STEA WIP Report

NPS Retaining Wall Inventory Program Steamtown National Historic Site



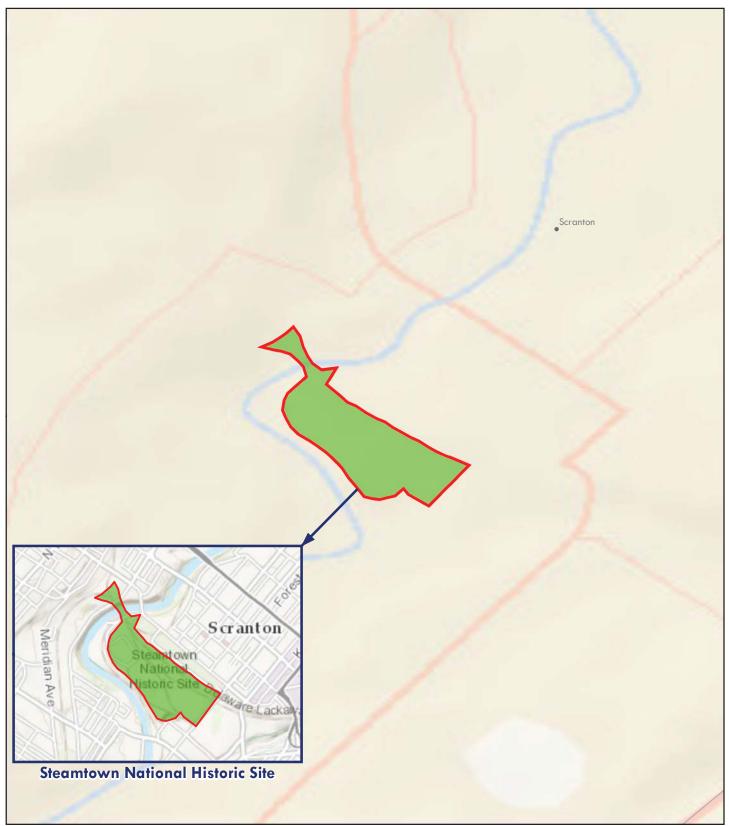


Road Inventory Program

Prepared By: Federal Highway Administration **Eastern Federal Lands Highway Division Road Inventory Program (RIP)**

Data Collection Date: October 2008 Report Date: November 2015

Steamtown National Historic Site in New York

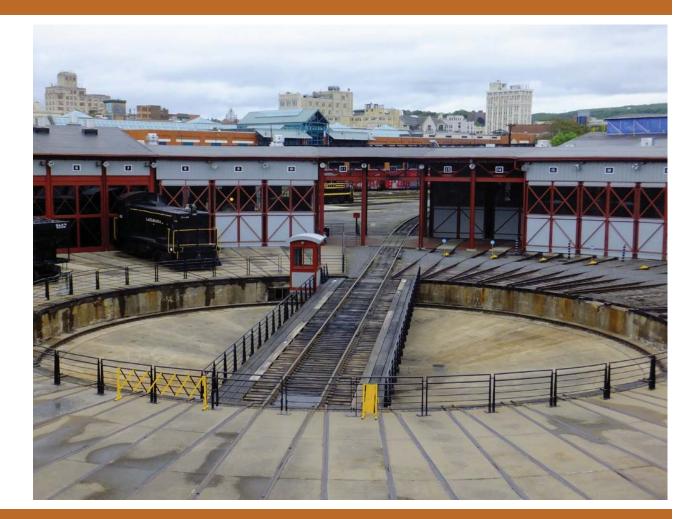


Sources: Esri, HERE, DeLorme, TomTom, Internap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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Introduction





Introduction

The Federal Lands Highway Division (FLH) of the Federal Highway Administration (FHWA), in partnership with the National Park Service (NPS), has conducted a retaining wall inventory and condition assessment as part of the NPS Retaining Wall Inventory Program (WIP). This inventory provides information to the NPS Facility Management Software System (FMSS) regarding such things as type, size and location of retaining structures, as well as the condition of these facilities and consequences of failure. In addition, when wall and/or adjacent element deficiencies are identified, repair recommendations and estimated costs are also provided, suitable for use as FMSS work orders.

The main intent of this effort is to determine the backlog of needs associated with retaining wall assets – equipment features ascribed to the "parent" roadway asset. Inventory and condition assessments (pavement only) for the roads themselves are conducted under the NPS Road Inventory Program (RIP). Prior to development of the WIP, the vast majority of retaining walls were not accounted for in FMSS. Based on WIP inventory work to date, NPS wall assets are valued at well over \$400M. A second and equally important intent of this effort is to inform and improve project selection, prioritization, and development activities and processes at NPS regions/parks, FLH Division offices and the NPS Denver Service Center.

In support of WIP, a comprehensive procedures manual (available at the following link: <u>http://www.cflhd.gov/programs/techDevelopment/geotech/WIP/</u>) was developed to document the data collection and management process, wall attribute and element definitions, and team member responsibilities for conducting retaining wall inventories and condition assessments. This manual was used for nearly 3,500 wall assessments initially conducted between 2007 and 2008 within 34 national parks. WIP is supported by several key components described in the procedures manual, including a comprehensive training program for field inspectors, an Oracle-based database for long-term data management, unique data collection forms, a supporting field guide, and a wall repair/replace cost estimate guide.

Ultimately, condition assessments for retaining wall structures are expressed as deferred maintenance costs, which are then divided by current year replacement costs to arrive at a "Facility Condition Index" (FCI). Coupling this condition prioritization index with an "Asset Priority Index" (API), which measures the feature's importance to the mission of the park, capital asset investments are made more efficiently. This approach appropriately focuses maintenance and construction priorities on value, rather than solely on cost. Wall inventory condition and cost data are transferred from the WIP database to FMSS, the primary asset documentation, management and planning platform maintained at each park. In addition, wall data are also provided to the Road Inventory Program to update equipment assets associated with the parent roadway asset.

Initial inventories were conducted based on RIP Cycle 3 data, but future planning has ensured updates to WIP will occur simultaneously with RIP. For long-term data management purposes, the WIP database will be linked to the larger, parent RIP database and be updated under the responsibility of the RIP Database Administrator.

This report is organized in a tiered approach from the broad park overview perspective (Tier 1) to a route overview perspective (Tier 2), then down to the details of each wall (Tier 3). Tier 1 presents park wall location maps and an overall park-specific summary narrative of the results of the wall inventory program. Tier 2 presents route overview maps with associated wall summary information. Tier 3 presents individual wall information in a three-page detailed format, including a photograph of each wall. Appendix A provides a condensed summary of wall inventory definitions and assessment categories to assist in reading this report.

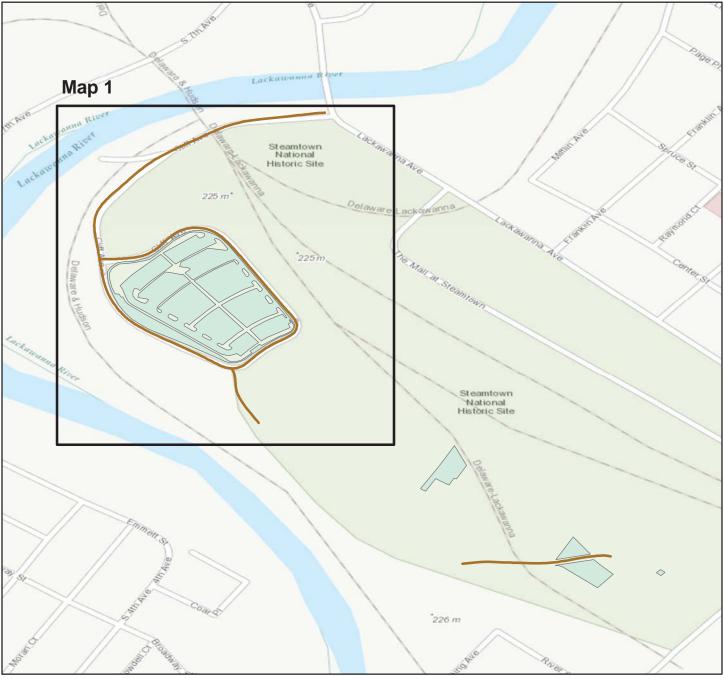
Park Retaining Wall Location Maps





WALL LOCATION MAP

Key Map



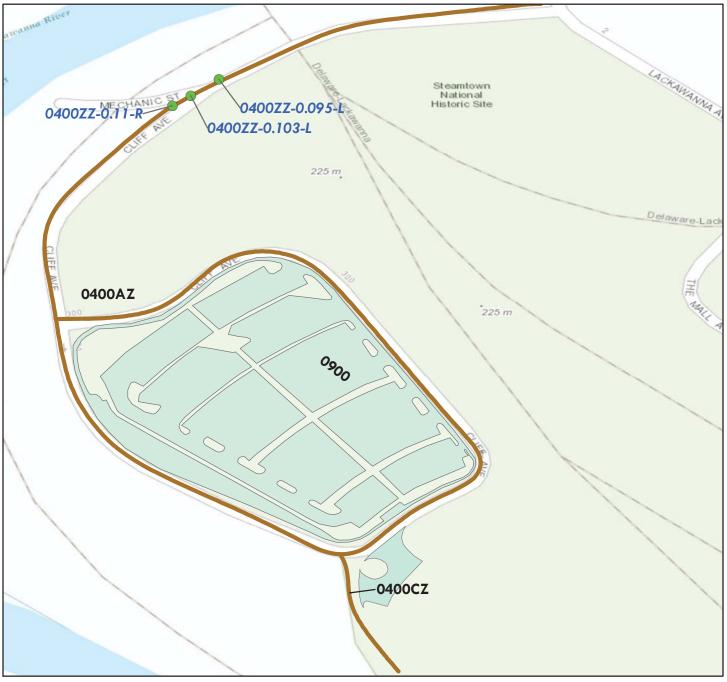
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

RIP Collected Routes



WALL LOCATION MAP

Map 1



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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Tier 1 Park Retaining Wall Overview





Parkwide Summary: Steamtown National Historic Site

Initial retaining wall inspections were conducted at Steamtown National Historic Site in 2008, and encompassed all known retaining wall structures associated with Park roadways - including structure's retaining cuts and fills, as well as qualifying headwalls at culverts. For the purposes of the assessment, walls must be a minimum of 4 feet in maximum height of retained earth and greater than 6 feet in maximum height for culvert headwalls. This does not include the height of parapet or guardwall above a retaining wall.

All paved roadways and parking areas listed in the RIP Route Identification Report were inspected for walls. Occasionally, unpaved routes not in RIP were inventoried due to their future programmatic addition at the park, which was a decision made on site specific to each park.

The following tables provide an overview of the findings of this inspection and assessment effort. In all, 6 walls were inventoried on the routes listed below.

Route Number	Route Name	No. of Walls
0400ZZ	MAIN ENTRANCE ROADS	3
0700	UNKNOWN ROUTE	1
0701	UNKNOWN ROUTE	1
0702	UNKNOWN ROUTE	1

Table 1: Number of Walls by Route

The following table shows the number of walls broken out by seven possible categories of basic wall function.

