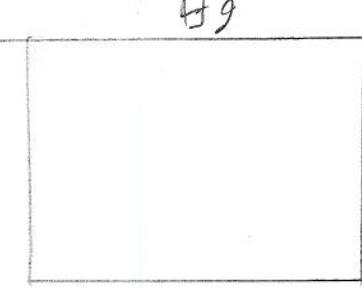
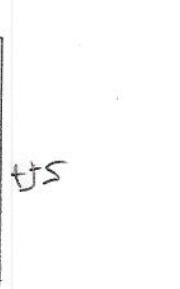
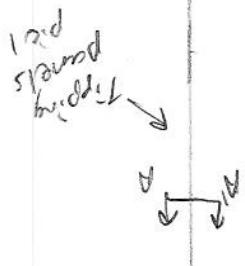
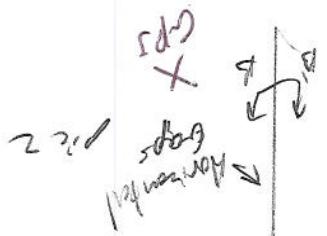
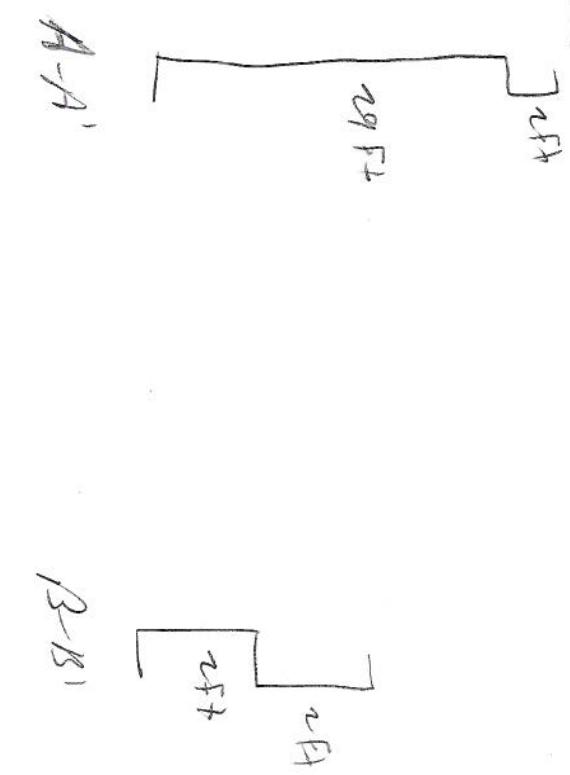


STATE OF UTAH MSE WALL INSPECTION FORM			
Instructions: Complete As Part of Research By The Utah Department of Transportation			
1-Fill out required sections for MSE Wall Inspection and Wall Characteristics.			
2-Inspect the wall using the attached form. Questions that require a Yes answer should be documented by noting the extent of the problem in the right most column and photo documentation. Photo documentation should consist of wall construction notes should be taken in the space provided for drawings.			
3-School district layout of MSE Wall. This may require the use of a variety of tools and angles on each wall to cover the wall in its entirety.			
4-Landuse Layout of MSE Wall in respect to major intersections, roadway hazards, potential hazards, traffic flow, vegetation, location for which MSE was marked, etc. in space provided below. Also indicate approximate GPS coordinates of site of interest in space provided below.			
MSE WALL CHARACTERISTICS			
MSE Wall at Bridge	<input checked="" type="checkbox"/> N	Bridge Number if applicable:	Wall Number: R-387-A
Surrounding Structures		Maximum Height of Wall (ft)	31 ft
Distance to Each Structure		One Stage, Two Stage or Block Wall	One Stage
State Route Number	67	Estimated Max Length of Wall Above:	1-500 ft
Approximate Market	04	Max Slope of Ground in front of wall:	
GPS Datum	WGS/84, NAD/83, or NAD/27	Max Height of wall behind slope of ground:	
MSE Wall GPS Coordinates (Location of MSE Wall in GPS Coordinates (Location of MSE Wall in plan view))	40°41'52.23" N 110°35'10.59" W		
Please draw rough layout of part with approximate dimensions in space provided below:			
 			
