

I-70 Chain Station Phase 2 Matrix
Draft 3/20/08

EB/ WB	Location	Use Considerations			Safety Considerations			Other Considerations		Workshop Comments on Lighting	Comments
		Chain Law Events/Yr (L/M/H)	Trucks/ Event (L/M/H)	Time to install/ remove chains (L/H)	Separated/ Non- separated? (existing)	Speed of Adjacent Traffic (L/M/H)	Sight Distance (L/M/H)	Issue Present?	Yes/No		
EASTBOUND											
EB	MP 177 (Chain-up)	High	High	High	Non-separated	Medium	High	Existing Fiber Optic	No	Consider retro-fitting	Low priority. Lighting already exists.
								This project install signing?	No	to new light standard	Retrofitting existing lighting with
								Power Availability	Yes	design concept	lower-watt luminaires would be in
								Exposed to Runaway Trucks	No		the future. It has been confirmed
								Wildlife	No		that lights are manually controlled
								Right-of-Way Constrained	Yes		to operate only when the chain
								Environmental	No		law is in effect.
								Physical Constraints	Yes		
EB	MP 183 (Chain-up)	High	Medium	High	Non-separated	Medium	Medium	Existing Fiber Optic	Expected	No critical issues	Medium priority. Has medium usage,
								This project install signing?	No		typically only in late/early season
								Power Availability	Yes		storms. High cost of providing
								Exposed to Runaway Trucks	No		power for few spaces and moderate
								Wildlife	No		usage yields low cost-effective-
								Right-of-Way Constrained	Yes		ness. Due to power issues and
								Environmental	No		close proximity, MP 183 and
								Physical Constraints	Yes		MP 184 are considered together.
EB	MP 184 (Chain-up)	High	Medium	High	Non-separated	Medium	Medium	Existing Fiber Optic	Expected	No lighting in 2008. No	Medium priority. Has medium usage,
								This project install signing?	Signing on	power source.	typically only in late/early season
								Power Availability	Solar for signing		storms. No lighting is planned for
								Exposed to Runaway Trucks	No		this site until power is made
								Wildlife	No		available on West Vail Pass.
								Right-of-Way Constrained	Yes		Due to economic feasibility, this is
								Environmental	No		not expected in the foreseeable
								Physical Constraints	Yes		future. Combined with MP 183.
EB	MP 187 (Chain-up)							Existing Fiber Optic		Nothing until wildlife	This site is being eliminated. Site of
								This project install signing?		study is completed.	wildlife overpass; too close to top
								Power Availability			of Pass.
								Exposed to Runaway Trucks			
								Wildlife			
								Right-of-Way Constrained			
								Environmental			
								Physical Constraints			
EB	MP 195 Copper Mtn. (Chain-down)	High	High	Low	Non-separated	Medium	Low	Existing Fiber Optic	Expected	Light	High priority. Only chain down for
								This project install signing?	Yes		East Vail Pass.
								Power Availability	Yes		
								Exposed to Runaway Trucks	Yes		
								Wildlife	No		
								Right-of-Way Constrained	Yes		

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EB/ WB	Location	Chain Law Events/Yr (L/M/H)	Trucks/ Event (L/M/H)	Time to install/ remove chains (L/H)	Separated/ Non- separated? (existing)	Speed of Adjacent Traffic (L/M/H)	Sight Distance (L/M/H)	Issue Present?	Yes/No	Workshop Comments on Lighting	Comments
								Environmental	Wetlands		
								Physical Constraints	Yes		