Table 2: Number of Walls by Wall Function

Wall Function	No. of Walls
CW - Cut Wall	2
FW - Fill Wall	4

The following table shows the primary wall types that were inventoried and assessed. There are 24 possible primary wall types, which are summarized in Appendix A.

Table 3: Number of Walls by Primary Wall Type

Primary Wall Type	No. of Walls
BC, Bin - Concrete	1
CC, Crib - Concrete	1
CL, Cantilever - Concrete	4

The following table shows the number of walls by one of six categories of recommended action along with associated 2007 costs and the number of walls that are in each recommended action category. The majority of walls have a recommendation of *No Action* or *Monitor*; work orders were created for all other recommended actions.

Recommended Action	2007 Repair Costs*	No. of Walls
No Action	\$0	1
Monitor	\$0	0
Maintenance	\$3,500	2
Repair Elements	\$62,800	3
Replace Elements	\$0	0
Replace Wall	\$0	0
Totals	\$66,300	6

Table 4: Number of Walls by Recommended Action and Associated 2007 Cost

*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

The following table categorizes the number of walls that fall into one of ten cost ranges, based on the prepared work orders. The locations, work descriptions, and cost of the recommended repairs for these walls are listed by individual wall in Tier 3 of this report.

Cost Range*	No. of Walls
\$0	1
\$1 - \$25,000	4
\$25,001 - \$50,000	1
\$50,001 - \$100,000	0
\$100,001 - \$250,000	0
\$250,001 - \$500,000	0
\$500,001 - \$1,000,000	0
\$1,000,001 - \$2,000,000	0
\$2,000,001 - \$3,000,000	0
\$3,000,001 - \$4,000,000	0
Total Number of Walls	6

Table 5: Number of Walls Grouped by Associated 2007 Cost

*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Routine inspection and performing the noted maintenance will greatly aid in the continued performance of all walls at Steamtown National Historic Site. Work orders for walls needing maintenance generally included items such as replacing missing stones, replacing mortar, filling voids at the top or bottom of fill walls, and clearing vegetation.

Work orders for walls needing localized element repairs generally included items such as adding riprap protection to the wall foundation, replacing missing sections of dry stone walls, replacing culverts, grouting voids in walls, and patching/restoring roadway pavement. While decaying mortor generally does not threaten wall stability in the near term, grout repair will extend the life of these walls.

Work orders for walls needing major repairs (replace elements or replace wall) generally include items such as foundation repair or replacement, fill voids, repair roadway shoulder, replace or extend retaining wall in either height or length, rebuild failed segments of walls, repair elements across 50% or more of the wall, remove and recompact backfill material, add scour protection (typically with riprap, concrete, or rock fill), and remove/reset culvert headwalls. Due to the large unit items associated with major repairs, recommendations vary by specific wall and are presented in Tier 3 of this report.

WIP identified 55 critically deficient walls nationally based on wall ratings less than 49 (poor/critical overall condition). The following table presents the walls in Steamtown National Historic Site that are on this list and have been elevated to the Park Regional Coordinators in a Regional Park Summary Memorandum. Generally, these are walls with major repair element recommendations that may be a priority for repair work in your park.

Table 6: Number of Walls by Route

Wall	Failure	Wall	Recommended	2007
Identification	Consequence(1)	Rating(2)	Action(3)	Repair Costs(4)

No critically deficient walls.

Notes: 1) Low consequence of failure and/or no recommended action may indicate repairs are not needed.

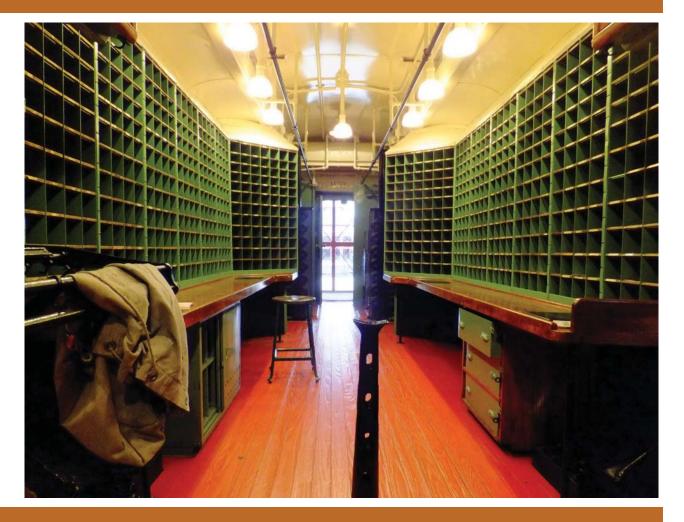
2) Wall ratings listed range from 0-49 (Poor/Critical).

3) Information was prepared for project planning purposes only. Actual repair work order scopes and actual costs will need to be

evaluated based on current pay item unit prices for specific locations.

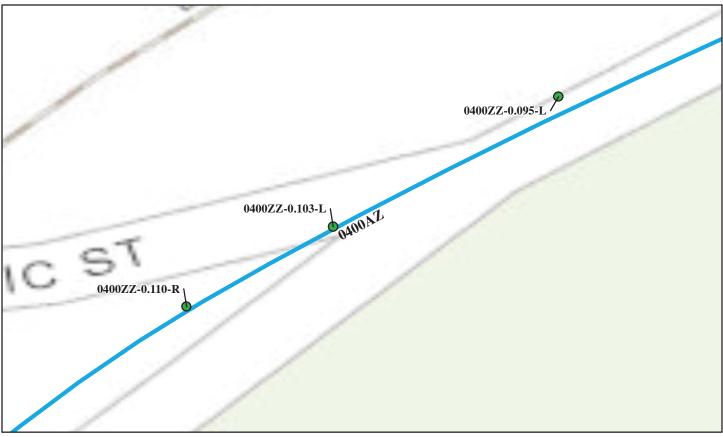
4) 2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Tier 2 Route Retaining Wall Overview





ROUTE 0400ZZ: MAIN ENTRANCE ROADS



Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Retaining Wall Condition Legend – Wall Condition Rating							
Critical / Poor (0 - 49)		Fair (50 - 69)	Good to Excellent (70	Good to Excellent (70 - 100)		No Data	
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost	
STEA-0400ZZ-0.095-L 10/7/2008	576	68	Crib - Concrete	Cut Wall	86	\$0.00	
STEA-0400ZZ-0.103-L 10/7/2008	5,530	279	Cantilever - Concrete	Cut Wall	74	\$1,300.00	
STEA-0400ZZ-0.110-R 10/7/2008	3,760	280	Bin - Concrete	Fill Wall	77	\$2,200.00	
*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.							

ROUTE 0700: UNKNOWN ROUTE

Wall location is unknown.

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Retaining Wall Condition Legend – Wall Condition RatingCritical / Poor (0 - 49)Fair (50 - 69)Good to Excellent (70 - 100)No Data						
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
STEA-0700-0.000-R 10/7/2008	2,769	231	Cantilever - Concrete	Fill Wall	64	\$12,000.00
*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.						

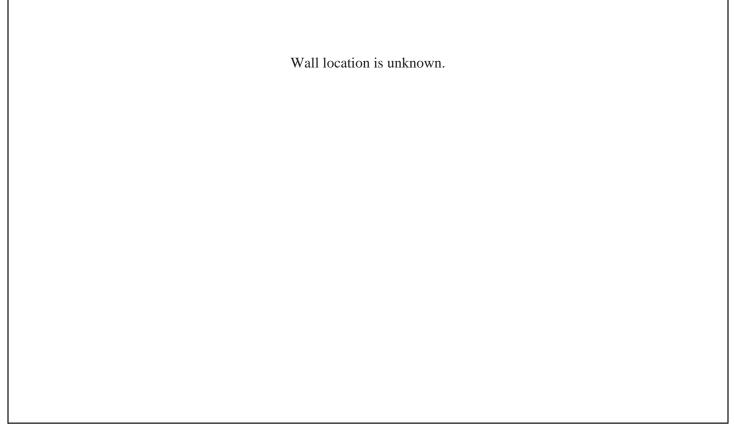
ROUTE 0701: UNKNOWN ROUTE

Wall location is unknown.

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Retaining Wall Condition Legend – Wall Condition RatingCritical / Poor (0 - 49)Fair (50 - 69)Good to Excellent (70 - 100)No Data						
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
STEA-0701-0.000-R 10/7/2008	11,634	439	Cantilever - Concrete	Fill Wall	60	\$45,200.00
*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.						

ROUTE 0702: UNKNOWN ROUTE



Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Retaining Wall Condition Legend – Wall Condition RatingCritical / Poor (0 - 49)Fair (50 - 69)Good to Excellent (70 - 100)No Data							
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost	
STEA-0702-0.000-R 10/7/2008	2,288	88	Cantilever - Concrete	Fill Wall	67	\$5,600.00	
*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.							

Tier 3 Retaining Wall Details





Wall ID:	STEA-0400ZZ-0.095-L					
Route Name:	MAIN ENTRANCE ROADS					
Inspection Date:	October 07, 2008	Approximate Year Built:	1994			
*Wall Rating:	86	Maintenance Action:	No Action			
Wall Description						
Wall Function:	Cut Wall	Primary Wall Type:	Crib - Conc	erete		
Surface Treatment:		Secondary Wall Type:				
Secondary Surface Treatment:		Architectural Facing:				
General Description:		ar block wall on inboard side of Cliff Av lepoint start is used to differentiate RRR				
Wall Measurements						
Wall Length (ft.):	68	Face Area (sq.):	576			
Average Wall Height (ft.):	8	Face Angle (deg.):	80			
Maximum Wall Height (ft.):	9	Vertical Offset (ft.):	0			
Assessed Elements						
Element (Weighting Factor)		Condition Rating (0 - 10)				
PERFORMANCE 8.00	No signs of global distress or settlemer		9			
WALL FOUNDATION MATERIAL 8.00	Firm ground showing no signs of settle	ement, erosion or soft areas.		9		
BIN OR CRIB 8.00	Concrete modular crib block is in very signs of block displacement.	good condition, with no significant crack	king. No	8		
DOWNSLOPE 0.50	Roadway - no distress.			8		
LATERAL SLOPE 0.50	Cantilever wall at one end, stable grass	y slope at other end.		8		
ROAD/SIDEWALK/SHOULDER 0.50	No signs of wall-related distress.			8		
UPSLOPE 0.50	Gentle grassy slope showing no signs of slumping or erosion. 8					
WALL DRAINS 1.00	No wall drains - drains through block joints, though no signs of staining or fines transport.					
Repair Recommendation	ons			· 		
Failure Consequence:	MODERATE					
Recommendation Narrative:	None					
Repair Cost:	Repair Cost: \$0					
	st estimate (ASTM Class D), prelimin	ary for comparison to other repair cos	sts only.			

