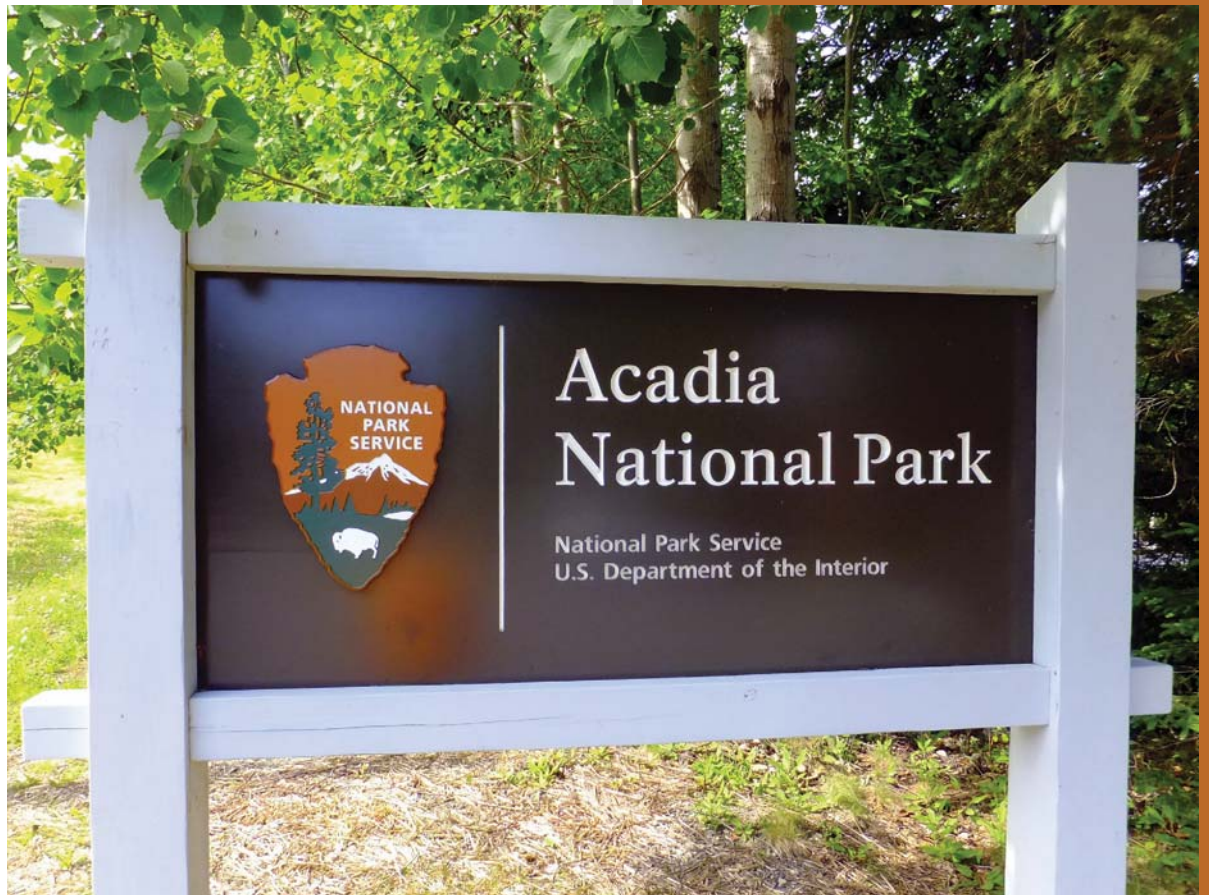


ACAD WIP Report

NPS Retaining Wall Inventory Program Acadia National Park



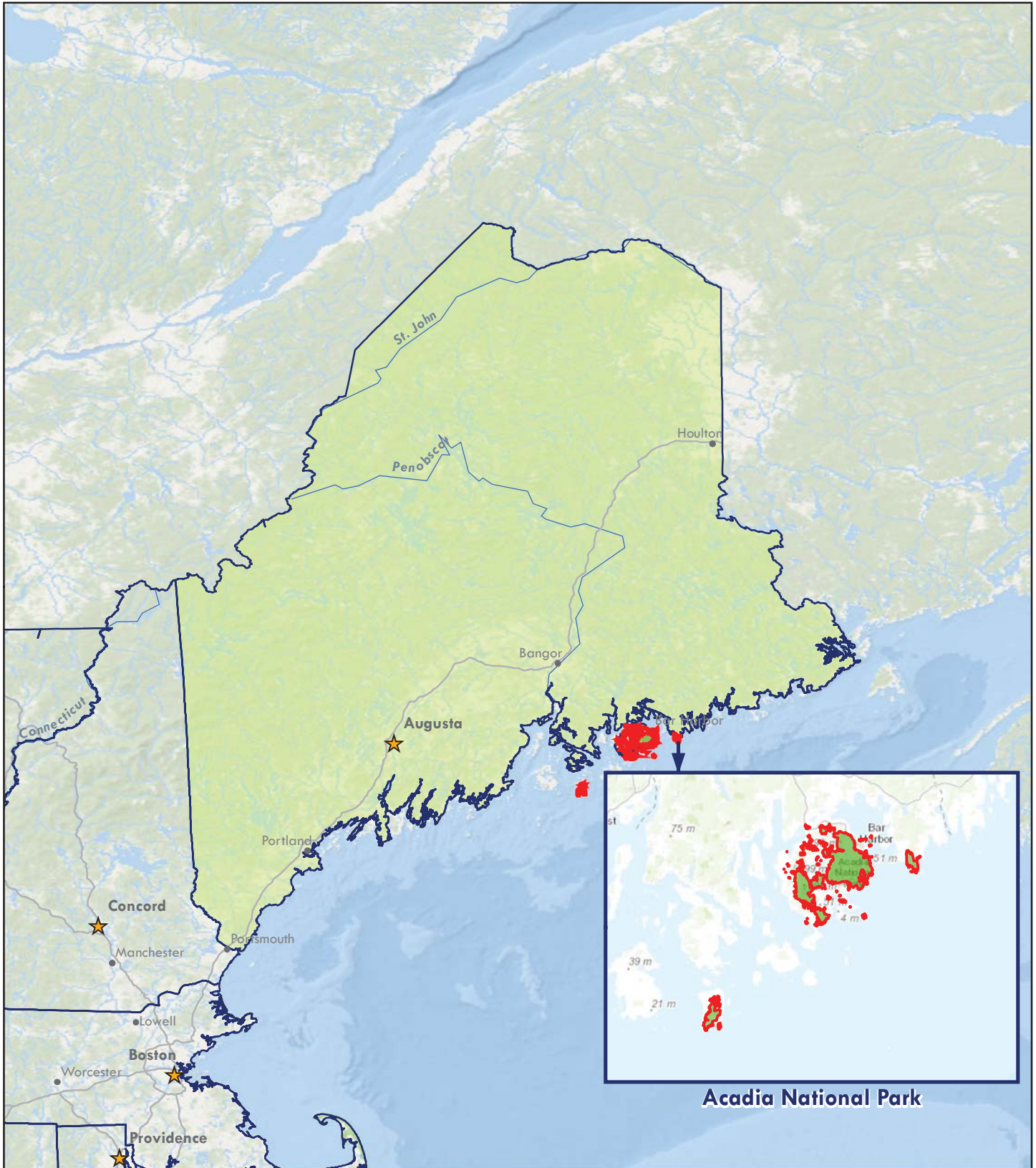
**Federal Lands Highway
Road Inventory Program**

Prepared By:

Federal Highway Administration
Eastern Federal Lands Highway Division
Road Inventory Program (RIP)

Data Collection Date: August 2007
Report Date: October 2015

Acadia National Park in Maine



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
Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors



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Introduction



Acadia National Park



**Federal Lands Highway
Road Inventory Program**

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: <http://www.cflhd.gov/programs/techDevelopment/geotech/WIP/>) 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



