

STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

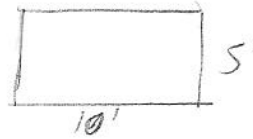
Instructions:

- 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	2	Identifying Road/Intersection	700 W, #00-300 N
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MSE WALL CHARACTERISTICS

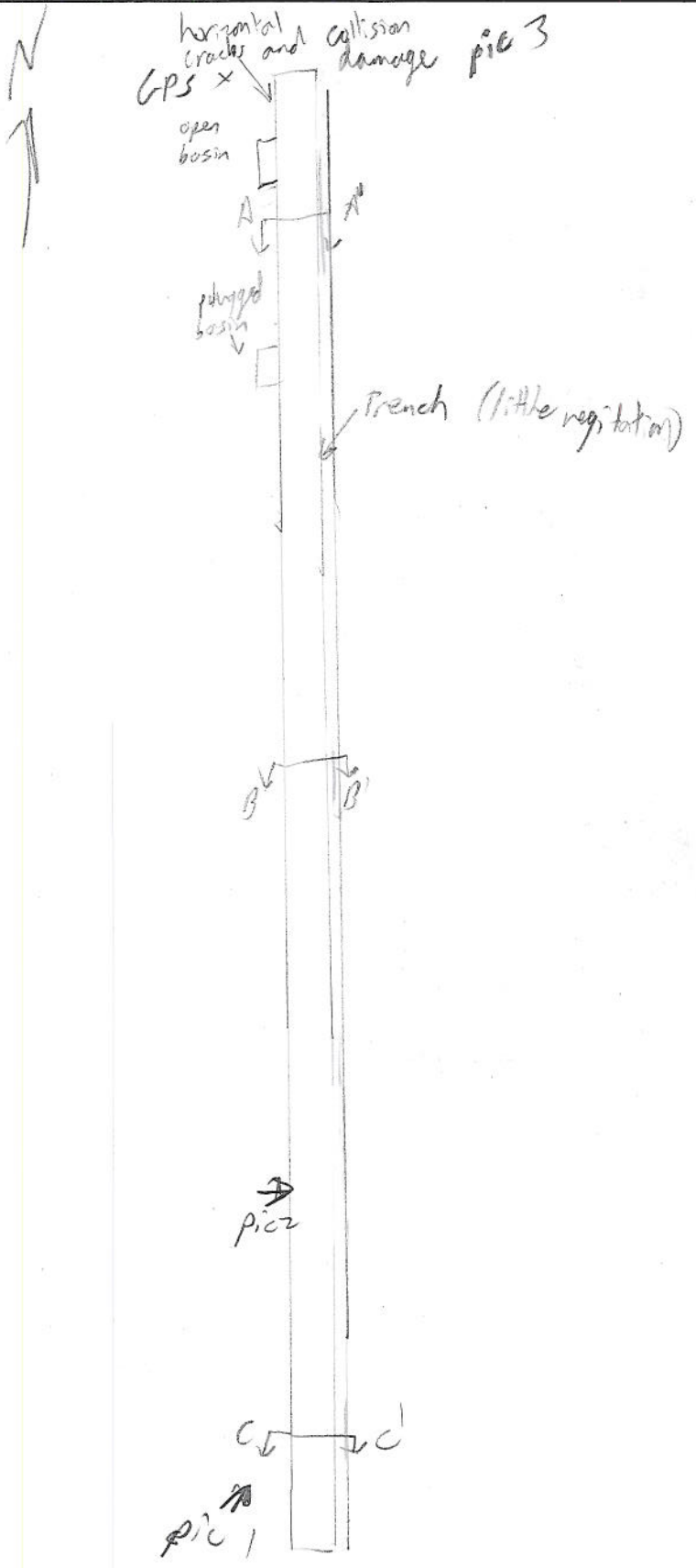
MSE Wall at Bridge	(Y) N	Bridge Number if applicable:	Wall Number
Surrounding Structures	Noise Wall		11 FT
Distance to Each Structure	15 Feet to east	One Stage, Two Stage or Block Wall	2 Stage
State Route Number		Estimated Max Length of Wall Abutment:	800 FT
Approximate Mile Marker		Max Slope of Ground in front of wall:	1:1.7
GPS Datum	(WGS/84) 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)	40° 46' 41.78" N 111° 54' 39.66" W		
If known, Panel or System Manufacturer	Please draw rough layout of panel with approximate dimensions in space provided below:		



