

STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

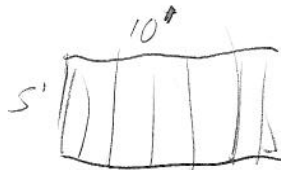
Instructions:

- 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

Region	Identifying Road/Intersection	I-15 near passing 9005
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MSE WALL CHARACTERISTICS

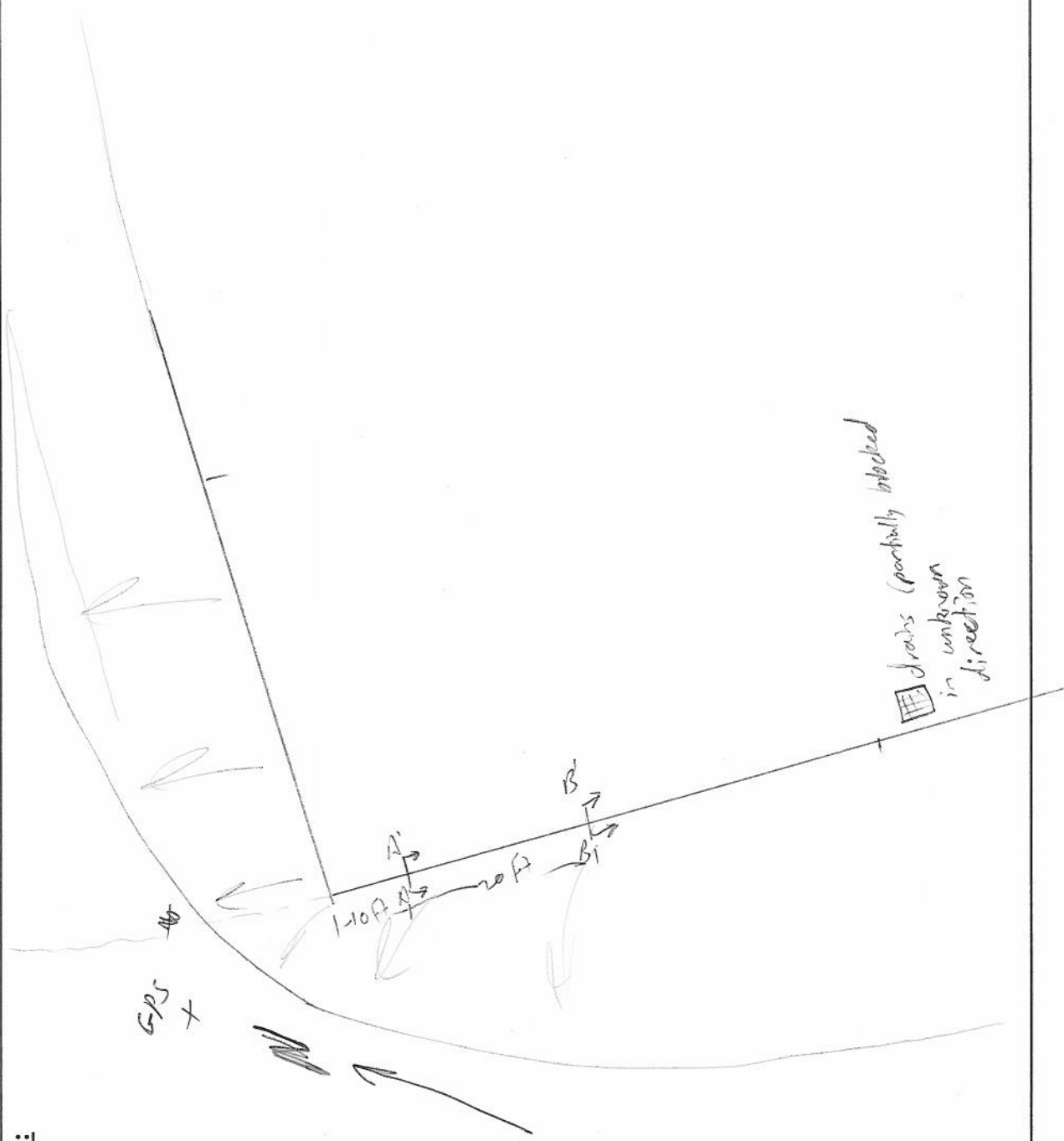
MSE Wall at Bridge	(Y) N	Bridge Number if applicable: 776	Wall Number	351-41
Surrounding Structures			Maximum Height of Wall (ft)	18 FT
Distance to Each Structure			One Stage, Two Stage or Block Wall	1 stage
State Route Number	I-15, 9005.		Estimated Max Length of Wall Abutment:	85 FT
Approximate Mile Marker			Max Slope of Ground in front of wall:	0
GPS Datum	WGS/84, NAD/83, or NAD/27		Max Height of wall burial line above surrounding level ground:	unknown
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	40°45'23.24"N, 111°54'24.80"W			
If known, Panel or System Manufacturer	Please draw rough layout of panel with approximate dimensions in space provided below:			