Acadia National Park

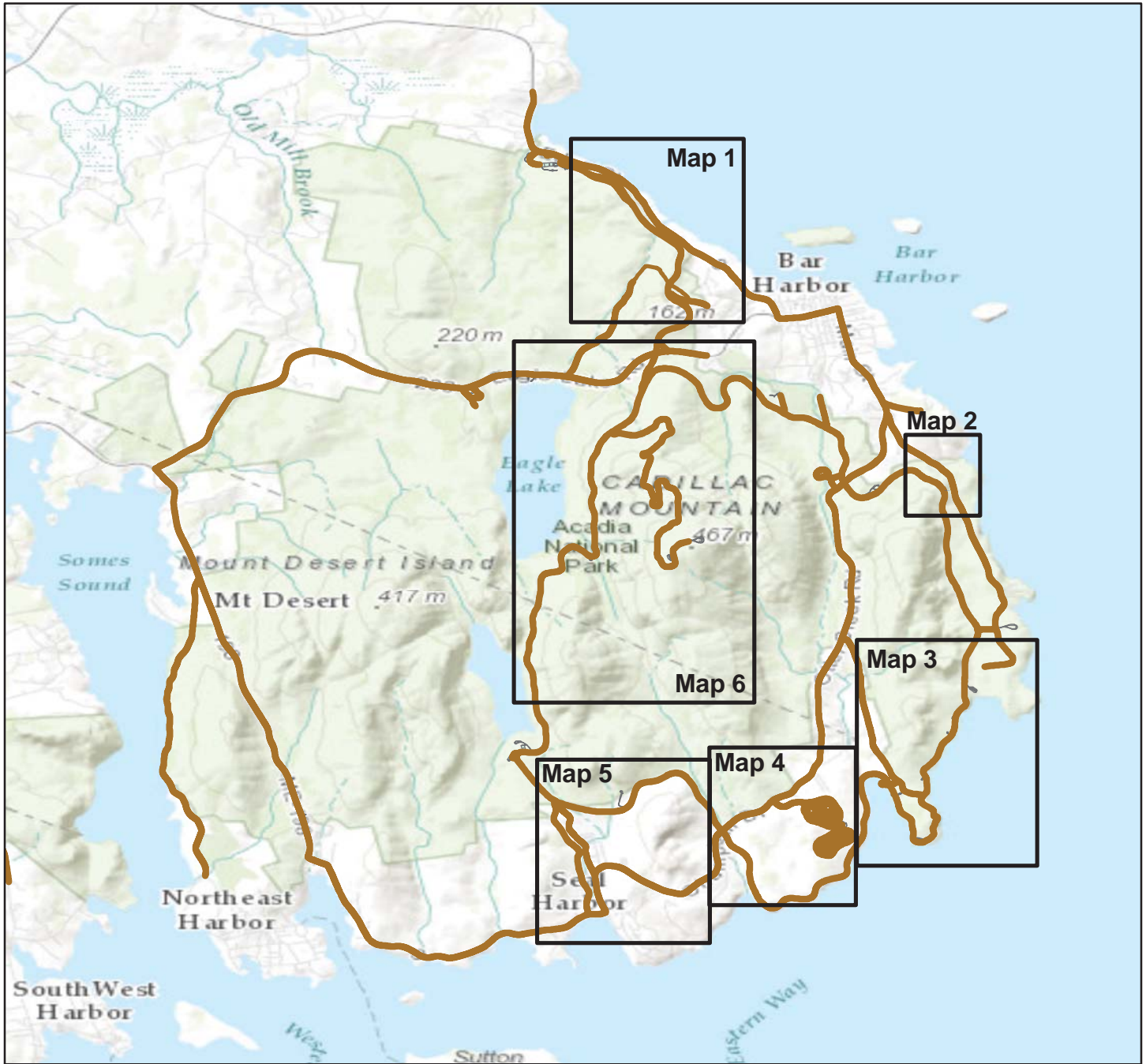


Federal Lands Highway
Road Inventory Program

Acadia National Park

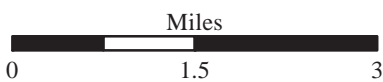
WALL LOCATION MAP

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



Acadia National Park

WALL LOCATION MAP

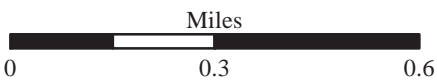
Map 1



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

● Wall Locations

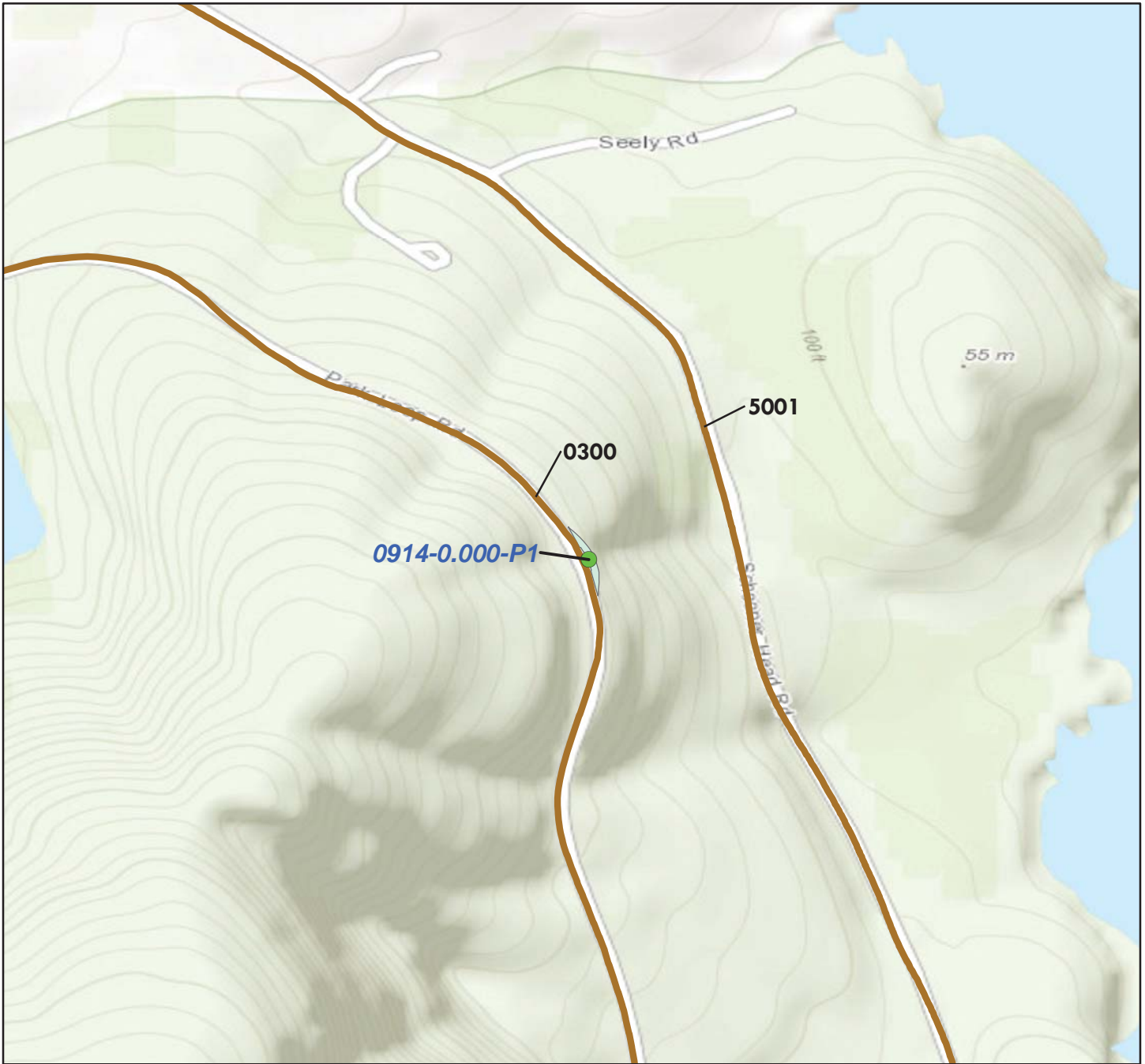
— RIP Collected Routes



Acadia National Park

WALL LOCATION MAP

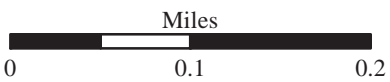
Map 2



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

● Wall Locations

— RIP Collected Routes



Acadia National Park

WALL LOCATION MAP

Map 3



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

● Wall Locations

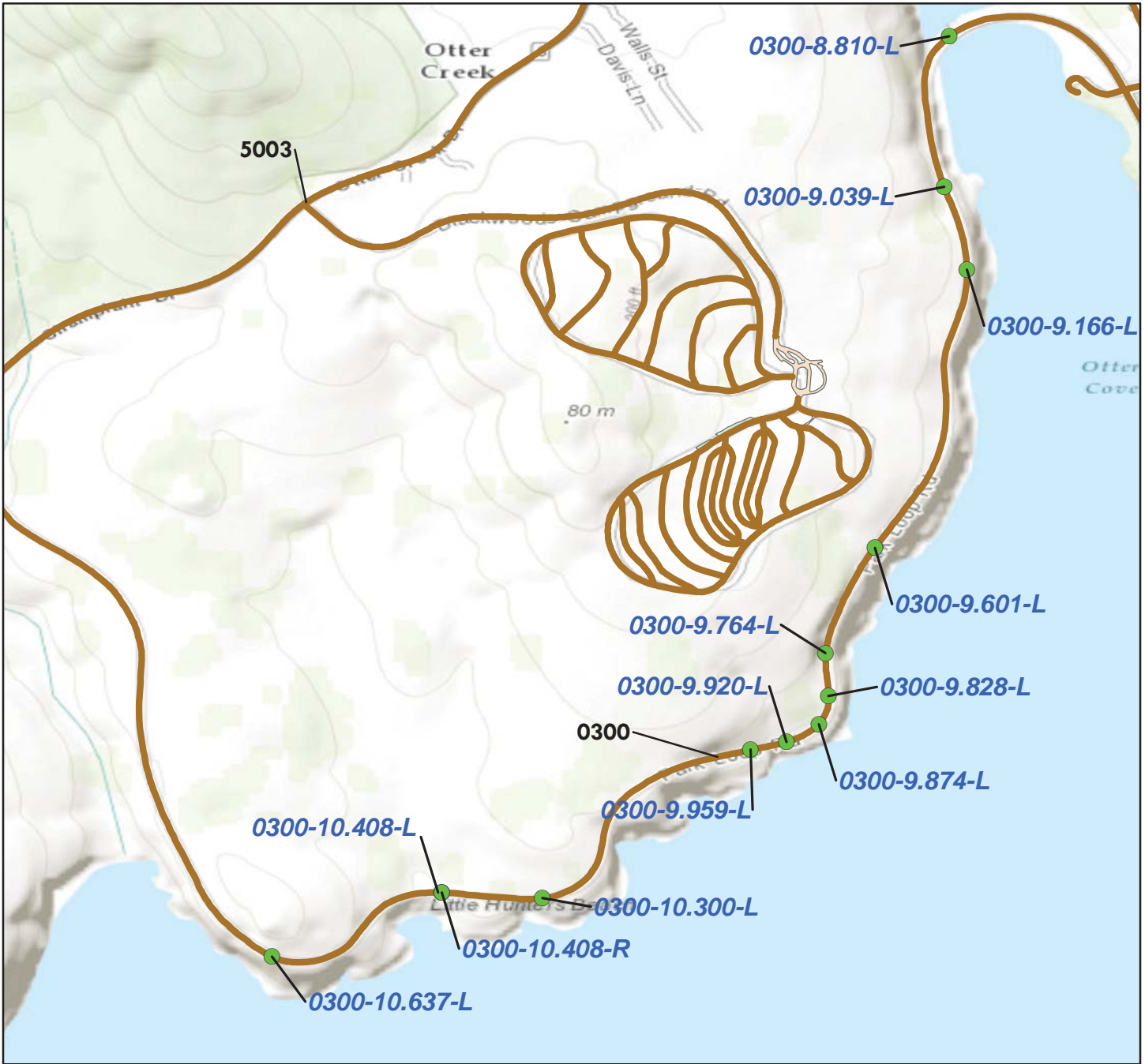
— RIP Collected Routes



Acadia National Park

WALL LOCATION MAP

Map 4



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

● Wall Locations

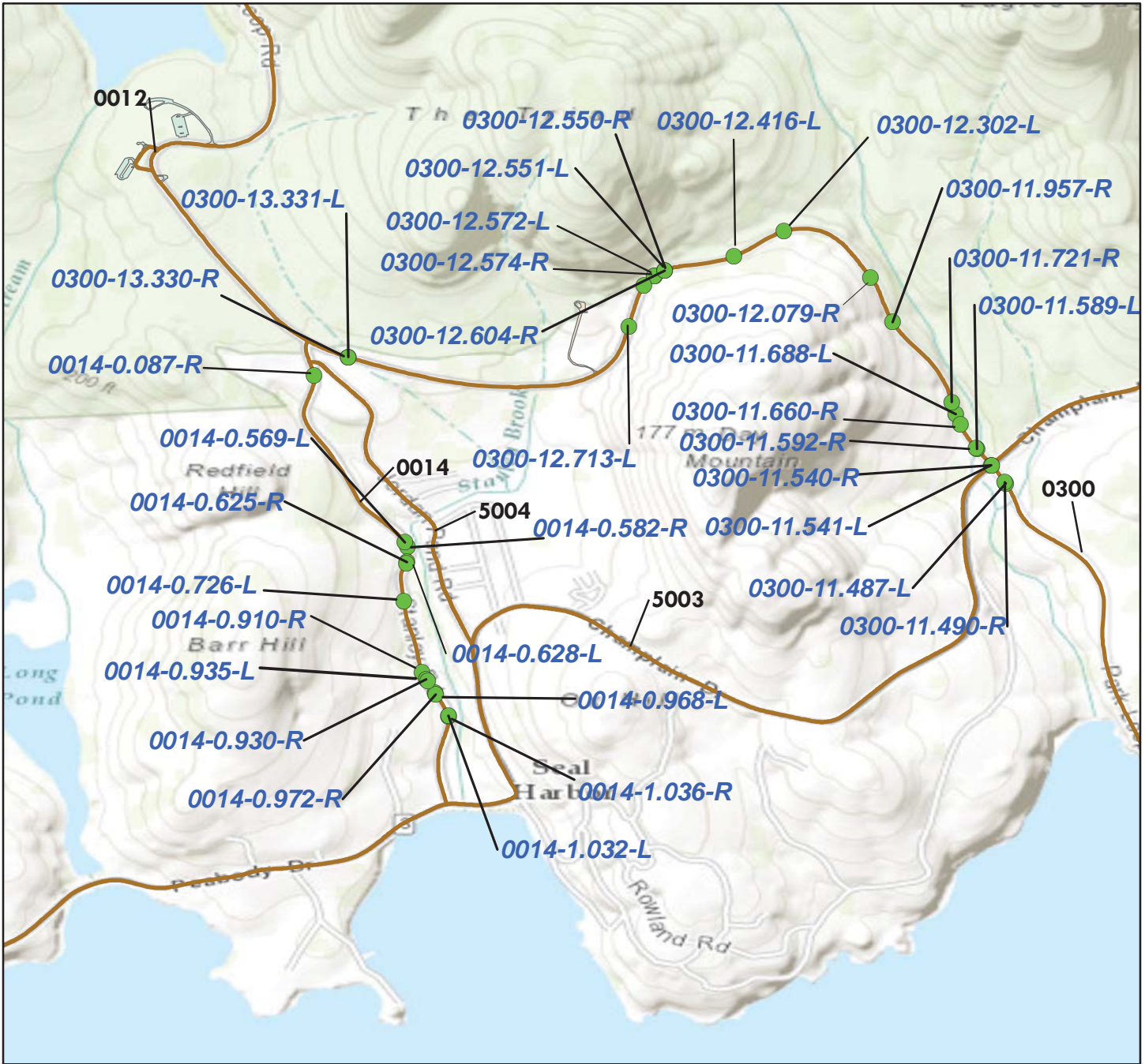
— RIP Collected Routes



Acadia National Park

WALL LOCATION MAP

Map 5



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

● Wall Locations

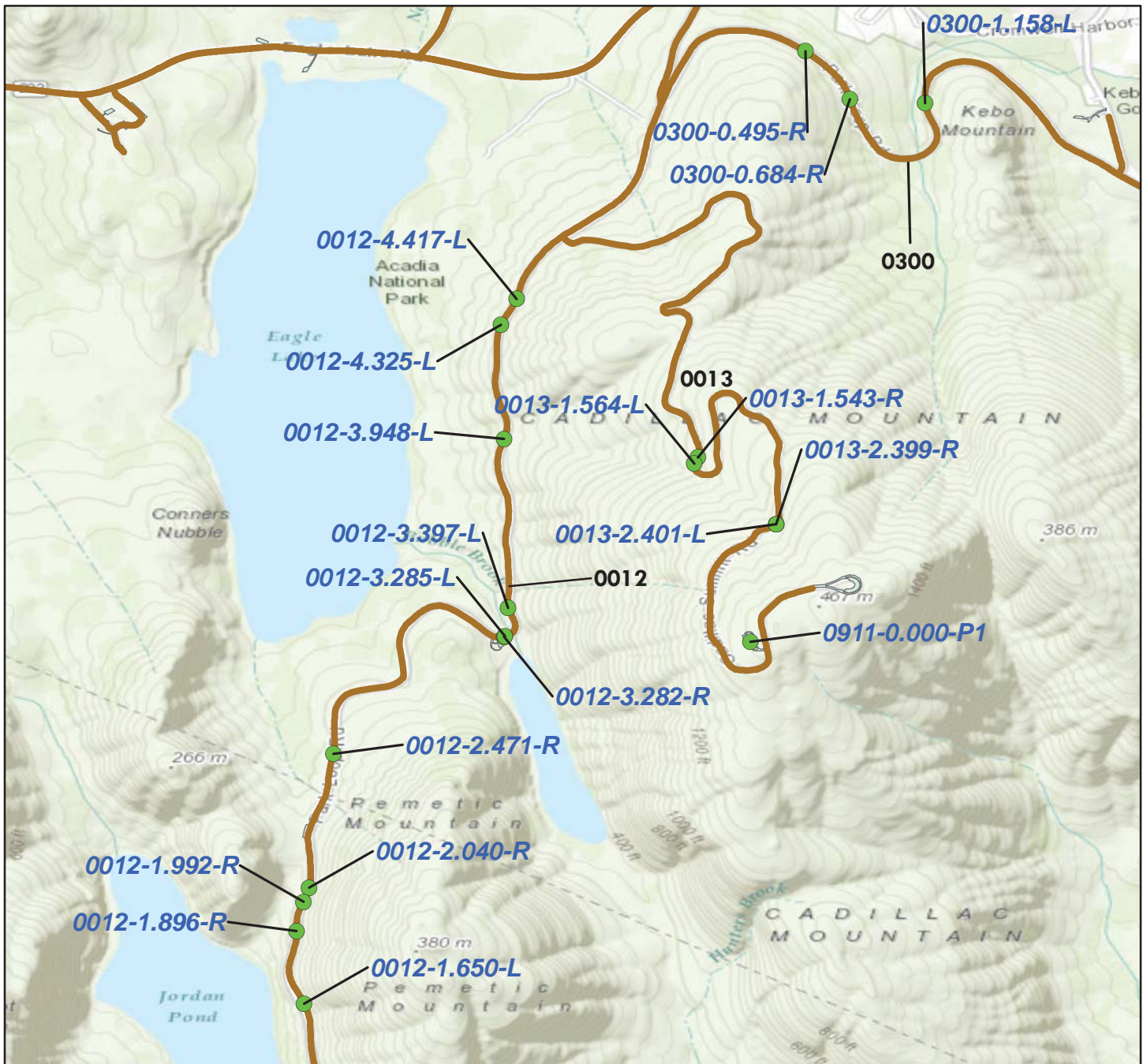
— RIP Collected Routes



Acadia National Park

WALL LOCATION MAP

Map 6



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

● Wall Locations

— RIP Collected Routes



Tier 1 Park Retaining Wall Overview



Acadia National Park



Federal Lands Highway
Road Inventory Program

Parkwide Summary: Acadia National Park

Initial retaining wall inspections were conducted at Acadia National Park in 2007, 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. In general, guardwall or parapets are not included in this assessment, but were inspected for Acadia National Park in 2010 under a separate effort as part of the Guardwall/Rail Inventory Program (GIP). A report for GIP is available under separate cover.

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, 91 walls were inventoried on the routes listed below.

Table 1: Number of Walls by Route

Route Number	Route Name	No. of Walls
0010ZZ	PARADISE HILL ROADS	5
0012	JORDAN POND ROAD	11
0013	CADILLAC MOUNTAIN ROAD	4
0014	STANLEY BROOK ROAD	13
0300	PARK LOOP ROAD	51
0911	BLUE HILL OVERLOOK PARKING AREA	1
0914	EGG ROCK OVERLOOK	1
0918	LOWER SAND BEACH PARKING AREA	2
0919	UPPER SAND BEACH PARKING AREA	3

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	19
FW - Fill Wall	43
HW - Head Wall	28
SW - Switchback Wall	1

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
GD, Gravity - Dry Stone	48
GM, Gravity - Mortared Stone	43

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.

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

Recommended Action	2007 Repair Costs*	No. of Walls
No Action	\$0	81
Monitor	\$0	0
Maintenance	\$540	1
Repair Elements	\$21,483	7
Replace Elements	\$5,000	1
Replace Wall	\$108,000	1
Totals	\$135,023	91

*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.

Table 5: Number of Walls Grouped by Associated 2007 Cost

Cost Range*	No. of Walls
\$0	81
\$1 - \$25,000	9
\$25,001 - \$50,000	0
\$50,001 - \$100,000	0
\$100,001 - \$250,000	1
\$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	91

*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 Acadia National Park. 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 mortar generally does not threaten wall stability in the near term, grout repair will extend the life of these walls significantly.

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 Acadia National Park 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 Identification	Failure Consequence⁽¹⁾	Wall Rating⁽²⁾	Recommended Action⁽³⁾	2007 Repair Costs⁽⁴⁾
ACAD-0300-9.039-L	MODERATE	41	REPLACE WALL	\$108,000

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



Acadia National Park



Federal Lands Highway
Road Inventory Program

Acadia National Park

ROUTE 0010ZZ: PARADISE HILL 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 - 100)

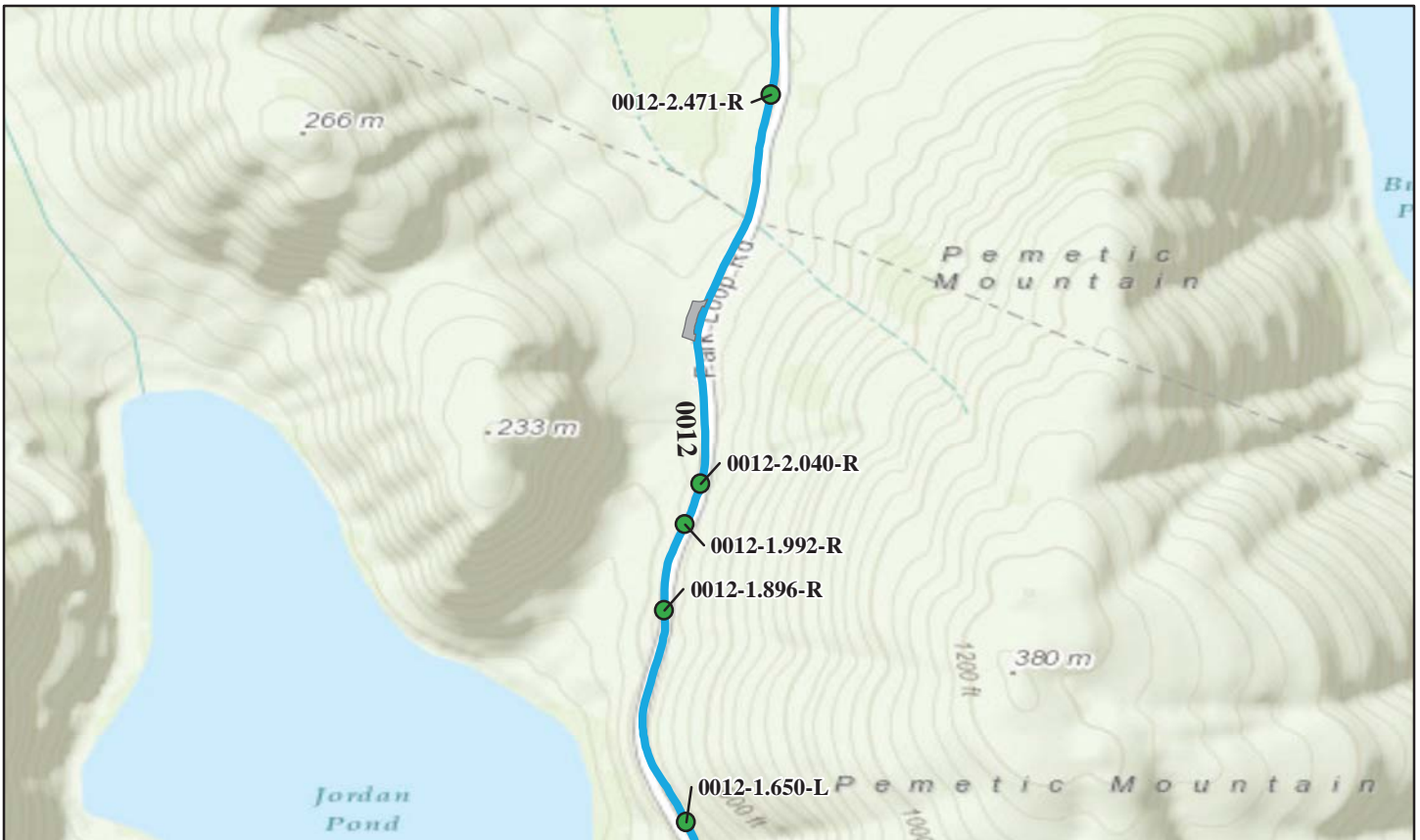
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0010ZZ-0.618-L 8/6/2007	3,741	189	Gravity - Dry Stone	Fill Wall	83	\$0.00
ACAD-0010ZZ-0.625-L 8/6/2007	150	32	Gravity - Mortared Stone	Head Wall	92	\$0.00
ACAD-0010ZZ-1.268-L 8/6/2007	9,626	664	Gravity - Dry Stone	Fill Wall	77	\$0.00
ACAD-0010ZZ-1.615-L 8/6/2007	3,115	236	Gravity - Dry Stone	Fill Wall	75	\$0.00
ACAD-0010ZZ-2.034-L 8/6/2007	8,666	550	Gravity - Dry Stone	Fill Wall	76	\$0.00

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

Acadia National Park

ROUTE 0012: JORDAN POND ROAD



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 - 100)

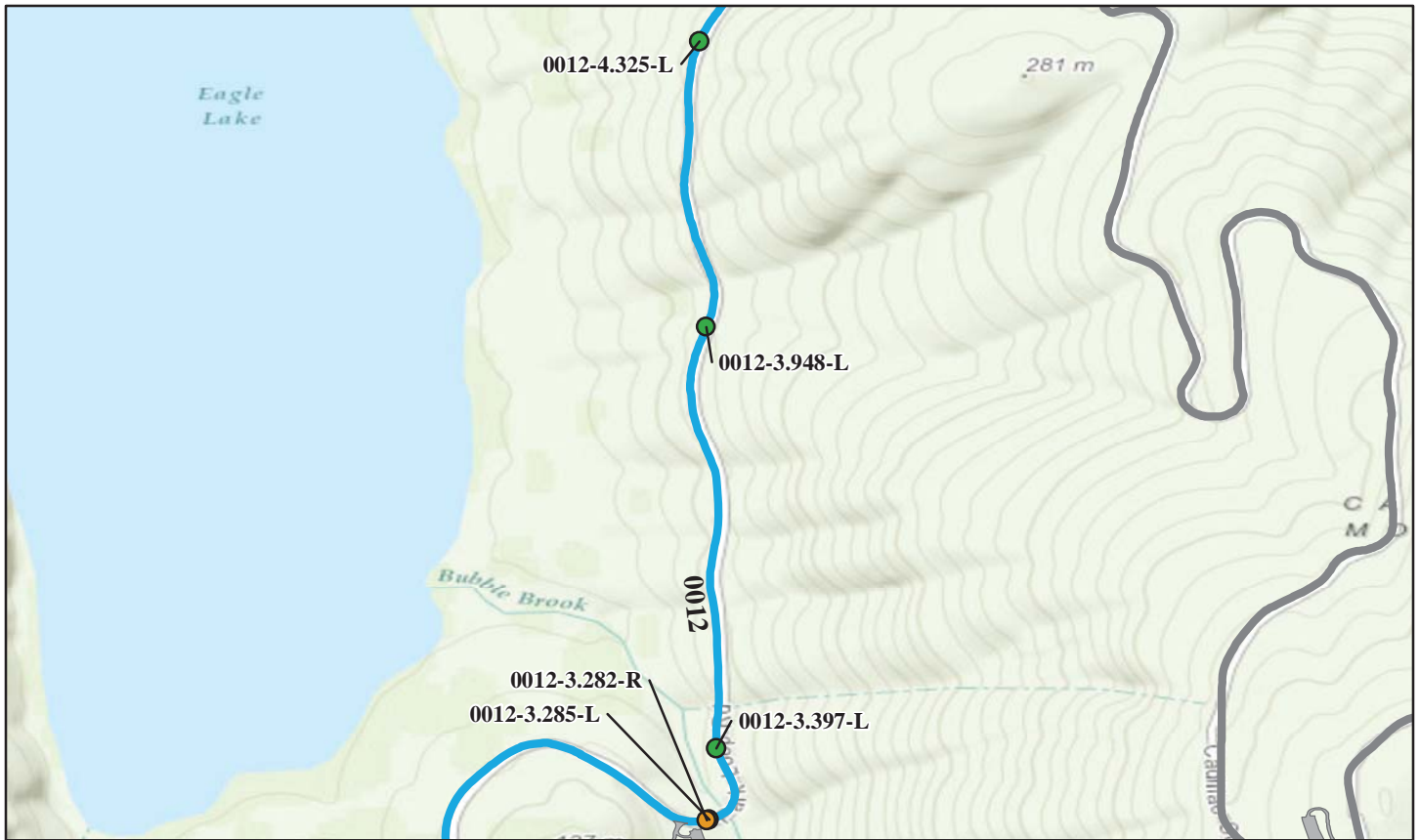
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0012-1.650-L 8/9/2007	2,750	458	Gravity - Dry Stone	Fill Wall	71	\$0.00
ACAD-0012-1.896-R 8/9/2007	335	70	Gravity - Mortared Stone	Cut Wall	88	\$0.00
ACAD-0012-1.992-R 8/9/2007	617	137	Gravity - Mortared Stone	Cut Wall	85	\$0.00
ACAD-0012-2.040-R 8/9/2007	1,166	243	Gravity - Mortared Stone	Cut Wall	85	\$0.00
ACAD-0012-2.471-R 8/9/2007	1,260	418	Gravity - Dry Stone	Cut Wall	77	\$0.00

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

Acadia National Park

ROUTE 0012: JORDAN POND ROAD



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 - 100)

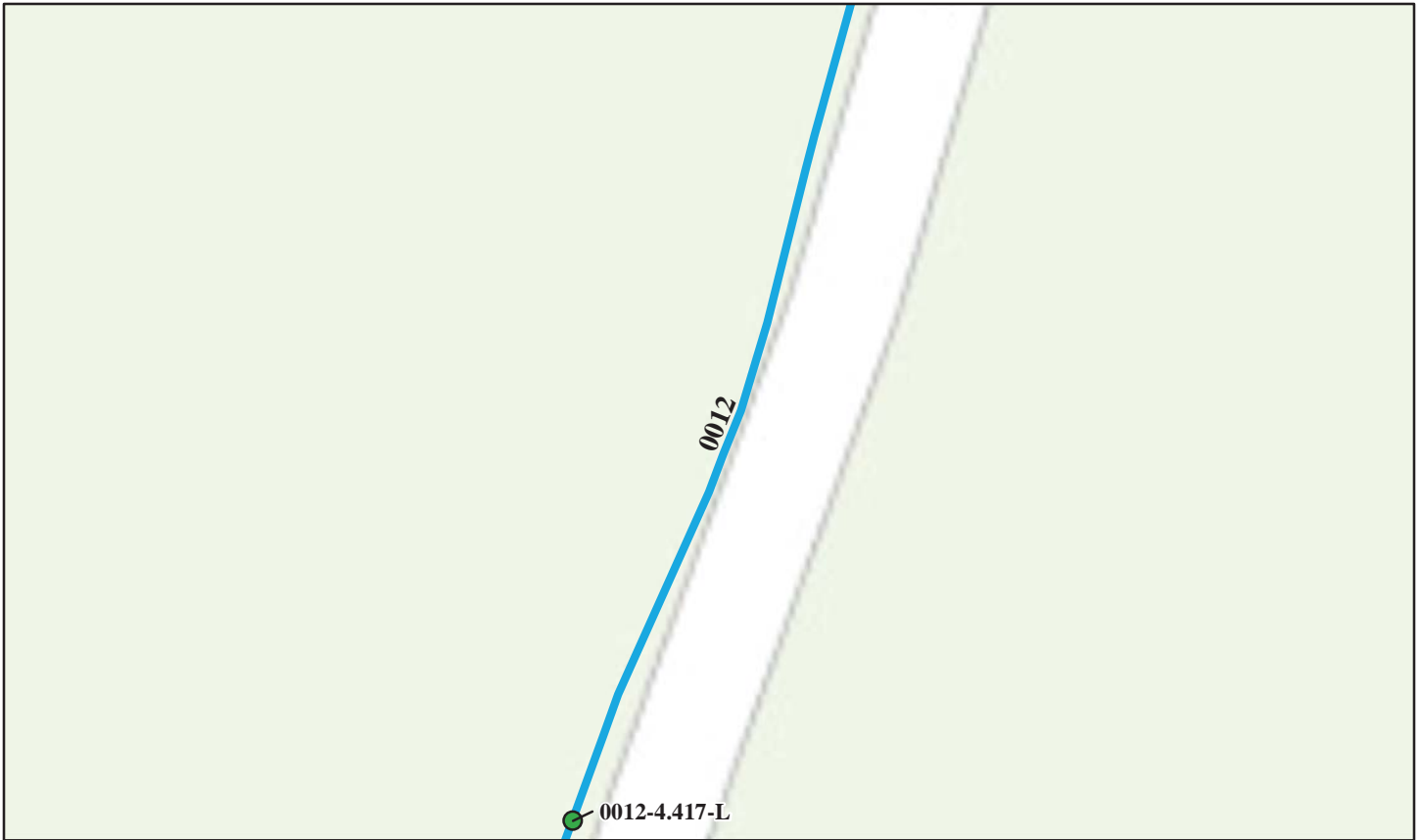
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0012-3.282-R 8/9/2007	190	25	Gravity - Mortared Stone	Head Wall	69	\$0.00
ACAD-0012-3.285-L 8/9/2007	468	51	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0012-3.397-L 8/9/2007	175	20	Gravity - Mortared Stone	Head Wall	83	\$0.00
ACAD-0012-3.948-L 8/9/2007	125	24	Gravity - Mortared Stone	Head Wall	82	\$0.00
ACAD-0012-4.325-L 8/9/2007	900	119	Gravity - Mortared Stone	Fill Wall	90	\$0.00

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

Acadia National Park

ROUTE 0012: JORDAN POND ROAD



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 - 100)

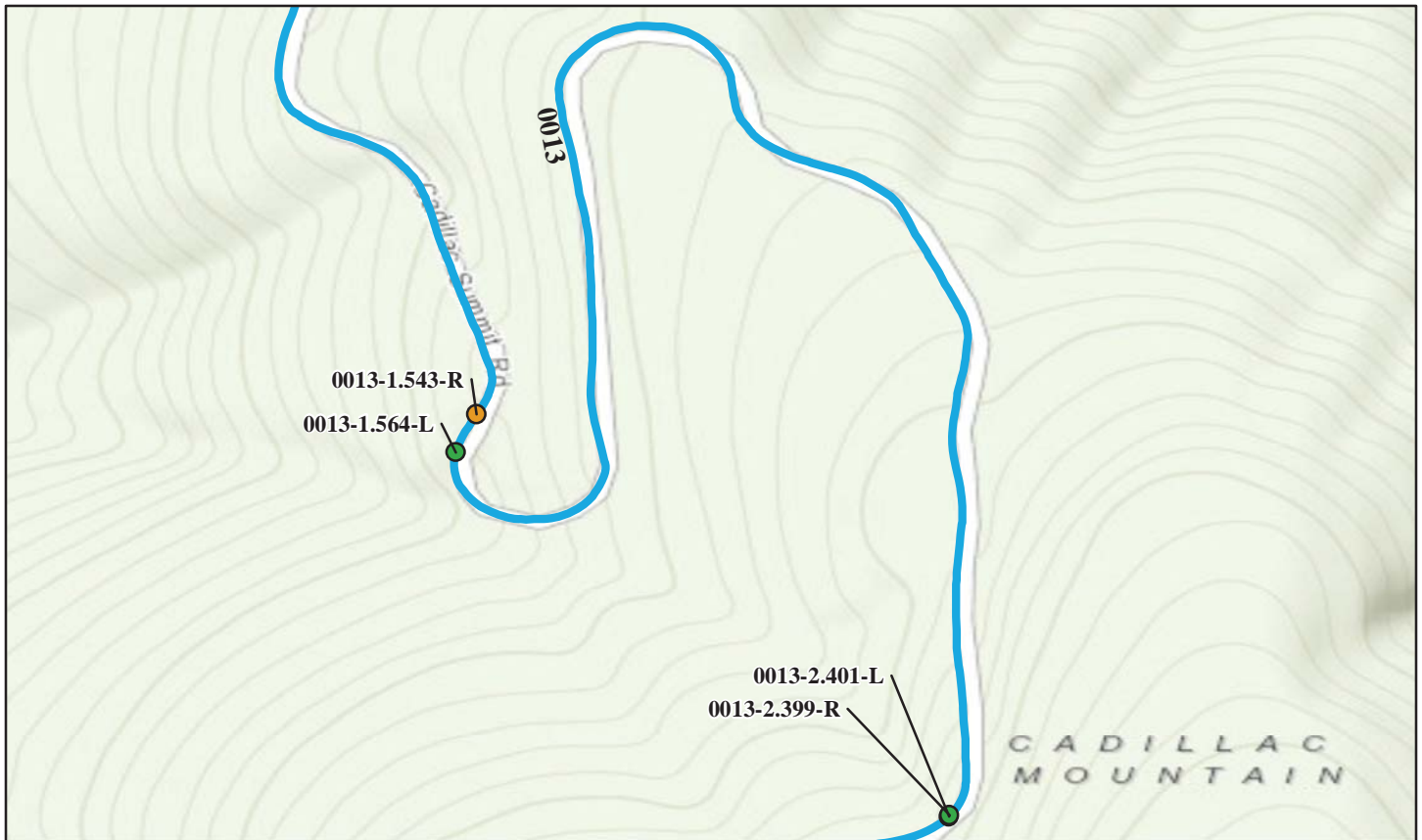
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0012-4.417-L 8/9/2007	206	139	Gravity - Dry Stone	Fill Wall	80	\$0.00

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

Acadia National Park

ROUTE 0013: CADILLAC MOUNTAIN ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0013-1.543-R 8/7/2007	980	141	Gravity - Dry Stone	Fill Wall	63	\$540.00
ACAD-0013-1.564-L 8/7/2007	140	23	Gravity - Dry Stone	Head Wall	80	\$0.00
ACAD-0013-2.399-R 8/7/2007	88	18	Gravity - Dry Stone	Head Wall	76	\$0.00
ACAD-0013-2.401-L 8/7/2007	168	37	Gravity - Dry Stone	Head Wall	77	\$0.00

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

Acadia National Park

ROUTE 0014: STANLEY BROOK ROAD



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 - 100)

