

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

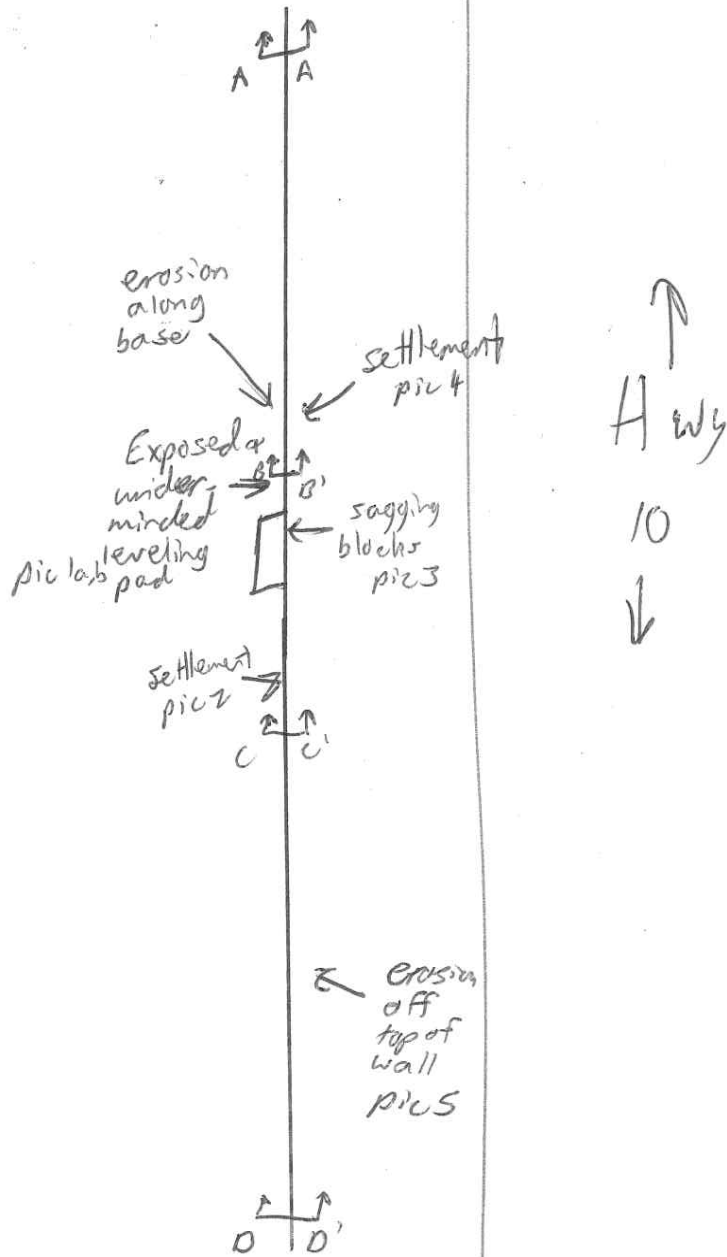
			HWy 10 - North of Huntington
Region	4	Identifying Road/Intersection	

MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Y <input checked="" type="radio"/> N <input type="radio"/>	Bridge Number if applicable:		Wall Number	R-407-D NW
Surrounding Structures				Maximum Height of Wall (ft)	18 ft
Distance to Each Structure				One Stage, Two Stage or Block Wall	Block
State Route Number				Estimated Max Length of Wall Abutment:	
Approximate Mile Marker				Max Slope of Ground in front of wall:	5% <input checked="" type="radio"/>
GPS Datum	WGS/84, NAD/83, or NAD/27			Max Height of wall burial line above surrounding level ground:	10 ft
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	39° 29' 24.41" 110° 55' 45.57" W			Please draw rough layout of panel with approximate dimensions in space provided below:	
If known, Panel or System Manufacturer	<div style="border: 1px solid black; width: 200px; height: 100px; margin: 0 auto; position: relative;"> 18' 8' </div>				

Summary of Key Observations:

