COLORADO DEPARTMENT OF TRANSPORTATION

JOB SAFETY ANALYSIS

Activity Name: Tensile testing of pre and post tensioning strand			**Activity Number: ASTM A370**	
Activity Description & Purpose: Verification of the tensile properties of pre and post tensioning strand				
Date Prepared: 08/18/2009				**PPE Required**
Typical Equipment		**Typical Crew Size: 1**	**Typical Material**	1-safety toe boots 2-safety glasses / face shield 3-hearing protection 4-gloves
Description	Class Code	(Crew sizes may vary due to different conditions throughout the state).	Description / Class Code	
See associated test procedure			7 wire strand / 602	

Sequence of Job Tasks	Potential Hazards	Safe Job Procedures	Never
1-Measure Specimen Length			
2-Mark required specimen length			
3-Cut specimen	1-cutting injury 2-eye injury 3-hearing injury	1-Wear safety glasses / face shield 2-Wear hearing protection	Operate chop saw without prior training.
4-Remove flashing	1-eye injury	1-Wear safety glasses / face shield	
5-Un-twist end of specimen			
6-Measure individual strands			
7-Retwist end of specimen	1-pinching hazard	1- Wear gloves or use Channel locks	
8-Measure length of specimen			
9-Weigh specimen			
10-Place jaws in test machine	1-foot injury 2-falling hazard 3-lifting hazard 4-hand injury	1-Wear safety toe boots 2-Insure ladder stability	
11-Place spacer plates in test machine	1-foot injury	1-wear safety toe boots	
12-Prepare grips			
13-Place grips in test machine	1-foot injury	1-wear safety toe boots	
14-Apply abrasive to specimen			
15-Clamp specimen into test machine	1-eye injury 2-hand injury	1-Wear safety glasses / face shield 2-Wear gloves	operate test machine without prior training.
16-Apply preload to test specimen			
17-Clamp extensometer A to test specimen			
18-Apply test load			
19-Remove extensometer A			
20-Clamp extensometer B to test specimen			
21-Apply test load			
22-Remove extensometer B			
23-Releave load on test specimen			
24-Un-clamp test specimen			
25-Remove test specimen from test machine	1-eye injury	1-Wear safety glasses / face shield	
26-Remove grips	1-foot injury	1-Wear safety toe boots	
27-Clean grips			

Notes and Specifications Instructions	Other Related Resources