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		Chain Law Events/Yr (L/M/H)	Trucks/ Event (L/M/H)	Time to install/ remove chains (L/H)	Separated/ Non- separated? (existing)	Speed of Adjacent Traffic (L/M/H)	Sight Distance (L/M/H)	Issue Present?	Yes/No		
EB	MP 203 Frisco (Chain-up and -down)	Medium	Medium	High	Separated	N/A	N/A	Existing Fiber Optic	Yes	Separated. How much is it used?	Medium priority. Has medium use. Can be used as chain down for Vail Pass or chain up for Silver- thorne Hill and Straight Creek, depending on the storm. Is very important under certain conditions.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	No		
								Wildlife	No		
								Right-of-Way Constrained	Yes		
								Environmental	No		
								Physical Constraints	Yes		
EB	MP 205 Silverthorne (Chain-up)	High	High	High	Non-separated	Medium	High	Existing Fiber Optic	Yes	Not separated, high use, high priority	High priority. This is the primary station for chaining up for Straight Creek.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	No		
								Wildlife	No		
								Right-of-Way Constrained	Yes		
								Environmental	No		
								Physical Constraints	Yes		
EB	MP 219 Herman Gulch (Chain-down)	High	High	Low	Non-separated	High	Low	Existing Fiber Optic	Yes	Separate before light- ing. Need to develop an ultimate plan.	High priority. This site is the primary chain down EB from EJMT. Interim lighting would address immediate safety needs while CDOT works with stakeholders to develop an ultimate plan. All lighting except foundations could be reused. Lighting project may move forward per the 2/29/08 USFWS Biological Opinion Amendm.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	Yes		
								Wildlife	Lynx		
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
EB	MP 228 Georgetown (Chain-down)	High	High	Low	Non-separated	High	High	Existing Fiber Optic	Yes	Look at operations and light to support improved operations.	Medium priority. Has high usage, but because of operational issues (weaving), more study is necessary before determining final config- uration. Lights have already been shifted east to reduce weaving conflict.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	Yes		
								Wildlife	No		
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
EB	MP 241 West Side of Twin Tunn (Chain-up)	High	High	High	Non-separated	High	Medium	Existing Fiber Optic	Yes	Priority	High priority. This is the only chain up station for Floyd Hill.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	No		
								Wildlife	No		
								Right-of-Way Constrained	Yes		
								Environmental	No		
								Physical Constraints	Yes		
EB	MP 251 El Rancho (Chain-up and -down)	Low	Low	High	Non-separated	Medium	Low	Existing Fiber Optic	Yes	Lower use	Low priority. Has low usage due to it's location in between major hills. Can be used either as a
								This project install signing?	No		
								Power Availability	Yes		

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EB/ WB	Location	Chain Law Events/Yr (L/M/H)	Trucks/ Event (L/M/H)	Time to install/ remove chains (L/H)	Separated/ Non- separated? (existing)	Speed of Adjacent Traffic (L/M/H)	Sight Distance (L/M/H)	Issue Present?	Yes/No	Workshop Comments on Lighting	Comments
								Exposed to Runaway Trucks	No		chain down for Floyd Hill or a
								Wildlife	No		chain up for Mt. Vernon Canyon.
								Right-of-Way Constrained	Yes		
								Environmental	No		
								Physical Constraints	Yes		