Summary of Key Observations:			
<p>- exposed backfill</p> <p>- severe joint damage</p>			

Plan View/Drainage:



Cross Sections:



Cross Sections:

**Required min. No. of joints and locations/Corrosion**

**RISK WALL DRAINAGE**

**Measurement/Extent of Problem Locations/Photo Numbers**

Y/N	No.	No. UNR	UNR	Drainage	1	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	1) Is there active water source near the base of the wall (if the wall is made of concrete with some porosity)?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	2) If applicable, are the cracks near at the base of the wall blocked?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	3) Are there any openings or holes in the concrete coping (not building)? If yes record the approximate number of such openings.	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	4) Are there vertical joints that travel through the backfill?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	5) Is there erosion in the base of the wall or leading path? (Photo 12)	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	6) Is there erosion along the wing walls?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	7) Are there any signs of water flow along the base of the wall?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	8) Is there less than 1 foot between inflection point/drain and wall?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	9) Does the backfill or drain fabric appear to be saturated?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	10) Is there vegetation growing in front/back to Photo 9?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	11) Are the deck drains and outlets at the top of the wall blocked? (Photo 13)	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	12) Can water enter the wall between coping and slab (i.e. Drainage compromised)?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	13) Is there evidence of discharge points or fire/water through drain pipe(s)?	/	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
<b>Required min. Length Existing Corrosions</b>																
Y/N	No.	No. UNR	UNR	Length	1	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	14) Is backfill eroding out of joints or are there gaps of backfill in the base of the wall? (Photos 2 & 3)	2'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	15) Are the joints wide enough to set fabric or backfill behind a mesh or burlap facing two joints? (Photo 5)	2'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	16) Record the approximate maximum width in inches.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	17) Are there cracks in the backfill visible in the horizontal joints? If yes, record the approximate number of such cracks.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	18) Are there visible signs of backfill addition/damage to backfill?	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	19) Are the joints less than nominal horizontal spacing (i.e. Are some horizontal joints larger/smaller than others)? (Photo 4)	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	20) Are the joints have non-uniform vertical spacing/gaps? Are some vertical joints larger/smaller than others? (Photo 5)	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	21) Does the fabric appear brittle, or appears as if it has undergone excessive UV exposure?	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
<b>NSW WALL JOINTS</b>																
Y/N	No.	No. UNR	UNR	Measurement/Extent of Problem Locations/Photo Numbers	1	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	22) Are the joints that contain vertical cracking in the joint? If yes record the approximate number of such joints.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	23) Are there cracks that contain horizontal cracking in the joint? If yes record the approximate number of such joints.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	24) Are there cracks that contain horizontally through adjacent joints? (Photos 9 & 10)? If yes, record the approximate number of joints in the wall with cracking.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	25) Are there cracks that contain horizontally through adjacent joints? If yes record the approximate number of such joints.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	26) Are the joints making contact with each other? If yes record the approximate number in the wall.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	27) Does the joint contact is pre-tight or delayed from contact with an adjacent joint? If yes record the number of such joints in the wall.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	28) Does crack spacing suggest Differential Settlement?	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	29) Does the existing coping exhibit Vertical Offset?	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	30) After the coping is removed, how far apart is the original coping from the new coping?	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	31) Are the joints in danger of falling off? If yes record the initial condition (Photo 11).	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	32) Does the coping fit tightly at the top or bottom of the wall? If yes record minimum degree of fitting from each end.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
<b>NSW WALL FACING</b>																
Y/N	No.	No. UNR	UNR	Measurement/Extent of Problem Locations/Photo Numbers	1	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	33) Is there evidence of settlement at the top of the wall (ground cracking, etc.)	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	34) Are there any open cracks in the concrete coping (not building)? If yes record the approximate number of such cracks.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/
Y	N	N/A	UNR	35) How far the concrete/coping joints in the concrete coping opened up? (Photo 5). If yes, record the maximum joint width.	0'-0"	0-5%	1%	5%	10%	25%	50%	75%	90%	95%	100%	/

**NSW TOP OF WALL OBSERVATIONS**

**Measurement/Extent of Problem Locations/Photo Numbers**

Measurements/Extent of Problem Locations/Photo Numbers

Y/N	No.	No. UNR	UNR	Top Of Wall
Y	N	N/A	UNR	1) Is there any active water source near the top of the wall (if the wall is made of concrete with some porosity)?

