

STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

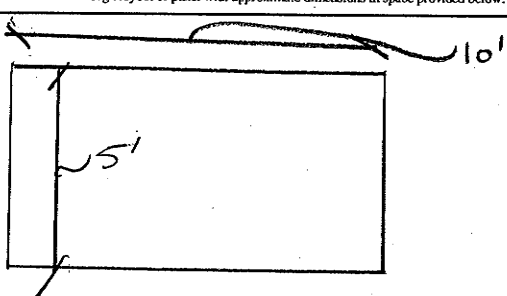
Instructions:

- 1-Fill out required sections for MSE Wall Inspector and Wall Characteristics.
- 2-Inspect the wall using the attached form. Questions that require a 'Yes' answer should be documented by noting the extent of the problem in the right most column and photo documentation. Photo documentation should consist of wall or bridge number, nature of problem, date, photo number for wall, and a size reference, which should be indicated in the photo (white board/paper). Photos taken should be placed on the Top View layout and indicated with the appropriate number. Note should be taken by the inspector that often anomalies are due to construction and should be distinguished from those that are a result of post-construction. If it is observable that they existed at the time of construction note should be taken in the space provided for drawings.
- 3- Shoot digital photos of the entire wall. This may require the use of a variety of shots and angles on each wall to cover the wall in its entirety.
- 4- Indicate Layout of MSE Wall in respect to major intersections, roadways, potential hazards, irrigation, vegetation, locations of conditions for which 'Yes' was marked, etc. in space provided below. Also Indicate approximate GPS Coordinates of Site of Interest in space provided below

Inspector Information

Inspection Date	8/11/2009	Names Of Inspectors	RYAN MAW & HOWY
Region	2	Identifying Road/Intersection	10600 S (SR-151) - I-15

MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Ⓟ N	Bridge Number if applicable:	F-663	Wall Number	R-40K-3
Surrounding Structures	NONE			Maximum Height of Wall (ft)	~20'
Distance to Each Structure	-			One Stage, Two Stage or Block Wall	TWO STAGE
State Route Number	I-15			Estimated Max Length of Wall Abutment:	160'
Approximate Mile Marker	293			Max Slope of Ground in front of wall:	0'
GPS Datum	WGS84	NAD/83, or NAD/27		Max Height of wall burial line above surrounding level ground:	0'
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	N 40° 33.497'			Please draw rough layout of panel with approximate dimensions in space provided below:	
	W 111° 53.855'				
If known, Panel or System Manufacturer	UNKNOWN				

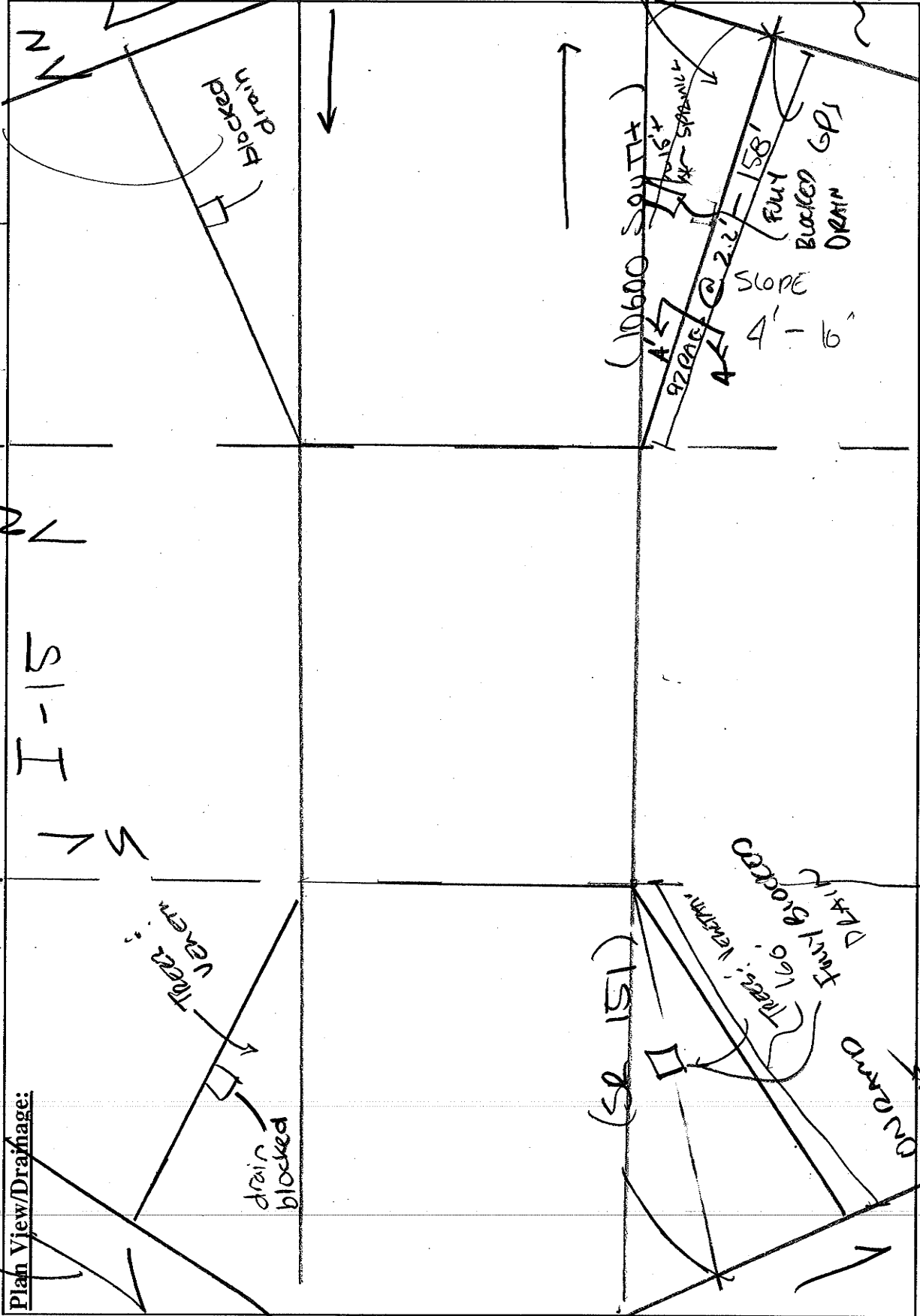
Summary of Key Observations:

