

# STATE OF UTAH MSE WALL INSPECTION FORM

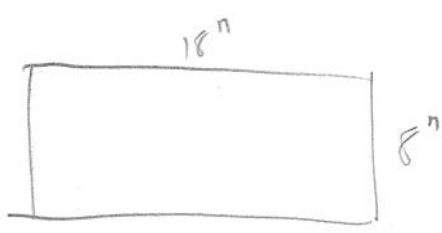
Compiled As Part of Research By The Utah Department of Transportation

**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>	3	<b>Identifying Road/Intersection</b>	Provo Canyon

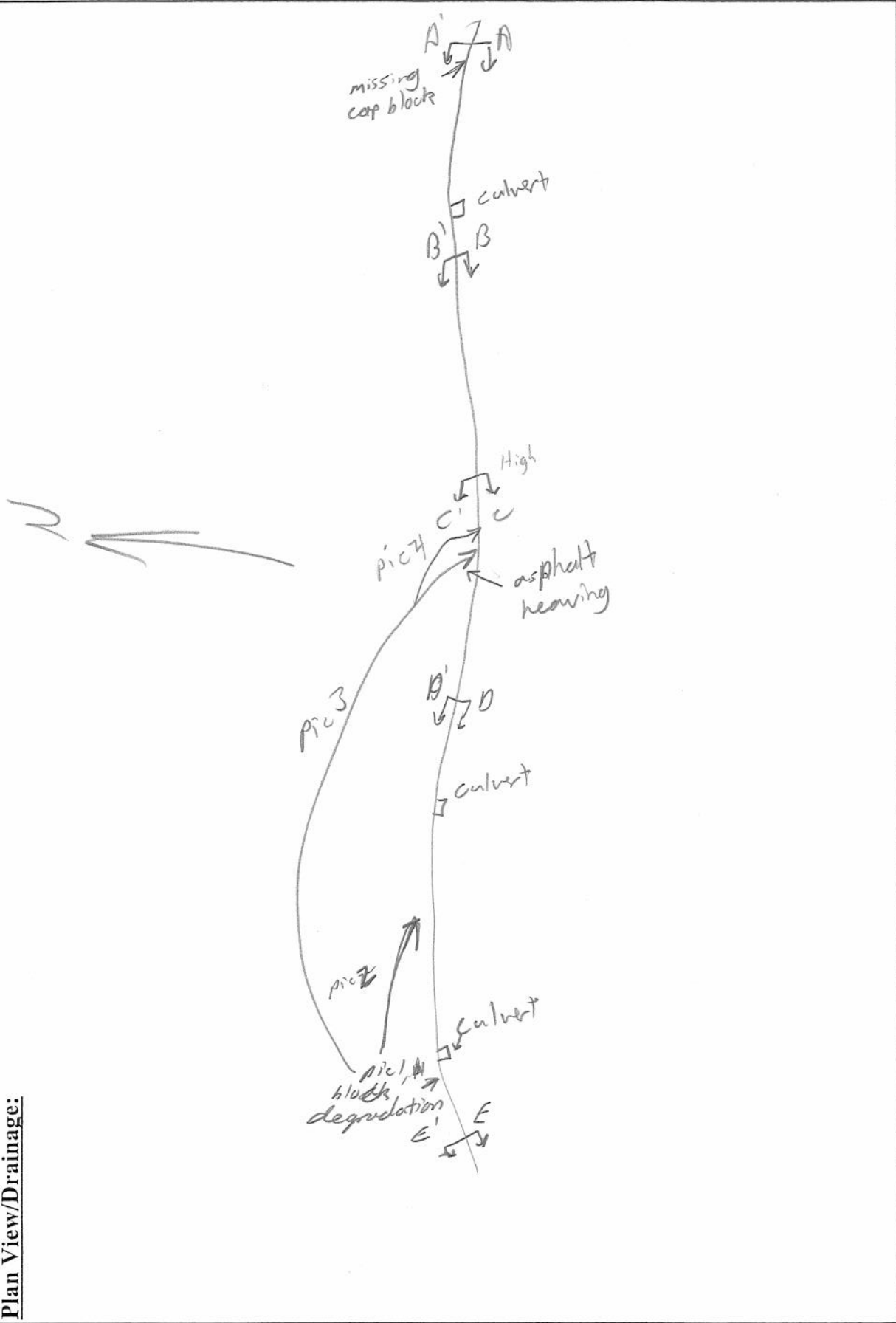
## MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Y <input checked="" type="radio"/> N <input type="radio"/>	Bridge Number if applicable:		Wall Number	R-297-E
Surrounding Structures				Maximum Height of Wall (ft)	15ft
Distance to Each Structure				One Stage, Two Stage or Block Wall	1-stage
State Route Number	189			Estimated Max Length of Wall Abutment:	2630ft
Approximate Mile Marker	13-14			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:	0
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	Please draw rough layout of panel with approximate dimensions in space provided below:				
If known, Panel or System Manufacturer					