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EB/ WB	Location	Chain Law Events/Yr (L/M/H)	Trucks/ Event (L/M/H)	Time to install/ remove chains (L/H)	Separated/ Non- separated? (existing)	Speed of Adjacent Traffic (L/M/H)	Sight Distance (L/M/H)	Issue Present?	Yes/No	Workshop Comments on Lighting	Comments
WESTBOUND											
WB	MP 177 Vail (Chain-down)	High	High	Low	Non-separated	High	High	Existing Fiber Optic	No	Work with the Town of	High priority. Only chain down for
								This project install signing?	No	Vail and homeowner	West Vail Pass. Chain station
								Power Availability	Yes	association.	being constructed in 2008 under
								Exposed to Runaway Trucks	No		separate project. Sign is also
								Wildlife	No		part of that project. Lighting is not
								Right-of-Way Constrained	Yes		included in that project.
								Environmental	No		
								Physical Constraints	Yes		
WB	MP 196 Near Copper Mtn. (Chain-up)	High	High	High	Separated	N/A	N/A	Existing Fiber Optic	Expected	Light it	Medium priority. Is the only chain
								This project install signing?	Yes		up station for East Vail Pass, but
								Power Availability	Yes		is already separate and has some
								Exposed to Runaway Trucks	No		minimal lighting.
								Wildlife	No		
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
WB	MP 213 west of EJMT (Chain-down)	High	Low	Low	Separated	N/A	N/A	Existing Fiber Optic	Yes	Used a lot. Should light	Low priority. Already has moderate
								This project install signing?	No	for multi use. Move	lighting. A separate improvement
								Power Availability	Yes	location out of slide	project is scheduled for 2009 which
								Exposed to Runaway Trucks	No	path. Consider impacts	could install the lighting.
								Wildlife	No	to wildlife.	
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
WB	MP 219 Herman Gulch (Chain-up)	High	High	High	Non-separated	Medium	High	Existing Fiber Optic	Yes	Low priority. Need to	High priority. One of the primary
								This project install signing?	Yes	develop and ultimate	chain up stations for the grade up to
								Power Availability	Yes	plan.	EJMT. Interim lighting would address
								Exposed to Runaway Trucks	No		immediate safety needs while
								Wildlife	Lynx		CDOT works with stakeholders to
								Right-of-Way Constrained	Yes		develop an ultimate plan.
								Environmental	No		Lighting Project may move
								Physical Constraints	Yes		forward per the 2/29/08 USFWS
											Biological Opinion Amendment
WB	MP 221 West of Bakerville (Chain-up)	High	High	High	Non-separated	Medium	Low	Existing Fiber Optic	Yes	Low priority. Wildlife	High priority. One of the primary
								This project install signing?	Yes	issues. Requires	chain up stations for the grade up to
								Power Availability	Yes	further consideration.	EJMT. Lighting project may move
								Exposed to Runaway Trucks	No		forward as per the 2/29/08 USFWS
								Wildlife	Yes		Biological Opinion Amendment.
								Right-of-Way Constrained	Yes		
								Environmental	No		
WB	MP 223 East of Existing VMS (Chain-up)	High	High	High	Non-separated	Medium	Low	Existing Fiber Optic	Yes	Lighting would be	Medium priority. High use for grade
								This project install signing?	No	beneficial to support	to EJMT, but has fewer spaces.
								Power Availability	Yes	operations and use.	Herman Gulch and Bakerville take

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								Exposed to Runaway Trucks	No		the majority of the demand.
								Wildlife	No		
								Right-of-Way Constrained	Yes		
								Environmental	No		

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WB	MP 228 Georgetown (Chain-up)	High	High	High	Separated	N/A	N/A	Existing Fiber Optic	Yes	High priority	High priority. Primary chain up for Georgetown Hill. This is the prototype station, so there is a desire to install lights to complete the prototype.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	No		
								Wildlife	No		
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
WB	MP 254 Buffalo Overlook (Chain-up and -down)	Medium	Medium	High	Separated	N/A	N/A	Existing Fiber Optic	Yes	Priority	Medium priority. Gets medium use. Location is in between critical grade areas. Is already separated and is functioning moderately well.
								This project install signing?	No		
								Power Availability	Yes		
								Exposed to Runaway Trucks	No		
								Wildlife	No		
								Right-of-Way Constrained	No		
								Environmental	No		
								Physical Constraints	No		
WB	MP 260 C470WB (Chain-up)	Medium	Low	High	Non-separated	High	Medium	Existing Fiber Optic		Contact Region 6	Low priority. As a secondary site in Region 6, this site will be deferred along with MP 263WB Denver West.
								This project install signing?			
								Power Availability			
								Exposed to Runaway Trucks			
								Wildlife			
								Right-of-Way Constrained			
								Environmental			
								Physical Constraints			
WB	MP 263WB Denver West (Chain-up)	Medium	Low	High	Non-separated	High	Low	Existing Fiber Optic		Contact Region 6	Low priority. Due to concerns over lighting in residential areas and because no contact has been made with residents yet, this site will be deferred to a later time.
								This project install signing?			
								Power Availability			
								Exposed to Runaway Trucks			
								Wildlife			
								Right-of-Way Constrained			
								Environmental			
								Physical Constraints			