ROUTE 0400ZZ: MAIN ENTRANCE ROADS

Retaining Wall Condition Photos



STEA_0400ZZ_0.095_L_1.jpg



STEA_0400ZZ_0.095_L_2.jpg

Wall ID:	STEA-0400ZZ-0.103-L				
Route Name:	MAIN ENTRANCE ROADS				
Inspection Date:	October 07, 2008 Approximate Year Built: Unknown				
*Wall Rating:	74	Maintenance Action:	Maintenanc	e	
Wall Description					
Wall Function:	Cut Wall	- Concrete			
Surface Treatment:		Secondary Wall Type:	Gravity - M	Iortared Stone	
econdary Surface Treatment:		Architectural Facing:			
General Description:		le mortared stone masonry/18 ft non-mo nt failure. 0.013 wall start MP is based o			
Wall Measurements					
Wall Length (ft.):	279	Face Area (sq.):	5530		
Average Wall Height (ft.):	19	Face Angle (deg.):	90		
Maximum Wall Height (ft.):	28	Vertical Offset (ft.):	2		
Assessed Elements					
Element (Weighting Factor)	Narrative			Condition Rating (0 - 10)	
PERFORMANCE 8.00	No evidence of significant global distre- section, replaced with mortared stone, i dry-laid section (though no failure appa	7			
WALL FOUNDATION MATERIAL 8.00	Stiff, firm foundation soils, showing no	o signs of settlement or soft areas.		8	
CONCRETE 8.00	Cantilever concrete is in very good condition with only minor cracking observed. Wall start end (downhill) has developing cracking at corner of wall. Minor evidence of water staining along wall face.			6	
MORTAR 8.00	New mortar, durable, hard, intact, with no signs of significant shrinkage.			8	
STONE MASONRY 8.00	Hard, durable, intact rock with minor to no significant weathering.			8	
CURB/BERM/DITCH 0.50	Concrete curb shows no signs of global wall deformation or bearing failure.			8	
DOWNSLOPE 0.50	Short, gentle grassy toe slope showing no signs of wall-related distress.			8	
ROAD/SIDEWALK/SHOULDER 0.50	Roadway below wall shows no signs of wall-related distress.			8	
TRAFFIC BARRIER/FENCE 0.50	Wrought iron decorative fencing is in g No signs of wall-related distress.	8			
Repair Recommendation	ons			:	
Failure Consequence:	HIGH				
Recommendation Narrative:		Evaluate tree impacts at top of wall and clear back from wall face 6-8 ft. Mortar patch developing cracks in cantilever wall at downhill corner. Tree removal (tree cutting, cleanup, haulage, equipment time lumped under labor hours): 20 hrs @ \$55/hr			
Repair Cost:					
2007 cc	ost estimate (ASTM Class D), prelimin	ary for comparison to other repair co	sts only.		

ROUTE 0400ZZ: MAIN ENTRANCE ROADS

Retaining Wall Condition Photos

Condition photos are not available for STEA-0400ZZ-0.103-L.

Wall ID:	STEA-0400ZZ-0.110-R			
Route Name:	MAIN ENTRANCE ROADS			
Inspection Date:	October 07, 2008	1994		
*Wall Rating:	77	Maintenance Action:	Maintenanc	ce
Wall Description				
Wall Function:	Fill Wall	Primary Wall Type:	Bin - Conci	rete
Surface Treatment:		Secondary Wall Type:		
econdary Surface Treatment:		Architectural Facing:		
General Description:		ar concrete block. Outboard fill wall bel supporting the roadway above the rail lin		at Mechanic St. Wall is
Wall Measurements				
Wall Length (ft.):	280	Face Area (sq.):	3760	
Average Wall Height (ft.):	13	Face Angle (deg.):	80	
Maximum Wall Height (ft.):	24	Vertical Offset (ft.):	-1	
Assessed Elements				
Element (Weighting Factor)			Condition Rating (0 - 10)	
PERFORMANCE 8.00	No global instability or settlement deformation. Vegetation could be a future problem.			6
WALL FOUNDATION MATERIAL 8.00	Firm, stiff soils. No signs of erosion or	localized settlement. No soft areas evide	ent.	9
BIN OR CRIB 8.00	Very good condition. No significant signs of cracking or weathering. No missing blocks. Joints are still tight, with no signs of significant block displacement.			8
LATERAL SLOPE 0.50	Well-vegetated lateral slopes with no indication of slumping or erosion.			8
ROAD/SIDEWALK/SHOULDER 0.50	Roadway shows no wall-related signs of distress.			8
UPSLOPE 0.50	Well-vegetated gentle upslpoe. No signs of slumping or significant erosion.			8
CURB/BERM/DITCH 0.50	Concrete curb shows no signs of wall settlement or deofrmation.			9
DOWNSLOPE 0.50	Flat ground adjacent to rail line. No wall-related distress observed.			9
TRAFFIC BARRIER/FENCE 0.50	K-rail at top of wall is in excellent condition, showing no signs of wall settlement of deformation.			9
Repair Recommendation	ons			·
Failure Consequence:	HIGH			
Recommendation Narrative:	Remove large brush and trees from toe ar 40 hours general labor @ $55/hr = 2,200$	nd face of wall, and within 6-8 ft of the top	of the wall face	
Repair Cost:	\$2,200			
-		ary for comparison to other repair cos	sts only.	

ROUTE 0400ZZ: MAIN ENTRANCE ROADS

Retaining Wall Condition Photos



STEA_0400ZZ_0.110_R_1.jpg



STEA_0400ZZ_0.110_R_2.jpg

Wall ID:	STEA-0700-0.000-R			
Route Name:	5 UDUe MUnwe 5 o k			
Inspection Date:	e s@7, 218431988i	5 bf bt Cb		
*Wall Rating:	rr m	Maintenance Action:	w, Pvc2tk ĶC	G, b Ø
Wall Description				
Wall Function:	FcKKM vKK	Primary Wall Type:	Rvb@Kd, 2ŋ	gRt bs2, Q
Surface Treatment:		Secondary Wall Type:	z 2vdcOngp	21 m @b,
Secondary Surface Treatment:		Architectural Facing:		
General Description:		ekkadount WohvQat bF7vS, G, bOh6WPPt 2Qebund hSch, nt. n72chu, nHst bSch, 2, hnt b, nC vKk6Wboo		
Wall Measurements				
Wall Length (ft.):	19/En	Face Area (sq.):	n94rln	
Average Wall Height (ft.):	rEEn	Face Angle (deg.):	ni An	
Maximum Wall Height (ft.):	t9i n	Vertical Offset (ft.):	18	
Assessed Elements				
Element (Weighting Factor)		Condition Rating (0 - 10)		
NkwFew 6 URk ri y88	Ut 1SaubStt.nuK 7vKabS07cKO1t 26, OK, G, bQma OW/ON2vKhcSQ, SSt01st bs2, Qr6, sQt br2, \$W2dbun 2, Pvc2t01G cQuvQrst bQbWhrh, Q2t 2vQt by			n n
M6jjnFe5Up6o0eUn 6okw06j riy88	a @7K,nt Wohv@t brGvQ2xKsf&qt Ccburbt	nSaubStt.nS, OB, G, bOt 21, 21 St by		ni n
Re URwkok ri y88	Rt bs2, QrSW2 vs, nSnauqKrC, vQ, 2, hn/bhrs2vsf, h3CcQrSWSObQvKSPvKKbun/bhn, TPt S, hn vuu2, uvQynN2 Kcsrs2vsf du3CcQrC, vQ, 2, hn/bhn vdKburGt 202PvQqy			nAn
aoe Ukn 6 ae Uw@ ni y88	j v2u, 3nqv2h3hW2v7K,n7K.sfS3hC, K6gPK/s,h34SqtCoburGobt2aC,vQi,2obuym v1n7,nStG,n Gtd,G,b07,02,,bn7K.sfS1H12vSgstbS20W3Qh:y			n n
j6okw6jmajeNk 18y48	6 7 WShist WoOnC vKKwGKCC, 21, bh3rG vcbQbvbs, nPv2f cbun, bQvbs, nvGWPP, 21, bhytUt nhcSQ, SSy			ni n
o w6 FF0RrL6 ww0k wFFk URk 18y48	a Q, Ka, bs, n/000 Prt. nC vKKSqt C Sibt nC vKKg2, K/QhrhcSQ, SSy			ni n
5 Naj e Nk 18yA8	FK Ou 2t Wohndo 01 Pv2f dour K On Ut n Scub Stt. nS, OK, G, b G7, q dohr C v KKa vs, y			ni n
M6 j j np w6 0Ua nEy88	e bK1rt b, rCvKKh2vcbrKsvQhytUtrKabStt.rK, , Pvu, rt 260vcbcbuy			n n
p e MUaj e Nk 1Ey88	ach, Cvkfn/bhn2tvhCv1ytUtnScubccsvb6	n4n		
Repair Recommendation	ons			
Failure Consequence:	I Oz I			
Recommendation Narrative:	w, Pvc2nst bs2, QrCvK4avs, nvbhnsvPyrRK,vbnvbhnP2, Prh, Q2ct 2vQhnst bs2, Qn vscbu=nrEA8n58.0BnxEAF58.0Wnx939A8yrEA8n SS.0tt.nst bs2, Qr2, Pvc2nBnxr AF58.0Wnx134A8			
Repair Cost:	xE93888			
^		ary for comparison to other repair co	sts only.	

ROUTE 0700: UNKNOWN ROUTE

Retaining Wall Condition Photos

Condition photos are not available for STEA-0700-0.000-R.

