



## Caltrain Hazard Analysis At-Grade Crossing Diagnostic Review Meeting Notes - DRAFT

<b>Meeting Date:</b>	October 9, 2014	<b>Time:</b>	2:00 PM – 2:30 PM
<b>Subject:</b>	Field Diagnostic Review	<b>Location:</b>	City of Atherton Watkins Ave (MP 28.05)

### 1. Attendees

Name	Organization	E-Mail
Jorge Sanchez	RSE	<a href="mailto:jsanchez@rsecorp.com">jsanchez@rsecorp.com</a>
Jason Chung	RSE	<a href="mailto:jchung@rsecorp.com">jchung@rsecorp.com</a>
Jason Stack	Stack Traffic	<a href="mailto:Jason.stack@stacktraffic.com">Jason.stack@stacktraffic.com</a>
Marc Mizuta	Stack Traffic	<a href="mailto:Marc.mizuta@stacktraffic.com">Marc.mizuta@stacktraffic.com</a>
Hubert Chan	Caltrain	<a href="mailto:chanh@samtrans.com">chanh@samtrans.com</a>
Roshani Nagindas	Caltrain	<a href="mailto:Nagindasr@samtrans.com">Nagindasr@samtrans.com</a>
Felix Ko	CPUC	<a href="mailto:felix.ko@cpuc.ca.gov">felix.ko@cpuc.ca.gov</a>
Gordon Siebert	City of Atherton	<a href="mailto:gsiebert@ci.atherton.ca.us">gsiebert@ci.atherton.ca.us</a>

### 2. Introductions

Sal Lopez from Caltrain provided a safety briefing for the diagnostic team. Sal indicated that the Rule of the Day was 6.3.1, Main Track Authorization. The diagnostic team members introduced themselves and Hubert Chan provided background information and summarized the purpose of the field diagnostics meeting for the project.

### 3. Purpose

Hubert Chan provided a general overview of the purpose of the field diagnostic meeting and how it relates to the overall Caltrain Grade Crossing Hazard Analysis project. This project contains 3 phases with Phase 1 consisting of data gathering, Phase 2 consisting of the hazard analysis based on FRA's risk-based methodology, and Phase 3 consisting of preparing a findings report (see Attachment 1 for additional information about the 3 phases). The main purpose of the field diagnostics are to ensure that the grade crossings comply with Caltrain Safety Standards.

All attendees were asked to provide their input on ways to improve the safety of the grade crossing and identify other safety hazards/issues that may not be directly related to the grade crossing.



#### 4. General Discussion/Observations

Marc Mizuta provided a brief summary of the traffic data that was collected at this crossing along with any anomalies observed from the data. A video camera was installed near the crossing that captured all vehicular, pedestrian, and rail traffic over a 24-hour period. Some of the findings included:

- 2,880 ADT
- 99% passenger vehicles
- 124 pedestrian crossings
- 14 bicyclists
- The only anomaly noticed was a pedestrian ducking under the gate arms and runs across the track in the morning peak.

#### 5. Findings/Recommendations Related to Hazard Analysis

- **Pedestrian Treatments**

1. Separate the pedestrian gate arms at the crossing to the current standard, which has the pedestrian gate arm on a separate pole
2. Paint "STOP HERE" on the sidewalk prior to the warning tactile strip at the grade crossing
3. Install a "No pedestrian crossing" sign on fence in NW quadrant

- **Warning Devices**

4. Atherton asked if 4quad gates could be considered at this location, although it is known to be conditioned on widening the street into private property, to the west, and over the channel to the east  
Regarding this, CPUC states there is not enough space in the northeast quadrant (near park and storm drain) to install the exit gate
5. Atherton also requested consideration of a Quiet Zone, and was told that FRA regulations typically require at least a 10 year interval with no nearby fatalities, a situation that could not currently be met.
6. Add flasher and/or no left-turn blank out sign for vehicles exiting Station Lane onto Watkins Avenue

