilities that they had damaged or disconnected.

**Person Responsible:**  
Joe Diaz

**Deadline:**  
June 2007

#### #30 – Stroller Policy at High Blocks

**Discussion:** Currently loading strollers at high blocks is a motorman discretion decision. The problem occurs when there is inconsistency.

**Conclusion:** A stroller policy needs to be created covering the loading of strollers from the high block ADA ramp.

**Action Item:** Pete will draft guidelines for motorman discretion and providing customer service when loading a stroller from the ADA high block.

**Person Responsible:**  
Pete Mikos

**Deadline:**  
June 2007

#### #8 A – Moving of Streetcars in Emergency Preparedness

**Discussion:** A plan to evacuate streetcars in anticipation of a hurricane has been developed and documented. Two additions to the plan have been identified.

**Conclusion:** The Hurricane Plan needs to be updated with Stepps, RW Summers and Southern Power and Controls emergency contact equipment. Also, additional equipment needed to be purchased for assistance in emergency preparedness has been identified.

**Action Item:** Joe Diaz will update the plan to include all current information and write a SOP. The additional materials have been received and are locked up. Joe Diaz stated they need to be kept separate from other maintenance items so Streetcar can access them if needed. A wrench still needs to be purchased.

**Person(s) Responsible:**  
Joe Diaz, Eric Sitko, Donna Loy

**Deadline:**  
June 2007



- Additional Safety and Security Committees
- **Monthly Occurrence Loss Prevention & Analysis Committee (MOLPAC)**
  - Chaired by the Safety Officer
  - Meets once per month
  - Trends are identified
  - Corrective Actions are established
  - Tasks are assigned
  - Members include Risk, Safety, Training, Operations, Customer Service

### TASKS NEEDING CORRECTIVE ACTION

| NO. | TASK   | SIGNED TO               | STATUS     |
|-----|--|-------------------------|------------|
| 1.  | Supply the Risk Department and the committee each month with reports received through the Customer Service Department on any calls that have to do with slips and falls, operator's driving abilities, injured patrons, damage to vehicles, and unsubstantiated claims for compensation. This also includes anything that we do not have a written report on.            | Customer Service        | Ongoing    |
| 2.  | Due to the number of slip and fall accidents on board buses, the committee is recommending an interior sign be installed on all buses advising customers of the following: "This vehicle makes sudden starts & stops. Floor is slippery when wet. For your safety, please make sure to hold on to a bus pole, strap, or stanchion." Ask Jack to see if he can make them. | David                   | In Process |
| 3.  | Get with Justin to check on pre-recorded P.A. safety messages.   | Joe                     | In Process |
| 4.  | Need to discuss process with Maintenance and Procurement Departments for safety involvement in purchases of new vehicles. Get with Bob Andis and Cathy Zickefoose. Need to come up with a SOP that covers all purchases requiring Safety/Security oversight.   | Joe, David or John      | Ongoing    |
| 5.  | Due to the number of passenger accidents on buses there will be a focus on monthly review of passengers onboard, exiting and entering the bus.   | Committee               | Ongoing    |
| 6.  | Field review of certain routes with tight streets and turns that are assigned to 102" wide HART buses will be performed by Safety and Training.  | Security/ Training/Risk | In Process |
| 7.  | Continue to monitor all locations where objects are thrown at vehicles.  | Committee               | Ongoing    |
| 8.  | Continue to monitor areas under construction in order to provide operators with safety instructions. Contact the Scheduling Department if there is an issue with running time.   | Committee               | Ongoing    |
| 9.  | Notify Melissa with all slip and fall incidents that claimed injury each month.  | Lois                    | Ongoing    |
| 10. | Continue to evaluate all locations where accidents/incidents are occurring, to include time of the day, day of the week, etc.  | Committee               | Ongoing    |
| 11. | Monitor the intersection of 22 <sup>nd</sup> Street and Palm Ave regarding the left turn lane from East Palm Avenue to North on 22 <sup>nd</sup> Street. Determine if the intersection is wide enough to make turn and if motorists are trying to beat the bus on turn.  | Joe/David               | In Process |





- **Interdepartmental Coordination Committee**
  - Chaired by the Safety Officer
  - Meets once per month
  - Deals mainly with Configuration Management and Change Control
  - Minutes are recorded
  - Members include Risk, Safety, Engineering & Development, Procurement, Operations, Maintenance, Information Systems
  - Currently developing a Continuity of Operations Plan (COOP)



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**STREETCAR INTERDEPARTMENTAL COORDINATION COMMITTEE**  
**July 27, 2007                      2:00 P.M.                      21<sup>ST</sup> AVENUE CONFERENCE ROOM**

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**PRESENT:** Tim Borchers, Joe Diaz, Lois Vita (for Rickey Kendall) Donna Loy, Martha Milligan, John Morais, Jane Shang, Paul Toth, Lisa Harris (for Cathy Zickefoose)

The HART Streetcar Interdepartmental Coordination Committee met on July 27, 2007, at 2:05 p.m. in Conference Room II at 21<sup>st</sup> Avenue.