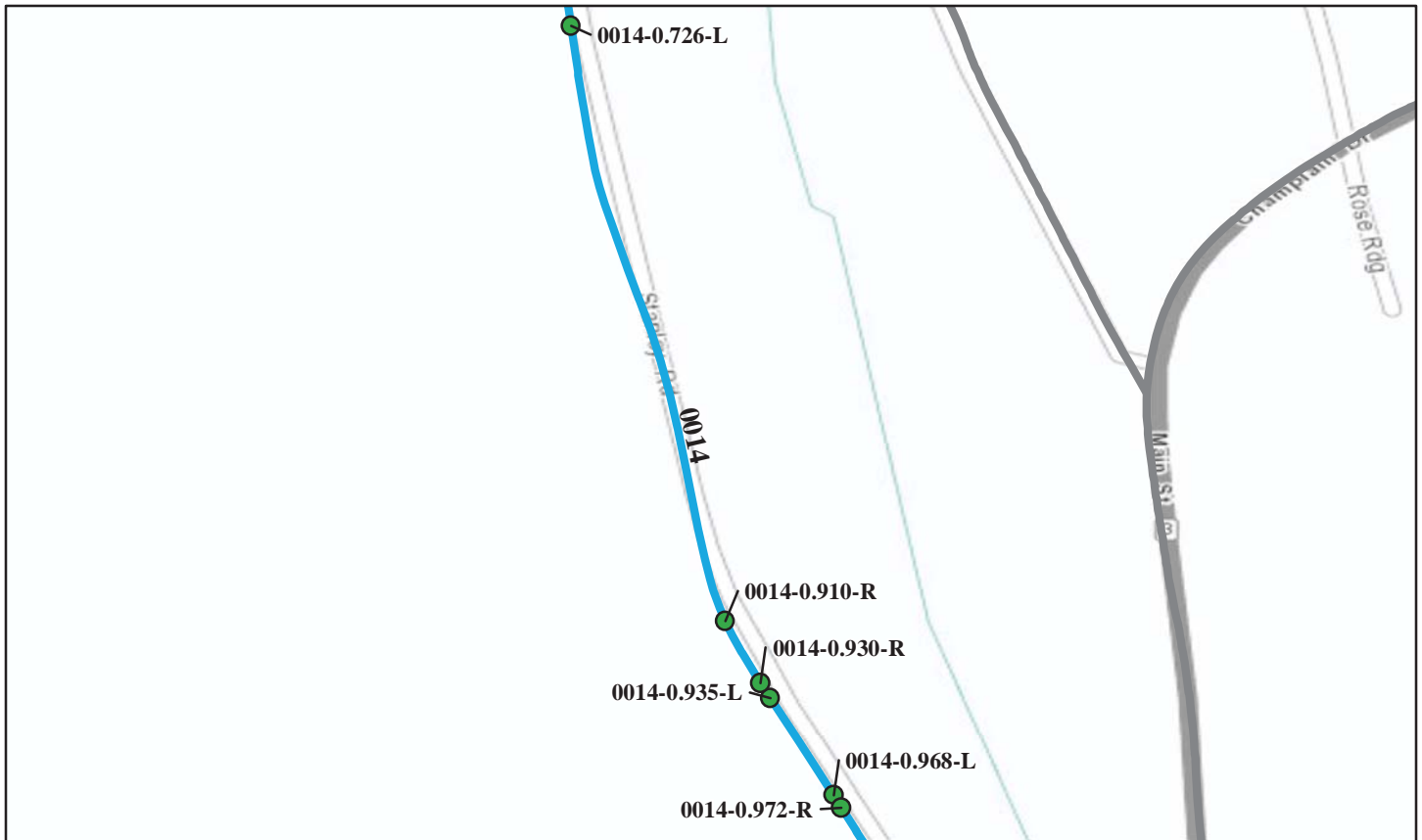
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0014-0.087-R 8/7/2007	364	91	Gravity - Dry Stone	Cut Wall	80	\$0.00
ACAD-0014-0.569-L 8/7/2007	343	90	Gravity - Mortared Stone	Head Wall	88	\$0.00
ACAD-0014-0.582-R 8/7/2007	120	58	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0014-0.625-R 8/7/2007	120	41	Gravity - Mortared Stone	Head Wall	87	\$0.00
ACAD-0014-0.628-L 8/7/2007	155	32	Gravity - Mortared Stone	Head Wall	90	\$0.00

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

Acadia National Park

ROUTE 0014: STANLEY BROOK ROAD



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 - 100)

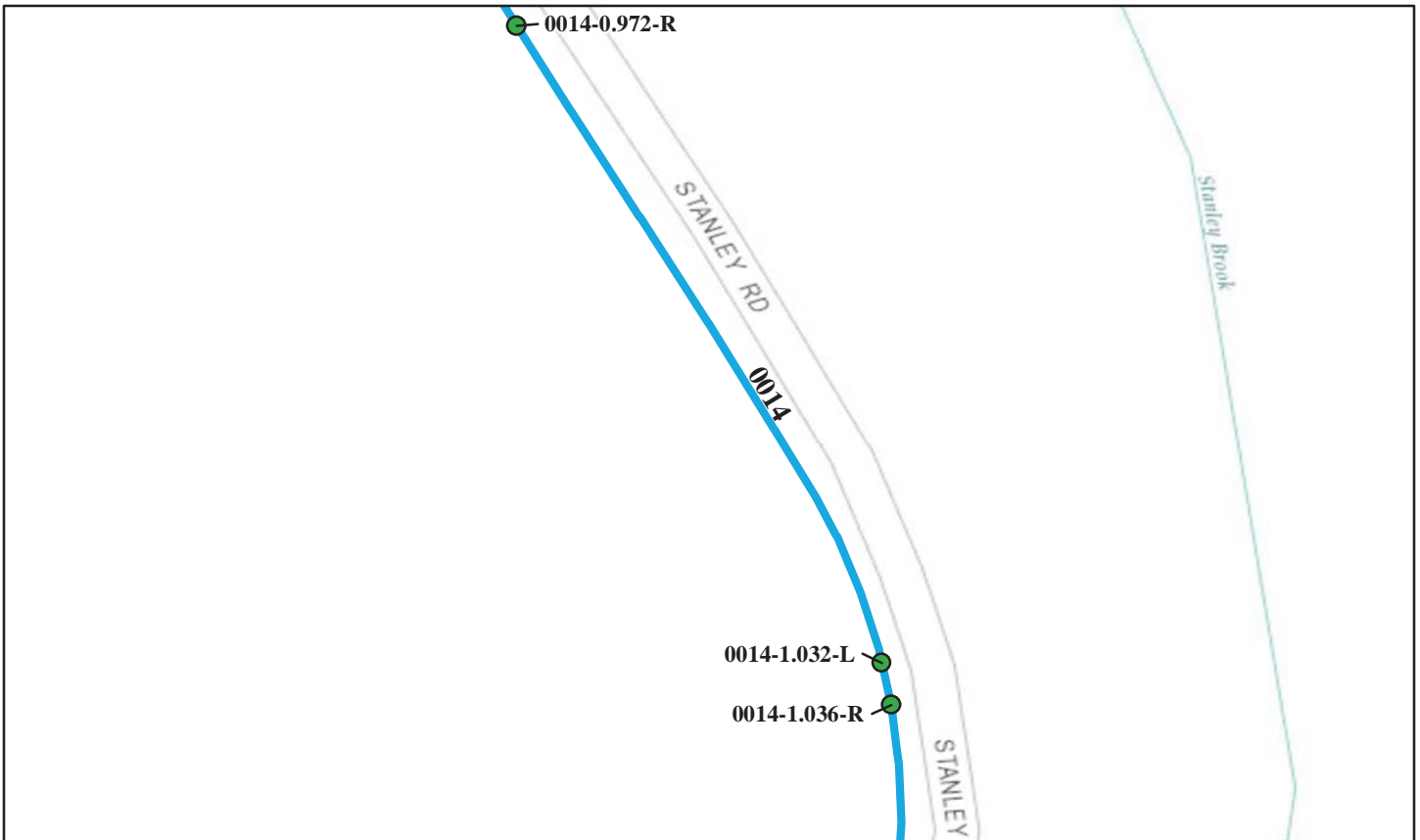
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0014-0.726-L 8/7/2007	212	53	Gravity - Dry Stone	Fill Wall	73	\$0.00
ACAD-0014-0.910-R 8/7/2007	200	58	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0014-0.930-R 8/7/2007	210	59	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0014-0.935-L 8/7/2007	180	63	Gravity - Mortared Stone	Head Wall	88	\$0.00
ACAD-0014-0.968-L 8/7/2007	150	49	Gravity - Mortared Stone	Head Wall	90	\$0.00

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

Acadia National Park

ROUTE 0014: STANLEY BROOK ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0014-0.972-R 8/7/2007	200	58	Gravity - Mortared Stone	Head Wall	85	\$1,355.00
ACAD-0014-1.032-L 8/7/2007	200	73	Gravity - Mortared Stone	Head Wall	88	\$0.00
ACAD-0014-1.036-R 8/7/2007	185	56	Gravity - Mortared Stone	Head Wall	82	\$2,950.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

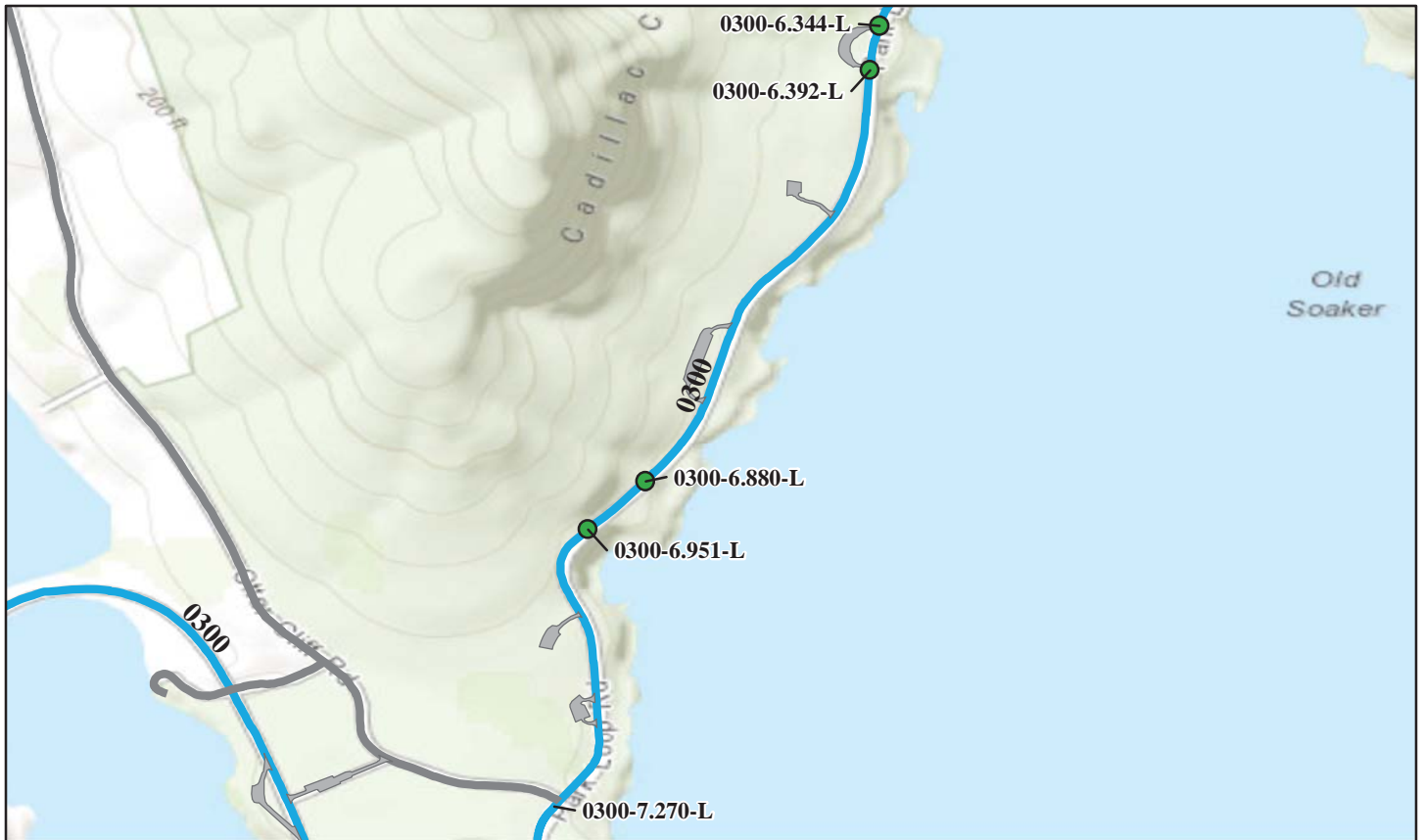
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-0.495-R 8/7/2007	2,498	555	Gravity - Dry Stone	Cut Wall	75	\$0.00
ACAD-0300-0.684-R 8/7/2007	1,887	510	Gravity - Dry Stone	Cut Wall	76	\$0.00
ACAD-0300-1.158-L 8/7/2007	475	94	Gravity - Mortared Stone	Fill Wall	72	\$0.00
ACAD-0300-5.947-L 8/7/2007	40	9	Gravity - Dry Stone	Head Wall	70	\$0.00
ACAD-0300-6.041-L 8/7/2007	1,100	110	Gravity - Dry Stone	Fill Wall	76	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

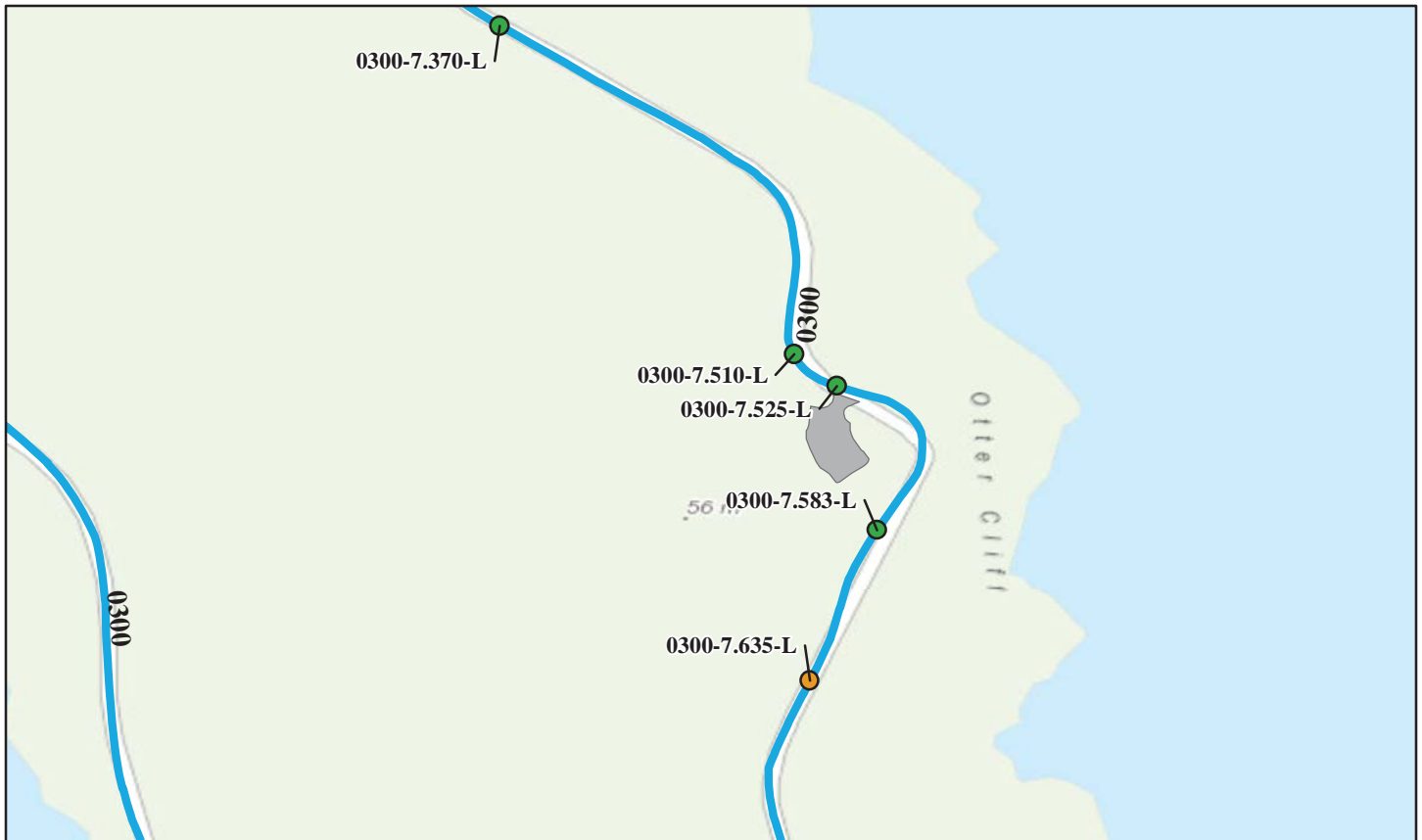
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-6.344-L 8/7/2007	390	65	Gravity - Dry Stone	Fill Wall	80	\$0.00
ACAD-0300-6.392-L 8/7/2007	82	19	Gravity - Dry Stone	Head Wall	70	\$0.00
ACAD-0300-6.880-L 8/8/2007	1,050	154	Gravity - Dry Stone	Fill Wall	80	\$0.00
ACAD-0300-6.951-L 8/8/2007	1,500	398	Gravity - Mortared Stone	Fill Wall	70	\$0.00
ACAD-0300-7.270-L 8/8/2007	558	102	Gravity - Dry Stone	Fill Wall	55	\$5,000.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-7.370-L 8/8/2007	5,745	533	Gravity - Dry Stone	Fill Wall	81	\$0.00
ACAD-0300-7.510-L 8/8/2007	1,530	384	Gravity - Dry Stone	Fill Wall	79	\$0.00
ACAD-0300-7.525-L 8/8/2007	3,100	433	Gravity - Mortared Stone	Fill Wall	82	\$0.00
ACAD-0300-7.583-L 8/9/2007	1,600	161	Gravity - Dry Stone	Fill Wall	70	\$0.00
ACAD-0300-7.635-L 8/9/2007	1,040	233	Gravity - Dry Stone	Fill Wall	67	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-7.777-L 8/8/2007	954	318	Gravity - Dry Stone	Fill Wall	69	\$0.00
ACAD-0300-7.980-L 8/9/2007	2,350	582	Gravity - Dry Stone	Fill Wall	70	\$0.00
ACAD-0300-8.810-L 8/9/2007	793	61	Gravity - Dry Stone	Fill Wall	78	\$0.00
ACAD-0300-9.039-L 8/9/2007	2,180	350	Gravity - Dry Stone	Fill Wall	41	\$108,000.00
ACAD-0300-9.166-L 8/9/2007	301	49	Gravity - Mortared Stone	Fill Wall	90	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

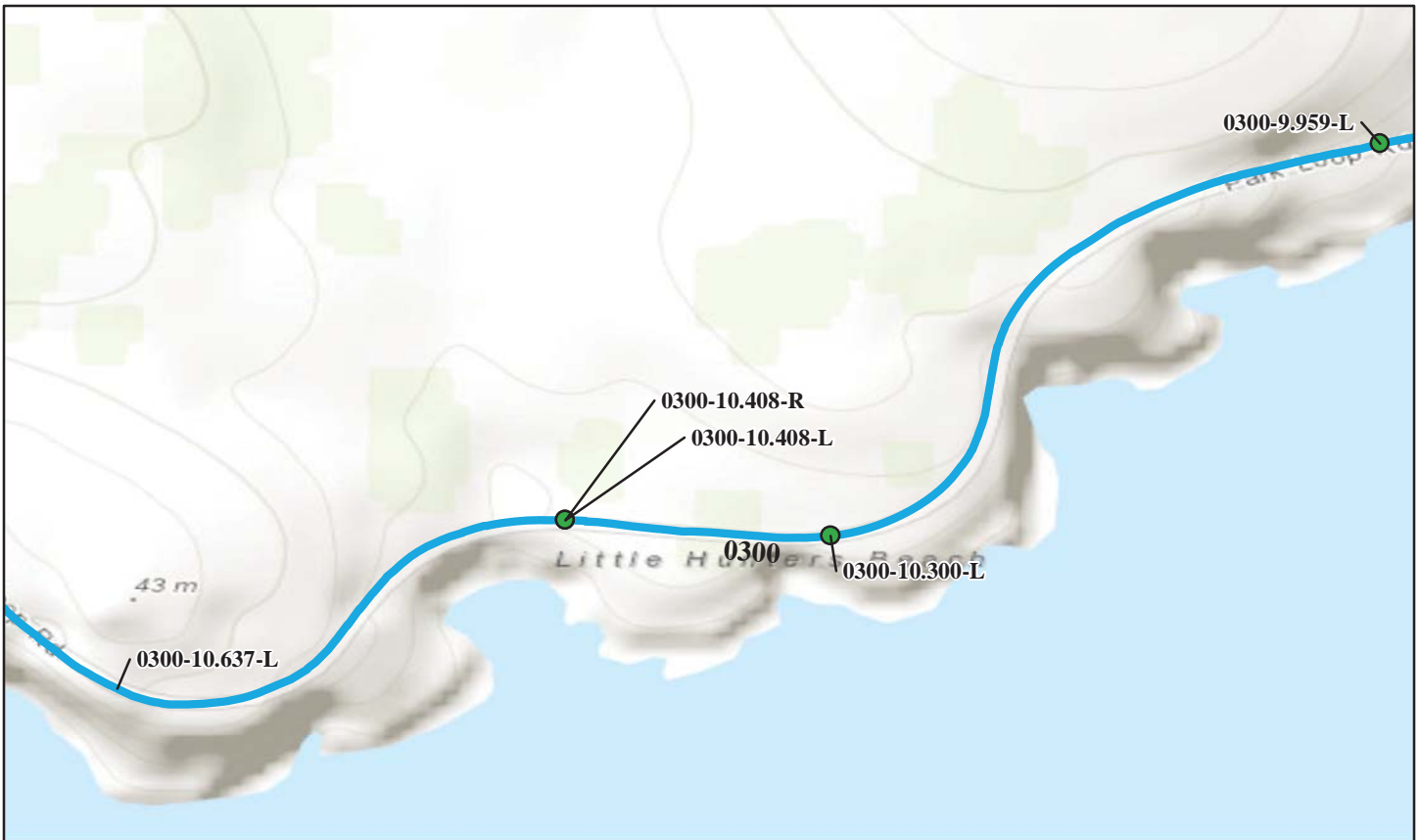
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-9.601-L 8/9/2007	1,050	147	Gravity - Dry Stone	Fill Wall	70	\$270.00
ACAD-0300-9.764-L 8/9/2007	488	58	Gravity - Mortared Stone	Fill Wall	86	\$0.00
ACAD-0300-9.828-L 8/9/2007	265	53	Gravity - Dry Stone	Fill Wall	71	\$1,000.00
ACAD-0300-9.874-L 8/9/2007	280	55	Gravity - Dry Stone	Fill Wall	70	\$0.00
ACAD-0300-9.920-L 8/9/2007	930	62	Gravity - Mortared Stone	Fill Wall	76	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-9.959-L 8/9/2007	700	73	Gravity - Dry Stone	Fill Wall	76	\$0.00
ACAD-0300-10.300-L 8/9/2007	210	69	Gravity - Mortared Stone	Fill Wall	90	\$0.00
ACAD-0300-10.408-R 8/9/2007	1,080	90	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0300-10.408-L 8/9/2007	960	80	Gravity - Mortared Stone	Head Wall	90	\$0.00
ACAD-0300-10.637-L 8/9/2007	900	220	Gravity - Dry Stone	Fill Wall	58	\$700.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