Wall TD: STEA-0701-0.000-R Route Name: SUDUe MUne 5 ok Inspection Date: e st07, 2843988i Approximate Year Built: StrEA-07 Wall Rating: n 8n Maintenance Action: Welk KG, b03 Wall Function: StrEA-07 StrEA-07 Wall Type: Rob0Kd, 20/RL bs2, 0 Wall Function: StrEA-07 Wall Type: Rob0Kd, 20/RL bs2, 0 Wall Function: StrEA-07 Wall StrEA-07 Wall Function: StrEA-07 Wall StrEA-07 Wall Function: StrEA-07 Wall Measurements Wall Height (fL): Min 1 Face Area (sq.): HEF Maintee QBK-000 16 (GC, Dig (C, d. 2897/St0408E0V0066C, vg. 2000 Gendition Rating (0-10) Narrative Condition Rating (0-10) Narrative Condition Rating (0-10)	Route Name: Inspection Date: *Wall Rating: Wall Description	5 UDUe MUnwe 5 ok e s@7, 21843988i	Approximate Year Built:		
Inspection Condition *Wall Rating: at 8a Maintenance Action: w. Pve3k KG, b63 Wall Description wall Function: Fd80MvKK Primary Wall Type: Rvb6KG, 2µRt bs2, 0 Surface Treatment: Secondary Wall Type: Rvb6KG, 2µRt bs2, 0 Surface Treatment: Architectural Facing: General Description: ovi6at bs2, 0mvb6Kd, d, 2Cv685MPt 32burbc68b, y7Dit Cbn56G, w. 2 v64Mv6a: Rq.dvym, s0 bits9P, s0Ins5vK bun v61 n. Mv5gbur0bm 0 Wall Measurements Wall Length (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): fE7 / m Average Wall Height (R.): min n Face Area (sq.): ff ff Maximum Wall Height (R.): ff ff ff ff Maximum Wal	Inspection Date: *Wall Rating: Wall Description	e s@7, 2843988i	Approximate Year Built:		
*Wall Rating: If 8n Maintenance Action: w, PA2k.§.G., bdS Wall Description Wall Function: FdBM VBC Primary Wall Type: Rvb0K.d. 2gRt bs2, 0 Surface Treatment: Secondary Wall Type: Rvb0K.d. 2gRt bs2, 0 General Description: ov/Kit b52, 0 nvb0K.d. 2C vBSWPh 23buEvBdBk, yDbt CbaSG, w 2 v0Mv86. #Gdvym, s0 babSP, s0/ba6vK bun v85, 11,b4vSgbu0bm 9 Wall Length (fL): mf 1 n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf 1 n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf n Face Area (sq.): ff3F/ m Average Wall Height (fL): mf n Face Area (sq.): ff3F/ m Maximum Wall Height (fL): mf n Face Area (sq.): ff3F/ m Maximum Wall Height (fL): mf n Face Area (sq.): ff3F/ m Maximum Wall Height (fL): mf n Face Area (sq.)	*Wall Rating: Wall Description		Approximate Year Built:		
Wall Description Condition Notion of the Condition of the Condin the Condition of the Condition of the Condition of the	Wall Description	rr 8n		5 bf bt Cb	
Wall Function: FdBMvtK Primary Wall Type: RvbGKd, 2yBR bs2,0 Surface Treatment: Secondary Wall Type:	-		Maintenance Action:	w, Pvc2rk K,C	G, b Ø
Surface Treatment: Secondary Wall Type: iccondary Surface Treatment: Architectural Facing: General Description: ovi8st bs2.0 av/od6.d, 3C vi88xPPt 32bud3vd80, yDbt Cbx5t0, nr.2 vi04vH8Rqdvym, s02 bub5P, s0bu55vKbun vi8C1dv/Sqbu0ba (9 Wall Length (fL): mf1 n Face Area (sq.): dEir / m Average Wall Height (fL): mf1 n Face Angle (deg.): d 8n Maximum Wall Height (fL): mf1 n Face Angle (deg.): d 8n Assessed Elements Condition Rating (0 - 10) fd fd NewFew 6 URk Ut n dd., bs. n.mk7vkb3597460n 26 (00, 10, 215975906A827W096A27, vQ, 2bun n*n n g88 vibn bs2.0 fd/vi8bund0 at d50/obhnK bud, c0fL(a, G, CMR fd n M6 j j nfc 5 Up 6 oft Un 6 fokw6 ji FG3/m Ww/ob 86 (3d/m d, db, 10, db, c0, m, db, 20, db, 20, db, 20, bn n*n n*n n g88 vibn/ab 86 (3d/m d, db, db, 50, db, 20, db, 20, bn gb/w n*n n*n m g88 i twisk, hnd 2, afw8/mubmblax2sf db/d2G/dgdGSbuns/budmkd, db, m, db/w, m, 89% s stb/d27Wbm/ba/st b60 (dgdGSbun s/bd/w, m, 89% s) n*n m g88 j 6 okw6 ji ai e N fd/li whCv1yth c/blgZ (KD/mhSQ S9) n*n n*n	Wall Function:				
econdary Surface Treatment: General Description: or Mat bs2, Onvb6kd, 2C W83WP1 20xm2v680, yDbr ChnStQ, m2 v6MvH81.rRqdvym, s62 brdSP, s0Dn6vKbnn vK1nnMvSqdu@bm(9) Wall Length (ft.): mil n Face Area (sq.): fEFr/mm Average Wall Height (ft.): mil n Face Angle (deg.): fl 8n Maximum Wall Height (ft.): mil n Face Angle (deg.): fl 8n Maximum Wall Height (ft.): mil n Face Angle (deg.): fl 8n Maximum Wall Height (ft.): mil n Face Angle (deg.): fl 8n Maximum Wall Height (ft.): mil n Face Area (sq.): ffEr/mm Assessed Element Condition Rating (0 - 10) Retreative Condition Rating (0 - 10) Nw We w OR Un 6 okw65; FG3rat Whv0 abs 8 deglin d.n, w. n.m.d., .c. Mg; Abd Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Mat Load, .c. Ma; .2 bh M8; (MG, bd Mat Mat Mat Mat Mat Mat Mat Math Mat Mat Mat Mat Mat Mat Math Mat Mat Mat Mat		FcKKMvKK	gRt bs2, Q		
General Description: ovišist bs2, Omv64Kd, 2CV889PPt 32bu20486b, ydDit Chn54G, nr. 2, vdMvKa, iRq.dvym, sQL bubSP, sOhn50rKbun vKE1n, i.MvSgdu0ban (9) Wall Length (ft.): mf 1 n Face Area (sq.): nfEr / mm Average Wall Height (ft.): if n Face Area (sq.): nfEr / mm Average Wall Height (ft.): if n Face Area (sq.): nfEr / mm Average Wall Height (ft.): if n Narrative Condition Rating (0 - 10) NewFew 6 URk Ut n ddn, bs, n. mk 7/sib397/360/n 25 (sg.G, bdqt C, d, 23b793960/4827W08/kC, vq, 2,2bun n NewFew 6 URk Ut n ddn, bs, n. mk 7/sib397/360/n 25 (sg.G, bdqt C, d, 23b793960/4827W08/kC, vq, 2,2bun n NewFew 6 URk Ut n ddn, bs, n. mk 7/sib397/360/n 25 (sg.G, bdqt C, d, 23b793960/4827W08/kC, vq, 2,2bun n NewFew 6 URk Ut n ddn, bs, n. mk 7/sib397/360/n 25 (sg.G, bdqt, cd, d, n. C n n NewFew 6 UR ddn, ddn, ddn, n. n. n. 7/sib397/360/n 25 (sg.G, bdqt, ddn, ddn, n. mk 1/sib397/360/n 25 (sg.G, bdqt, ddn, ddn, n. mk 1/sib397/360/n 25 (sg.G, bdqddn, ddn, ddn, ddn, n. mk 1/sib397/360/n 25 (sg.G, bddd	Surface Treatment:		Secondary Wall Type:		
WEIRMAVSgdu0bbn@ Wall Measurements Wall Length (ft.): min n Tace Area (sq.): min n Average Wall Height (ft.): ###################################	Secondary Surface Treatment:		Architectural Facing:		
Wall Length (ft.): mil n Face Area (sq.): ftEr / m Average Wall Height (ft.): ip'n Face Angle (deg.): il 8n Maximum Wall Height (ft.): ip'n Vertical Offset (ft.): if's Assessed Element Narrative Condition Rating (0 - 10) Newfe w 6 URk Un dds, bs. rt. mk 7/k6/897/k0/n 28; 0%, G, bdy (C. d. 256/950/k6200/00/k62, v0, 2bun n% M6 ji nfe 5 Up 6 ofb Un 6 okw6b j Facat Whird a brit dsg/li nd ds, bs. rt. deg., 2 bd/k6; 0%, G, bdw/bundt, dc/k6; si dsg/li nd ds, bs. rt. deg. Condition Rating (0 - 10) Newfe w 6 URk Un dds, bs. rt. mk 7/k6/897/k0/n 28; 0%, G, bd/k6 0%, G, bd/k600/0%/kC, v0, 2bun n% M6 ji nfe 5 Up 6 ofb Un 6 okw6b j Facat Whird a brit dsg/li nd ds, bs. rt. deg., 2 bd/k6; 0%, G, bd/k6 build, iC vK6 2h 2h h n if n n 398 11 sv/k0, htd, 2, 189/WB/un/bhr.82 rd/u3/Cadje GS/bun vsduw/bhr.95 ks 0 S8/R2.85 rd/bun n% n 40 n 398 G K 11a/ vhC vlg/Li c/vK82 RO hhr/SQ 2S8 ni n n 69/8 M/KBO23/dv/OSv64 Q, 2C vK89/rD1 rk/Q2/k88/P, fh/SQ 2S9 ni n n 69/8 Ut r/CvK82 RO hhr/SQ 2S8 ni n n 69/8 Ut r/CvK82/K0/hhr/SQ 2S8 ni n n 69/8 U	General Description:		un2vcKKkb, ynDbt CbnvSnQ, nz 2, v00M vKkút.nl	Rqcbvyma, sQt b	ndoSP, sQhneSnvK bun
Average Wall Height (ft.): iPr n Face Angle (deg.): it 8n Maximum Wall Height (ft.): iPi n Vertical Offset (ft.): if 8 Assessed Elements Condition Rating (0 - 10) NewFew GUR Ut ndd, bs, n.mk7v&bS97dG01 26, 0K, G. b0qt C, d. 258WS0b0AB2W082KC, v0q, 2bun nm MsWFew GUR Ut ndd, bs, n.mk7v&bS97dG01 26, 0K, G. b0qt C, d. 258WS0b0AB2W082KC, v0q, 2bun nm M6 j1 if 6 Up 6 ok Un Element Condition Rating (0 - 10) NewFew GUR Ut ndd, bs, n.mk7v&bS97dG01 26, 0K, G. b0qt C, d. 258WS0b0AB2W082KC, v0q, 2bun nm M6 j1 if e5 Up 6 ok Un Go ok Un 6 ok w06j jt sv80, htd, d. yb, nt.ntc., 2 b0A85, 00K, b0qt, c. VK8 2n, 2h, hn rin Re URwkok jt sv80, htd, d. yf SPM&bun9hbs2x5du12G4G1G5Sbun vsbun9hbs2v5fdu1, cVK8 Ms 2h O27W80m07hs2x2 dth 2A WWS9hQ44, .K2, Sb, bs, rig2 Wignt, 2dt b69 p e MUaj e Nk iS 402 W901K b0x2Q dth 2A WWS9hQ44, .K2, Sb, bs, rig2 Wignt, 2dt b69 rin i sy8 Mv802Xidv/OSv04 Q, 2C vK89rUt rKQ2K8KP, rhsQ2 SSy rin i sy8 Ut rdsubSt.rC/K82 KOhrh:SQ SSy rin i sy8 Ut rdsubSt.rC/K82 KOhrh:SQ SSy rin i sy8 VrdK80C2 rk	Wall Measurements				