Joe read the minutes from the last meeting, discussing the topics as we went along.

Joe stated we have installed video on Streetcar 432 and is currently being tested. The tower is in the process of going up and radio installation will begin in about a month. In addition to streetcars, we will install video on five buses.

Joe reported the supplemental environmental assessment for the extension was filed with FTA on 7/16/07. Joe will request that the City send a representative to our next Interdepartmental meeting. This will help define responsibilities of the City and HART during the extension.

The new form created for identifying hazards is in the final draft stages. Once complete, this committee will review and we will implement the use of the form. It will be color coded for easily distinguishing from other forms.

A second group of ADA representatives have looked at the product trialed to fill the track gap. They were agreeable to the repair. Our purchasing department has been contacted with the information to set up an account with the supplier. When the product becomes available commercially, we plan to move forward with this process.

Donna Loy must be notified when anyone buys product requiring MSDS sheets. This also applies to shop personnel going to local vendors to buy last minute as needed material.

We will continue working through any open Corrective Actions.

Joe wanted share discussions that took place recently at the conference he attended in Chicago.

- 1) COOP - Continuity of Operations Plan – The written plan of continuing operations after a catastrophic event occurs. This is an organizational plan; not Safety and Security. However, we don't have a committee tasked to write the plan so Joe will ask Steve Roberts permission for the Interdepartmental committee to develop the plan. If Mr. Roberts agrees, we can work on this each month.

**HILLSBOROUGH AREA REGIONAL TRANSIT  
CONFIGURATION CHANGE CONTROL PROPOSAL FORM (5-14-07)**

1. REQUESTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPARTMENT MAKING REQUEST: \_\_\_\_\_

APPROVED / DENIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

2. CHECK MODE TYPE: Check Applicable Mode Type(s):

Bus: \_\_\_\_\_ Streetcar: \_\_\_\_\_ Paratransit: \_\_\_\_\_

Other (describe): \_\_\_\_\_

3. ELEMENT BASELINE TO BE MODIFIED: Check applicable element(s):

Engineered Systems: \_\_\_\_\_

Operations & Maintenance Practices: \_\_\_\_\_

Modifications to, replacement of, or new (parts, equipment, chemicals, components, vehicles): \_\_\_\_\_

Training & Qualifications Practices : \_\_\_\_\_

4. DETAIL PROPOSED CHANGE DESCRIPTION:

5. Attach All Applicable Documents (existing and proposed):

Drawings (Engineered System), Part/Product, Rule/Procedure, Modification, Risk/Hazard Analysis etc.

6. CATEGORY CLASS: Check One:

\_\_\_\_ Class "A" – Definitely Impact Safety Critical System / Process

\_\_\_\_ Class "B" – May Impact Safety Critical System / Process

Class "C" – No Apparent Safety Impact

Explain: \_\_\_\_\_

7. COST IMPACT (approximate equipment costs and labor hours required for change):

8. DOES CHANGE(S) HAVE CONTRACTUAL OR REGULATORY COMPLIANCE IMPLICATIONS:

No \_\_\_\_\_ Yes \_\_\_\_\_ (if yes, explain):

9. EVALUATION BY SYSTEM SAFETY OFFICER OR SYSTEM SAFETY SPECIALIST OF THIS PROPOSED CONFIGURATION CHANGE INFORMATION WILL DETERMINE SIGN OFF NECESSARY TO PROCEED.

[illegible][illegible]

Safety Officer/Specialist Comments: \_\_\_\_\_

Form Procedure: All Departments having a safety and/or security responsibility are required to complete this form. In order to simplify the process, all responsible personnel having authority to purchase, implement, or maintain any of the baseline elements listed in Section 3 will contact the System Safety and Security Officer to determine if Configuration Change Control Form process will be required when modifying, replacing, and/or introducing new system elements.