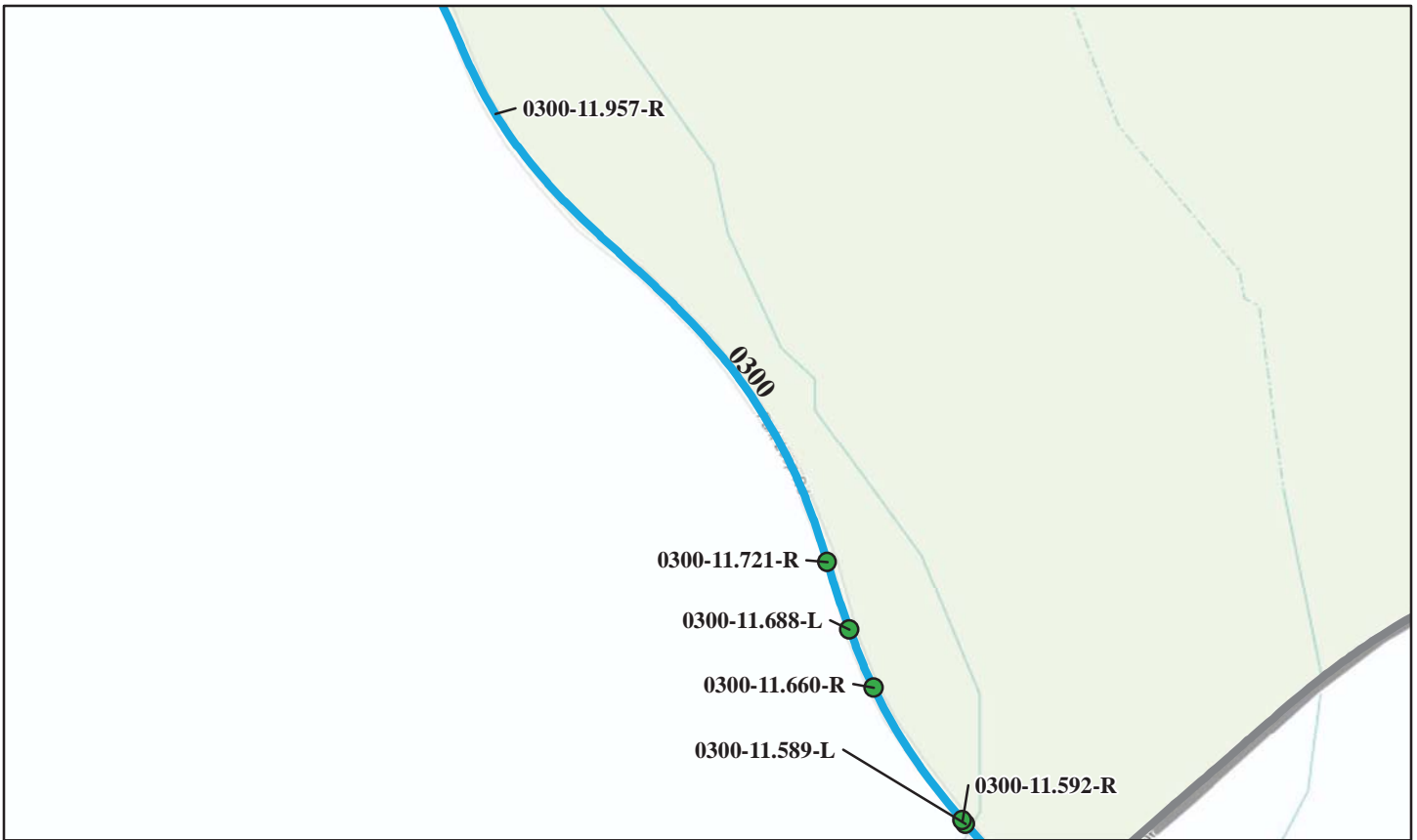
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-11.487-L 8/9/2007	890	226	Gravity - Mortared Stone	Cut Wall	89	\$0.00
ACAD-0300-11.490-R 8/9/2007	930	236	Gravity - Mortared Stone	Cut Wall	89	\$0.00
ACAD-0300-11.540-R 8/9/2007	312	78	Gravity - Mortared Stone	Cut Wall	88	\$1,830.00
ACAD-0300-11.541-L 8/9/2007	462	93	Gravity - Mortared Stone	Cut Wall	89	\$0.00
ACAD-0300-11.589-L 8/9/2007	230	56	Gravity - Mortared Stone	Head Wall	84	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-11.592-R 8/9/2007	220	55	Gravity - Mortared Stone	Head Wall	84	\$0.00
ACAD-0300-11.660-R 8/9/2007	2,565	285	Gravity - Dry Stone	Fill Wall	76	\$0.00
ACAD-0300-11.688-L 8/9/2007	1,800	360	Gravity - Dry Stone	Cut Wall	71	\$0.00
ACAD-0300-11.721-R 8/9/2007	4,200	402	Gravity - Dry Stone	Fill Wall	72	\$0.00
ACAD-0300-11.957-R 8/9/2007	2,200	224	Gravity - Dry Stone	Fill Wall	60	\$13,378.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

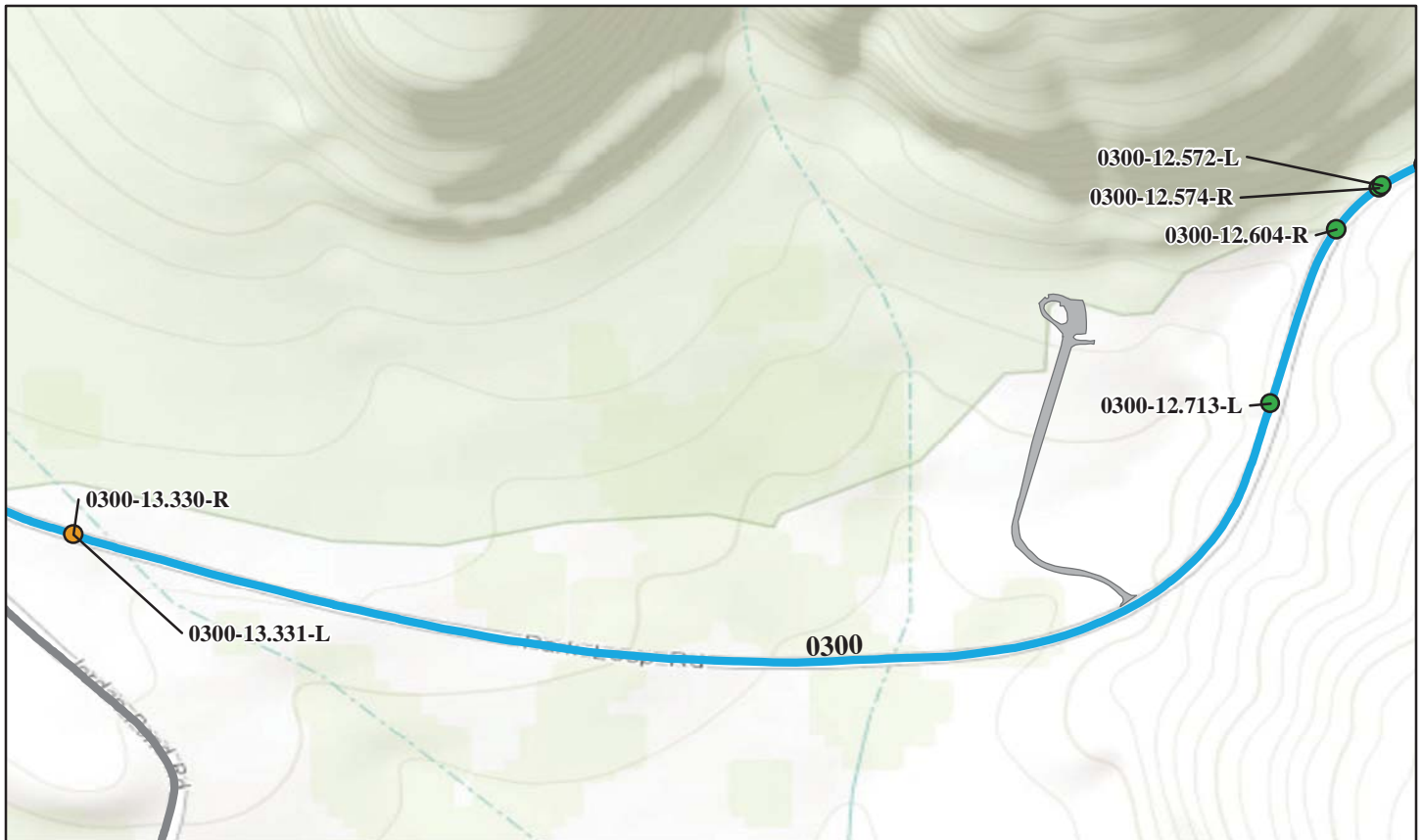
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-12.079-R 8/10/2007	4,500	503	Gravity - Dry Stone	Fill Wall	64	\$0.00
ACAD-0300-12.302-L 8/10/2007	1,120	281	Gravity - Dry Stone	Cut Wall	77	\$0.00
ACAD-0300-12.416-L 8/10/2007	2,150	432	Gravity - Dry Stone	Cut Wall	77	\$0.00
ACAD-0300-12.550-R 8/10/2007	410	91	Gravity - Mortared Stone	Cut Wall	90	\$0.00
ACAD-0300-12.551-L 8/10/2007	850	98	Gravity - Mortared Stone	Cut Wall	90	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

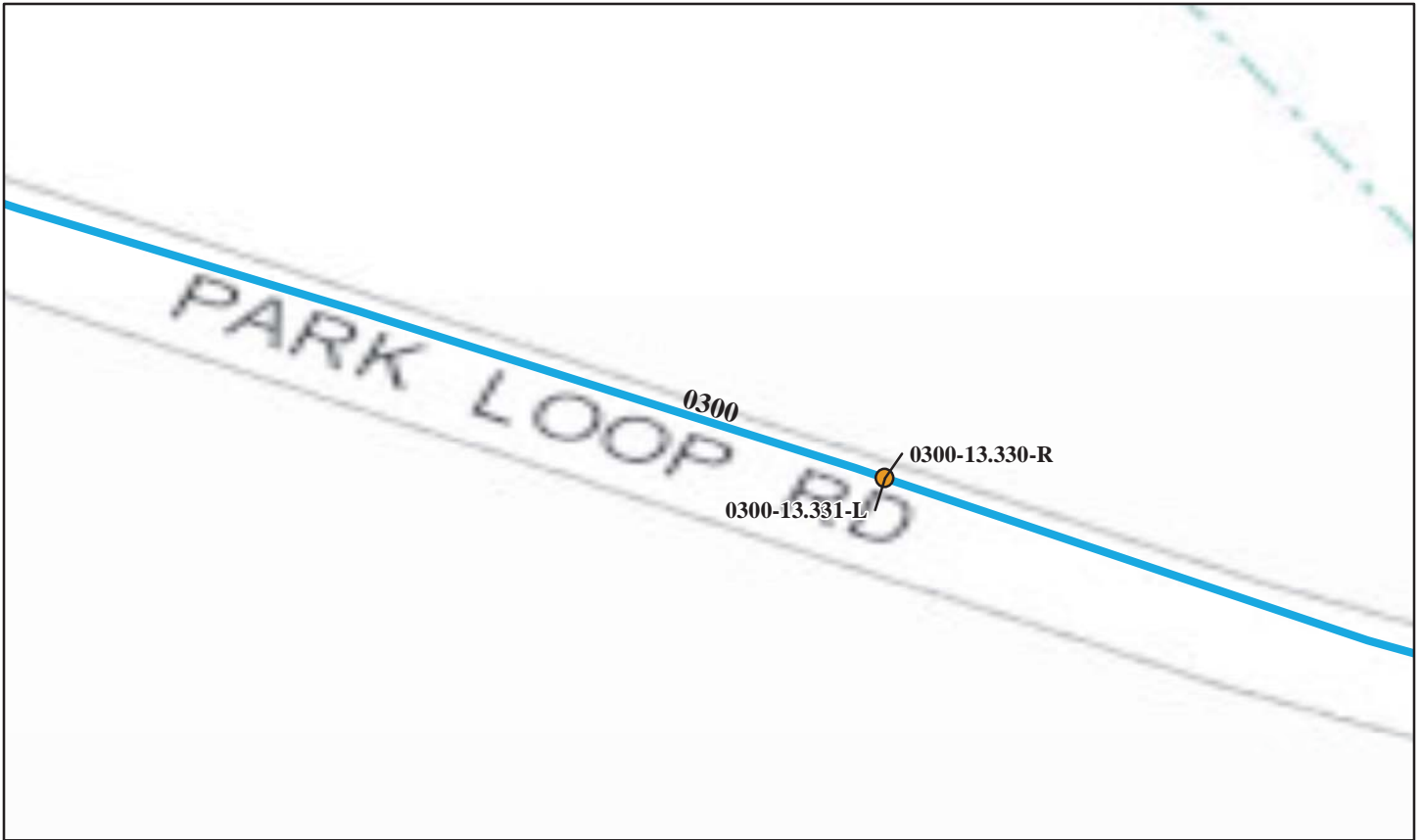
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-12.572-L 8/10/2007	850	103	Gravity - Mortared Stone	Cut Wall	90	\$0.00
ACAD-0300-12.574-R 8/10/2007	460	106	Gravity - Mortared Stone	Cut Wall	90	\$0.00
ACAD-0300-12.604-R 8/10/2007	2,874	250	Gravity - Dry Stone	Fill Wall	71	\$0.00
ACAD-0300-12.713-L 8/10/2007	1,630	326	Gravity - Dry Stone	Cut Wall	74	\$0.00
ACAD-0300-13.330-R 8/10/2007	145	28	Gravity - Mortared Stone	Head Wall	68	\$0.00

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0300-13.331-L 8/10/2007	353	82	Gravity - Mortared Stone	Head Wall	59	\$0.00

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

Acadia National Park

ROUTE 0911: BLUE HILL OVERLOOK PARKING AREA



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0911-0.000-P1 8/6/2007	58	12	Gravity - Mortared Stone	Head Wall	81	\$0.00

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

Acadia National Park

ROUTE 0914: EGG ROCK OVERLOOK



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 - 100)

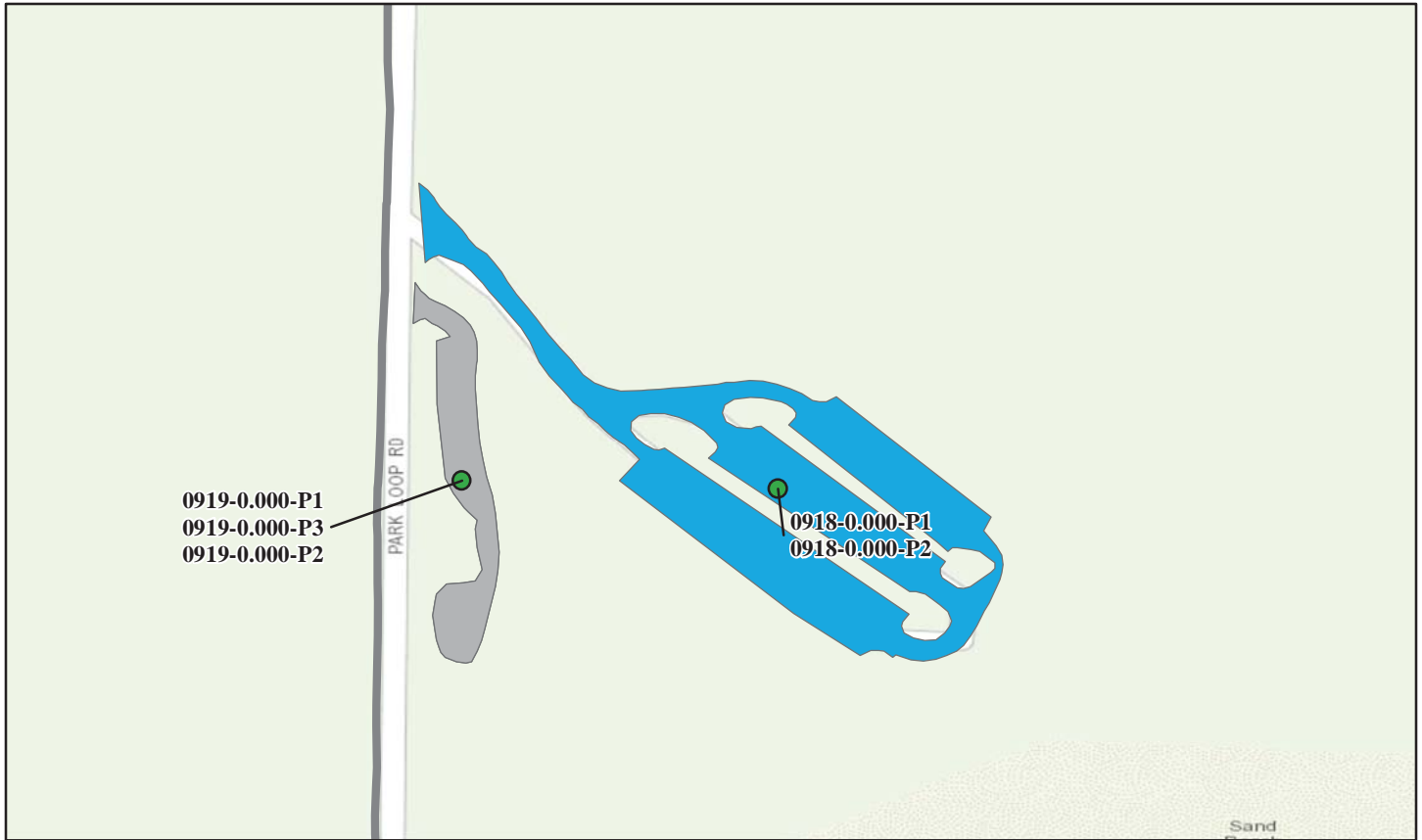
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0914-0.000-P1 8/7/2007	3120	260	Gravity - Mortared Stone	Fill Wall	77	\$0.00

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

Acadia National Park

ROUTE 0918: LOWER SAND BEACH PARKING AREA



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0918-0.000-P1 8/7/2007	1062	236	Gravity - Dry Stone	Fill Wall	86	\$0.00
ACAD-0918-0.000-P2 8/7/2007	775	204	Gravity - Dry Stone	Fill Wall	86	\$0.00

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

Acadia National Park

ROUTE 0919: UPPER SAND BEACH PARKING AREA



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 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
ACAD-0919-0.000-P1 8/7/2007	585	167	Gravity - Dry Stone	Switchback Wall	70	\$0.00
ACAD-0919-0.000-P3 8/7/2007	890	145	Gravity - Dry Stone	Fill Wall	69	\$0.00
ACAD-0919-0.000-P2 8/7/2007	820	230	Gravity - Dry Stone	Fill Wall	69	\$0.00

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

Tier 3 Retaining Wall Details



Acadia National Park



Federal Lands Highway
Road Inventory Program

Wall ID:	ACAD-0010ZZ--618-L		
Route Name:	PARADISE HILL ROADS		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	83	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Fill wall, granite stone		

Wall Measurements

Wall Length (ft.):	189	Face Area (sq.):	3741
Average Wall Height (ft.):	20	Face Angle (deg.):	50
Maximum Wall Height (ft.):	40	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, some large voids and some vertical displacement on top	8
WALL FOUNDATION MATERIAL 8.00	Good solid granular material, no signs of settlement or rotation	9
PLACED STONE 8.00	Granite, minor weathering, 2' to 6' size boulders, low to moderate size burrows, vegetation growing through stone facing, but not effecting performance.	8
WALL DRAINS 0.50	None visible	8
CULVERT 0.50	16" concrete culvert functioning as intended , outlet 15 ft from bottom of wall	9
DOWNSLOPE 0.50	2H:1V slope, minor erosion, well vegetated, not impacting wall	9
LATERAL SLOPE 0.50	Minor surface erosion with trees and brush not impacting wall.	9
VEGETATION 0.50	Bushes and trees growing through stone openings not impacting wall	9
ROAD/SIDEWALK/SHOULDER 1.00	Road in good condition, minor surface cracking, some vertical displacement, top of wall & shoulder & guardwall appears to be older no recent movement	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

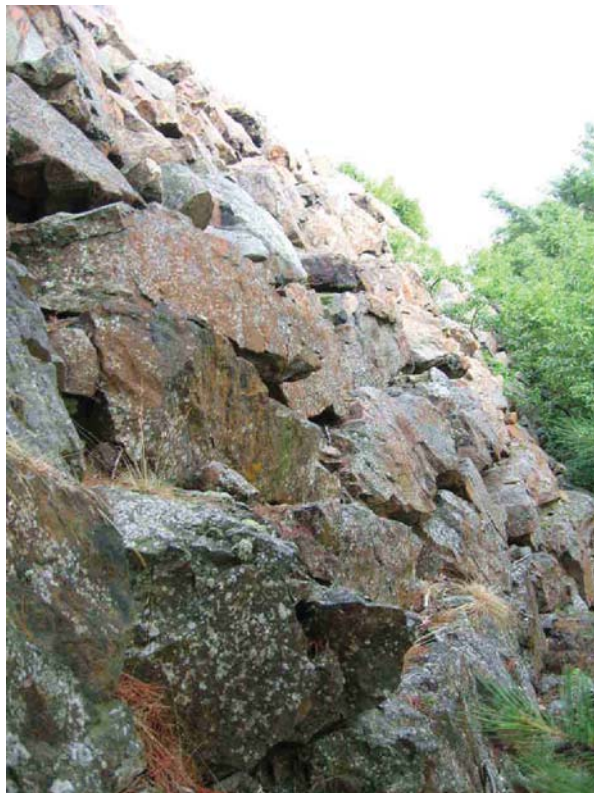
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Acadia National Park
ROUTE 0010ZZ: PARADISE HILL ROADS

Retaining Wall Condition Photos



ACAD_0010ZZ_0.618_L_1.jpg



ACAD_0010ZZ_0.618_L_2.jpg

Wall ID:	ACAD-0010ZZ--625-L		
Route Name:	PARADISE HILL ROADS		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	92	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Fill wall, culvert head wall, 16 in concrete culvert, slope above wall 30 deg.		