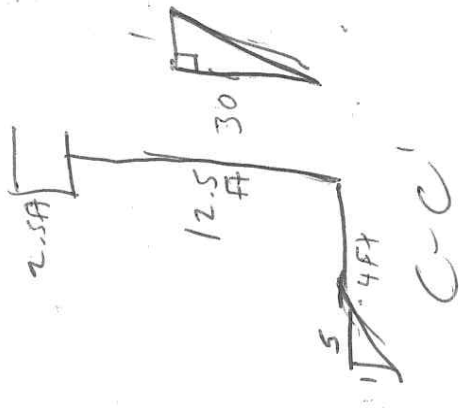
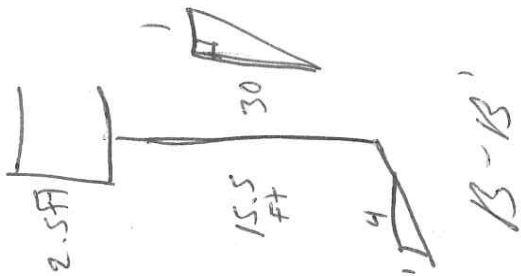
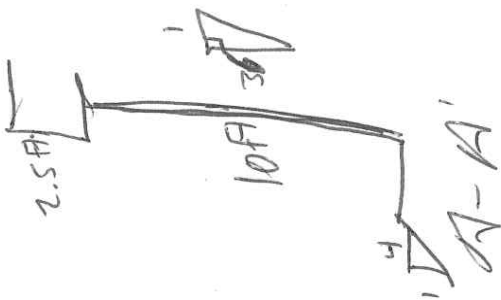
Lots of erosion, wings and middle of the wall settlement due to erosion



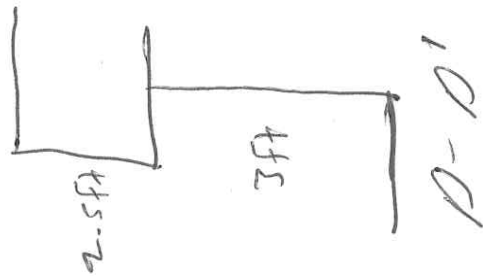
Plan View/Drainage:

23.5
8
1082
1.8
1248
1.2

Cross Sections:



Cross Sections:



$$\begin{array}{r} 7 \\ 19 \\ \hline 182 \\ 15 \\ \hline 12182 \\ 10 \end{array}$$

MISE WALL DRAINAGE

Required Task	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is there an active water source near the base of the wall (i.e. the wall near a body of water with access potential)?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-If applicable, are the catch basins at the base of the wall blocked?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Are there culverts protruding through the wall?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are there vertical drains that travel through the backfill?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Is there evidence at the base of the wall or leveling pad? (Photo 12)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Is there evidence along the wing walk?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Are there any signs of water flow along the base of the wall?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-Is there less than 18 feet between irrigation sprinklers and wall?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Does the backfill or joint fabric appear to be saturated?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there vegetation growing in panel joints? (Photo 8)?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Are the deck drains and outlets at the top of the wall blocked? (Photo 14)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12-Can water enter the wall between coping and slab (i.e. Drainage appropriately)?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13-Is there evidence of discharge point of fill washing through drain pipe?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE WALL JOINTS

Required Task	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is backfill coming out of joints or are there piles of backfill at the base of the wall? (Pictures 2 & 3)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are the joints wide enough to see fabric or backfill behind panel? When looking into joints? (Photo 2) If yes, record the approximate maximum joint width in inches.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is exposed backfill visible in the horizontal joints? (Photo 4)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Do the joints have a non-uniform horizontal spacing? Are there horizontal joints larger than 1/8 inch? (Photo 6)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Do the joints have a non-uniform vertical spacing? Are there vertical joints larger than 1/8 inch? (Photo 6)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Are the panels offset at the joints either in or out of the wall? (Photo 7) If yes, record the approximate maximum offset.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Does the fabric appear brittle, or appear as if it has undergone excessive UV exposure?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE WALL FACING