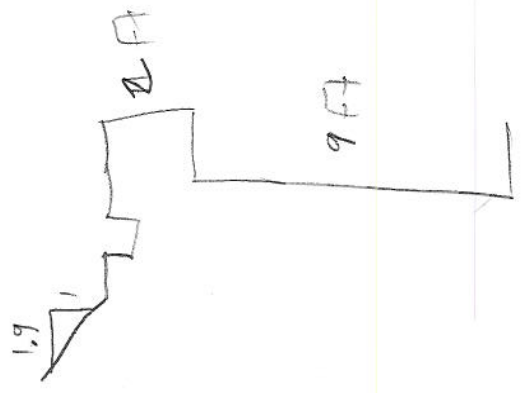
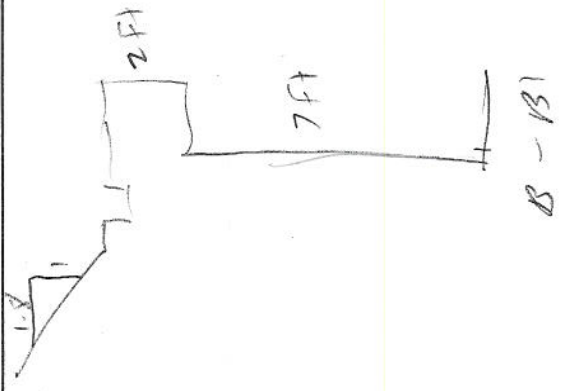
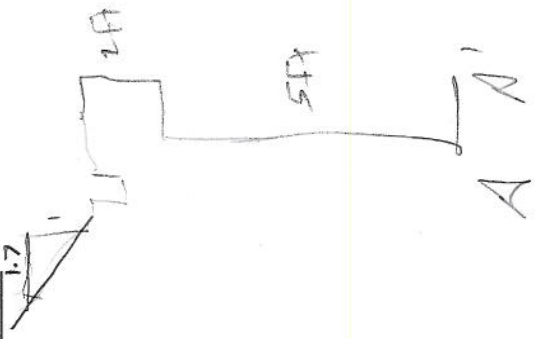
Summary of Key Observations:

collision at north end

Plan View/Drainage:



Cross Sections:



Cross Sections:

MSB WALL DRAINAGE

Required Note:		System	Notes	Yes	No	NA	URS	Measurement/Extent of Problem/Location/Photo Numbers
Drainage		URS	1-Is there any water seepage near the toe of the wall (i.e. the wall near a body of water with snow potential)?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	2-If applicable, are the catch basins at the base of the wall blocked?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	3-Are there any clogs penetrating through the wall?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	4-Are there vertical drains that travel through the backfill?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	5-Is there erosion at the base of the wall or leveling pad? (Photo 12)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	6-Is there erosion along the wing wall?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	7-Are there any signs of water flow along the base of the wall?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	8-Is there less than 14 feet between infiltration spigots and wall?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	9-Does the backfill or joint fabric appear to be saturated?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	10-Is there vegetation growing in panel joints (Photo 8)?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	11-Are the deck drains and outlets at the top of the wall blocked? (Photo 14)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	12-Can water enter the wall between coping and slab (i.e., down appropriately)?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Drainage		URS	13-Is there evidence of discharge points of fill washing through drain pipes?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSB WALL JOINTS

Required Note:		System	Notes	Yes	No	NA	URS	Measurement/Extent of Problem/Location/Photo Numbers
Joints		URS	14-Is backfill coming out of joints or over the plate of backfill at the base of the wall? (Photos 2 & 3)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	15-Are the joints too rough to see back or backfill panels when looking into joint? (Photo 3) If yes, record the maximum number of panels in the wall with cracking.	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	16-Is exposed backfill visible in the horizontal joints? (Photo 4)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	17-Are there visible tears in the fabric? Is there evidence of backfill or water leaking through tear? (Do not include additional damage to fabric)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	18-Do the joints have a non-uniform spacing size? Are some horizontal joints larger/smaller than others? (Photo 6)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	19-Do the joints have a non-uniform vertical spacing size? Are some vertical joints larger/smaller than others? (Photo 6)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	20-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	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Joints		URS	21-Does the fabric appear brittle, or appear as if it has undergone excessive UV exposure?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSB WALL FACING