- **Pavement Marking/Signs**

7. Remove or relocate the "Caution Trains Do Not Stop Mon-Fri" warning sign on the SE quadrant
8. Relocate existing W10-1 sign in WB direction of Watkins Ave to railroad crossing pavement marking

#### 6. Findings/Recommendations Related to General Safety and Maintenance

- a) Freshen red paint on all curbs adjacent to rail crossing
- b) Freshen existing pavement markings



## Caltrain Hazard Analysis At-Grade Crossing Diagnostic Review Meeting Notes - DRAFT

<b>Meeting Date:</b>	October 9, 2014	<b>Time:</b>	1:00 PM – 1:45 PM
<b>Subject:</b>	Field Diagnostic Review	<b>Location:</b>	City of Atherton Fair Oaks Lane (MP 27.74)

### 1. Attendees

Name	Organization	E-Mail
Jorge Sanchez	RSE	<a href="mailto:jsanchez@rsecorp.com">jsanchez@rsecorp.com</a>
Jason Chung	RSE	<a href="mailto:jchung@rsecorp.com">jchung@rsecorp.com</a>
Jason Stack	Stack Traffic	<a href="mailto:Jason.stack@stacktraffic.com">Jason.stack@stacktraffic.com</a>
Marc Mizuta	Stack Traffic	<a href="mailto:Marc.mizuta@stacktraffic.com">Marc.mizuta@stacktraffic.com</a>
Hubert Chan	Caltrain	<a href="mailto:chanh@samtrans.com">chanh@samtrans.com</a>
Roshani Nagindas	Caltrain	<a href="mailto:Nagindasr@samtrans.com">Nagindasr@samtrans.com</a>
Felix Ko	CPUC	<a href="mailto:felix.ko@cpuc.ca.gov">felix.ko@cpuc.ca.gov</a>
Gordon Siebert	City of Atherton	<a href="mailto:gsiebert@ci.atherton.ca.us">gsiebert@ci.atherton.ca.us</a>

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All attendees were asked to provide their input on ways to improve the safety of the grade crossing and identify other safety hazards/issues that may not be directly related to the grade crossing.



#### 4. General Discussion/Observations

Marc Mizuta provided a brief summary of the traffic data that was collected at this crossing along with any anomalies observed from the data. A video camera was installed near the crossing that captured all vehicular, pedestrian, and rail traffic over a 24-hour period. Some of the findings included:

- 5,180 ADT
- 95% passenger vehicles
- 31 pedestrian crossings
- 18 bicyclists
- The only anomaly noticed was a vehicle making a left onto Fair Oaks from Lloyd Dr stopping in the oncoming traffic lane during the duration of the crossing activation

Felix mentioned that a pork chop island was considered at one point at the Fair Oaks/Lloyd intersection to require left-turning vehicles onto Fair Oaks to go around the pork chop. However, with the installation of the quad gate system, this was no longer needed.

Gordon mentioned that as the Civic Center gets rebuilt in the future, plans call for closing the current access and relocating it further away from the tracks.

#### 5. Findings/Recommendations Related to Hazard Analysis

- **Pedestrian Treatments**
  1. Install "No Pedestrian crossing" signs on all four quadrants of the pedestrian guard rail to prevent pedestrians from crossing Fair Oaks Lane
  2. Paint "STOP HERE" on the sidewalk prior to the warning tactile strip at the grade crossing
  3. Separate the pedestrian gate arms at the crossing to the current standard, which has the pedestrian gate arm on a separate pole
  4. Install 1 plastic delineator on sidewalk between roadway and guardrail in northeast quadrant to close the gap.

#### Findings/Recommendations Related to General Safety and Maintenance

- a) Freshen red paint on all curbs adjacent to rail crossing
- b) Freshen existing pavement markings
- c) Trim the overgrown ivy growing on the fence on the NE and SE quadrants to provide a wider walking path for pedestrians
- d) Exit gate delay appears too short (exit gates almost immediately begin lowering upon activation). Caltrain to investigate.