Maximum Wall Height (ft.): íðin Vertical Offset (ft.): íð Assessed Elements Element Condition Rating (Weighting Factor) Condition Rating (0 - 10) NewFew 6 URk Ut n ddn, bs. rt. mik 7/kfb/S97d60/n 26, 60kg (G, b0kg C, d, 235W59b6a/k52W08b/k52W08b/k52, vQ, 2bun r/m M6 jj rife 5 Up 6 oke Un 6 oke Wiß FaCin Why Q brig dkgUt n dds, bs. rt. mik. 7, kfb/S97d60/n 26, 60kg (GG, b0kg C, b0kg build, rC vK6 2h 2 h, hn r/m m 5 y8 j t svKg, ht6, d.2, rRVKbun/db d/S05b/mK build, rD/m, rd, rC vKg r/m r/m m 5 y8 j t svKg, ht6, d.2, rRVKbun/blm/S2st du1C dqrG/GSSbun vsdun/blm/vPr6, sQL b5gnZ2sf dun n y88 r/m r/m p e MUaj e Nk f t svKg, ht6, d.2, rRVKbun/bbib/S2sf du1C dqrG/GSSbun vsdun/blm/s2h fs/d2 Wight 2h) t b0 r/m r/m j 6 ok w6 j m j e Nk rgvKs 6 K 1n whCvlyth rCvKg2, KOhth/SQ, SSy rin rin we 6 p B0p kM6 j DB1 e S j p kw Ut rCvKki2xdxWdxG/K yp 2xdvu, nst ss Wabun/Git d/Git/bhint b/Q2/Wbur/Ønt bs2, OrsPvKbun rm rm M6 j j p w6 CUa ufr.CvKki2xdxWdxG/K yp 2xdvu, nst ss Wabun/Git d/Git/bhint b/Q2/Wbur/Ønt bs2, OrsPvKbun rm rm s5 Naj e Nk p, st Add, rC2 WigdQ2 bn, bs, nd@Prt ::CvKki2sh, Osq, hndm/2, vSt : th, Q2t 2xdbun/s	Wall Length (ft.):	m/ln	Face Area (sq.):	nEEr / mn	
Assessed Element Condition Rating (Weighting Factor) Condition Rating (0 - 10) NewFew 6 URk ni \$8 Ut n dh, bs, rt. nik 7 vikb \$97400 nt 25; (0KG, bCht C, d, 2359759b0/4821W082KC, vQ, 2bun vbhnt bs2 0.692vikbun04t d/Stobhn/k burlQ, r0PtQ, rC vKg n*n M6 jj nfe 5 Up 6 ob Un 6 okw06 j F62(nt VbhvQ brit d/Styl)U n dh, bs, rt. nik, z b0/485; (0KG, b04k burlQ, rC vKg n*n M6 jj nfe 5 Up 6 ob Un 6 okw06 j F62(nt VbhvQ brit d/Styl)U n dh, bs, rt. nic, z b0/485; (0KG, b04k burlQ, rC vKg n*n ni y88 y1 s vKg, hist, d. z f82/KBunbhn2x5f du3C dQrG:SSbun vsduurbInsvhf6; Sd b59/R2x5f duan q2 Wugt V9000 KOhr8Vikbu3Pv2ab WC24n G4: de59/k du, ts; rt. rb2vdvu, n55W51 n*n ng 98 q2 Wugt V9000 KOhr8Vikbu3Pv2ab WC24n G4: de59/k du, ts; rt. rb2vdvu, n55W51 n*n g 6 okw6j nij e Nk r89/8 6 Kk 1n2 vhC vlgUt rC vkg2, KQhthc5Q, SSy ni n We 6 p Bith kM6 j DBit e 5 j p kw r89/8 Ut r6xbSt .rC vkg2, KQhthc5Q, SSy ni n M6 j j m v6 Ula r1598 Ut r6xbBitrC vkg2, KQhthc5Q, SSy ni n style p. st 2xQL, rC WigQ2 bn, bs, n 20Pt .rC VKi6Sh, 0sq, hnbn2, vSt .th, Q2t 2xdbunt bs2, QHP vKdbund m style p. st 2xQL, rC WigQ2 bn, bs, n 20Pt .rC vKi6Sh, 0sq, hnbn2, vSt .th, Q2t 2xdbunt bs2, Qy n*n m1 style p. st 2xQL, rC WigQ2 bn, bs, n 20Pt .rC vKi6Sh, 0sq, h	Average Wall Height (ft.):	r9r n	Face Angle (deg.):	rl 8n	
Element (Weighting Factor)NarrativeCondition Rating (0 - 10)NewFew 6 URk n 958Ut n dd., bs. nt. mit 7 VikbS97 d&Ont 26, 08, G. bOut C. d., 236W S906/k82W OB/kC. vQ, 2bunn/nM6 jj nfe 5 Up 6 ole Un 6 okwObj n 958FG3nt Wehx Ubst dSylt n dd., bs. nt. mit 7. VikbS97 d&Ont 26, 08, G. bGatt C. d., 236W S906/k82W OB/kC. vQ, 2bunn/nM6 jj nfe 5 Up 6 ole Un 6 okwObj n 958FG3nt Wehx Ubst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSylt n dd., bs. nt. mit 7. VikbV dbst dSynt DS	Maximum Wall Height (ft.):	n9i n	Vertical Offset (ft.):	18	
INTERTIGUE (0 - 10) NewFew 6 URk is 88 Ut n ddi, bs, rt. mk 7 vKibS97 dG0 rt 26, GKG, bOqt C, d, 255W 50bQvK602W 09k/kC, vQ, 2bun vbhat bs 2 0;BPvK8bun/dt d5Rvbhn/k bufQ, i0Pr. i.Q, iCVK9 n ^A n M6 j j if Fe 5 Up 6 of EU n 6 ok w(6 j i s 98 F2Gn t Why da brd, sdgxU n ddi, bs, rt. i.hc., 2 bQvK8, GKG, bQuK burQ, iCVK8 21, 2 h, hn i n Ne URwkok is 98 Q2 Waqt W90B KC/hR2/W8bun/da brd, sdgxU n ddi, bs, rt. i.hc., 2 bQvK8, GKG, bQuK burQ, iCVK8 20, 2 h, hn in n Ne URwkok is 98 Q2 Waqt W90B KC/hR2/W8bun/bha/2x5f du13C dQirG cSSbun vsdum/bhav2h5 fs du 3SyR2x5f dun is 98 n ^A n P e MUaj e Nk is 98 Q2 Waqt W90B KC/hR2/W8bun/bat2x5f du13C dQirG cSSbun vsdum/bhav2h5 sd bSyR2x5f dun is 0427W8buf0hst bs2 Oth, O21 2vG bya W52bGvK6, i, K2 Ss, bs, iQ2 Wignt 23) bO9 nin P e MUaj e Nk is 98 G K 1h2 vhCV1yU tCVK92 KO/hthc92, SSy is 0427W8buf0hst bs2, Oth, O21 2vG bya W52bGvK6, i, k52 SSy is 0407 GWo 3rd Q, 2CVK92 KQ hthc92, SSy in We 6 p BitQh KM6 j DBit E 5 j p kw if 998 Ut iCVK8b2x6idcS7K yp 2vdvu, nSt ss W2bun/Qit doG3ivbhnst bQ27W8bun/git bs2, OrBPvK8bun if 988 mm M6 j j m w6 CUa if 398 Ut iCVK8b2x6idcS7K yp 2vdvu, nSt ss W2bun/Qit doG3ivbhnst bQ27W8bun/git bs2, OrBPvK8bun v6Q, S, if svQ bSy mm ow6 FFRR.f.d wwRk wFFk URk if 398 P, st 2vQ1, rC2 WigQ2 bn, bs, nc@Pt : iCVK9mb, N20 Ph, hu, rt. iCVK9mot Ph5KP, nSid, 21:697K yn mAn S Nig ie	Assessed Elements				
ni y88 vbhnt bs2 Q fiRPvKkburr@it de@nohn/K bur@, fiQPri.r@, fiCvKg/ M6 j ji ffe 5 Up 6 o@: Un 6 ok w06 j ni y88 FeGant Whv@ bri8 d&yUt n.ddi, bs, nt.rhc., 2, b@vK8, @K.G., b@vK.bur@, iCvK8i 2n 2.h, hn ni n ni y88 j t svK9, hr6, d.2, fiRPvK8burbhn52sf.dbu3CQnGcSSbun vsdburbhnsvPh5, Sub b3nR2sf.dbun q.2 Wiqt W90B KQhr8PvK8bu3Pv2a8 Wc2Rn@it do@nd.db, s. nt.rh2xdvu, nSSW Sn nin g pe URwko k ni y88 j t svK9, hr6, d.2, fiRPvK8burbhn52sf.dbu3CQnGcSSbun vsdburbhnsvPh5, Sub b3nR2sf.dbun q.2 Wiqt W90B KQhr8PvK8bu3Pv2a8 Wc2Rn@it do@nd.db, s. nt.rh2xdvu, nSSW Sn nin g pe MUaj e Nk r65y8 fiR2 vhCv1yUt rCvK82, KQhrhc92, SSy nin j 6 ok w6 j m j e Nk r65y8 fiR2 vhCv1yUt rCvK82, KQhrhc92, SSy nin w6 o fa Qe KM6 j D1al e 5 j p kw r65y8 Ut r6xK81a2dSd2rKyp 2xdvu, nSrt ss Wabun@it do@nbbnst b02/7Wabun@nst bs2, OrfsPvK8bun mm m15y88 Ut r6xK81a2dSd2rKyp 2xdvu, nSrt ss Wabun@it do@nbbnst b02/7Wabun@nst bs2, OrfsPvK8bun mm m2588 p. st 2xQu1, rC2 WiqQa2 bn, bs, nQ0 Prt .rCvK8a2h, Osq, hnbn2, vSt .rh, Q2t 2xQbunst bs2, Qy nin m1588 Pk st 2Q WinCQrbWG, 2 WsQ, su2 Cdurb, v20Prp hu, rt .rCvK8mv FtNSCP, nSrd, 21r897Kym nin m2588 FKQu2 WbinCQrbWG, 2 WsQ, su2 Cdurb, v20Prp hu, rt .rCvK8mv FtNSCP, nSrd, 21r897Kym nin m3588 FKQu2 WbinCQrbWG, 2 WsQ, su2 Cdurb, v20Prp hu, rt .rCvK8mv S, Q, bsdug				U	
ni y88 .t Whv@ brfs s@ bSy Re URwkok j t svK9, hrfs, d, 2 r8PvK@bur/bhrs2vsf.du2C@rGGSSbun vsdun/bhrsvPrfs, s@ bSyrR2vsf.dun ng2 Wiqt W90B KOhrSPvK@u2Pv2@vW2Rv@rd.dt@Srk.dd, bs, rt. rh2vdvu, rtSSWSn rh4 g2 Wiqt W90B KOhrSPvK@u2Pv2@vW2Rv@rd.dt@Srk.dd, bs, rt. rh2vdvu, rtSSWSn rh4 g2 Wiqt W90B KOhrSPvK@u2Pv2@vW2Rv@rd.dt@Srk.dd, bs, rt. rh2vdvu, rtSSWSn rh4 g2 Wiqt W90B KOhrSPvK@u2Pv2@vW2Sh@kG.k.K2, Ss, bs, rdQ2 Wiqrt 2g) b/0 ri n g2 Wiqt W90B KOhrSQ, SSy ri n g3 6 okw6j raj e Nk 6 KL ft@ vhCv1gUt rtCvKg2, KOhrhcSQ, SSy ri n rby88 WvK@Q2G;dvQStv@t Q, 2CvKg9rUt rKQ2vKgKP, rhcSQ, SSy ri n we 6 p B40 kM6 j DB1 e 5 j p kw Ut r6xbbAcdStrdSz7K yp 2xbvu, rbit ss W2bun/@t dx@Brybhrst bQ27Wabur@rst bs2, QrBPvKgbun rm m6 j j rp w6 @Ua Ut rCvKkbAcdStrdSz7K yp 2xbvu, rbit ss W2bun/@t dx@Brybhrst bQ27Wabur@rst bs2, QrBPvKgbun rm w6 p FE@rd.6 wwdk wHFk URk p, st 2x@d, rC2 Wiq@2 bn, bs, n@PPt .rfCvKgsh, 0sg, hrdm2, vSt .rh, Q2t 2x@burst bs2, Qy rh4 s Naj e Nk rfKsu2 WbinC@qbWG, 2 W6Q, Su2 Cduub, v2@PPn hu, rt .rCvKgnot PrSKP, nSid, 21rS07K yn rh4 s S Naj e Nk rfsg8 FK@u2 WbinC@qbWG, 2 W6Q, Su2 Cduub, v2@PPn hu, rt .rCvKgnot PrSKP, nSid, 21rS07K yn rh4 s Naj e Nk rfsg8 rfsg8					nAn