Required Test: NIST-1000-FR														
Required Test:		NIST-1000-FR		Structural Integrity		Measurements/Extent of Fracture, Seating/Fracture Surface Number		NIST-SAFETY						
Y	N	N/A	UNKN	39. What is the baseline depth (L) of the nail located 2 inches from wall to center along the 4.2 inch (12.5 inches) length of NIST Wall?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	40. Is existing nail exposed?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	(UNKN)	41. Is there a bent fastener (level shape) directly along the line with the front slope change (Record height)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	42. Is there a bent fastener (level shape) directly along the line with the front slope change (Record height)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	43. Is there a slope steeper than 1:3 to 1:1 in front of the wall? Please record slope and height of fastener (height) above top of wall.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	44. Is there a slope steeper than 1:3 to 1:1 below the wall? Please record slope and height of fastener (height) below the wall.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	45. Is there evidence of shear along front face?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Required Test: NIST-1000-FR														
Required Test:		NIST-1000-FR		Metal Corrosion		Measurements/Extent of Fracture, Seating/Fracture Surface Number		NIST-SAFETY						
Y	N	N/A	UNKN	46. Is there evidence corrosion on galvanized or other exposed metal that might indicate corrosion?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	47. Are there major rust stains on the fasteners? Along joints? If no, record total number.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	48. Are any internal parts exposed? Does there appear to be corrosion on these surfaces? If applicable please record the total number of parts exposed.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	49. Was a conductivity sample taken in contact with the metal? If no, please indicate depth in inches.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	50. Has any indication of inter corrosion (swelling, rust, rust, exposed metal, fine epoxy coating)? If so, record the total number of parts affected.	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Required Test: NIST-1000-FR														
Required Test:		NIST-1000-FR		NIST IMPACT OF CORROSION		Measurements/Extent of Fracture, Seating/Fracture Surface Number		NIST-SAFETY						
Y	N	N/A	UNKN	51. Are galvanized/wall protection in place at the base of the wall (up to 1 ft from potential tie-off point)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	52. Does it appear that the wall has been involved in an accident (replaced part, recent drags in the wall)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	53. Does it appear the walls functionality and integrity has been compromised by a collision or accident?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Required Test: NIST-1000-FR														
Required Test:		NIST-1000-FR		Observations in Reinforcement Geometry		Measurements/Extent of Fracture, Seating/Fracture Surface Number		NIST-SAFETY						
Y	N	N/A	UNKN	54. Are there new wall angles? (e.g.)	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	55. Are there new wall angles? (e.g.)	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Required Test: NIST-1000-FR														
Required Test:		NIST-1000-FR		Measurements/Extent of Fracture, Seating/Fracture Surface Number		Measurements/Extent of Fracture, Seating/Fracture Surface Number		NIST-SAFETY						
Y	N	N/A	UNKN	56. Is the nail different than design?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	57. Are there available drawings for the wall? Please indicate type (Station and Layout, Design As Built, etc.)	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	58. Is the layout in ground coordinate with drawing?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	59. Are the panels (C and E) flat? Does there appear to be excessive cracking in the panels?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	60. Are the panels (C and E) flat? Does there appear to be excessive cracking in the panels?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	61. Are there any weaknesses or new wall that were not included in initial drawing?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	62. Have there been any modifications, additions, or infections that are not part of the initial drawing?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	63. Have there been any excavations or evidence of excavation near the wall?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	64. Have local property owners changed the dynamics of the wall (additions, structures, irrigation, etc.)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	UNKN	65. Are there other items located in the wall (bridge abutment)?	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%