### HAZARD IDENTIFICATION REPORT FORM

(Hazard Definition: to expose to danger, injury or harm; potential to cause harm; possible source of danger)

**Instructions:**

Haz. Cat. \_\_\_\_ Rsk. Indx. \_\_\_\_ (Safety Officer)

- If hazard is life-threatening, report hazard to Dispatch immediately.
- Employee identifying hazard/completing report is to physically submit report to member of management/ Dispatch;
- If member of management/Dispatch is not available, place report in the Operations "IN" box (Streetcar Division).

|   |   |                                       |  |
|---|---|---------------------------------------|--|
| <b>SECTION 1. HAZARD REPORT (to be completed by employee reporting hazard):</b>                               |   |                                       |  |
| Check One:  | Streetcar Division <input type="checkbox"/> | Bus Division <input type="checkbox"/> | HARTPlus Division <input type="checkbox"/> Maintenance Division <input type="checkbox"/> |
| Name (Print):   | PR#:  |                                       | Date:  |
| Exact Location of Hazard:   |   |                                       |  |
| Description of Hazard:  |   |                                       |  |
| Suggested Corrective Action to render condition/situation:  |   |                                       |  |
| Employee Signature:   |   |                                       |  |
| Report Received By:   |   |                                       |  |
| <b>SECTION 2. HAZARD INVESTIGATION &amp; CORRECTIVE ACTION (to be completed by investigating supervisor):</b> |   |                                       |  |
| Supervisor Remarks:   |   |                                       |  |
| Corrective Action to be Taken:  |   |                                       |  |
| Status of Corrective Actions (check box & include details as applicable):                                     |   |                                       |  |
| <input type="checkbox"/> Works Commenced Date:  |   | Expected Completion Date:             |  |
| <input type="checkbox"/> Hazard Investigation Referred To: (name)   |   | Date:                                 |  |
| Supervisor Signature:   |   | Position:                             |  |

Completed reports are to be forwarded to the System Safety and Security Officer / Office of Safety and Security. Attach additional information as applicable.

☐ Corrective Action Completed/Closed Out Date: \_\_\_\_\_



- **HART/City of Tampa Standing Streetcar Committee**
  - Meets once every two months
  - Deals mainly with safety and security related issues
  - Minutes are recorded
  - Committee members include mid to high-level managers from Operations, Risk, Safety and Security

**HART/City of Tampa  
TLSS Signage Discussion  
Standing Streetcar Committee**

August 6, 2007      1:30 p.m.  
306 E. Jackson Street, 4th Floor Conf. Room, Tampa, FL 33602

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**City of Tampa Staff Present:** Michael Chen, Debbie Herrington, Ron Phillips,  
Tony Rodriguez  
**HART Staff Present:** Tim Borchers, Ed Crawford, Joe Diaz, Martha  
Milligan, Steve Roberts, Eric Sitiko

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The discussion to discuss the signage along the Streetcar System and the regularly scheduled meeting with HART and COT were combined. The meeting began at 1:30 p.m. at 306 E. Jackson Street, 4th Floor Conference Room. A brief self introduction period preceded the meeting.

**SIGNAGE DISCUSSION**

1) Color of the signs

Tim Borchers lead the discussion by giving a brief background. Tim stated HART approached the City about 4 years ago requesting the signage to change to what was being used in other streetcar systems in North America. Roy LaMotte requested HART furnish a complete prototype for consideration. We brought a full size sign to one of the meetings, of which is documented in the minutes. The City of Tampa agreed to the sign and approved installation as long as the City of Tampa did not have to pay for them. HART put the signs up and after a couple of days, were told to take them down. Tim expressed a concern that public money was used to purchase these signs and now they are not being used. To perform background research, Tim read the entire 10 chapters of the Manual on Uniform Traffic Control Devices (MUTCD). He has determined that our system is not in compliance (traffic controls), and never has been, with MUTCD. Tim discussed the experimental status process which has a three month time limit. The flow charts detailing the process is on the government web page. Through this process, the City could put up these signs for three months. Ron Phillips agreed the City has to make the signage application but does not know the required information and history. He also agrees the signs are not in compliance. Tim proposed that the City replaces the signs to justify the public funds that were used on the original signs. We then need to make the system compliant. Ron Phillips stated HART wanted symbology, which Eric and Tim replied is allowed. Ron stated to make application for the experimental process symbols must be used that are in the manual. Debbie Herrington stated the problem with our signs is the color. The yellow green florescent is not acceptable. Roy LaMotte told her before he left (employment with the City) that he never approved the color. Tim restated that we presented the actual sign at a meeting attended by Roy LaMotte.





So even though the job of keeping the system safe may sometimes feel like a gigantic, overwhelming task.....



OH MY!!!





never  
never  
never  
give  
up

(winston churchill)





QUESTIONS?