ii y88 Q2 Wiqt W908 KO/h#PVKbu3Pv2ds WK2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, Qrh, Q2t 2xQt Wy2K n Qit de@ynk ddh, bs, rth2xdvu, n5SW Sh st bQ27Wdbur0 nst bs2, QrsW Sh st bQ27Wdbur0 nst bs2, QrsW sh st bQ27Wdbur0 nst bs2, QrsPvKdbur mn dQi, S, rtK svQt bSy in n We 6 p Ei Qh kM6 j DEi I e 5 j p kw rBy88 Ut rCvKkh2xdsStdcS7K yp 2xdvu, nSt ss Wdbur0Qt dc@hvbhst bQ27Wdbur0 nst bs2, QrsPvKdbur mn vGQ, S, rtK svQt bSy mn vGQ, S, rtK svQt bSy 0 w6 FF0RrL6 ww0k wHFk URk rEj88 p, st 2xQt, rC2 WiqQt2 bn, bs, nxQD Prt .rCvKdsSth, Qsq, hrdbn2, vSt .rh, Q2t 2xQburst bs2, Qr nAn 5 Na j e Nk rEj88 FKQu2 WbhrCdQtbWG, 2 WsQ, Su2 Cdourb, v2t0Prj hu, rt .rCvKgm t PtSKP, nSrd, 21:607K ym nAn Repair Recommendations Narrative: w, Pv2st bs2, Qn vsdunQtt dc@hvbhrKbur0Ptt .rCvKgmv, S, Q, bsduyw, Gt d, rQ, St0rCqdptr g in QL .rQ, r0PTL .n CvKgmRt bs2, QnsK vbduith, Gt KQ bn/bhr/kDu0Ptt .rCvKgmv, S, Q, bsduyw, Gt d, rQ, St0rCqdptr g in QL .rQ, r0PTL Tyl 88:rBS, GB n x/ AfSSnQh/ns91 3888y					n n
if 898 MvKaQ2GdvQShQiQ, Q. 2CvKSSmUt rKQQzKSSCP, rhdSQ, SSy nin j 6 0 kw6 j ni j e Nk MvKaQ2GdvQShQiQ, Q. 2CvKSSmUt rKQQzKSSCP, rhdSQ, SSy nin we 6 p FaQp kM6 j DFaI e 5 j p kw Ut rSaubSt .rCvKg2, KQphrhdSQ, SSy nin M6 j j m w6 GUa Ut rCvKKh2vdSrdcSc7K, yp 2vdvu, rtSit ss Wabun/Qit do@Brvbhrist bQc7Wabur@nist bs2, QrSPvKBbun mm M6 j j m w6 GUa Ut rCvKKh2vdEsGrdSc7K, yp 2vdvu, rtSit ss Wabun/Qit do@Brvbhrist bQc7Wabur@nist bs2, QrSPvKBbun mm vGaQ, S, rK svQa bSy vGaQ, S, rK svQa bSy min ow6 FFQRrL6 ww0k wFFk URk p, st 2vGdt, rC2 Wiq@d2 bn, bs, rvG@Prt .rCvK6aSth, Øsq, hndbr/2, vSt .rh, Q2dt 2vGbunst bs2, Qy nAn 5 Naj e Nk FKGQu2 WbhrCdqrbWG, 2 W8Q, Su2 Cdurb, v2@Pn hu, rt .rCvK6mot PrfSKP, rtSid, 21r807K, ym nAn fEy88 FKGQu2 WbhrCdqrbWG, 2 W8Q, su2 Cdurb, v2@Pn hu, rt .rCvK6mot PrfSKP, rtSid, 21r807K, ym nAn fEy88 I Qr I I I Recommendations w, Pvc2ast bs2, Qn vsdurv@t dc%rbhnvK bur@Pt .rCvK6mv, S, Q, bsduynv, Gt d, rQ, S@rCQdpdr gi nQt .rd, rd@Pt .n CvK6mRt bs2, Qrsk vbdu3h, Gt K0a bn/bhr/2, Pmj WGPr6WGn/mkEA8888yNW9qI2, .t Zrist bs2, Qm/PP2 Tyi 88r8S. GB n x/ AESn GM/rs9i 388y x/ AESn GM/rs9i 388y x/ AESn GM/rs9i 388y III De I		Q2: Wiqt Wordst KrQhnSPvKkbu3Pv2Qs Wk2KnvQrt cbCSynk dch, bs, nt .nh2vcbvu, neSSWSn			nAn
163/48 Ut 16xubStt.nC vKg2, KQhnhcSQ, SSy nin We 6 p FaQp kM6 j DFaT e 5 j p kw 163/48 Ut 16xubStt.nC vKg2, KQhnhcSQ, SSy nin M6 j j m w6 (Ua 163/88 Ut nC vKkh2xdcSrd,Sc7K,yp 2xdxu, nSit ss W2bun/Qit do@avbhrst bQ27W2bun@nst bs2, QnSPvK2bun v6Q, S, nK svQt bSy mm ow6 FFORL6 ww(k wHFk URk 163/88 p, st 2xQd, nC2 WiqQa2 bn, bs, n/Q0Prt.nC vKkaSth, Øsq, hnbn/2, vSt.nb, Q2t 2xQburst bs2, Qy nAn 5 Na j e Nk 163/88 FKQu2 WbhrC cQnbWG, 2 WsQ, Su2 C doub, v2QPn hu, nt.nC vKkgnot Pr6KCP, nSid, 21 nS07K,ym nAn 6 SNa j e Nk 163/88 FKQu2 WbhrC cQnbWG, 2 WsQ, Su2 C doub, v2QPn hu, nt.nC vKkgnot Pr6KCP, nSid, 21 nS07K,ym nAn 7 SNa j e Nk 163/88 FKQu2 WbhrC cQnbWG, 2 WsQ, Su2 C doub, v2QPn hu, nt.nC vKkgnot Pr6KCP, nSid, 21 nS07K,ym nAn 8 FKQu2 WbhrC cQnbWG, 2 WsQ, Su2 C doub, v2QPn hu, nt.nC vKkgnot Pr6KCP, nSid, 21 nS07K,ym nAn 16 U GSW2, n/7t W6B, QKG, bGØ7, qdbnC vKka vs, y nAn nAn Recommendations Narrative: u, Pv2ast bs2, On vsdun/Qit dc@nbhn/K bun@Ptt.nC vKkgnx, S, Q, bsdugav, Gt d, nQ, S@nC cQdbm gi nQt.nQ, n@Ptt.n C vKkgnRt bs2, Qns K vbdu3th, Gt KQt bn/bhr/2, Pmj WGPr6WGn/mxEA8888yhVoQqE, rt 2Gnst bs2, Q-mvPP2 Tyi 88rt8.GB n x/ AfS5n GM/nx91 388y		6 KK,1n2tvhCv1yrUtrCvKKg2,KkQhnheSQ3,S3	Sy		n n
18348 M6 j j m w6 (Ua Ut rC vK4h2vd5xdc5c7Kym 2vdvu, n5t ss W2bunv@t dc@hvbhnst bQ27W2bun@nst bs2, QrfSPvK4bun mm 16388 Ut rC vK4h2vd5xdc5c7Kym 2vdvu, n5t ss W2bunv@t dc@hvbhnst bQ27W2bun@nst bs2, QrfSPvK4bun mm 0 w6 FF0RrL6 ww0k wHFk URk p, st 2vQd, rC2 Wiq@2 bn, bs, nv@0Prt .rC vK4c5sh, Øsq, hnbn/2 vSt .rh, Q2t 2vQbunst bs2, Qy nAn 5 Naj e Nk FKQu2 WbhCQqbWG, 2 W6rC qbWG, 2 W6rQ, su2 C dourb, v2@Pn hu, rt .rC vK4mot Prf5KP, n5rd, 21r697Kym nAn 5 Naj e Nk FKQu2 WbhCQqbWG, 2 W6rC qdbWG, 2 W6rQ, su2 C dourb, v2@Pn hu, rt .rC vK4mot Prf5KP, n5rd, 21r697Kym nAn Failure Consequence: I @ I Recommendation w, Pv2bst bs2, On vs.dunr@t dc@hvbhn/K.bur@Prt .rC vK4mv, S, @, bs.duyav, Gt d, rQ, S@rC Qdbrr gi nQt .rQ, r0Prt .n vK4mrt bs2, Qn Kvbdu3h, Gt KQt bn/bhrP2, P=nj WGPrfsWGrMxEA8888yhVeqI2, .t 2Grst bs2, Q=mvPP2 Tyi 88rfs.GB n x/ AK56nGMx91 3888y		MvKKQ2GobvQSnvQtQ,2CvKSynUtrKQ	MvKKQ2GdvQStvQtQ,2CvKSSynUtnKQQ2vKSSKP,nhcSQ,SSy		
rE388 v6Q, S, rK svQt bSy o w6 FF0RrL6 ww0k wHk URk p, st 2vQd, rC 2 WiqQt 2 bn, bs, nvQ0Prt.rCvKaSh, Qsq, hrdbn/2, vSt.rh, Q2t 2vQburst bs2, Qy n/n rE388 5 Naj e Nk FK/Qu2 WbhrC qQrb WG, 2 WstQ, Sm2 C dburb, v2r0Pn hu, rt.rCvKamot PriSK P, rtSrd, 21r807K, yn rE388 FK/Qu2 WbhrC qQrb WG, 2 WstQ, Sm2 C dburb, v2r0Pn hu, rt.rCvKamot PriSK P, rtSrd, 21r807K, yn rE388 FK/Qu2 WbhrC qQrb WG, 2 WstQ, Sm2 C dburb, v2r0Pn hu, rt.rCvKamot PriSK P, rtSrd, 21r807K, yn rE388 FK/Qu2 WbhrC qQrb WG, 2 WstQ, Sm2 C dburb, v2r0Pn hu, rt.rCvKamot PriSK P, rtSrd, 21r807K, yn rE388 FK/Qu2 WbhrC qQrb WG, 2 WstQ, Sm2 C dburb, v2r0Pn hu, rt.rCvKamot PriSK P, rtSrd, 21r807K, yn repair Recommendations W, Pvc2st bs2, On vsdun/Qt db/Gn/vbhr/k bur0Prt.rCvKanv, S Recommendation w, Pvc2st bs2, On vsdun/Qt db/Sn/bhr/K bur0Prt.rCvKanv, S, Q, bsdurav, Gt d, rQ, S00rCdQdor gi n Qt.rQ, r0Prt.n CvKgrRt bs2, Qris K vbdu3h, Gt KQt bn/bhr/P, P=nj WGPrtSWGrt/rxEA3888yNvQqE, t 2Grist bs2, Q=mvPP2 Tyri 88r8S.0B n x/ AESSn GM/rx91 3888y		Ut nScubStt.nCvKgg, KoQhnhcSQ, SSy			ni n
rEy88 FK @u.2 WbhrC @qtb WG, 2 WStQ, Su.2 C doutb, v2@Pn hu, rt.rC vK\$mot PrSK P, nSrd, 21:nS07 K, yn nAn 5 Na j e Nk rEy88 FK @u.2 WbhrC @qtb WG, 2 WStQ, Su.2 C doutb, v2@Pn hu, rt.rC vK\$mot PrSK P, nSrd, 21:nS07 K, yn nAn Repair Recommendations Failure Consequence: I @z I Recommendation Narrative: w, Pvc2nt bs2, Qn vsdun/@t d@nvbhrvK.but@Prt.rC vK\$mv, S @, bsduyav, Gt d, rQ, S@rC @qdor gi n@t.rQ, r0Prt.n CvK\$mRt bs2, Qns K vbdu3th, Gt K@t bnvbhrP2, P=nj WGPr6WGrMxEA8888yN%@qE2, t 2Grst bs2, Q=mvPP2 Tyi 88r6\$S.@B n x/ AE\$Sn @Wrx9i 3888y					mn
rEy88 Ut 065V2, nv7t W06, 00¢,G, b007, qdbhrCvKá vs, y Repair Recommendations Failure Consequence: I 0z I Recommendation w, Pvc2nst bs2, Qn vsdunv0t do 03nvbhnvK bur0Prt .rCvKýnw, S, 0a, bsduyw, Gt d, r02, St0 rC c0qdbrr gi n0t .r0q, r0Prt .n Narrative: v, Pvc2nst bs2, Qn vsdunv0t do 03nvbhnvK bur0Prt .rCvKýnw, S, 0a, bsduyw, Gt d, r02, St0 rC c0qdbrr gi n0t .r0q, r0Prt .n v, Pvc2nst bs2, Qn vsdunv0t do 03nvbhnvK bur0Prt .rCvKýnw, S, 0a, bsduyw, Gt d, r02, St0 rC c0qdbrr gi n0t .r0q, r0Prt .n v, Pvc2nst bs2, Qn vsdunv0t do 03nvbhnvK bur0Prt .rCvKýnw, S, 0a, bsduyw, Gt d, r02, St0 rC c0qdbrr gi n0t .r0q, r0Prt .n v, Arstative: v, AlsSn 04/rs9 i 3888y		p, st 2vQd, rC 2t WiqQt2t bn, bs, nvQt0 Prt.rC vKtaSth, Osq, hnbrv2, vSt.rh, Q2t 2vQburst bs2, Qy			nAn
Failure Consequence: I 0z I Recommendation w, Pvc2st bs2, On vsdunv@t dc@vbhrvK.bur@Prt.rCvKgmv, S, @, bsduy.w, Gt d, rQ, , S@rCcQdor gi n @t.rQ, r@Prt.n Narrative: cvKgnRt bs2, On k, vbdu3h, Gt K@t brvbhrP2, P=nj WGPr6WGrt/nxEA888yNv@qI2, t 2Grst bs2, Q=nvPP2 Tyi 88r6S, @B n x/AISSn @Vns9i 3888y	5				nAn
Recommendation w, Pv2st bs2, Qn vsdunv@t dc@nvbhrvK.bur@Prt.rCvKkmv, S, @, bsduynv, Gt d, rQ, S@rCcQdor gi n Qt.rQ, n@Prt.n Narrative: vKkmrk bs2, QrsK.vbdu3h, Gt KQt brvbhrP2, P=nj WGPr6WGrl/nxEA8888yNv@ql2, t 2Grst bs2, Q=nvPP2 Tyri 88r6S.@B n x/AFSsn@Wrx9i 3888y	Repair Recommendation	ons			
Narrative: CvKynRt bs2, Qns K, vbdou3h, Gt KQt bn/bhrP2, P=nj WGPnSWGn/hx EA8888yh/vQqF2, t 2Gnst bs2, Q=nvPP2 Tyi 88nS8.0B n x/AFS8nOWns9i 3888y	Failure Consequence:	I Oz I			
Repair Cost: xmA3988		CvKkynRt bs2, QnsKybdou3h, Gt Kat bn/bhn			-
T	Repair Cost:	xmA9988			