Summary of Key Observations:

concrete slope reinforcement to avoid railway

Plan View/Drainage:



Cross Sections:



B-B'



Cross Sections:



RISE WALL DRAINAGE

Required Trade:		Yes	No	N/A	UNKN	Drainage	Measurement/Extent of Problem/Location/Photo Numbers
Y	1-Is there an active water source near the toe of the wall (to the wall near a body of water with some potential)?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	2-If applicable, are the catch basins at the base of the wall blocked?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	3-Are there culverts protruding through the wall?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	4-Are there vertical drains that travel through the backfill?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	5-Is there erosion at the base of the wall or leveling pad? (Photo 12)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	6-Is there erosion along the wing wall?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	7-Are there any signs of water flow along the base of the wall?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	8-Is there less than 14 feet between irrigation sprinklers and wall?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	9-Does the backfill or joint fabric appear to be saturated?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	10-Is there vegetation growing in panel joints (Photo 9)?	Y		N/A	UNKN		Partial / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	11-Are the deck drains not installed at the top of the wall block? (Photo 14)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	12-Can water enter the wall between coping and abut (i.e. Drains appropriately)?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	13-Is there evidence of fill washing through drain pipes?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE WALL JOINTS

Required Trade:		Yes	No	N/A	UNKN	Long Level Slab - Concrete Cracks	Measurement/Extent of Problem/Location/Photo Numbers
Y	14-Is backfill coming out of joints or are there piles of backfill at the base of the wall? (Picture 2 & 3)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	15-When the joints wide enough to see fabric or backfill behind panels when looking into joints? (Photo 5) If yes, record the approximate maximum joint width in inches.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	16-Is exposed backfill visible in the horizontal joints? (Photo 4)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	17-Are there visible tears in the fabric? Is there evidence of backfill or water leaking through base? (Do not include additional damage to fabric)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	18-Do the joints have a non-uniform horizontal spacing size? Are some horizontal joints larger/more than others? (Photo 6)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	19-Do the joints have a non-uniform vertical spacing size? Are some vertical joints larger/more than others? (Photo 6)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	20-Are the panels offset at the joints either in or out of the wall? (Photo 3) If yes, record the approximate maximum offset.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	21-Does the fabric appear brittle, or appear as if it has under gone excessive UV exposure?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Required Trade:		Yes	No	N/A	UNKN	Long Level Slab - Concrete Crack Cause	Measurement/Extent of Problem/Location/Photo Numbers
Y	22-Are the panels "Tilt-Up"? Is there extensive cracking in the panel?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	23-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/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	24-Are there horizontal cracks that continue through adjacent panels (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracking.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	25-Are the panel corners cracking contact with each other? If yes, record the approximate number in the wall.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	26-Are the panel corners "popped-off" or clipped from contact with an adjacent panel? If yes record the number in the wall.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	27-Does crack spacing suggest Differential Settlement?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	28-Does the overlying coping exhibit Vertical Offset?	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	29-Are the coping and supports loose or deteriorating? If yes, it may be appropriate to contact UDOT if disjunctural signs ensue.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	30-Are the panels in danger of falling off? (If possible, enlist contractor appropriate UDOT region).	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	31-Are the panels bulging (bowing horizontally)? If so, record maximum deformation from acceptable coping to leveling pad. (Photo 11)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	32-Is there "lipping" at the top or bottom of the wall? (Record maximum degree of lipping from abutment using vertical level and affected area).	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MISE TOP OF WALL OBSERVATIONS

Required Trade:		Yes	No	N/A	UNKN	Top Of Wall	Measurement/Extent of Problem/Location/Photo Numbers
Y	33-Is there evidence of settlement at the top of the wall? (pavement cracking, etc)	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	34-Are there any open cracks in the concrete coping (not hairline)? If yes record the approximate maximum crack width.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	35-How are the construction joints in the connecting coping opened up? (Photo 6). If yes, record the maximum joint width.	Y		N/A	UNKN		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 1-3 contain inspection criteria for MSE stability.

MSE STABILITY

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 4-6 contain inspection criteria for MSE stability, including handwritten note 'Concrete slope reinforcement'.

MSE METAL CORROSION

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 7-9 contain inspection criteria for MSE metal corrosion.

MSE IMPACT/COLLISION PROTECTION

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 10-12 contain inspection criteria for MSE impact/collision protection.

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 13-14 contain inspection criteria for MSE obstructions in reinforcement geometry.

MSE AS BUILT DIFFERENT FROM DESIGN

Table with 5 columns: Pass/Fail, U/S, U/S, U/S, U/S. Rows 15-18 contain inspection criteria for MSE as built different from design, including handwritten signature.