

# STATE OF UTAH MSE WALL INSPECTION FORM

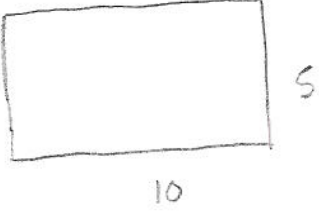
Compiled As Part of Research By The Utah Department of Transportation

**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

<b>Region</b>	2	<b>Identifying Road/Intersection</b>	Colin & Adam 200 S 100 W (East)
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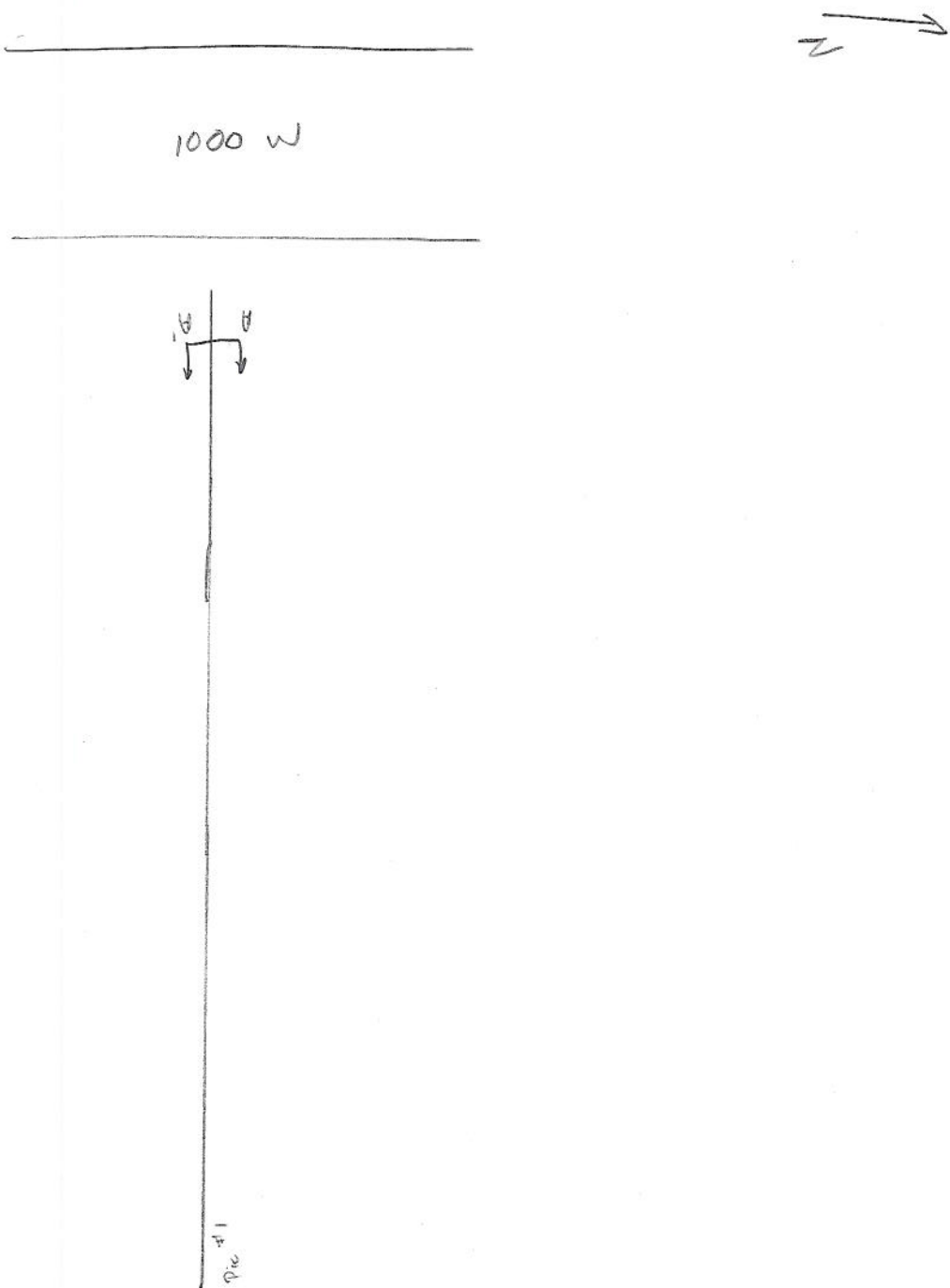
## MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Y <input checked="" type="radio"/> N	Bridge Number if applicable:		Wall Number	R-351-21
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				Estimated Max Length of Wall Abutment:	
Approximate Mile Marker				Max Slope of Ground in front of wall:	flat
GPS Datum	WGS/84, NAD/83, or NAD/27			Max Height of wall burial line above surrounding level ground:	
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	40°45'53.81"N 111°55'9.99"W		Please draw rough layout of panel with approximate dimensions in space provided below:		
If known, Panel or System Manufacturer					