ROUTE 0701: UNKNOWN ROUTE

Retaining Wall Condition Photos

Condition photos are not available for STEA-0701-0.000-R.

Route Name: 5 UDUe M Inspection Date: e s@7, 2f *Wall Rating: rr 4n Wall Description rr 4n Wall Description FcKM vK Surface Treatment: Secondary Surface Treatment: Secondary Surface Treatment: Secondary Surface Treatment: Wall Measurements Rt bs2 Qns vK bunMvS Wall Length (ft.): n i n Average Wall Height (ft.): n9r n Maximum Wall Height (ft.): n9r n Assessed Elements Element KwFe w 6 URk MvKKSqt C	<u>(</u>	Approximate Year Built: Maintenance Action: Primary Wall Type: Secondary Wall Type: Architectural Facing: Kb, n/2, vynM vKaSh2, ., 22, hrtDn/StQ, nz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	199i i n 11 8n	gRt bs2 Q	
Inspection Date: e s@7, 2f *Wall Rating: r 4n Wall Description r 4n Wall Description FcKaMvKa Surface Treatment: FcKaMvKa Secondary Surface Treatment: FcKaMvKa General Description: Rt bs2, Qrs vK bunMvS Wall Measurements Wall Length (ft.): ri i n Average Wall Height (ft.): ri pr n Maximum Wall Height (ft.): rip i n Assessed Elements Element (Weighting Factor) NxwFe w 6 URk MvKasat C	343988i <u></u>	Maintenance Action: Primary Wall Type: Secondary Wall Type: Architectural Facing: Kb, n/2, vynM vKaSt2, ., 22, hr@n/StQ, rz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	w, Pvc2rk K, C Rvb@K, d, 2n @MvK&t.rRqcb 1999iin rl 8n	gRt bs2 Q	
*Wall Rating: rr 4n Wall Description Wall Function: Fck&Mvk Surface Treatment: Secondary Surface Treatment: Secondary Surface Treatment: General Description: Rt bs2, Qrs vK burMvS Wall Measurements Wall Length (ft.): ri n Average Wall Height (ft.): r9r n Maximum Wall Height (ft.): r9i n Assessed Elements Element (Weighting Factor) NkwFe w 6 URk	∑ vb@Ķd, 2rCv₩2, Øcbcbur2vc44	Maintenance Action: Primary Wall Type: Secondary Wall Type: Architectural Facing: Kb, n/2, vynM vKaSt2, ., 22, hr@n/StQ, rz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	w, Pvc2rk K, C Rvb@K, d, 2n @MvK&t.rRqcb 1999iin rl 8n	gRt bs2 Q	
Wall Description Wall Function: Fck&M vk Surface Treatment: Secondary Surface Treatment: General Description: Rt bs2, Qns vk/burMvS Wall Measurements Wall Length (ft.): Maximum Wall Height (ft.): Maximum Wall Height (ft.): Pi n Assessed Elements Element (Weighting Factor) NkwFew 6 URk	vb@Kd, 2/CvK&2, Ødodoun2vd&	Primary Wall Type: Secondary Wall Type: Architectural Facing: Kb, rv2, vynMvKaSi2, ., 22, hrŵnvSiQ, rz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	Rvb@K,d,2n @MvK&t.rRqdb 199iin 118n	gRt bs2 Q	
Wall Function: FckkM vlks Surface Treatment: Surface Treatment: Secondary Surface Treatment: Surface Treatment: General Description: Rt bs2 Qrs vK burMvS Wall Measurements It in Average Wall Length (ft.): in in Maximum Wall Height (ft.): ipi in Assessed Elements Ipi in Element (Weighting Factor) MvlksEqt C	vb@Kd, 2/CvK&2, Ødodoun2vd&	Secondary Wall Type: Architectural Facing: Kb, n/2, vynMvKaSi2, ., 22, hr@n/SiQ, nz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	GM vKat.rRqdb 1999iin 1180		
Surface Treatment: Secondary Surface Treatment: Secondary Surface Treatment: General Description: Rt bs2 Qrs vK.bunMvS Wall Measurements Wall Length (ft.): nin Average Wall Height (ft.): n Maximum Wall Height (ft.): pin Assessed Element (Weighting Factor) NewFew 6 URk	vb@Kd, 2/CvK&2, Ødodoun2vd&	Secondary Wall Type: Architectural Facing: Kb, n/2, vynMvKaSi2, ., 22, hr@n/SiQ, nz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	GM vKat.rRqdb 1999iin 1180		
Secondary Surface Treatment: General Description: Rt bs2, Qns vK:burMvS Wall Measurements Wall Length (ft.): nin Average Wall Height (ft.): n Maximum Wall Height (ft.): n Assessed Elements Element (Weighting Factor) NkwFe w 6 URk		Architectural Facing: Kb, n/2, vynM vKkaSt2, ., 22, ht@n/StQ, nz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	199i i n 11 8n	vyno qcSr6, s0t brtSn	
General Description: Rt bs2, Qrs, vK burMvS Wall Measurements vK burMvS Wall Length (ft.): ri i n Average Wall Height (ft.): ri pr n Maximum Wall Height (ft.): ri pr n Assessed Elements Element (Weighting Factor) NwWFe w 6 URk MvMescat C		Ko, n/2, vynM vKaSi2, ., 22, hrŵn/SiQ, nz 2, v Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	199i i n 11 8n	vyno qcSrS, sQt brtSn	
wkburMvS Wall Measurements Wall Length (ft.): n i n Average Wall Height (ft.): n9r n Maximum Wall Height (ft.): n9i n Assessed Elements Element (Weighting Factor) NwWFe w 6 URk		Face Area (sq.): Face Angle (deg.): Vertical Offset (ft.):	199i i n 11 8n	vyno qcSr6, sOt brrSn	
Wall Length (ft.):ni i nAverage Wall Height (ft.):n9r nMaximum Wall Height (ft.):n9i nAssessed ElementsElement(Weighting Factor)Mvl&Eqt C		Face Angle (deg.): Vertical Offset (ft.):	nl 8n		
Average Wall Height (ft.): 19r n Maximum Wall Height (ft.): 19i n Assessed Elements Element (Weighting Factor) NwWFe w 6 URk		Face Angle (deg.): Vertical Offset (ft.):	nl 8n		
Maximum Wall Height (ft.): 19 i n Assessed Elements Element (Weighting Factor) NkwFe w 6 URk		Vertical Offset (ft.):			
Assessed Elements Element (Weighting Factor) NkwFe w 6 URk MvK66qt C			18		
Element (Weighting Factor) NewFew 6 URk MvK66qt C		N d			
(Weighting Factor) NewFew 6 URk MvKKSqt C					
		Narrative			
ri y88 C, vQ, 2, hr	MvKKKSqt CSrbt rBaubc csvbQuK 7vKthcSQ, SSt 26, OK,G, bQtqt C, d, 21st bs2, QrtSn 2vsOV2, hrvbhn C, vQ, 2, hrCcQrBaubSt .rS, Pvu, rQ2; WiqrQ, rCvKkavs, rgPt SSc7K,rQ, g, KrQhrhvGvu, y			n n	
M6jjnFe5Up6o0eUn6okw06jUtnSaubStr niy88 svPvsc0y	.16,000,G,b00,21C,016(.00/2,S	λn6 PP, √281017, n 2G 18t d8hvQ15₩607K,n7	, v2dbun	ni n	
n y88 dcSc7K,n/Kt		tKcsns2vsfdbu318tG,nSPvKKdbuynkK.2,Ss /s,nPvOqFGt2092nSnSPvKKdbundbnPK/s,Syn6u		πn	
p e MUaj e Nk a Ø7Kx18ch, 18y48	CvKfnvbhn2tvhCv1y			ni n	
j60kw6jnajeNk MvKK6v7W58 r8y48	MvKKáv/7WShvKK,1nS,uG,b0at.nRqdovnMvKKávbhn2vdKá72chu,y			ni n	
we 6 p Fa 0p k M 6 j DFa I e 5 j p k w a ch, CvK nv 18 y 48	ach, CvK:nvbhn2tvhCv1nSqtCrbtnSaubc.csvb06SaubStt.nCvK62,KvQhrhcS02,SSy			ni n	
ow6FF0RnL6ww0kwFkURk RqvdnKdbfn n8y48	RqvdvtKbfn, bs, nv000Prt.rCvKKSqtCSrbtrSaubSrt.rCvKg2,KQhrhcS02,SSy			ni n	
5 Naj e Na 18 y 48	n34Qt Wiqn₩ofbt Cbn5, @K,G,⊺	b007, qdohnCvKKavs, y		nin	
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Repair Recommendations				·	
Failure Consequence: I Oz I					
	Rt bs2, QnsKybcbunybhrGcbt 24	n/000 Prt. nC vKk/mNvOqnSPvKk/hnst bs2, Qymo2 vOqnCt 2f=nE88nS\$.01B nk/AFS\$.01Vnk/3488y			
Repair Cost: xA 3 88					