* ALL FOUR DRAINS WERE BLOCKED - DRAINAGE A MAJOR CONCERN

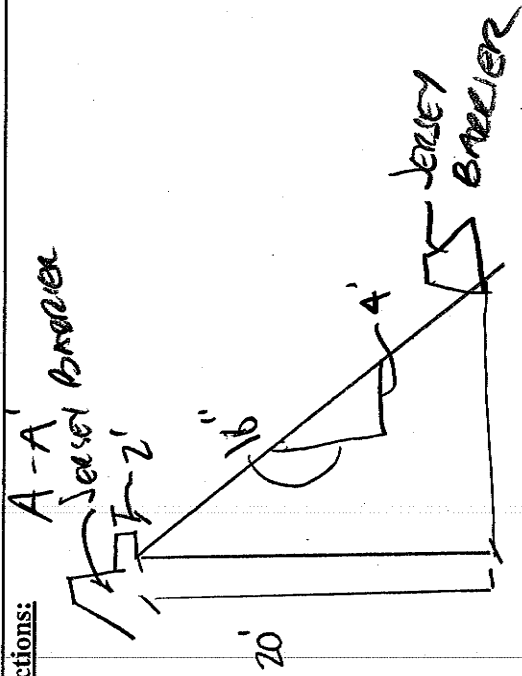
* LIMITED CRACK/POPPED CORNERS ON PANELS

new wall
R-342
15 and 16

Plan View/Drainage:



Cross Sections:



Cross Sections:

MSE WALL DRAINAGE

Required Tools: Nylon Mallet-Water Bottle-GPS-Camera

Yes	No	Drainage		Measurement/Extent of Problem/Location/Photo Numbers
		UKN	UKN	
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSE WALL JOINTS

Required Tools: Long Level-String-Camera-GPS

Yes	No	Joints		Measurement/Extent of Problem/Location/Photo Numbers
		UKN	UKN	
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
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Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
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Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	N	UKN	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Blocked Partial Clear / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
 2-both blocked
 settlement visible

MSE METAL CORROSION

Required Tools:		Nylon Mallet-Camera-GPS-Zip Lock Bag-Trowel	Metal Corrosion		Measurement/Extent of Problem/Location/Photo Numbers									
Yes	No	N/A	UKN		/ 0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	(N)	N/A	UKN	46-Is there excessive corrosion on guardrails or other exposed metal that might indicate corrosive conditions?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	47-Are there major rust stains on the face panels? Along joints? If so, record total number.	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	48-Are any internal straps exposed? Does there appear to be corrosion on these straps? If applicable please record the total number of straps affected.	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	49-Was a resistivity sample taken of exposed soil? If so, please indicate depth in inches.	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	50-Is there any indication of rebar corrosion (swelling bars, rust, exposed metal inside epoxy coating)? If so please record the total number of panels affected.	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%

MSE IMPACT/COLLISION PROTECTION

Required Tools:		Camera-GPS	Impact/Collision		Measurement/Extent of Problem/Location/Photo Numbers									
Yes	No	N/A	UKN		/ 0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	(N)	N/A	UKN	51-Are guardrails/wall protections in place at the base of the wall (to protect it from potential traffic hazards)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	52-Does it appear that the wall has been involved in an accident (replaced panel, recent dings in the wall)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	53-Does it appear the walls functionality and integrity has been compromised by a collision or accident?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Tools:		Drawings	Obstructions in Reinforcement Geometry		Measurement/Extent of Problem/Location/Photo Numbers									
Yes	No	N/A	UKN		/ 0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	(N)	N/A	UKN	54-Are there acute wall angles (<90)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%

MSE AS BUILT DIFFERENT FROM DESIGN

Required Tools:		Drawings-Camera-GPS	MSE as built different than design		Measurement/Extent of Problem/Location/Photo Numbers									
Yes	No	N/A	UKN		/ 0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	(N)	N/A	UKN	55-Are there available drawings for the wall? Please indicate type (Situation and Layout, Design, As Built, etc.)	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	56-Is the layout in general accordance with drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	57-Are the panels CIP (Cast in Place) Does there appear to be excessive cracking in the panels?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	58-Was GEOFoam used in the construction of the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	59-Are there any structures on or near wall that were not included in initial drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	60-Are there any irrigation, utilities, or intrusions that are not part of the initial drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	61-Have there been any excavations or evidence of excavations near the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	62-Have local property owners changed the dynamics of the wall (additional structures, irrigation, vegetation, etc.)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%
Y	(N)	N/A	UKN	63-Are there piles located in the wall (bridge abutment)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	100%