Wall Measurements

Wall Length (ft.):	32	Face Area (sq.):	150
Average Wall Height (ft.):	4	Face Angle (deg.):	80
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	-12

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good to excellent	9
WALL FOUNDATION MATERIAL 8.00	Good, possibly bedrock, no signs of settlement or movement	10
MORTAR 8.00	Minor cracking	9
STONE MASONRY 8.00	Good condition, no missing stones, granite blocks	9
LATERAL SLOPE 0.50	Minor surface erosion not impacting wall	8
CULVERT 0.50	16 inch concrete culvert, good condition	9
UPSLOPE 0.50	Looks good, no signs of erosion	9
WALL DRAINS 0.50	6" pipes assumed to act as wall drains, wall does not appear to have drainage issues	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress, there is a new overlay on road surface	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0010ZZ: PARADISE HILL ROADS

Retaining Wall Condition Photos



ACAD_0010ZZ_0.625_L_1.jpg

Wall ID:	ACAD-0010ZZ-1.268-L		
Route Name:	PARADISE HILL ROADS		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack boulders retaining road		

Wall Measurements

Wall Length (ft.):	664	Face Area (sq.):	9626
Average Wall Height (ft.):	14	Face Angle (deg.):	50
Maximum Wall Height (ft.):	27	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition	7
WALL FOUNDATION MATERIAL 8.00	Looks good, down slope is variable from 2H:1V to almost vertical at rock outcrops	9
PLACED STONE 8.00	2 - 4 foot granite boulders, minor weathering, several voids, significant vegetation growing through wall face	7
DOWNSLOPE 0.50	Well vegetated minor to moderate signs of erosion not affecting wall	8
WALL DRAINS 0.50	None observed, No signs of distress	8
LATERAL SLOPE 0.50	Well vegetated minor to moderate signs of erosion not affecting wall	9
TRAFFIC BARRIER/FENCE 0.50	Stone barrier in good condition, none rotated or missing, some have settled, not impacting wall	9
ROAD/SIDEWALK/SHOULDER 1.00	Shoulder shows some vertical deflection possibly due to internal erosion of soil into wall, appears to have stabilized at this time.	7
VEGETATION 1.00	Well vegetated, small trees, brush, and grass. Not impacting wall at this time	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

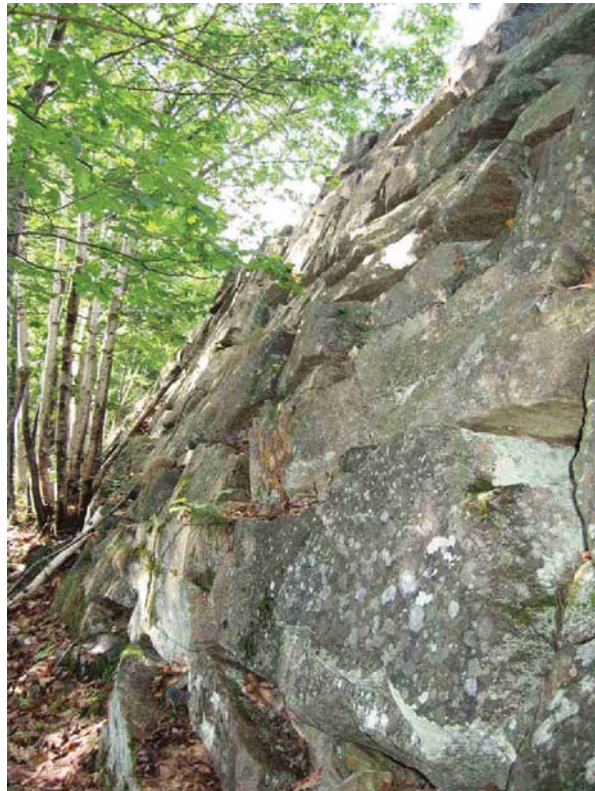
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Acadia National Park
ROUTE 0010ZZ: PARADISE HILL ROADS

Retaining Wall Condition Photos



ACAD_0010ZZ_1.268_L_1.jpg



ACAD_0010ZZ_1.268_L_2.jpg

Wall ID:	ACAD-0010ZZ-1.615-L		
Route Name:	PARADISE HILL ROADS		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	75	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack fill wall		

Wall Measurements

Wall Length (ft.):	236	Face Area (sq.):	3115
Average Wall Height (ft.):	13	Face Angle (deg.):	50
Maximum Wall Height (ft.):	27	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, some settlement, missing rocks, tree growing through facing	7
WALL FOUNDATION MATERIAL 8.00	Good foundation, steep slopes (1.5H:1V) to vertical at rock outcrops, some settlement at wall high point but appears stable now	8
PLACED STONE 8.00	2 - 4 foot granite boulders, minor weathering, voids, occasional missing rock	7
TRAFFIC BARRIER/FENCE 0.50	Some settlement of barrier	8
VEGETATION 0.50	Minor erosion, no effect to wall	8
WALL DRAINS 0.50	None observed, no related issues are apparent	8
DOWNSLOPE 0.50	Well vegetated steep, no problems observed	9
LATERAL SLOPE 0.50	Well vegetated steep, no problems observed	9
ROAD/SIDEWALK/SHOULDER 0.50	Road is in good condition, some settlement along shoulder appears to be due to foundation or internal erosion through voids, appears stable now	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0010ZZ: PARADISE HILL ROADS

Retaining Wall Condition Photos



ACAD_0010ZZ_1.615_L_1.jpg

Wall ID:	ACAD-0010ZZ-2.034-L		
Route Name:	PARADISE HILL ROADS		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack fill wall		

Wall Measurements

Wall Length (ft.):	550	Face Area (sq.):	8666
Average Wall Height (ft.):	15	Face Angle (deg.):	60
Maximum Wall Height (ft.):	20	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, some settlement, trees	7
WALL FOUNDATION MATERIAL 8.00	Good, no signs of distress	8
PLACED STONE 8.00	2 to 6 ft granite boulders, minor weathering, grass, brush and trees growing through wall face, some internal erosion of fill causing settlement	8
DOWNSLOPE 0.50	Well vegetated, 2H:1V slope, minor erosion	8
LATERAL SLOPE 0.50	Well vegetated	8
WALL DRAINS 0.50	None visible, no apparent impact to wall	8
TRAFFIC BARRIER/FENCE 0.50	Some rotation & settlement of guardwall due to internal erosion of fill, appears stable	9
CULVERT 1.00	18 in concrete culvert, joint appears to be open	5
ROAD/SIDEWALK/SHOULDER 1.00	Road in good condition, no signs of distress, some settlement of shoulder due to internal erosion	7

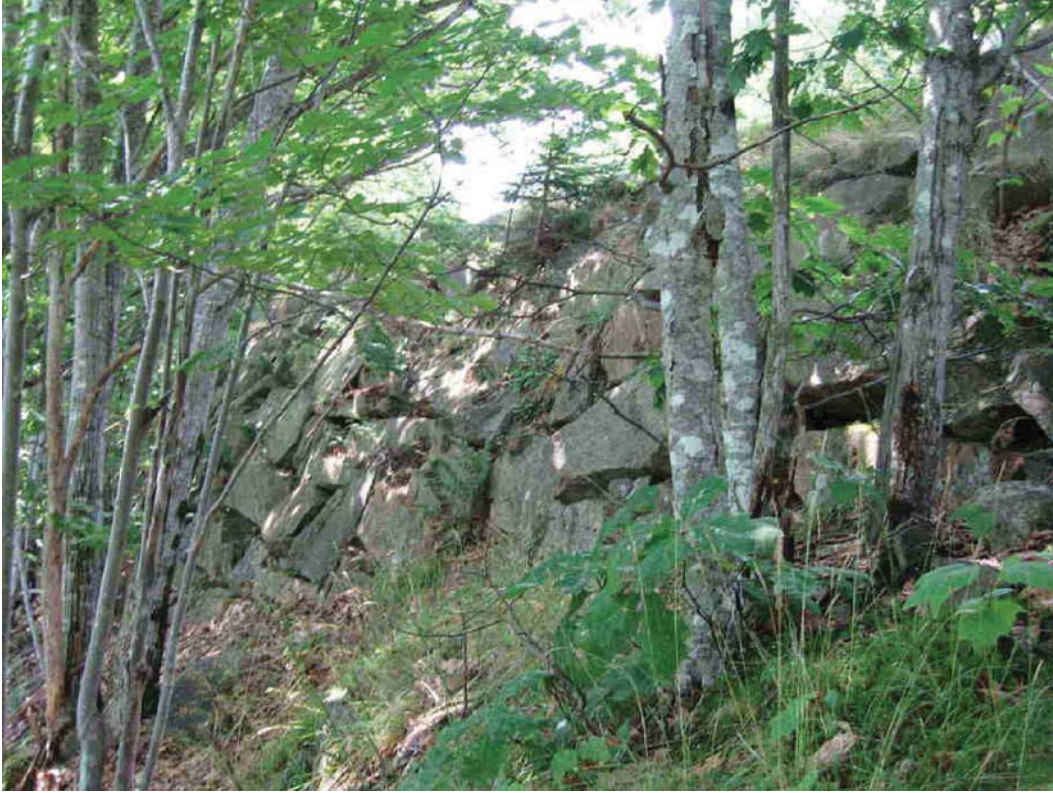
Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0010ZZ: PARADISE HILL ROADS

Retaining Wall Condition Photos



ACAD_0010ZZ_2.034_L_1.jpg



ACAD_0010ZZ_2.034_L_2.jpg

Wall ID:	ACAD-0012-1.65-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	71	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall with mortared stone guard wall on top		

Wall Measurements

Wall Length (ft.):	458	Face Area (sq.):	2750
Average Wall Height (ft.):	6	Face Angle (deg.):	65
Maximum Wall Height (ft.):	17	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair to good condition, with some signs of movement.	7
WALL FOUNDATION MATERIAL 8.00	Minor signs of settlement and erosion, bedrock at other locations	7
PLACED STONE 8.00	Some voids, granite boulders in good condition, some weathering	7
CULVERT 0.50	Concrete culvert about 16-inch diameter at the north end.	8
TRAFFIC BARRIER/FENCE 0.50	Some settlement at grouted stone guardwall	8
VEGETATION 0.50	Grass, trees, and brush growing through face with minor impact.	8
WALL DRAINS 0.50	None observed.	8
ROAD/SIDEWALK/SHOULDER 0.50	Settlement at taller wall sections, road in good condition, no signs of distress	10
DOWNSLOPE 1.00	Good in some places, but moderate erosion in others. Does not appear to impact wall at this time.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

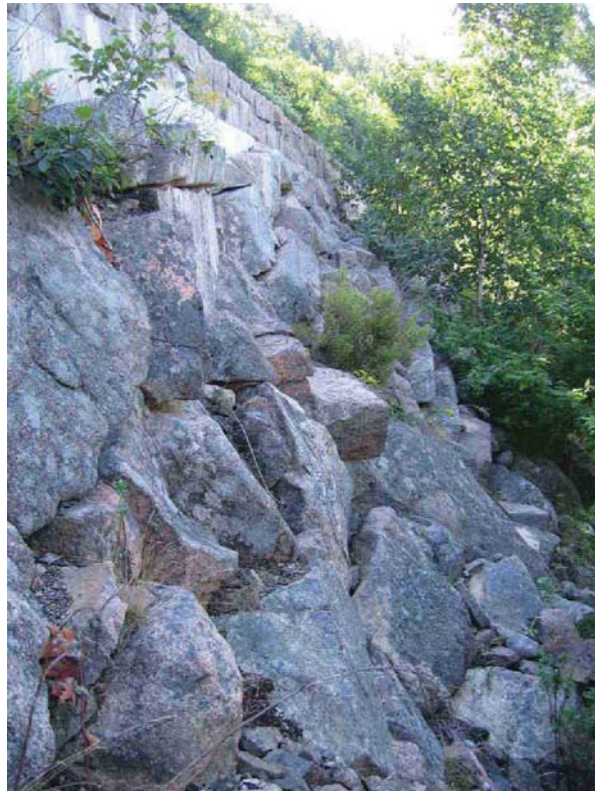
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_1.650_L_1.jpg



ACAD_0012_1.650_L_2.jpg

Wall ID:	ACAD-0012-1.896-R		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	88	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone (4 ft x 2 ft) block cut wall		

Wall Measurements

Wall Length (ft.):	70	Face Area (sq.):	335
Average Wall Height (ft.):	4	Face Angle (deg.):	82
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Solid granular material at road edge, no signs of settlement or distress.	9
MORTAR 8.00	Minor cracking and spalling, functioning as intended.	8
STONE MASONRY 8.00	Minor cracking, strong granite split rock, minor oxidation and CaCO3 deposits.	9
UPSLOPE 0.50	About 2H:1V vegetated slope, not impacting the wall, minor creep observed in trees upslope.	8
CURB/BERM/DITCH 0.50	Ditch is in good condition, functioning as intended.	9
LATERAL SLOPE 0.50	Minor surface erosion at one end, not impacting the wall. Bedrock at the other end, not impacting the wall.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new resurfacing with no signs of distress, shoulder has grass and is in good condition.	9
WALL DRAINS 0.50	Six PVC wall drains approximately 6-inches in diameter observed, open and functioning.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_1.896_R_1.jpg

Wall ID:	ACAD-0012-1.992-R		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	85	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone (4 ft x 2 ft) cut block wall		

Wall Measurements

Wall Length (ft.):	137	Face Area (sq.):	617
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended, minor movement from surface water flow from upslope.	8
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of settlement or distress.	9
MORTAR 8.00	Minor to moderate cracking and spalling, occasional missing sections.	8
STONE MASONRY 8.00	4-ft x 2-ft wide hard granite cut blocks, minor cracking, minor oxidation and weathering, minor moss, minor movement from surface water.	9
LATERAL SLOPE 0.50	Culvert at the beginning of wall and about 2H:1V slope at the end, not impacting wall.	8
UPSLOPE 0.50	About 2H:1V slope with grass and minor trees, not impacting wall.	8
CURB/BERM/DITCH 0.50	Unpaved v-ditch, performing as intended.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road new overlay with no signs of distress.	9
WALL DRAINS 0.50	6-inch diameter PVC drains at 10-ft lateral spacing, open and performing well. Minor water-related issues associated with the wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_1.992_R_1.jpg

Wall ID:	ACAD-0012-2.04-R		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	85	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone (4 ft x 2 ft) block cut wall		

Wall Measurements

Wall Length (ft.):	243	Face Area (sq.):	1166
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, minor drainage issues at isolated locations.	8
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of settlement or distress.	9
MORTAR 8.00	Minor cracking and spalling, overall fair to good condition, performing as intended, occasional missing pieces.	8
STONE MASONRY 8.00	4-ft x2-ft hard granite, minor cracking, minor oxidation and weathering at the surface, isolated locations of spalling at the face.	9
CULVERT 0.50	Drop inlet at the middle of the wall, about 16-inch diameter concrete, functioning as intended.	8
CURB/BERM/DITCH 0.50	Unpaved v-ditch in good condition.	9
LATERAL SLOPE 0.50	Minor surface erosion, not impacting the wall.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress.	9
UPSLOPE 0.50	About 2H:1V slope with grass and brush, not impacting the wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_2.040_R_1.jpg

Wall ID:	ACAD-0012-2.471-R		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked round granite boulder (2 to 4 ft diameter) wall		

Wall Measurements

Wall Length (ft.):	418	Face Area (sq.):	1260
Average Wall Height (ft.):	3	Face Angle (deg.):	85
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair to good condition, performing as intended, minor rotation and/or settlement at isolated locations.	7
WALL FOUNDATION MATERIAL 8.00	Solid granular material at road ditch.	9
PLACED STONE 8.00	Large granite boulders (2-4-ft diameter), primitive stacking, occasional voids with minor rotation and settlement of isolated elements at areas with more water infiltration.	7
CULVERT 0.50	Drop inlet at middle of wall, appears to function well (not clogged).	8
CURB/BERM/DITCH 0.50	Unpaved ditch in front of wall, functioning as intended.	8
LATERAL SLOPE 0.50	Gentle gradient with minor surface erosion, additional boulder added to start of wall.	8
UPSLOPE 0.50	About 2H:1V slope or less, with trees, grass, and shrubs, occasional sand deposits on top of the wall.	8
WALL DRAINS 0.50	None observed, occasional surface erosion, not significant impact on wall.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress.	9

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_2.471_R_1.jpg

Wall ID:	ACAD-0012-3.282-R		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	69	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block mortared culvert headwall at Bubble Rock Parking Area (Upstream/inlet side)		

Wall Measurements

Wall Length (ft.):	25	Face Area (sq.):	190
Average Wall Height (ft.):	7	Face Angle (deg.):	95
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-9

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair condition, signs of low to moderate rotation or displacement at the wing walls, but performing as intended.	6
WALL FOUNDATION MATERIAL 8.00	Strong mortar foundation apron, alluvial sands and gravel at the base, occasional exposed concrete.	8
MORTAR 8.00	Moderate cracking and spalling at isolated locations, separated and missing mortar in isolated locations, but performing as intended.	6
STONE MASONRY 8.00	Strong granite blocks cut 1'x2' and 2'x4', minor weathering and CaCO3 staining, minor rotation (about 1-2") and displacement settlement.	7
CULVERT 0.50	72-inch diameter concrete culvert, good condition, gaps at the inlet side at the wall interface (1-3" wide), but not impacting performance.	8
LATERAL SLOPE 0.50	Minor to moderate surface erosion with extra boulders added for slope protection.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder has a slope of about 2H:1V with grass, trees, brush.	8
DOWNSLOPE 0.50	Active stream channel, not impacting wall performance.	9
WALL DRAINS 0.50	None observed, water-related issues are not impacting the wall performance.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

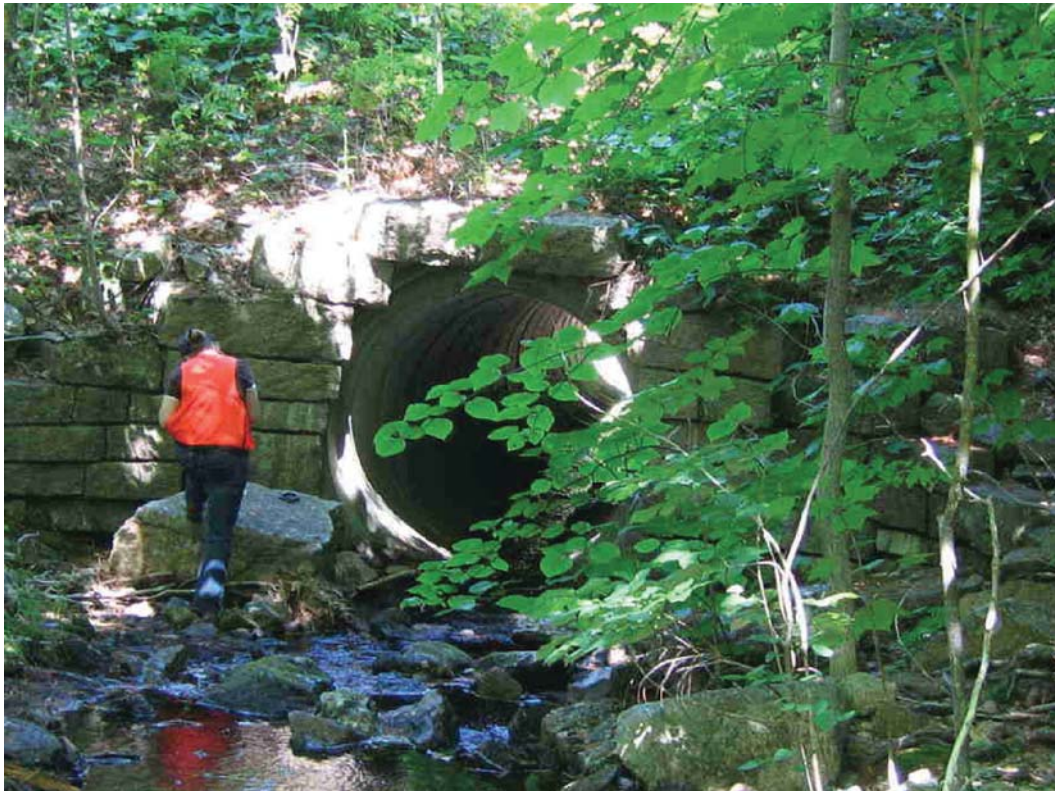
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_3.282_R_1.jpg



ACAD_0012_3.282_R_2.jpg

Wall ID:	ACAD-0012-3.285-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block mortared culvert headwall at Bubble Rock Parking Area (Downstream/outlet side)		

Wall Measurements

Wall Length (ft.):	51	Face Area (sq.):	468
Average Wall Height (ft.):	9	Face Angle (deg.):	82
Maximum Wall Height (ft.):	13	Vertical Offset (ft.):	-5

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Solid granular material or bedrock, stone masonry outlet (5ft length), no signs of distress.	9
MORTAR 8.00	Minor cracking and spalling at isolated locations, performing as intended.	9
STONE MASONRY 8.00	Solid granite (2ftx4ft) cut stone with minor cracks at isolated locations, minor weathering and CaCO3 staining where water infiltrates the wall, not impacting wall performance.	9
CULVERT 0.50	72-inch concrete box culvert, good condition.	9
DOWNSLOPE 0.50	Active stream channel, not impacting wall.	9
LATERAL SLOPE 0.50	Gentle slope, not impacting the wall.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is sloped at about 2H:1V, not impacting the wall.	9
WALL DRAINS 0.50	Three 6-inch outlets, open and functional, no water-related issues impacting the wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_3.285_L_1.jpg

Wall ID:	ACAD-0012-3.397-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	83	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone culvert headwall (downstream/outlet side)		

Wall Measurements

Wall Length (ft.):	20	Face Area (sq.):	175
Average Wall Height (ft.):	8	Face Angle (deg.):	95
Maximum Wall Height (ft.):	9	Vertical Offset (ft.):	-8

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, minor rotation at the top of the wall, but no signs or active recent movement.	8
WALL FOUNDATION MATERIAL 8.00	Solid granular material with mortared stone apron (5 ft long), no signs of significant settlement.	9
MORTAR 8.00	Minor cracking and spalling, minor gap between stones from missing mortar.	8
STONE MASONRY 8.00	4'x2' solid granite cut stone blocks, minor weathering and CaCO3 deposits, minor signs of displacement and settlement (1"), performing as intended.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder about 2H:1V slope with tree at the top, minor surface erosion.	8
CULVERT 0.50	36-inch diameter concrete culvert, outlet mid-height of wall, 3-inch opening at the top of mortared section, good condition.	9
DOWNSLOPE 0.50	Active stream channel, not impacting wall.	9
LATERAL SLOPE 0.50	About 2H:1V slope, not impacting wall, minor surface erosion.	9
TRAFFIC BARRIER/FENCE 0.50	Rock guardwall, not impacting wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos

Condition photos are not available for ACAD-0012-3.397-L.

Wall ID:	ACAD-0012-3.948-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	82	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone (4 ft x 2 ft) cut blocks headwall (downstream/outlet side)		

Wall Measurements

Wall Length (ft.):	24	Face Area (sq.):	125
Average Wall Height (ft.):	5	Face Angle (deg.):	90
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	-5

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, minor rotation at the top (1") and displacement, but no signs of active or continuing movement.	8
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of significant settlement, with minor stone apron.	9
MORTAR 8.00	Minor cracking throughout, isolated spalling and missing pieces, minor gap between stones where missing mortar.	8
STONE MASONRY 8.00	4'x2' solid granite cut stone, minor weathering and CaCO3 deposits, minor signs of displacement and settlement (1"), performing as intended.	8
CULVERT 0.50	60-inch diameter concrete culvert outlet, minor displacement (1-3") in the mortar at the top stone, good condition, performing as intended.	9
DOWNSLOPE 0.50	Active stream channel, not impacting wall.	9
LATERAL SLOPE 0.50	Minor surface erosion, about 2H:1V slope, not impacting wall.	9
WALL DRAINS 0.50	None observed, water-related issues not impacting wall.	9
ROAD/SIDEWALK/SHOULDER 1.00	Road has new overlay with no signs of distress. Shoulder has minor settlement at the roadway (6" drop) and minor surface erosion with about 2H:1V slope up to roadway.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_3.948_L_1.jpg

Wall ID:	ACAD-0012-4.325-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared cut stone (4 ft x 2 ft) block wall with guardwall at top at an overview pullout		

Wall Measurements

Wall Length (ft.):	119	Face Area (sq.):	900
Average Wall Height (ft.):	7	Face Angle (deg.):	80
Maximum Wall Height (ft.):	10	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Bedrock near surface, no signs of distress or settlement.	9
MORTAR 8.00	Minor cracking and spalling.	9
STONE MASONRY 8.00	Solid granite (4'x2') cut blocks, minor weathering and CaCO3 deposits, functioning as intended.	9
LATERAL SLOPE 0.50	Minor surface erosion.	8
DOWNSLOPE 0.50	About 3H:1V with shrubs, grass, trees, and bedrock near the surface.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has no signs of distress.	9
WALL DRAINS 0.50	6-inch outlet piles spaced at 10-foot centers, open and functioning.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_4.325_L_1.jpg

Wall ID:	ACAD-0012-4.417-L		
Route Name:	JORDAN POND ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	80	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite boulder (1 ft to 3 ft diameter) dry stacked fill wall		

Wall Measurements

Wall Length (ft.):	139	Face Area (sq.):	206
Average Wall Height (ft.):	1	Face Angle (deg.):	55
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Solid granular material and/or bedrock, general good support of wall, occasionally over steepened, occasional embankment fill exposed, no signs of settlement.	8
PLACED STONE 8.00	Solid granite rounded boulders (1'-3' diameter), primitive construction, occasional movement, displacement of stones.	8
DOWNSLOPE 0.50	About 2H:1V slope with occasional steeper sections.	8
LATERAL SLOPE 0.50	Minor surface erosion, well vegetated, embankment slope.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder about 5-feet wide, relatively flat with grass and minor surface erosion.	8
VEGETATION 0.50	Trees, brush, grass, does not appear to impact wall.	8
TRAFFIC BARRIER/FENCE 0.50	Rock guardrail at top, no signs of distress.	9
WALL DRAINS 0.50	None observed, water-related issues not impacting the wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0012: JORDAN POND ROAD

Retaining Wall Condition Photos



ACAD_0012_4.417_L_1.jpg

Wall ID:	ACAD-0013-1.543-R		
Route Name:	CADILLAC MOUNTAIN ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	63	Maintenance Action:	Maintenance

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry laid rock wall in need of maintenance.		