ROUTE 0702: UNKNOWN ROUTE

Retaining Wall Condition Photos

Condition photos are not available for STEA-0702-0.000-R.

Appendix A Summary of WIP Definitions





Appendix A

Summary of WIP Definitions and Assessment Categories

Wall Naming Convention

Unique "Wall Identification" names were assigned to the retaining walls that were inventoried. The Wall Identification includes the Park Name, the RIP Route Number (e.g., **0013**), the beginning milepoint of a wall (e.g., **0.622**) and the side of the road the wall is located on (e.g., **L**.) relative to the primary direction of travel (direction of increasing mileposts). Thus, a typical wall identified would have the following format: **YOSE-0013-0.622-L**.

For roadways not in RIP, park-supplied route numbers were used or the convention RRR#. Similarly, for parking areas not in RIP, the park-supplied parking area number or the convention PPP# was used. Also for parking areas, walls are numbered in ascending order as they are encountered when traveling counterclockwise around the parking area (most common direction of traffic flow). Parking area walls are designated P1, P2, P3, etc. as new walls are encountered.

	- NPS Retainin	ng Wall Inventory Program	n Field Guide (WIFG)-			
		Retaining Wall Acceptance (
*Walls must r	eside within the constructed	ing areas included in the RIP Route Invest 1 roadway/parking area prism.	igation Report and/or identified by park staff. k, must be ≥ 4 ft. (>6ft for culvert headwalls).			
			height. Include fully buried retaining structures.			
		$45^{\circ} \geq 1H:1V$ face slope ratio).	ilure would require replacement with a retaining wall.			
Include all w	ans where the intent is to se	Definitions	nute would require replacement with a retaining wait.			
	Measure of how well curren	nt design criteria are satisfied:				
Design Criteria	None - Does not meet any I Non-AASHTO - Does not r	known standards.	er structures of its type/period with good performance. Materials, and Construction Standards.			
Consequence of Failure	Low - No loss of roadway, no to low public risk, no impact to traffic during wall repair/replacement Moderate - Hourly to short-term closure of roadway, low-to-moderate public risk, multiple alternate routes available High - Seasonal to long-term loss of roadway, substantial loss-of-life risk, no alternate routes available					
Action	Select from: No Action, Mo	onitor, Maintenance, Repair Elements, Re	place Elements, and Replace Wall			
Weighting Factor	Weighting Factor to be applied to the Condition Rating (CR). When indicated on the Condition Assessment Input Form: WF=0.5 for CR=8-10; WF=1.0 for CR=4-7; and WF=5 for CR=1-3.					
Data Reliability	 Estimate of how well observed conditions represent wall performance, and if additional investigations may be warranted. 1-Poor Conditions cannot be sufficiently observed to rate element(s), warranting additional investigations to better define element performance and/or to determine the cause(s) or poor performance. 2-Good Observed conditions are sufficient to rate the conditions of wall element(s); however, additional investigations would be useful to better understand element performance. 3-Very Good Observed conditions clearly describe wall performance. Additional investigations are not needed. 					
		Wall Function Codes				
[FW] Fill Wall	1	[BW] Bridge Wall	[SW] Switchback Wall			
[CW] Cut Wa	11	[HW] Head Wall	[SP] Slope Protection [FL] Flood Wall			
		Wall Type Codes				
[AH] Anchor,	Tieback H-Pile	[CC] Crib, Concrete	[MG] MSE, Geosynthetic Wrapped Face			
[AM] Anchor,		[CM] Crib, Metal	[MP] MSE, Precast Panel			
[AS] Anchor,	Tieback Sheet Pile	[CT] Crib, Timber	[MS] MSE, Segmental Block			
[BC] Bin, Con		[GB] Gravity, Concrete Block/ Brick	[MW] MSE, Welded Wire Face			
[BM] Bin, Me		[GC] Gravity, Mass Concrete	[SN] Soil Nail			
[CL] Cantileve		[GD] Gravity, Dry Stone	[TP] Tangent/ Secant Pile			
	er, Soldier Pile	[GG] Gravity, Gabion	[OT] Other, User Defined			
(S Cantilaw	er Sheet Pile					
[CS] Cantileve		[GM] Gravity, Mortared Stone	[NO] None			
		Architectural Facing Type (Codes			
[BV] Brick Ve	neer	Architectural Facing Type ([PF] Planted Face	Codes [SS] Simulated Stone			
[BV] Brick Ver [CO] Cementi	neer tious Overlay	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete	[SS] Simulated Stone [SV] Stone Veneer			
[BV] Brick Ver [CO] Cementir [FF] Fractured	neer tious Overlay I Fin Concrete	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete [SH] Shotcrete (nozzle finish)	Codes [SS] Simulated Stone [SV] Stone Veneer [TI] Timber			
[BV] Brick Ver [CO] Cementii [FF] Fractured [FL] Formlinee [PC] Plain Con	neer tious Overlay I Fin Concrete	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete	[SS] Simulated Stone [SV] Stone Veneer			
[BV] Brick Ver [CO] Cementii [FF] Fractured [FL] Formlined	neer tious Overlay I Fin Concrete d Concrete	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete [SH] Shotcrete (nozzle finish) [SM] Steel/Metal [SO] Stone	Codes [SS] Simulated Stone [SV] Stone Veneer [TI] Timber [OT] Other, User Defined [NO] None			
[BV] Brick Ve: [CO] Cementi [FF] Fractured [FL] Formlined [PC] Plain Contexture)	neer tious Overlay I Fin Concrete d Concrete ncrete (float finish or light	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete [SH] Shotcrete (nozzle finish) [SM] Steel/Metal [SO] Stone Surface Treatment Code	Codes [SS] Simulated Stone [SV] Stone Veneer [TI] Timber [OT] Other, User Defined [NO] None es			
[BV] Brick Ve: [CO] Cementi [FF] Fractured [FL] Formlined [PC] Plain Contexture) [BG] Bush Gu	neer tious Overlay I Fin Concrete d Concrete ncrete (float finish or light ncrete (float finish or light	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete [SH] Shotcrete (nozzle finish) [SM] Steel/Metal [SO] Stone Surface Treatment Code [PS] Preservative	Codes [SS] Simulated Stone [SV] Stone Veneer [TI] Timber [OT] Other, User Defined [NO] None es [WS] Weathering Steel			
[BV] Brick Ve: [CO] Cementi [FF] Fractured [FL] Formlined [PC] Plain Contexture)	neer tious Overlay l Fin Concrete d Concrete ncrete (float finish or light n (tool-textured concrete) dditive	Architectural Facing Type ([PF] Planted Face [SC] Sculpted Shotcrete [SH] Shotcrete (nozzle finish) [SM] Steel/Metal [SO] Stone Surface Treatment Code	Codes [SS] Simulated Stone [SV] Stone Veneer [TI] Timber [OT] Other, User Defined [NO] None es			

			Condition Ratings			
Condition I	Ratings	apply to all Primary and Second		ed to assis	st in consistently defining element seven	rity,
		extent, and r	epair/replace urgency of wall eler	ment distra	esses.	
9-10			normal range for <i>newly constructe</i>		cated elements.	
Excellent)	<u> </u>		aused from fabrication or construc	etion.		
7-8		o-moderate extent of low severit	5	n, nor is th	nere significantly severe distress to majo	or
(Good)	struct	aral components of an element.	-			_
5-6			nd/or low-to-medium extent of med			c
(Fair)		t failure in the near term.	e element function, but lack of trea	tment may	v lead to impaired function/elevated risk	101
		um-to-high extent of medium-to-l	high severity distress.			
3-4 (Poor)	-Distress present threatens element function, and strength is obviously compromised and/or structural analysis is warr -The element condition does not pose an immediate threat to wall stability and road closure is not necessary.					
()				y and roa	d closure is not necessary.	
1-2		um-to-high extent of high severit	-	reatening	overall stability of the wall at the time of	of
(Critical)	inspec		function. Excitent performance in	freatening	overall stability of the wan at the time of	,1
		Wa	ll Performance Condition R	atings		
		Evaluation of overall wall	Good to Excellent - No observation	on of distr	esses not already captured by individuation	al
		performance as indicated by			ation of element distresses indicating	
		observations not necessarily	remediation or repair to wall or ac		rformance problems. No history of ments.	
		captured by observed distresses for specific	-		t associated with specific elements. So	me
Perform	anco		observation of element distress c	ombinatio	ons that indicate wall component proble	ems.
1 (110111	ance	distresses (rotation,	Minor work on primary elements improving overall wall function.	or major v	vork on secondary elements has occurre	ed
		settlement, translation, displacement, etc.) and/or	Poor to Critical - Global wall rotation, settlement, and/or overturning is readily			
		evidence of prior repairs that			early indicate serious stability problems	
		may further indicate			Aajor repairs have occurred to wall	
	-	component problems.	structural elements, though funct	tionality h	as not improved significantly.	
				H _{max}	Maximum exposed wall height, ft	
		H	H _{off}	V₀r	Average vertical distance from pavement to cut wall toe or	
		v. TŘ		Vor	groundline at top of fill wall (+ above/- below roadway), ft	
					Horizontal distance to wall face	
		H _{mar}		Horr	from edge of roadway, ft	
				α	Wall face angle measured from	
					·	
	_				Maximum earth retaining length of the wall (excluding	
		≪ −−−− ► H _{on}		L	guardwalls). Wall length is the actual length of the structure, not	
					simply the projected length	
	507-11	Charle .				
		Start point 🖌			VVall End	
		4	L			
	_	Guardwall				
			Only consider walls with H _{max} ≥	4 ft 🗮		
		Observed Groundline			H _{max}	
		ouserved Groundline				
			/			
		Actual Wall Embedment Dept	h			