Required Task	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Do the panels "101-LP-7" have excessive cracking in the panels?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are there cracks that continue vertically through adjacent panels? (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracking.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Are there cracks that continue horizontally through adjacent panels? (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracking.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are the panels correct making contact with each other? If yes, record the approximate number in the wall.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Do the panels appear "popped-off" or shipped from contact with an adjacent panel? If yes, record the number in the wall.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Does the overlying coping exhibit "vertical offset"?	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Are the coping and parapet lower or discharging? If yes, it may be appropriate to contact LDOT if detachment seems serious.	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-Are the panels in danger of falling off? (If potential exit contact appropriate LDOT region).	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
14-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
15-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE LOT TOP WALL OBSERVATIONS

Required Task	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
14-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
15-Is there evidence of settlement at the top of the wall? (pavement cracking, slab)	Y	N	N/A	UNKN	0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Y	N	UN	OK	36-Is there a large gap between the approach slab and the approach pavement? (Please fill O'Brien data)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	UN	OK	37-Are there any gaps between the approach slab and the approach pavement at the increase in crown? Record the approximate maximum gap size.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	UN	OK	38-Is the coping wall pulling away from pavement (road-way section)? Please record maximum displacement for wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

MISE STABILITY

Required Item	Inspect	OK	UN	OK	UN	Measurements/Extent of Problem/Location/Photo Numbers
39-What is the bearing depth of footing and of base (Concrete)? Note wall located 2 inches from wall (a maximum depth of 24 inches (24 inches) in the minimum depth for MSE Wall)	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
40-Is leveling pad exposed?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
41-Is there cracking in the leveling pad? If so, record maximum crack size with page.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
42-Is there a four foot bench (level slope) directly along the wall before the slope changes (Record Width)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
43-Is there a slope steeper than V:1.5 to H:1 in front of the wall? Please record slope and length of benchfill above top of wall.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
44-Is there a slope greater than V:1.5 to H:1 below the wall? Please record slope and length of backfill above the wall.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
45-Is there excess or degradation of panel fence?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE METAL CORROSION

Required Item	Inspect	OK	UN <th>OK</th> <th>UN</th> <th>Measurements/Extent of Problem/Location/Photo Numbers</th>	OK	UN	Measurements/Extent of Problem/Location/Photo Numbers
46-Is there excessive corrosion on guardrails or other exposed metal that might indicate corrosive conditions?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
47-Are there major rust stains on the face panels? Along joints? If so, record total number.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
48-Are any internal straps exposed? They should appear to be corrosion on these straps? If applicable please record the total number of straps affected.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
49-Is there any visible signs of exposed wall? If so, please indicate depth in inches.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
50-Is there any indication of other corrosion (exposed bars, rust, exposed metal inside epoxy coating)? If so, please record the total number of points affected.	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE IMPACT/COLLISION PROTECTION

Required Item	Inspect	OK	UN	OK	UN	Measurements/Extent of Problem/Location/Photo Numbers
51-Is there adequate wall protection in place at the base of the wall to protect it from potential traffic hazards?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
52-Does it appear that the wall has been involved in an accident (replaced panel, recent ding in the wall)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
53-Does it appear the wall functionality and integrity has been compromised by a collision or accident?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Item	Inspect	OK	UN	OK	UN	Measurements/Extent of Problem/Location/Photo Numbers
54-Are there any obstructions in Reinforcement Geometry?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
55-Is there any differential settlement (e.g., differential settlement of the wall)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
56-Is there any differential settlement (e.g., differential settlement of the wall)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
57-Are there any structures on or near wall that were not included in initial drawings?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
58-Are there any irrigation, utilities, or inclusions that are not part of the initial drawings?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
59-Is there any evidence of excavation or evidence of excavations near the wall?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
60-Is there any evidence of excavation or evidence of excavations near the wall (additional structures, irrigation, vegetation, etc.)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
61-Are there piles located in the wall (bridge abutment)?	Y	N	UN	OK	UN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

[Handwritten notes and additional data entries in the table grid, including "0-24", "2-9", and various checkmarks.]