Wall Measurements

Wall Length (ft.):	141	Face Area (sq.):	980
Average Wall Height (ft.):	6	Face Angle (deg.):	52
Maximum Wall Height (ft.):	12	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair, not a handsome wall, but performing as intended.	5
WALL FOUNDATION MATERIAL 8.00	No sign of settlement.	7
PLACED STONE 8.00	Hard durable, moderately weathered rock, crudely built.	7
DOWNSLOPE 0.50	Heavy vegetation, trees, grass, 2:1 slope. No signs of erosion.	8
UPSLOPE 1.00	Drainage rills starting to undermine the wall.	4
ROAD/SIDEWALK/SHOULDER 1.00	Pavement edge cracking, erosion shoving pavement.	5
LATERAL SLOPE 1.00	No signs of erosion, 2:1 to 3:1 slope.	7
VEGETATION 1.00	Small cedar trees, grass, not affecting wall performance.	7
WALL DRAINS 1.00	None needed. No signs of wall related distress.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Fill in erosion rills and voids along pavement edge and wall: 8 hours of labor @ \$55 per hr = \$440, 2 cubic yards of aggregate base @ \$50 per c.y. = \$100. Total = \$540.00
Repair Cost:	\$540

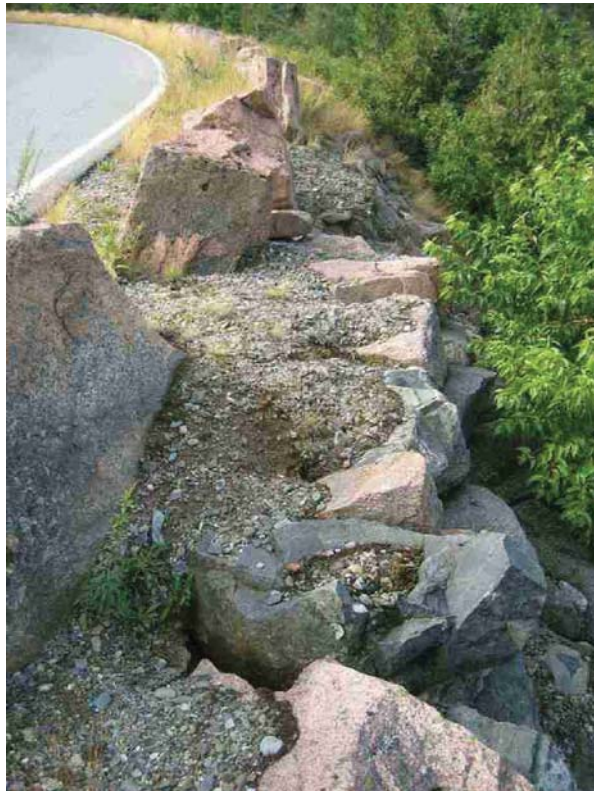
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Acadia National Park
ROUTE 0013: CADILLAC MOUNTAIN ROAD

Retaining Wall Condition Photos



ACAD_0013_1.543_R_1.jpg



ACAD_0013_1.543_R_2.jpg

Wall ID:	ACAD-0013-1.564-L		
Route Name:	CADILLAC MOUNTAIN ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	80	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Large rectangular dry stack headwall, inlet side, with 1.5 ft h x 3 ft w mortared stone culvert opening.		

Wall Measurements

Wall Length (ft.):	23	Face Area (sq.):	140
Average Wall Height (ft.):	6	Face Angle (deg.):	84
Maximum Wall Height (ft.):	10	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Performing as intended, no external distress.	8
WALL FOUNDATION MATERIAL 8.00	Shallow bedrock, gravel, sand.	9
PLACED STONE 8.00	Split stones, two styles, pink lower, gray upper. Fresh granite, one piece cracking, numerous chinks.	7
CULVERT 0.50	Stone masonry opening, no pipe.	8
WALL DRAINS 0.50	None, but open dry stack stones are self draining. No water related distress.	8
LATERAL SLOPE 1.00	3:1 slope or flatter, no erosion.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0013: CADILLAC MOUNTAIN ROAD

Retaining Wall Condition Photos



ACAD_0013_1.564_L_1.jpg

Wall ID:	ACAD-0013-2.399-R		
Route Name:	CADILLAC MOUNTAIN ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack culvert head wall, inlet side, below 1.5:1 slope with rockfill.		

Wall Measurements

Wall Length (ft.):	18	Face Area (sq.):	88
Average Wall Height (ft.):	4	Face Angle (deg.):	75
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	-6

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Wall performing as intended, but is surcharged by bulging rock fill above it.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock near surface.	8
PLACED STONE 8.00	Fresh hard granite.	8
CULVERT 0.50	Culvert opening is 3.7' w by 4.5' h. Natural bottom on bedrock?	8
LATERAL SLOPE 0.50	4:1 or flatter slope, forested.	8
WALL DRAINS 0.50	None needed, porous face of rock wall is self-draining.	8
UPSLOPE 1.00	6' vertical area of dumped rock, bulges toward top of wall, but appears stable.	6

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0013: CADILLAC MOUNTAIN ROAD

Retaining Wall Condition Photos



ACAD_0013_2.399_R_1.jpg

Wall ID:	ACAD-0013-2.401-L		
Route Name:	CADILLAC MOUNTAIN ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack culvert head wall, outlet side in good condition.		

Wall Measurements

Wall Length (ft.):	37	Face Area (sq.):	168
Average Wall Height (ft.):	4	Face Angle (deg.):	77
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-8

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Wall looks good as built but steep soil slope is right above face.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock near the surface.	8
PLACED STONE 8.00	Fresh, hard granite.	8
CULVERT 0.50	Opening 3.7' w x 4.5 h on stable bottom or bedrock.	8
DOWNSLOPE 0.50	Heavily forested, 2:1 slope or flatter.	8
LATERAL SLOPE 0.50	2.5:1 or flatter slope. Forested, no signs of erosion.	8
WALL DRAINS 0.50	None required. Porous dry laid rock surface is self-draining.	8
UPSLOPE 1.00	1.5:1 soil/rock slope, rockfill? Vegetated, grass.	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0013: CADILLAC MOUNTAIN ROAD

Retaining Wall Condition Photos



ACAD_0013_2.401_L_1.jpg

Wall ID:	ACAD-0014-.087-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	80	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Cut wall, sediment over top with moss		

Wall Measurements

Wall Length (ft.):	91	Face Area (sq.):	364
Average Wall Height (ft.):	4	Face Angle (deg.):	72
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, some erosion	8
WALL FOUNDATION MATERIAL 8.00	Good foundation, no signs of distress	9
PLACED STONE 8.00	6 to 24 in. Granite blocks, mod. Weathered and covered in moss	7
WALL DRAINS 0.50	None	8
CURB/BERM/DITCH 0.50	Ditch is functional, could be cleaned	9
LATERAL SLOPE 0.50	Tapers to side slopes, some minor erosion, grass and moss helping to stabilize	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10
UPSLOPE 1.00	Vegetated 2H:1V, some erosion	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.087_R_1.jpg

Wall ID:	ACAD-0014-.569-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	88	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Culvert head wall, paired with wall at 0.590, exposed footing upstream of road		

Wall Measurements

Wall Length (ft.):	90	Face Area (sq.):	343
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	9	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good overall, some exposed foundation	9
WALL FOUNDATION MATERIAL 8.00	Active stream channel, moderate erosion on upstream exposed footing, not impacting performance at this time	8
MORTAR 8.00	Minor cracks	9
STONE MASONRY 8.00	Minor oxidation , weathering good overall 2 to 4 foot granite blocks	9
CULVERT 0.50	5.5 x 14 foot concrete box culvert, Minor spalling, minor cracks, trees and brush at culvert inlet	8
DOWNSLOPE 0.50	Stream appears well protected from erosion although there is some exposed foundation	8
WALL DRAINS 0.50	None	8
LATERAL SLOPE 0.50	No signs of erosion, 2H:1V slope	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.569_L_1.jpg



ACAD_0014_0.569_L_2.jpg

Wall ID:	ACAD-0014-.582-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Culvert head wall, downstream of road, paired with 0.577		

Wall Measurements

Wall Length (ft.):	58	Face Area (sq.):	120
Average Wall Height (ft.):	2	Face Angle (deg.):	90
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Very good overall	9
WALL FOUNDATION MATERIAL 8.00	No signs of erosion, active stream channel	9
MORTAR 8.00	Minor cracking and spalling	9
STONE MASONRY 8.00	Minor oxidation, weathering moss on face	9
CULVERT 0.50	5.5 x 14 ft concrete box	8
LATERAL SLOPE 0.50	No erosion , well protected, gentle slopes	8
WALL DRAINS 0.50	None visible	8
DOWNSLOPE 0.50	No signs of erosion	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.582_R_1.jpg

Wall ID:	ACAD-0014-.625-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	87	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Culvert head wall mortared masonry, 8 ft wide by 6 ft high culvert, paired with 0.630		

Wall Measurements

Wall Length (ft.):	41	Face Area (sq.):	120
Average Wall Height (ft.):	2	Face Angle (deg.):	90
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good overall	9
WALL FOUNDATION MATERIAL 8.00	Good foundation, some exposed footing	8
MORTAR 8.00	Minor cracking	9
STONE MASONRY 8.00	Minor weathering	9
DOWNSLOPE 0.50	Some erosion of footing	8
WALL DRAINS 0.50	None visible	8
CURB/BERM/DITCH 0.50	Good condition, well protected	9
LATERAL SLOPE 0.50	No signs of erosion	9
ROAD/SIDEWALK/SHOULDER 1.00	Pot hole on road could be signs of internal erosion of the sub grade into the wall or culvert	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.625_R_1.jpg

Wall ID:	ACAD-0014-.628-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Head wall mortared masonry in good condition 8 ft wide by 5 ft high, paired with 0.628		

Wall Measurements

Wall Length (ft.):	32	Face Area (sq.):	155
Average Wall Height (ft.):	4	Face Angle (deg.):	90
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Minor cracking, some efflorescence	9
STONE MASONRY 8.00	Minor cracks	9
CULVERT 0.50	Good condition	9
DOWNSLOPE 0.50	Stream, no erosion	9
LATERAL SLOPE 0.50	No signs of distress	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	9
TRAFFIC BARRIER/FENCE 0.50	No signs of distress	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.628_L_1.jpg

Wall ID:	ACAD-0014-726-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	73	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack fill wall, 1 to 2 foot granite boulders		

Wall Measurements

Wall Length (ft.):	53	Face Area (sq.):	212
Average Wall Height (ft.):	4	Face Angle (deg.):	75
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good overall, foundation erosion, pavement cracking, settlement	7
WALL FOUNDATION MATERIAL 8.00	Some erosion due to creek caused some settling of the wall	7
PLACED STONE 8.00	Minor weathering, grasses growing through voids, some movement in past	8
LATERAL SLOPE 0.50	Minor surface erosion	8
VEGETATION 0.50	Grasses and moderate size trees	8
WALL DRAINS 0.50	None visible	8
DOWNSLOPE 1.00	Some erosion resulting in vertical movement of part of wall	7
ROAD/SIDEWALK/SHOULDER 1.00	Some sign of settlement, some longitudinal cracks	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.726_L_1.jpg

Wall ID:	ACAD-0014-91-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 3.5 ft high by 8 ft wide concrete box culvert		

Wall Measurements

Wall Length (ft.):	58	Face Area (sq.):	200
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition	9
WALL FOUNDATION MATERIAL 8.00	Good foundation	9
MORTAR 8.00	Minor cracks, some effervescence	9
STONE MASONRY 8.00	Moss covered face	9
CURB/BERM/DITCH 0.50	Good but some cracks and spalling	8
WALL DRAINS 0.50	None visible	8
DOWNSLOPE 0.50	Stream, no erosion	9
LATERAL SLOPE 0.50	Well vegetated, no erosion,	9
ROAD/SIDEWALK/SHOULDER 0.50	Good condition	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.910_R_1.jpg

Wall ID:	ACAD-0014-93-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 10 ft wide by 4 ft high CBC		

Wall Measurements

Wall Length (ft.):	59	Face Area (sq.):	210
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent	9
WALL FOUNDATION MATERIAL 8.00	No erosion well protected	9
MORTAR 8.00	Some cracks	9
STONE MASONRY 8.00	Minor weathering oxidation	9
CURB/BERM/DITCH 0.50	Minor cracks and spalling	8
WALL DRAINS 0.50	None visible	8
DOWNSLOPE 0.50	No erosion, no signs of distress	9
LATERAL SLOPE 0.50	Well vegetated and protected	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.930_R_1.jpg

Wall ID:	ACAD-0014-935-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	88	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 10 ft wide by 4 ft high CBC		

Wall Measurements

Wall Length (ft.):	63	Face Area (sq.):	180
Average Wall Height (ft.):	2	Face Angle (deg.):	90
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Overall in good condition	9
WALL FOUNDATION MATERIAL 8.00	Minor erosion	8
MORTAR 8.00	Minor cracks	9
STONE MASONRY 8.00	Minor weathering	9
CULVERT 0.50	Minor cracks	8
DOWNSLOPE 0.50	Some erosion at footing	8
WALL DRAINS 0.50	None visible	8
LATERAL SLOPE 0.50	Vegetated and protected, rock	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.935_L_1.jpg

Wall ID:	ACAD-0014-968-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 10 ft wide by 4 ft high CBC		

Wall Measurements

Wall Length (ft.):	49	Face Area (sq.):	150
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Minor cracks, efflorescence	9
STONE MASONRY 8.00	No signs of distress	9
WALL DRAINS 0.50	None visible	8
CULVERT 0.50	Good condition	9
DOWNSLOPE 0.50	Well protected no signs of erosion	9
LATERAL SLOPE 0.50	Well protected no signs of erosion	9
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracks	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.968_L_1.jpg

Wall ID:	ACAD-0014-972-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	85	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 10 ft wide by 4 ft high CBC		

Wall Measurements

Wall Length (ft.):	58	Face Area (sq.):	200
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good overall, pavement cracks, erosion on foundation	9
WALL FOUNDATION MATERIAL 8.00	Some erosion on south en not impacting wall but might in the future	7
MORTAR 8.00	Cracking, efflorescence	9
STONE MASONRY 8.00	Good condition	9
LATERAL SLOPE 0.50	Some erosion on south end	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracks on road	8
WALL DRAINS 0.50	2" metal pipe- corroded assumed to be internal drainage	8
CULVERT 0.50	Good condition	9
TRAFFIC BARRIER/FENCE 0.50	Missing rail but not impacting the wall	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Re-face concrete footing and protect with rip rap: 0.25 cy of concrete = \$100, 7.5 cy of 1 to 3 foot rip rap @\$50/cy = \$375, 16 man hours at %55/hr = \$880
Repair Cost:	\$1,355

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_0.972_R_1.jpg

Wall ID:	ACAD-0014-1.032-L		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	88	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 2 to 10 ft wide by 4 ft high CBC, USGS flow gauge in culvert		

Wall Measurements

Wall Length (ft.):	73	Face Area (sq.):	200
Average Wall Height (ft.):	2	Face Angle (deg.):	90
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress, some minor erosion	8
MORTAR 8.00	Minor cracks	9
STONE MASONRY 8.00	Some weathering	9
DOWNSLOPE 0.50	Some erosion but stable	8
LATERAL SLOPE 0.50	Some erosion but stable	8
WALL DRAINS 0.50	None visible	8
CULVERT 0.50	Good condition	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_1.032_L_1.jpg



ACAD_0014_1.032_L_2.jpg

Wall ID:	ACAD-0014-1.036-R		
Route Name:	STANLEY BROOK ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	82	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall, 2 to 10 ft wide by 4 ft high cbc		

Wall Measurements

Wall Length (ft.):	56	Face Area (sq.):	185
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, pavement cracks, foundation erosion	8
WALL FOUNDATION MATERIAL 8.00	Some erosion on south end of wall undermining foundation	7
MORTAR 8.00	Minor cracks	9
STONE MASONRY 8.00	Some weathering	9
CULVERT 0.50	SW corner undermined but in good condition	8
LATERAL SLOPE 0.50	Well protected	8
WALL DRAINS 0.50	None visible	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracks	9
TRAFFIC BARRIER/FENCE 0.50	Good condition	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Clean, grout, and rip rap SW corner of culvert, Concrete 0.5 cy = \$200, 40 man hours at \$55/hr = \$2200, 10 cy of rip rap @ \$55/cy = \$550
Repair Cost:	\$2,950

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

Acadia National Park
ROUTE 0014: STANLEY BROOK ROAD

Retaining Wall Condition Photos



ACAD_0014_1.036_R_1.jpg



ACAD_0014_1.036_R_2.jpg

Wall ID:	ACAD-0300-.495-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	75	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	WELL ASSEMBLED GD WITH NARROW MORTARED STONE DITCH BETWEEN PAVEMENT AND TOE		

Wall Measurements

Wall Length (ft.):	555	Face Area (sq.):	2498
Average Wall Height (ft.):	4	Face Angle (deg.):	76
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Wall performance is generally as intended	7
WALL FOUNDATION MATERIAL 8.00	DENSE SOIL, MORTARED DITCH LINE, IMMEDIATELY AT TOE	8
STONE MASONRY 8.00	FRESH, HARD GRANITE	8
CURB/BERM/DITCH 0.50	Mortared stone ditch at toe - in durable but not impermeable condition	8
UPSLOPE 1.00	blueberry and shrubs, 2 ft deep cavity near beginning of wall and longitudinal depression along most of wall acts as collection ditch and increases infiltration behind wall.	6
LATERAL SLOPE 1.00	Beginning of wall is near scarp on bedrock outcrop but not impacting wall. End slope is 4:1 or flatter and forested.	7
ROAD/SIDEWALK/SHOULDER 1.00	Some raveling of pavement edge and erosion near ditch	7
WALL DRAINS 1.00	DROP INLET BUILT INTO DITCH NEAR EACH END PROVIDES SOME DRAINAGE BEHIND WALL. No other.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_0.495_R_1.jpg

Wall ID:	ACAD-0300-.684-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Well constructed - as if by mason. Narrow mortared ditch between toe an pavement.		

Wall Measurements

Wall Length (ft.):	510	Face Area (sq.):	1887
Average Wall Height (ft.):	3	Face Angle (deg.):	76
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Serving purpose very well	7
WALL FOUNDATION MATERIAL 8.00	Dense soil, mortared ditch line immediately at toe	8
STONE MASONRY 8.00	Fresh hard granite	8
CURB/BERM/DITCH 0.50	Mortared stone	8
LATERAL SLOPE 0.50	4:1 or flatter, grass and forested	8
UPSLOPE 1.00	Grass, then poplar trees 4 to 6 ft back	7
WALL DRAINS 1.00	Drop inlet built into ditch near each end provides some back drainage - no other	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_0.684_R_1.jpg

Wall ID:	ACAD-0300-1.158-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	72	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Fill wall with 24 in culvert outlet		

Wall Measurements

Wall Length (ft.):	94	Face Area (sq.):	475
Average Wall Height (ft.):	5	Face Angle (deg.):	77
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	As expected, no visible global distress	8
WALL FOUNDATION MATERIAL 8.00	Dense soil	8
MORTAR 8.00	Cracked, 1/8" gaps, missing in places, loose	5
STONE MASONRY 8.00	Slightly weathered, hard granite, well-placed	8
LATERAL SLOPE 0.50	3H:1V, grassy, no erosion	8
CULVERT 1.00	rebar exposed in culvert	5
DOWNSLOPE 1.00	Erosion below pipe, forested and 1.5H:1V or flatter	7
WALL DRAINS 1.00	None, probably can drain through stone masonry	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_1.158_L_1.jpg

Wall ID:	ACAD-0300-5.947-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked headwall.		

Wall Measurements

Wall Length (ft.):	9	Face Area (sq.):	40
Average Wall Height (ft.):	4	Face Angle (deg.):	70
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good, not the best construction but functioning as intended.	7
WALL FOUNDATION MATERIAL 8.00	Natural stream bottom, no sign of settlement.	7
STONE MASONRY 8.00	Moderately to slightly weathered non-uniform block sizes. Lot of chinked pieces.	7
DOWNSLOPE 0.50	Bedrock present.	9
LATERAL SLOPE 1.00	Soil/rock mix, 1.5:1 to 2:1 soil slope, moderate erosion at wall end.	5
CULVERT 1.00	3'w X 2'h, natural bottom, not affecting wall performance.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_5.947_L_1.jpg

Wall ID:	ACAD-0300-6.041-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall left abover upper Sand Beach parking lot.		

Wall Measurements

Wall Length (ft.):	110	Face Area (sq.):	1100
Average Wall Height (ft.):	10	Face Angle (deg.):	75
Maximum Wall Height (ft.):	14	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Founded on soil and bedrock at edge of parking lot. No sign of settlement.	7
STONE MASONRY 8.00	Slightly weathered to moderately weathered blocky granite.	8
LATERAL SLOPE 0.50	Ties into shallow soil over bedrock at wall start. Ties into bedrock at wall end.	8
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_6.041_L_1.jpg

Wall ID:	ACAD-0300-6.344-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	80	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	65	Face Area (sq.):	390
Average Wall Height (ft.):	6	Face Angle (deg.):	70
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on bedrock. No sign of settlement.	9
STONE MASONRY 8.00	Slightly weathered to moderately weathered blocky granite, stepped at wall start.	8
LATERAL SLOPE 0.50	Ties into bedrock at wall start. Ties into soil at wall end, 2:1 slope.	8
WALL DRAINS 0.50	None visible. No sign of water related problems.	8
DOWNSLOPE 0.50	Bedrock present.	9

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_6.344_L_1.jpg



ACAD_0300_6.344_L_2.jpg

Wall ID:	ACAD-0300-6.392-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Culvert outlet, 18 in CMP, rusted. Also 6 in ABS drain pipe in wall		

Wall Measurements

Wall Length (ft.):	19	Face Area (sq.):	82
Average Wall Height (ft.):	4	Face Angle (deg.):	66
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Low spot near beginning of wall takes overtopping flow, otherwise performance as intended.	7
WALL FOUNDATION MATERIAL 8.00	Dense soil, bedrock near surface.	8
PLACED STONE 8.00	Granite, placement appears almost random, not well constructed	6
DOWNSLOPE 0.50	5:1 h:v or flatter, forested	8
WALL DRAINS 0.50	6-inch ABS 18-inches below top of wall. Otherwise none but wall very permeable.	8
CULVERT 1.00	18-inch rusted CMP with invert 24-inches above base of wall	6
LATERAL SLOPE 1.00	Minor erosion at beginning of wall	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_6.392_L_1.jpg

Wall ID:	ACAD-0300-6.88-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	80	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack wall appears older than most in this area. 3 ft horiz offset in middle, where wall ht is max.		

Wall Measurements

Wall Length (ft.):	154	Face Area (sq.):	1050
Average Wall Height (ft.):	6	Face Angle (deg.):	71
Maximum Wall Height (ft.):	9	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Performing as designed, no issues observed.	8
WALL FOUNDATION MATERIAL 8.00	Dense soil, forested, near surface bedrock or large boulders	8
PLACED STONE 8.00	Fresh hard granite, well placed, occasional chinking	8
LATERAL SLOPE 0.50	2h:1v or flatter, grassy with no erosion	8
WALL DRAINS 1.00	None - none deeded, permeable face	7

Repair Recommendations

Failure Consequence:	HIGH
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_6.880_L_1.jpg

Wall ID:	ACAD-0300-6.951-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	Gravity - Dry Stone
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Two key sections: 5.3 ft GM above 75 ft high cliff, and 11.2 ft GD supporting GM guardwall on steep slope.		