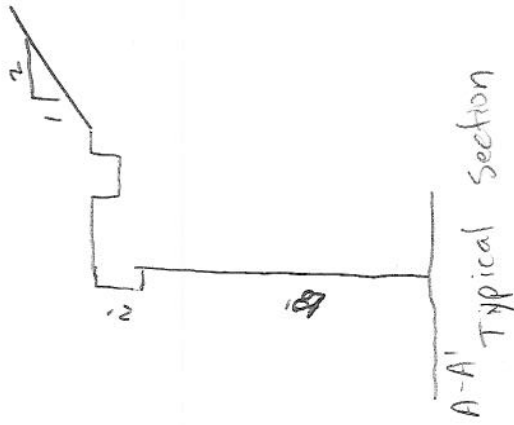
**Summary of Key Observations:**

- irrigation pipes located at base

Plan View/Drainage:



Cross Sections:



Cross Sections:



Y	N	N/A	UN	36-Is there a large gap between the approach slab and the approach pavement? (Photo 15) Often this condition is a tripping hazard as the ramp is cracked. Record the approximate maximum gap size.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	UN	UN	37-Is there a bumping action at the joint between the wall coping and the abutment coping or significant? If so record maximum distance.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	UN	UN	38-Is the coping/wall pulling away from pavement/abutment? Please record maximum distance for wall.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**MISE STABILITY**

Required tests: Shear, DEF/DFE																
Structural Integrity																
Y	N	N/A	UN	39-What is the location depth of leveling pad? Found Core-Probe into soil located 2 inches from wall to a maximum depth of 24 inches (24 inches is the minimum depth for MSE Wall)	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	40-Is leveling pad exposed?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	41-Is there cracking in the leveling pad? If so, record maximum crack size with gage.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	42-Is there a four foot 'nose' (level slope) directly along the wall below the slope change (flout width)?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	43-Is there a slope steeper than V: 1.5 to H: 1 in front of the wall? Please record slope and height of backfill above top of wall.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	44-Is there a slope greater than V: 1.5 to H: 1 below the wall? Please record slope and height of backfill below the wall.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	45-Is there excessive degradation of panel faces?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**MISE METAL CORROSION**

Required tests: N/A																
Metal Corrosion																
Y	N	N/A	UN	46-Is there excessive corrosion on guardrail or other exposed metal that might indicate excessive conditions?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	47-Are there major rust stains on the face panels? Along joints? If so, record total number.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	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-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	49-Was a randomly sample taken of exposed wall? If so, please indicate depth in inches.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	50-Is there any indication of other corrosion (swelling bars, rust, exposed metal inside epoxy coating)? If so please record the total number of panels affected.	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**MISE IMPACT/COLLISION PROTECTION**

Required tests: Concrete/JS																
Impact/Collision																
Y	N	N/A	UN	51-Are guardrails/wall protrusions in place at the base of the wall (to protect it from potential traffic hazards)?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	52-Does it appear that the wall has been involved in an accident (replaced panel, recent ding in the wall)?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	53-Does it appear the walls face flexibility and integrity has been compromised by a collision or accident?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**MISE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY**

Required tests: Drawings																
Obstructions in Reinforcement Geometry																
Y	N	N/A	UN	54-Are there scale wall angles (<90°)	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**MISE AS BUILT DIFFERENT FROM DESIGN**

Required tests: Drawings/Concrete/JS																
MSE as built different than design																
Y	N	N/A	UN	55-Are there available drawings for the wall? Please indicate type (Station and Layout, Design, As Built, etc)	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	56-Is the layout in general accordance with drawings?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	57-Are the panels C/P (Cut in Place) Does there appear to be excessive cracking in the panels?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	58-Was GEOFoam used in the construction of the wall?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	59-Are there any structures on or near wall that were not included in initial drawing?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	60-Are there any irrigation, utilities, or obstructions that are not part of the initial drawing?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	61-Have there been any excavations or evidence of excavation near the wall?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	62-Have local property owners changed the dimensions of the wall (additional structure, irrigation, vegetation, etc.)?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UN	63-Are there plants located in the wall (bridge abutment)?	/	0-Nb	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

*irrigation pipes located at base*