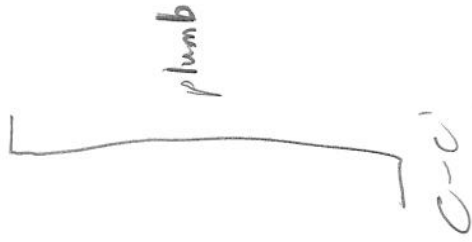
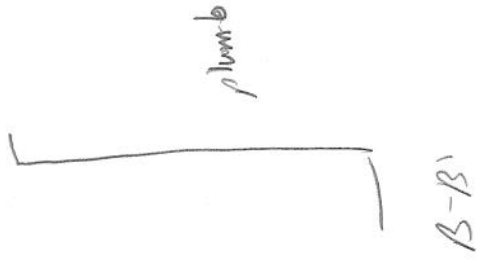
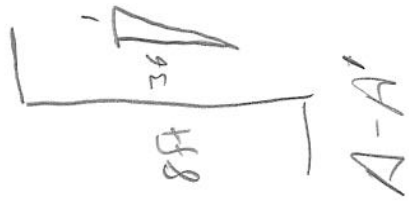
**Summary of Key Observations:**

salt mineral film on face of wall  
 extreme degradation of cap blocks (4 pics)

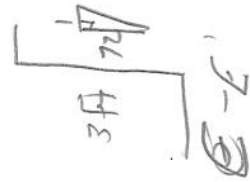
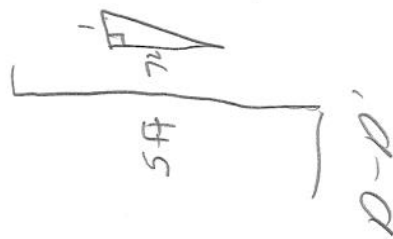
Plan View/Drainage:



Cross Sections:



Cross Sections:



RISE WALL DRAINAGE

Table with columns: Required Tests, Pass/Fail/NA, Measurement/Extent of Problem/Location/Photo Numbers. Includes tests for drainage, water flow, and joint condition.

RISE WALL JOINTS

Table with columns: Required Tests, Pass/Fail/NA, Measurement/Extent of Problem/Location/Photo Numbers. Includes tests for joint condition, mortar, and water penetration.

RISE WALL FACING

Table with columns: Required Tests, Pass/Fail/NA, Measurement/Extent of Problem/Location/Photo Numbers. Includes tests for facing condition, mortar, and surface texture.

RISE TOP OF WALL OBSERVATIONS

Table with columns: Required Tests, Pass/Fail/NA, Measurement/Extent of Problem/Location/Photo Numbers. Includes tests for top of wall condition and mortar.

				BASE STABILITY												
				Measurement/Extent of Problems/Location/Photo Numbers												
Required Tests:	Visual	CHC	CHC/CHS													
Y	N	OK	UNK	16-Is there a large gap between the approach slab and the approach pavement? (Photo 15) When this produces a bumping sensation as the vehicle is crossed. Record the approximate maximum gap size.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	X	UNK	17-At the abutment, has 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%	/
Y	N	X	UNK	18-Is the coping wall pulling away from pavement roadway section? Please record maximum displacement.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
				Structural Integrity												
Y	N	N/A	UNK	19-What is the location depth of leveling mat? Found Once Probe into wall located 2 inches from wall to a maximum depth of 24 inches (24 inches is the minimum depth for MSE Wall)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	40-Is leveling mat exposed?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	41-Is there cracking in the leveling pad? If so, record maximum crack size with page.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	42-Is there a four foot bench (level slope) directly along the wall before the slope changes (Record Width)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	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-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	44-Is there a slope greater than V: 1.5 to H: 1 behind the wall? Please record slope and height of backfill below the wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	45-Is there excessive degradation of panel face?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

*top of wall*

				BASE IMPACT COLLISION PROTECTION												
				Measurement/Extent of Problems/Location/Photo Numbers												
Required Tests:	Visual	CHC	CHC/CHS													
Y	N	N/A	UNK	46-Is there excessive corrosion on guardrails or other exposed metal that might indicate corrosive condition?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	47-Are there major rust stains on the face panel? Along joints? If so, record total number.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	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%	95%	100%	/
Y	N	N/A	UNK	49-Is a readily visible sign of exposed wall? If so, please indicate depth in inches.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	50-Is there any indication of rutting corrosion (swelling base, rut, exposed metal inside epoxy coating)? If so, please indicate depth in inches.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
				Impact/Collision												
Y	N	N/A	UNK	51-Are guardrail's wall projections in place at the base of the wall (to protect it from potential traffic hazard)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	52-Does it appear that the wall has been involved in an accident (replaced panel, recent digs in the wall)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	53-Does it appear the wall's functionality and integrity has been compromised by a collision or accident?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

BASE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

				BASE AS BUILT DIFFERENT FROM DESIGN												
				Measurement/Extent of Problems/Location/Photo Numbers												
Required Tests:	Visual	CHC	CHC/CHS													
Y	N	N/A	UNK	54-Are there some wall angle (90°)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
				Obstructions in Reinforcement Geometry												
Y	N	N/A	UNK	55-Are there any obstructions in the reinforcement geometry?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
				Design/Construct												
Y	N	N/A	UNK	56-Is the layout in general accordance with drawing?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	57-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%	/
Y	N	N/A	UNK	58-Is the O&E Form used in the construction of the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	59-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%	/
Y	N	N/A	UNK	60-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%	/
Y	N	N/A	UNK	61-Has there been any excavation or evidence of excavations near the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	62-Has local property owner changed the dynamics of the wall (additional structures, irrigation, vegetation, etc.)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNK	63-Are there piles located in the wall (bridge abutment)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%	/