Wall Measurements

Wall Length (ft.):	398	Face Area (sq.):	1500
Average Wall Height (ft.):	3	Face Angle (deg.):	88
Maximum Wall Height (ft.):	11	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Mortared 3 times? Missing rocks and negative batter at guardwall	6
WALL FOUNDATION MATERIAL 8.00	Bedrock cliff, toppling joint attitude but apparently stable	8
MORTAR 8.00	Only at tall section. Brushed on outside, sloppy but sufficient, multiple stages?	7
PLACED STONE 8.00	Fresh, hard granite, roughly placed, sub-rounded	7
WALL DRAINS 0.50	None evident. No mortar near base of wall so drainage is possible.	8
LATERAL SLOPE 1.00	1.5h:1v soil shoulder to beach at each end. Minor erosion.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

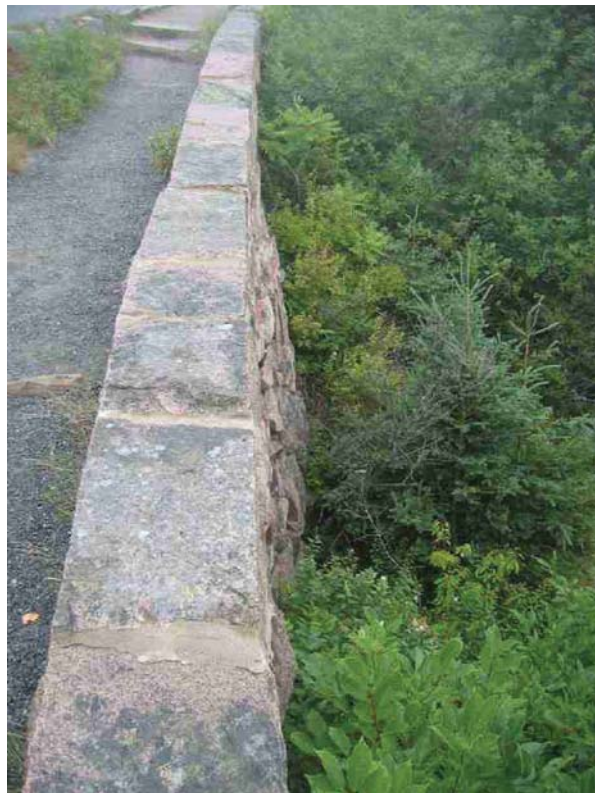
Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_6.951_L_1.jpg



ACAD_0300_6.951_L_2.jpg

Wall ID:	ACAD-0300-7.27-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	55	Maintenance Action:	Replace Elements

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	102	Face Area (sq.):	558
Average Wall Height (ft.):	5	Face Angle (deg.):	72
Maximum Wall Height (ft.):	12	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Poor. Need some repair.	3
WALL FOUNDATION MATERIAL 8.00	Founded on bedrock. No sign of settlement.	8
PLACED STONE 8.00	Slightly weathered to moderately weathered granite, ranges from cut stone to angular blocks and small chinked pieces.	5
UPSLOPE 0.50	1:1 class 5 riprap for 6' and bedrock below.	8
WALL DRAINS 0.50	None visible. No sign of water related problems.	8
LATERAL SLOPE 1.00	Large boulders and shallow bedrock.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Remove and replace 100 sq. ft. of dry stacked rock wall: 100sq.ft @ \$50/sf = \$5,000
Repair Cost:	\$5,000

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.270_L_1.jpg



ACAD_0300_7.270_L_2.jpg

Wall ID:	ACAD-0300-7.37-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	81	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block dry stacked fill wall with 14 in concrete culvert at north end of wall		

Wall Measurements

Wall Length (ft.):	533	Face Area (sq.):	5745
Average Wall Height (ft.):	10	Face Angle (deg.):	80
Maximum Wall Height (ft.):	16	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Some evidence of past settlement, but stable.	8
PLACED STONE 8.00	Some weathering.	8
CULVERT 0.50	14-inch culvert, good condition.	8
TRAFFIC BARRIER/FENCE 0.50	Some blocks missing, not effecting wall performance, minor settlement and rotation.	8
VEGETATION 0.50	Moss, grass, not impacting wall.	8
WALL DRAINS 0.50	None observed, water-related issues not impacting the wall.	8
DOWNSLOPE 0.50	Good foundation, flat to 1.5H:1v, toe of slope well vegetated, some bedrock outcrop.	9
LATERAL SLOPE 0.50	No signs of distress, no erosion.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.370_L_1.jpg



ACAD_0300_7.370_L_2.jpg

Wall ID:	ACAD-0300-7.51-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	79	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	GD below mortared guardwall. Becomes trail stairs near middle then supports trail for 200 ft approx.		

Wall Measurements

Wall Length (ft.):	384	Face Area (sq.):	1530
Average Wall Height (ft.):	3	Face Angle (deg.):	79
Maximum Wall Height (ft.):	11	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	apparently older wall, but still performing as intended	8
WALL FOUNDATION MATERIAL 8.00	Dense soil and bedrock	8
STONE MASONRY 8.00	Large blocks of fresh, hard granite. Some pre-split	8
LATERAL SLOPE 0.50	3h:1v or flatter at start, 1:1 bedrock at end	8
WALL DRAINS 0.50	None, but none needed because of permeable face.	8
CULVERT 1.00	exists mid-height, with no projection, but bedrock is foundation and there is no scour	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.510_L_1.jpg



ACAD_0300_7.510_L_2.jpg

Wall ID:	ACAD-0300-7.525-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	82	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Centerline wall separating left and right lanes, recently constructed, some loose mortar.		

Wall Measurements

Wall Length (ft.):	433	Face Area (sq.):	3100
Average Wall Height (ft.):	7	Face Angle (deg.):	79
Maximum Wall Height (ft.):	10	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	New, no evident movement, performing as anticipated	9
WALL FOUNDATION MATERIAL 8.00	Dense soil, bedrock near surface	9
MORTAR 8.00	concrete mortar, loose, cracked and missing in places, but masonry is so good and this so occasional that it is not yet much of an issue	6
STONE MASONRY 8.00	Fresh, hard sub-angular granite with minor chinking	9
LATERAL SLOPE 0.50	Gentle taper to median of road	9
UPSLOPE 0.50	Pavement adjacent to wall - drains away from wall face	9
WALL DRAINS 1.00	none observed but top of wall is paved so infiltration minor	6

Repair Recommendations

Failure Consequence:	HIGH
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.525_L_1.jpg

Wall ID:	ACAD-0300-7.583-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	161	Face Area (sq.):	1600
Average Wall Height (ft.):	9	Face Angle (deg.):	70
Maximum Wall Height (ft.):	12	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good, performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on soil/rock mix, no sign of settlement.	7
STONE MASONRY 8.00	Slightly to moderately weathered granite, blocky, some small chinked pieces.	7
LATERAL SLOPE 1.00	Ties into over steepened soil/rock mix at wall start, minor erosion. Ties into 4:1 and flatter slope at wall end.	6
CULVERT 1.00	24" concrete pipe, good condition, not affecting wall performance.	7
DOWNSLOPE 1.00	2:1 to 3:1 slope, well vegetated with trees and grass. No sign of erosion.	7
TRAFFIC BARRIER/FENCE 1.00	rock guardwall has apparent batter matching wall batter. Does not appear to be affecting wall performance.	7
WALL DRAINS 1.00	None visible, no sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.583_L_1.jpg

Wall ID:	ACAD-0300-7.635-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	67	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Poorly built, mossy dry stack located beyond Otter Cliff dry stack.		

Wall Measurements

Wall Length (ft.):	233	Face Area (sq.):	1040
Average Wall Height (ft.):	4	Face Angle (deg.):	67
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Some settlement of guard wall stones and bulging of wall face	7
WALL FOUNDATION MATERIAL 8.00	Soil, moss, possibly some settlement	7
PLACED STONE 8.00	Fresh, hard granite, poorly placed, some stones too small	6
LATERAL SLOPE 0.50	5h:1v or flatter at end, 3h:1v at beginning, no erosion	8
WALL DRAINS 0.50	None, none needed	8
TRAFFIC BARRIER/FENCE 1.00	Boulders are used but they add isolated point loads near the face of poorly stacked wall	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.635_L_1.jpg

Wall ID:	ACAD-0300-7.777-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 08, 2007	Approximate Year Built:	Unknown
*Wall Rating:	69	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall below road, above trail.		

Wall Measurements

Wall Length (ft.):	318	Face Area (sq.):	954
Average Wall Height (ft.):	3	Face Angle (deg.):	70
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended. Scattered rock guardwall needs to be raised approximately 1' to be effective.	7
WALL FOUNDATION MATERIAL 8.00	Founded on turf/soil. No sign of settlement.	7
PLACED STONE 8.00	Slightly weathered to moderately weathered granite blocks, many chinked pieces.	7
LATERAL SLOPE 0.50	Ties into large boulders and shallow bedrock at wall start and ties into 3:1 grassy slope at wall end.	8
ROAD/SIDEWALK/SHOULDER 1.00	Roadway shoulder drops off sharply to top of the wall in several locations.	5
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.777_L_1.jpg

Wall ID:	ACAD-0300-7.98-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Crudely built dry stack with guard wall rocks spaced at 0.5 to 1.0 ft. Last few hundred ft is mostly buried.		

Wall Measurements

Wall Length (ft.):	582	Face Area (sq.):	2350
Average Wall Height (ft.):	4	Face Angle (deg.):	66
Maximum Wall Height (ft.):	11	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Lower batter angle than most walls here, missing a few stones, low height section is now buried	7
WALL FOUNDATION MATERIAL 8.00	Dense soil, shallow bedrock, one section is on outcrop	8
PLACED STONE 8.00	Crudely placed, even the chinking is chinked	6
LATERAL SLOPE 0.50	Flat, forested, no erosion	8
WALL DRAINS 0.50	None, but none needed because of permeable construction	8
VEGETATION 1.00	Grass, small plants	7

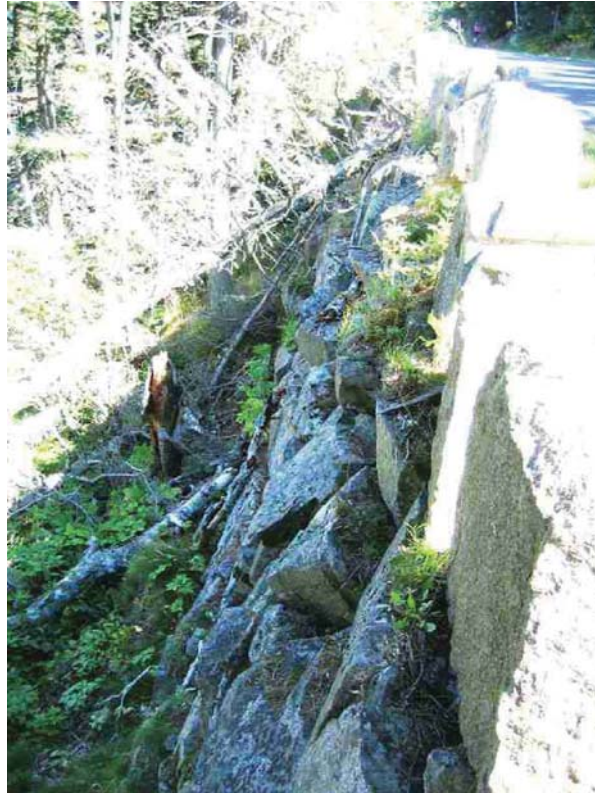
Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_7.980_L_1.jpg



ACAD_0300_7.980_L_2.jpg

Wall ID:	ACAD-0300-8.81-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	78	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall ties into bridge.		

Wall Measurements

Wall Length (ft.):	61	Face Area (sq.):	793
Average Wall Height (ft.):	13	Face Angle (deg.):	50
Maximum Wall Height (ft.):	14	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good, performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Founded on inter-tidal bay, mostly rock, some sand. No sign of settlement.	8
STONE MASONRY 8.00	Slightly to moderately weathered granite, large, blocky.	8
LATERAL SLOPE 0.50	Ties into 40 degree rock slope at wall start and bridge at wall end. No sign of erosion.	8
ROAD/SIDEWALK/SHOULDER 1.00	Shoulder is rock mortared and exhibits a 5' by 4' depression.	5
DOWNSLOPE 1.00	Riprap protection with no sign of erosion.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_8.810_L_1.jpg



ACAD_0300_8.810_L_2.jpg

Wall ID:	ACAD-0300-9.039-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	41	Maintenance Action:	Replace Wall

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Crude dry stack wall on top of rock fill with slope		

Wall Measurements

Wall Length (ft.):	350	Face Area (sq.):	2180
Average Wall Height (ft.):	6	Face Angle (deg.):	50
Maximum Wall Height (ft.):	16	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Settling and lateral displacement of several inches noted.	3
WALL FOUNDATION MATERIAL 8.00	10 ft. high 1:1 slope of rockfill or old, failed dry stack wall, on 3:1 slope.	3
PLACED STONE 8.00	Small, crude placement, fresh hard granite.	5
LATERAL SLOPE 0.50	Forested, no erosion.	8
TRAFFIC BARRIER/FENCE 1.00	Settled and displaced laterally several inches.	4
CURB/BERM/DITCH 1.00	Paved ditch does not carry water away from wall.	5
ROAD/SIDEWALK/SHOULDER 1.00	Road has been recently repaved, but known to be previously patched.	5
VEGETATION 1.00	Trees of several inches diameter now are integral to wall.	5
WALL DRAINS 1.00	None, ponding noted in ditch u/s of road at culvert.	5

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Reconstruct wall, possibly with rockfill. Estimate rockfill volume of 1,200 cubic yards @ \$90 per c.y. = \$108,000.00. Note: This includes replacement of rockfill re-using existing rocks currently incorporated in the wall.
Repair Cost:	\$108,000

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.039_L_1.jpg



ACAD_0300_9.039_L_2.jpg

Wall ID:	ACAD-0300-9.166-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut rock (4 ft x 2 ft x 1 ft) stone fill wall		

Wall Measurements

Wall Length (ft.):	49	Face Area (sq.):	301
Average Wall Height (ft.):	6	Face Angle (deg.):	75
Maximum Wall Height (ft.):	9	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Bedrock base on cliff over ocean, no signs of settlement or rotation, too steep to get to bottom of wall.	9
MORTAR 8.00	Minor cracking, good condition.	9
STONE MASONRY 8.00	4'x2'x1' granite blocks, no signs of distress, minor surface weathering and CaCO3 deposits	9
DOWNSLOPE 0.50	Bedrock cliff to ocean, small bush at the weep hole, no impact to wall.	9
LATERAL SLOPE 0.50	About 2H:1V in soil to vertical bedrock outcrop, minor surface erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is gentle slope to flat with grass, not impacting the wall.	9
TRAFFIC BARRIER/FENCE 0.50	large granite stone at top of wall as barrier, no signs of distress, one piece missing.	9
WALL DRAINS 0.50	2 weep holes observed, water-related issues not impacting wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.166_L_1.jpg



ACAD_0300_9.166_L_2.jpg

Wall ID:	ACAD-0300-9.764-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	86	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Fill wall over drainage gully to beach		

Wall Measurements

Wall Length (ft.):	58	Face Area (sq.):	488
Average Wall Height (ft.):	8	Face Angle (deg.):	72
Maximum Wall Height (ft.):	13	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Bedrock	9
MORTAR 8.00	no cracking or spalling, none missing	9
STONE MASONRY 8.00	Hard fresh, sub angular granite - excellent workmanship	9
TRAFFIC BARRIER/FENCE 0.50	Boulders, typ. 2x2x4' placed with 2 to 4 ft in between. One is missing	8
LATERAL SLOPE 1.00	Wall appears 6 ft too short at each end. 12"-minus riprap to slow erosion starting at beginning	6
WALL DRAINS 1.00	None observed	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

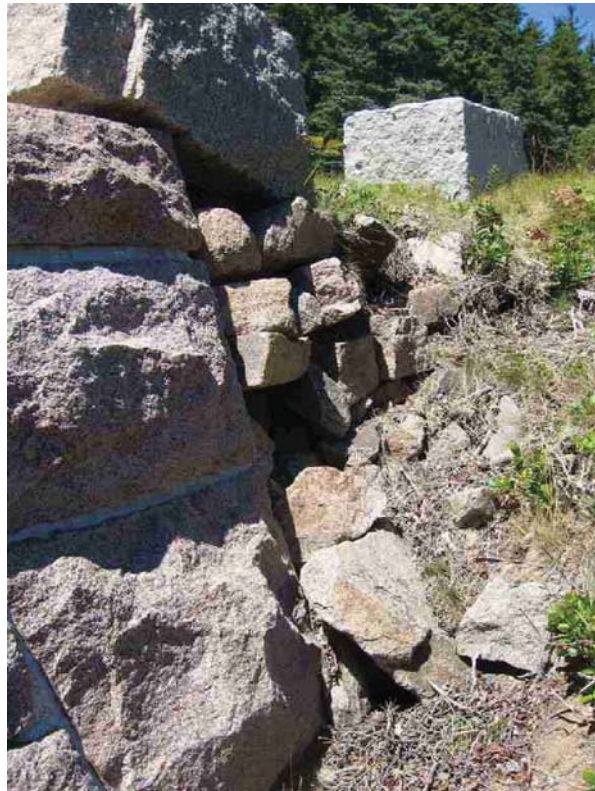
Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.764_L_1.jpg



ACAD_0300_9.764_L_2.jpg

Wall ID:	ACAD-0300-9.828-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	71	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	53	Face Area (sq.):	265
Average Wall Height (ft.):	5	Face Angle (deg.):	65
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good, performing as intended but needs additional material. See work order.	7
WALL FOUNDATION MATERIAL 8.00	Founded on soil/rock mix at top of stacked rock fill, no sign of settlement.	8
STONE MASONRY 8.00	1' to 3' blocks of granite, slightly weathered.	7
CURB/BERM/DITCH 1.00	Berm above wall has moderate erosion although not affecting wall performance.	4
DOWNSLOPE 0.50	stacked rock fill, no sign of distress or erosion.	8
LATERAL SLOPE 1.00	2:1 slope, grassy vegetation. Minor to moderate erosion.	5
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	18' by 3' by 1' of granite blocks. 2 yds. X \$250 = \$500 1 yd. Agg base X \$50 = \$50, 8 hrs. labor X \$55 = \$440
Repair Cost:	\$1,000

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.828_L_1.jpg



ACAD_0300_9.828_L_2.jpg

Wall ID:	ACAD-0300-9.874-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Two lobes of a dry stacked rock wall on an apron of riprap.		

Wall Measurements

Wall Length (ft.):	55	Face Area (sq.):	280
Average Wall Height (ft.):	5	Face Angle (deg.):	66
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	There has been 2 or more stages of continuous erosion protection.	7
WALL FOUNDATION MATERIAL 8.00	Steep soil slope, near bedrock, riprap erosion protection 15' high.	7
PLACED STONE 8.00	Medium size granite, fair craftsmanship.	7
WALL DRAINS 0.50	None needed, wall is very porous.	8
DOWNSLOPE 1.00	Riprap apron, stacked @ 1:1 slope, 15' high.	7
LATERAL SLOPE 1.00	2:1 slope with grass, shrubs, tree. TECM used and has established grass.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

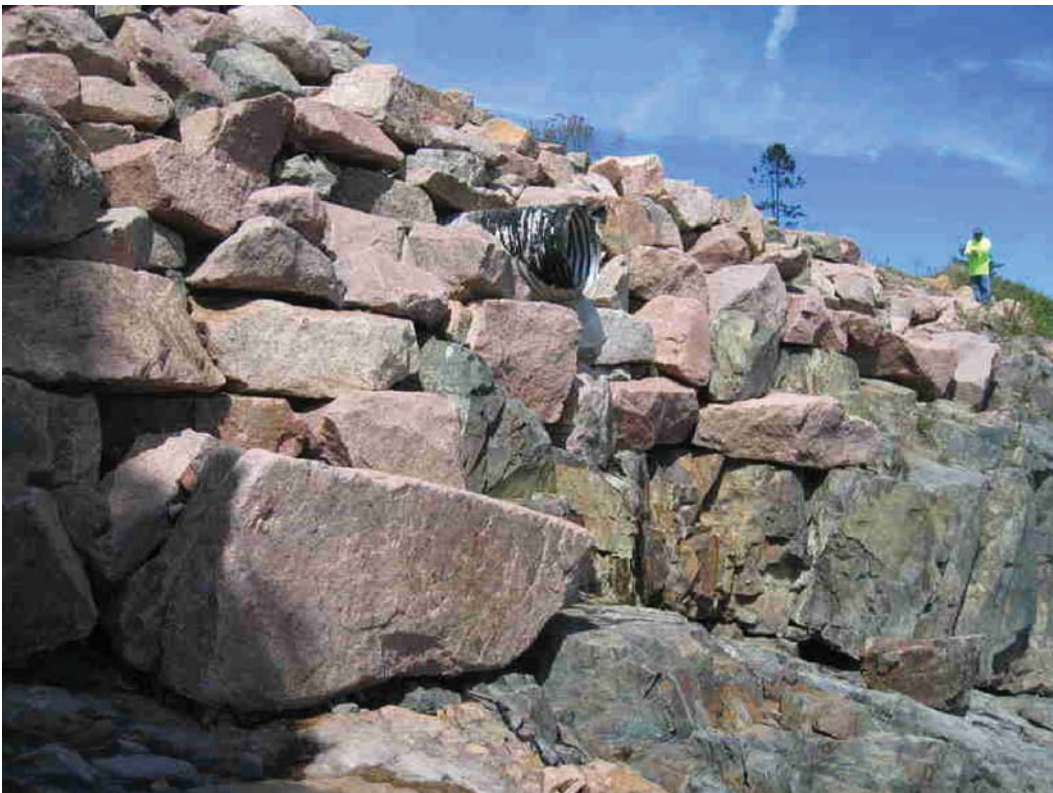
Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.874_L_1.jpg



ACAD_0300_9.874_L_2.jpg

Wall ID:	ACAD-0300-9.92-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	Gravity - Mortared Stone
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone fill wall over gully to the beach.		

Wall Measurements

Wall Length (ft.):	62	Face Area (sq.):	930
Average Wall Height (ft.):	15	Face Angle (deg.):	72
Maximum Wall Height (ft.):	21	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	The upper 18' appears to be a replacement. Bottom is undermined.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock, basalt.	9
PLACED STONE 8.00	Bottom 3' - earlier construction.	6
MORTAR 8.00	Poor condition, cracked and missing, at old wall in bottom 3'; elsewhere, excellent condition.	7
STONE MASONRY 8.00	Upper 18' excellent craftsmanship.	9
CULVERT 0.50	One culvert on lateral slope beyond end of wall; flowing, but onto bedrock.	8
LATERAL SLOPE 0.50	Steep soil over bedrock. Wall not long enough, but global stability not threatened.	8
WALL DRAINS 0.50	One drain in the stone masonry, but too high; seepage is on bedrock below.	9
UPSLOPE 1.00	Grass, flat to roadway.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.920_L_1.jpg



ACAD_0300_9.920_L_2.jpg

Wall ID:	ACAD-0300-9.959-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall adjacent to 3rd pullout.		

Wall Measurements

Wall Length (ft.):	73	Face Area (sq.):	700
Average Wall Height (ft.):	9	Face Angle (deg.):	50
Maximum Wall Height (ft.):	19	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good, performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on shallow bedrock, no sign of settlement.	9
PLACED STONE 8.00	2' to 6' angular blocks of granite, slightly to moderately weathered.	7
DOWNSLOPE 0.50	Shallow bedrock, no sign of erosion.	8
LATERAL SLOPE 1.00	Ties into boulders/soil mix at wall start, moderate erosion. Ties into steep soil slope over shallow bedrock at wall end.	6
CULVERT 1.00	36" CMP shotgunning out of wall, not affecting wall performance.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_9.959_L_1.jpg

Wall ID:	ACAD-0300-10.3-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut rock (4 ft x 2 ft x 1 ft) mortared stone fill wall		

Wall Measurements

Wall Length (ft.):	69	Face Area (sq.):	210
Average Wall Height (ft.):	3	Face Angle (deg.):	75
Maximum Wall Height (ft.):	10	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Solid granular material or bedrock, minor erosion at the toe, good condition.	9
MORTAR 8.00	Minor cracking, good condition.	9
STONE MASONRY 8.00	4'x2'x1' solid granite cut stones, minor surface weathering with CaCO3 deposits.	9
DOWNSLOPE 0.50	About 1.5H:1V slope with grass and trees, minor surface erosion.	8
LATERAL SLOPE 0.50	About 2H:1V slope with minor surface erosion, some riprap slope protection in place.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is relatively flat with grass, no signs of distress.	9
TRAFFIC BARRIER/FENCE 0.50	Stone barrier at the top of the wall, no displacement, not impacting the wall.	9
WALL DRAINS 0.50	Wall drain in good condition (gap in blocks built into wall), water-related issues not impacting wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_10.300_L_1.jpg



ACAD_0300_10.300_L_2.jpg

Wall ID:	ACAD-0300-10.408-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut stone (4 ft x 2 ft x 1 ft) mortared headwall (downstream/outlet side)		

Wall Measurements

Wall Length (ft.):	80	Face Area (sq.):	960
Average Wall Height (ft.):	12	Face Angle (deg.):	70
Maximum Wall Height (ft.):	24	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Solid granular alluvial material, no signs of distress, settlement, or rotation.	9
MORTAR 8.00	Minor cracking and spalling at isolated locations, good condition.	9
STONE MASONRY 8.00	4'x2'x1' cut solid granite blocks, minor surface weathering, performing as intended.	9
CULVERT 0.50	6'Wx5'H concrete arch culvert, minor cracking, performing as intended.	9
DOWNSLOPE 0.50	Active alluvial stream channel at 3H:1V slope, not impacting the wall.	9
LATERAL SLOPE 0.50	Relatively flat with 2H:1V with minor surface erosion, bushes and trees, stairway down to the ocean at one side.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is relatively flat, not impacting wall.	9
WALL DRAINS 0.50	None observed, water-related issues not impacting wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_10.408_L_1.jpg



ACAD_0300_10.408_L_2.jpg

Wall ID:	ACAD-0300-10.408-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut stone (4 ft x 2 ft x 1 ft) mortared headwall with guardwall on top (upstream/inlet side)		

Wall Measurements

Wall Length (ft.):	90	Face Area (sq.):	1080
Average Wall Height (ft.):	12	Face Angle (deg.):	75
Maximum Wall Height (ft.):	23	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Solid granular alluvial material, no signs of distress, settlement, or rotation.	9
MORTAR 8.00	Minor cracking and spalling at isolated locations, good condition.	9
STONE MASONRY 8.00	4'x2'x1' cut granite blocks, minor surface weathering and CaCO ₃ staining, minor moss coverage.	9
CULVERT 0.50	6'Wx5' H concrete arch culvert, minor cracking, performing as intended.	9
DOWNSLOPE 0.50	Active alluvial stream channel at 2H:1V slope, minor erosion at footings, not impacting wall performance.	9
LATERAL SLOPE 0.50	Relatively flat to 2H:1V, minor surface erosion, bushes and trees.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay and no signs of distress. Shoulder is relatively flat, not impacting the wall.	9
WALL DRAINS 0.50	Gap in blocks built into wall, functioning as intended, water-related issues not impacting wall.	9

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_10.408_R_1.jpg



ACAD_0300_10.408_R_2.jpg

Wall ID:	ACAD-0300-10.637-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	58	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall at pull-out LT.		