Required Note:		System	Notes	Yes	No	NA	URS	Measurement/Extent of Problem/Location/Photo Numbers
Wall Facing		URS	22-Are the panels "Tilt-Up"? If there excessive cracking in the panels?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	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	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	24-Are there cracks that continue horizontally through adjacent panels? (Photo 9 & 10) If yes, record the approximate number of panels in the wall with cracking.	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	25-Are the panel corners "popped-off" or clipped from contact with an adjacent panel? If yes, record the approximate number in the wall.	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	26-Are the panel corners "popped-off" or clipped from contact with an adjacent panel? If yes, record the approximate number in the wall.	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	27-Does crack spacing suggest Differential Settlement?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	28-Does the overlying coping exhibit Vertical Offset?	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	29-Are the coping and parapet loose or detaching? If yes, it may be appropriate to contact UDOT if detachment seems eminent.	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	30-Are the panels in danger of falling off? (If potential exists contact appropriate UDOT region).	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	31-Are the panels bulging (bowing horizontally)? If so, record maximum deflection from acceptable coping to leading pad. (Photo 11)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Wall Facing		URS	32-Is there tipping at the top or bottom of the wall? (Record maximum degree of tipping from adjointh using vertical level rod affected area)	Y	N	N/A	URS	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSB TOP OF WALL OBSERVATIONS

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

no sprinkles

Required Item:		Show, GEO-FACE		Structural Integrity		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA	UKN	NA

MSE STABILITY

Required Item:		Show, METAL CORROSION		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

MSE IMPACT/COLLISION PROTECTION

Required Item:		Show, AS BUILT DIFFERENT FROM DESIGN		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Item:		Show, OBSTRUCTIONS IN REINFORCEMENT GEOMETRY		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Item:		Show, OBSTRUCTIONS IN REINFORCEMENT GEOMETRY		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Item:		Show, OBSTRUCTIONS IN REINFORCEMENT GEOMETRY		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required Item:		Show, OBSTRUCTIONS IN REINFORCEMENT GEOMETRY		Measurement/Extent of Problem/Location/Photo Numbers	
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA
Y	N	UKN	NA	UKN	NA

16-Is there a large gap between the approach slab and the approach pavement? (Photo 15) Offer this information to the contractor for consideration. For the contractor to be aware of the location of the problem, a bearing and distance should be provided. If the problem is a bearing and distance, the bearing should be provided. If the problem is a bearing and distance, the bearing should be provided. If the problem is a bearing and distance, the bearing should be provided.

17-Are the abutments, but the joint between the wall coping and the abutment opened up significantly? If so, record maximum distance. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

18-Is the coping wall pulling away from pavement roadway section? Please record maximum displacement for wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

19-What is the location depth of leveling pad? Found Geo-Profile into wall located 2 inches from wall to a maximum depth of 2 inches (2 inches is the minimum depth for a GE Wall). / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

20-Is leveling pad exposed? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

21-Is there cracking in the leveling pad? If so, record maximum crack size with type. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

22-Is there a four foot bench (invert slope) directly along the wall before the slope changes (Record width)? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

23-Is there a slope steeper than V:1.5 to H:1 in front of the wall? Please record slope and height of benchfill above top of wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

24-Is there a slope greater than V:1.5 to H:1 below the wall? Please record slope and height of benchfill below the wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

25-Is there excessive degradation of panel face? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Notes: Metal Corrosion - ZEP Lock Tag - Towel

16-Is there excessive corrosion on panels or other exposed metal that might indicate concrete condition? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

17-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% 95% 100% /

18-Are any vertical strips exposed? Does there appear to be corrosion on these strips? If applicable please record the total number of strips affected. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

19-Is there a readily visible stain of exposed acid? If so, please indicate depth in inches. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

20-Is there any indication of rubber corrosion (swelling, tears, and exposed metal inside epoxy coating)? If so please record the total number of panels affected. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

21-Over partially wall protection in place at the base of the wall (to protect it from potential traffic damage)? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

22-Does it appear that the wall has been involved in an accident (replaced panel, recent dips in the wall)? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

23-Does it appear the wall functionality and integrity has been compromised by a collision or accident? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

24-Are there any obstructions in Reinforcement Geometry / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

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26-Is the layout in general accordance with drawing? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

27-Are the panels CIP (Cast in Place) Does there appear to be excessive cracking in the panel? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

28-Was GEO Foam used in the construction of the wall? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

29-Are there any structures on or near wall that were not included in initial drawing? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

30-Are there any irrigation, utilities, or structures that are not part of the initial drawing? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

31-Have there been any excavations or evidence of excavations near the wall? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

32-Have there been any excavations or evidence of excavations near the wall (additional structures, irrigation, etc.)? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

33-Are there piles located in the wall (bridge abutment)? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

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Collision damage pic 3
panel cosmetic damage

Legend