Wall Measurements

Wall Length (ft.):	220	Face Area (sq.):	900
Average Wall Height (ft.):	4	Face Angle (deg.):	77
Maximum Wall Height (ft.):	15	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair. Performing as intended, some repair under guardwall needed.	6
WALL FOUNDATION MATERIAL 8.00	Founded on soil/rock mix and bedrock, no sign of settlement.	7
STONE MASONRY 8.00	Upper portion of wall nicely stacked, sl. weathered granite. Lower 1/3 of wall consisting of crudely placed rock fill.	6
ROAD/SIDEWALK/SHOULDER 1.00	Settlement present at paved walkway near wall end.	4
DOWNSLOPE 1.00	Very steep soil over bedrock slope. Minor erosion.	6
LATERAL SLOPE 1.00	Steep soil over shallow bedrock slope at wall start. Gentle 3:1 grassy slope at wall end. No erosion.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7
TRAFFIC BARRIER/FENCE 5.00	Footing below guardwall is undermined at wall start and wall end.	3

Repair Recommendations

Failure Consequence:	HIGH
Recommendation Narrative:	70' X 2' X .5' area or 2.6 cu. Yds, Lean concrete @ \$100 = \$260, 8 hours labor @ \$55 per hr = \$440
Repair Cost:	\$700

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

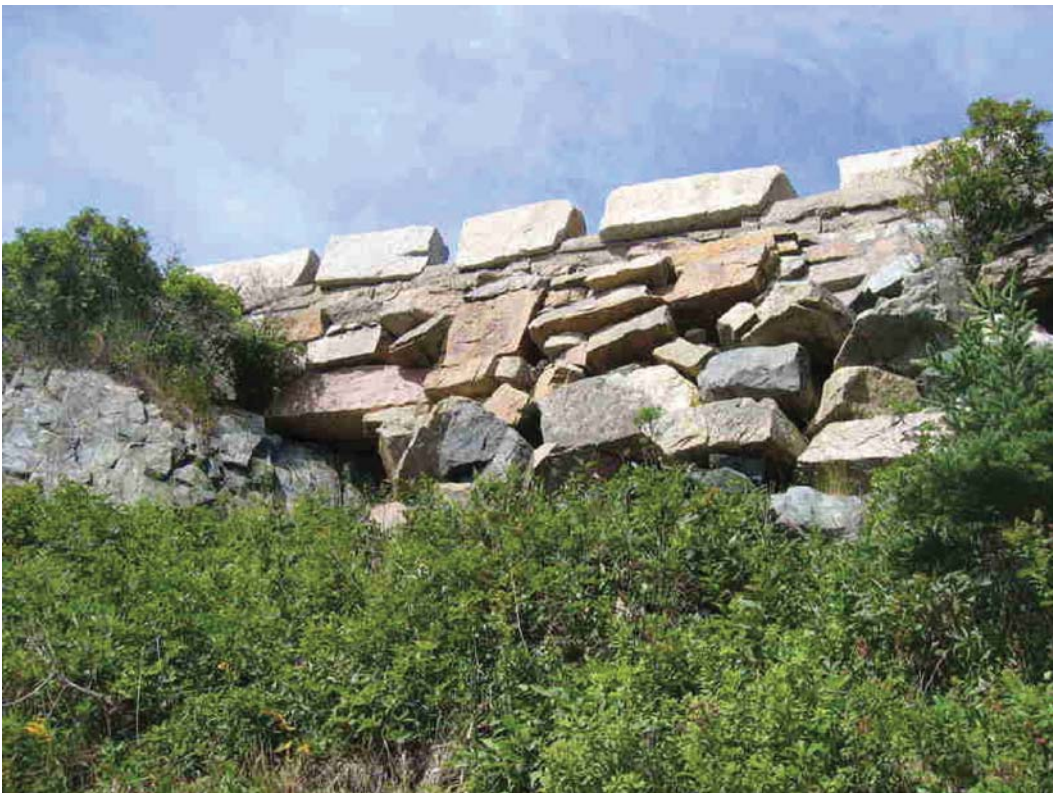
Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_10.637_L_1.jpg



ACAD_0300_10.637_L_2.jpg

Wall ID:	ACAD-0300-11.487-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	89	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared masonry wall		

Wall Measurements

Wall Length (ft.):	226	Face Area (sq.):	890
Average Wall Height (ft.):	3	Face Angle (deg.):	85
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Some minor cracks	9
STONE MASONRY 8.00	Minor weathering , good condition	9
LATERAL SLOPE 0.50	No erosion well vegetated	8
UPSLOPE 0.50	Well vegetated slight signs of erosion	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10
WALL DRAINS 1.00	Openings between blocks, silted up below grade	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.487_L_1.jpg

Wall ID:	ACAD-0300-11.49-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	89	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared masonry wall at bridge, culvert 18 in CMP		

Wall Measurements

Wall Length (ft.):	236	Face Area (sq.):	930
Average Wall Height (ft.):	3	Face Angle (deg.):	85
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Minor cracking	9
PLACED STONE 8.00	Slight weathering	9
CULVERT 0.50	18" CMP some corrosion but in working condition	8
LATERAL SLOPE 0.50	Minor erosion well vegetated	8
UPSLOPE 0.50	No signs of erosion	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10
WALL DRAINS 1.00	Opening between blocks silted in	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.490_R_1.jpg

Wall ID:	ACAD-0300-11.54-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	88	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared masonry granite wall at bridge		

Wall Measurements

Wall Length (ft.):	78	Face Area (sq.):	312
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Some minor cracks	9
PLACED STONE 8.00	Good condition minor weathering	9
WALL DRAINS 0.50	None visible	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10
LATERAL SLOPE 1.00	Erosion control not working, significant erosion	6
UPSLOPE 1.00	Erosion control not working, significant erosion	6

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	Erosion control 78' x 8' = 70 sy @ \$5/sy = \$350, grading & placing materials, 2 people / 6 hrs@\$55/hr = \$880, equip. hrs =\$500,seeding \$100. Total = \$1,830.Redirect surface water from bridge away from wall.
Repair Cost:	\$1,830

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.540_R_1.jpg

Wall ID:	ACAD-0300-11.541-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	89	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared masonry wall @ bridge		

Wall Measurements

Wall Length (ft.):	93	Face Area (sq.):	462
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	Minor cracks	9
STONE MASONRY 8.00	Minor weathering, good condition	9
LATERAL SLOPE 0.50	Slight erosion	8
UPSLOPE 0.50	Signs of erosion	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10
WALL DRAINS 1.00	Holes between blocks silted in below grade	7

Repair Recommendations

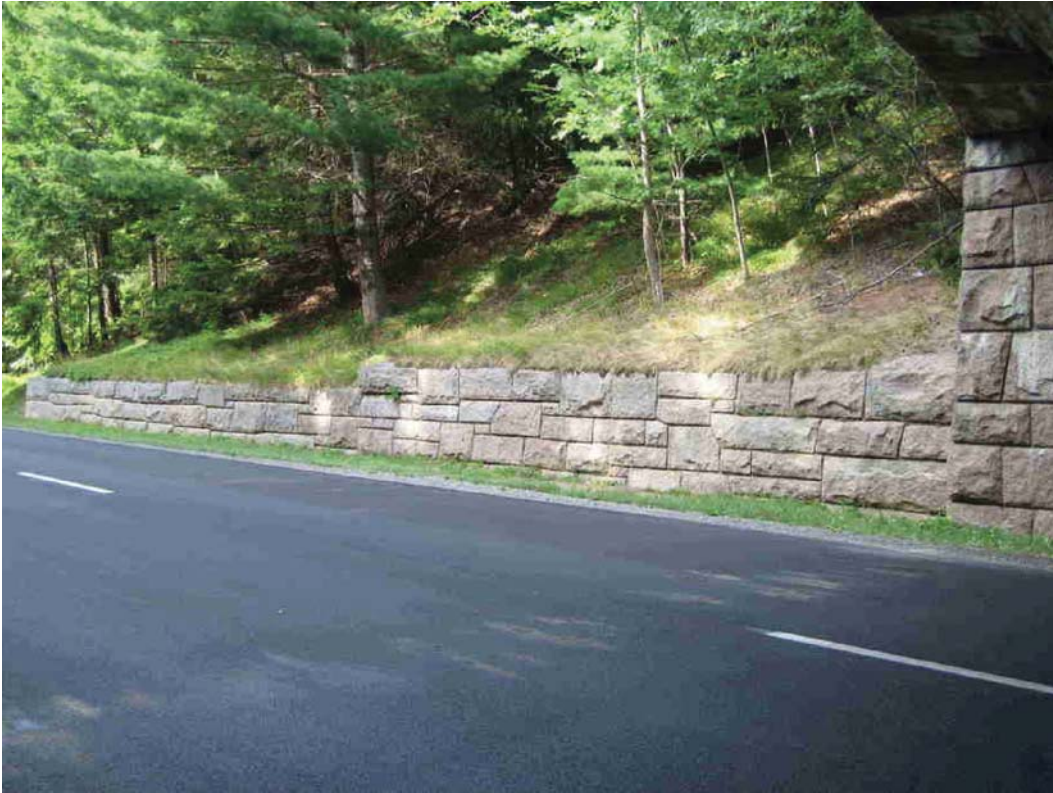
Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.541_L_1.jpg

Wall ID:	ACAD-0300-11.589-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	84	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Stone masonry hedwall, outlet side, of 15 ft span, concrete bottom.		

Wall Measurements

Wall Length (ft.):	56	Face Area (sq.):	230
Average Wall Height (ft.):	4	Face Angle (deg.):	86
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Dense alluvium, limited scour potential.	8
MORTAR 8.00	Some calcium precipitate, moss (minor), no cracking.	9
STONE MASONRY 8.00	Fresh, hard granite; well crafted.	9
LATERAL SLOPE 0.50	3:1 slope. End stones rest on exposed CIP concrete, perhaps erosion occurred in the past.	8
WALL DRAINS 1.00	None, no signs of drainage related distress.	7

Repair Recommendations

Failure Consequence:	HIGH
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.589_L_1.jpg

Wall ID:	ACAD-0300-11.592-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	84	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Stone mortared headwall at inlet.		

Wall Measurements

Wall Length (ft.):	55	Face Area (sq.):	220
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Founded on stream channel, no sign of settlement.	8
MORTAR 8.00	No spalling or cracks, very good and recently constructed.	9
STONE MASONRY 8.00	Fresh granite blocks, well cut and well placed.	9
LATERAL SLOPE 1.00	2:1 soil slope with minor erosion at wall start.	5
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.592_R_1.jpg

Wall ID:	ACAD-0300-11.66-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	76	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	Gravity - Dry Stone
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stack fill wall large rocks except at wall end. No guardwall.		

Wall Measurements

Wall Length (ft.):	285	Face Area (sq.):	2565
Average Wall Height (ft.):	9	Face Angle (deg.):	74
Maximum Wall Height (ft.):	13	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Old wall still performing well.	8
WALL FOUNDATION MATERIAL 8.00	Dense soil, gentle slope.	8
PLACED STONE 8.00	Large to very large rocks except at wall end. Well crafted of angular to sub rounded granite.	7
DOWNSLOPE 0.50	Gentle slope.	8
WALL DRAINS 0.50	2 ABS green drains 6" noted, evidence of past flow, otherwise free draining face.	8
LATERAL SLOPE 1.00	3:1 slope. Soil.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass slopes towards wall depression, concentrated from near wall beginning.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.660_R_1.jpg



ACAD_0300_11.660_R_2.jpg

Wall ID:	ACAD-0300-11.688-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	71	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite boulder (2 ft x 4 ft diameter) cut wall		

Wall Measurements

Wall Length (ft.):	360	Face Area (sq.):	1800
Average Wall Height (ft.):	5	Face Angle (deg.):	85
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair to good condition, minor signs of rotation and settlement.	7
WALL FOUNDATION MATERIAL 8.00	Solid granular fill material (roadway/shoulder), minor indications of settlement and erosion at the base, but not actively moving.	7
PLACED STONE 8.00	2'-4' diameter solid granite rounded boulders, minor surface weathering, primitive construction, slight rotation out of vertical, small pieces eroding in places, many 3-4" voids throughout.	7
LATERAL SLOPE 0.50	About 2H:1V slope with grass similar to upslope.	8
UPSLOPE 0.50	About 3H:1V slope with grass and small trees, occasionally soft with water, no observed erosion.	8
WALL DRAINS 0.50	None observed, voids are serving as drainage paths.	8
CULVERT 0.50	Inlet in the middle of the wall, minor erosion, functioning as intended.	9
ROAD/SIDEWALK/SHOULDER 1.00	Road has a new overlay and no signs of distress. Shoulder has moderate erosion at the inlet.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.688_L_1.jpg

Wall ID:	ACAD-0300-11.721-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	72	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall, no guardwall present.		

Wall Measurements

Wall Length (ft.):	402	Face Area (sq.):	4200
Average Wall Height (ft.):	10	Face Angle (deg.):	75
Maximum Wall Height (ft.):	16	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on soil, no sign of settlement.	7
PLACED STONE 8.00	Large (3' X 4') blocky granite, slightly weathered.	8
DOWNSLOPE 0.50	Gentle 4:1 slope, well vegetated slope, no sign of erosion.	8
LATERAL SLOPE 1.00	1.5:1 soil slope at wall start, moderate erosion. 2:1 soil slope at wall end, very minor erosion.	5
CULVERT 1.00	24" concrete pipe, not affecting wall performance.	7
ROAD/SIDEWALK/SHOULDER 1.00	Wide turf shoulder, no sign of distress.	7
WALL DRAINS 1.00	6" weep holes, appear to be functioning fine.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.721_R_1.jpg



ACAD_0300_11.721_R_2.jpg

Wall ID:	ACAD-0300-11.957-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 09, 2007	Approximate Year Built:	Unknown
*Wall Rating:	60	Maintenance Action:	Repair Elements

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked granite boulder fill wall		

Wall Measurements

Wall Length (ft.):	224	Face Area (sq.):	2200
Average Wall Height (ft.):	9	Face Angle (deg.):	60
Maximum Wall Height (ft.):	13	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair condition, active internal erosion that may impact the road, allowing voids to form.	5
WALL FOUNDATION MATERIAL 8.00	Granular materials, minor settlement and movement at the base of the wall.	8
PLACED STONE 8.00	1-5' diameter granite boulders, large voids (3-4ft wide) behind some rocks, primitive construction.	5
DOWNSLOPE 0.50	About 2H:1V slope with minor surface erosion, grass and trees vegetate the surface, not impacting the wall.	9
LATERAL SLOPE 0.50	About 2H:1V slope, minor surface erosion, not impacting the wall.	9
ROAD/SIDEWALK/SHOULDER 1.00	Road had a new overlay with no signs of distress. Shoulder has erosion bowls at numerous locations with voids and holes.	5
WALL DRAINS 1.00	None observed, water travels through wall elements, surface water problems.	5
CULVERT 1.00	16" diameter concrete culvert, performing function but appears undersized with damage at the outlet.	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	Remove 3 feet of material at the shoulder, place geotextile separator: 9' wide x 224' long = 2224 yd @ \$2/yd2 = \$500, replace, re-compact shoulder with granular material: 4032/27 = 150yds, @\$30/yd3 = \$4,478, top 6" - replace topsoil.
Repair Cost:	\$13,378

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_11.957_R_1.jpg



ACAD_0300_11.957_R_2.jpg

Wall ID:	ACAD-0300-12.079-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	64	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite boulder dry stacked fill wall		

Wall Measurements

Wall Length (ft.):	503	Face Area (sq.):	4500
Average Wall Height (ft.):	8	Face Angle (deg.):	65
Maximum Wall Height (ft.):	13	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair condition, many surface erosion holes in the roadway shoulder, but does not compromise wall function. This area should be monitored because the erosion could progress to a point where it could impact the wall performance.	6
WALL FOUNDATION MATERIAL 8.00	Solid granular material, occasional loose, soft areas, minor signs of rotation and settlement.	7
PLACED STONE 8.00	1-4' diameter granite boulders, many voids throughout, signs of internal erosion, but functioning as intended (due to large size of boulders with good contact).	6
DOWNSLOPE 0.50	About 2H:1V vegetated slope with trees, shrubs, grass, not impacting wall.	8
LATERAL SLOPE 0.50	Minor surface erosion, minor impact to wall, tapers to the sides.	8
TRAFFIC BARRIER/FENCE 0.50	Granite boulders at the top of the wall, 2 missing (unrelated), minor settlement above wall, signs of small surface depressions.	8
ROAD/SIDEWALK/SHOULDER 1.00	Road has new overlay with no signs of distress. Shoulder has moderate number of holes, settlement areas indicating surface erosion, minor impact on wall function.	5
CULVERT 1.00	16-inch diameter concrete pipe outlet, half-way silted in, not fully functional.	6
WALL DRAINS 1.00	None observed, water drains through the wall elements, lack of controlled drainage may be leading to wall distress.	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.079_R_1.jpg

Wall ID:	ACAD-0300-12.302-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block (1 to 4 ft) dry stacked cut wall.		

Wall Measurements

Wall Length (ft.):	281	Face Area (sq.):	1120
Average Wall Height (ft.):	3	Face Angle (deg.):	75
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, moderate signs of surface erosion at the top of the wall, not yet impacting wall function.	7
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of significant settlement or rotation.	9
PLACED STONE 8.00	Solid granite blocks (1-4'), occasional cracks, small voids throughout, not impacting wall function, primitive construction, occasional outward displacement.	7
CURB/BERM/DITCH 0.50	Unpaved ditch in front of the wall, functioning as intended.	8
LATERAL SLOPE 0.50	Tapers to gentle slopes, no signs of erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no observed distress. Shoulder is unpaved grass with ditch in front of the wall.	9
WALL DRAINS 0.50	None observed, drainage issues not impacting the wall.	9
UPSLOPE 1.00	About 2H:1V slope, well vegetated with trees, grass, and brush, moderate surface erosion with voids at the top of the wall.	6

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.302_L_1.jpg

Wall ID:	ACAD-0300-12.416-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block (1 to 4 ft) dry stacked cut wall		

Wall Measurements

Wall Length (ft.):	432	Face Area (sq.):	2150
Average Wall Height (ft.):	4	Face Angle (deg.):	80
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, moderate surface erosion at the top of the wall, not yet impacting the wall performance.	7
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of settlement or rotation.	9
PLACED STONE 8.00	Solid granite boulders (1-4'), occasional cracks, small to medium voids throughout, not impacting wall performance, occasional slight displacement, primitive construction.	7
CULVERT 0.50	Inlet midway with mice, minor settlement.	8
CURB/BERM/DITCH 0.50	Unpaved ditch in front of wall, functioning as intended.	8
LATERAL SLOPE 0.50	Tapers gently to slopes, no signs of erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder has unpaved ditch with grass in front.	9
WALL DRAINS 0.50	None observed, drainage issues not impacting wall.	9
UPSLOPE 1.00	About 2H:1V slope, well vegetated with trees, grass, and shrubs, with moss in places, moderate surface erosion with voids at the top of the wall.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.416_L_1.jpg

Wall ID:	ACAD-0300-12.550-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared gravity wall, bridge approach, wing walls. Path to carriage rd above wall		

Wall Measurements

Wall Length (ft.):	91	Face Area (sq.):	410
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent, No signs of distress	9
WALL FOUNDATION MATERIAL 8.00	Slight settlement away from bridge, no impact to wall	9
MORTAR 8.00	No signs of distress	9
STONE MASONRY 8.00	No signs of distress	9
LATERAL SLOPE 0.50	No signs of distress	8
UPSLOPE 0.50	No signs of distress	8
WALL DRAINS 0.50	None visible	8
ROAD/SIDEWALK/SHOULDER 0.50	Good condition	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.550_R_1.jpg



ACAD_0300_12.550_R_2.jpg

Wall ID:	ACAD-0300-12.551-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared granite masonry wall. Bridge approach		

Wall Measurements

Wall Length (ft.):	98	Face Area (sq.):	850
Average Wall Height (ft.):	8	Face Angle (deg.):	85
Maximum Wall Height (ft.):	11	Vertical Offset (ft.):	-2

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	No signs of distress	9
STONE MASONRY 8.00	No signs of distress	9
LATERAL SLOPE 0.50	Well vegetated	8
UPSLOPE 0.50	Some erosion but well vegetated	8
WALL DRAINS 0.50	Outlet in gaps between blocks, appears to be functioning as intended	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos

Condition photos are not available for ACAD-0300-12.551-L.

Wall ID:	ACAD-0300-12.572-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared granitewall, bridge approach wing wall		

Wall Measurements

Wall Length (ft.):	103	Face Area (sq.):	850
Average Wall Height (ft.):	8	Face Angle (deg.):	85
Maximum Wall Height (ft.):	11	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Excellent condition	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	No signs of distress	9
STONE MASONRY 8.00	No signs of distress	9
LATERAL SLOPE 0.50	No signs of erosion, well vegetated	8
UPSLOPE 0.50	No signs of erosion, well vegetated	8
WALL DRAINS 0.50	Drains in openings between blocks, appear to be functioning as intended	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.572_L_1.jpg

Wall ID:	ACAD-0300-12.574-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	90	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared granite wall bridge approach wing wall		

Wall Measurements

Wall Length (ft.):	106	Face Area (sq.):	460
Average Wall Height (ft.):	4	Face Angle (deg.):	85
Maximum Wall Height (ft.):	7	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	No signs of distress	9
WALL FOUNDATION MATERIAL 8.00	No signs of distress	9
MORTAR 8.00	No signs of distress	9
STONE MASONRY 8.00	No signs of distress	9
LATERAL SLOPE 0.50	Well vegetated, no signs of erosion	8
UPSLOPE 0.50	Some erosion , not impacting the wall, well vegetated	8
WALL DRAINS 0.50	None visible	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of distress	10

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.574_R_1.jpg

Wall ID:	ACAD-0300-12.604-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	71	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite boulder (1 to 4 ft) gravity dry stacked wall		

Wall Measurements

Wall Length (ft.):	250	Face Area (sq.):	2874
Average Wall Height (ft.):	11	Face Angle (deg.):	62
Maximum Wall Height (ft.):	19	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, moderate surface erosion at the top of the wall in the roadway shoulder should be monitored and may impact road performance if it progresses.	6
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no signs of settlement or rotation.	8
PLACED STONE 8.00	Solid granite (1-4' diameter) boulders, small to moderate sized voids throughout, minor rotation, but functioning as intended.	7
LATERAL SLOPE 0.50	Minor surface erosion, about 2H:1V slopes with grass, not impacting wall.	8
DOWNSLOPE 0.50	About 4H:1V slope, heavy vegetation, not impacting wall.	9
WALL DRAINS 0.50	None observed, drainage not impacting wall.	9
ROAD/SIDEWALK/SHOULDER 1.00	Road has new overlay with no signs of distress. Shoulder is about 3-feet wide with grass and voids at the top of the wall, which should be monitored.	6

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.604_R_1.jpg

Wall ID:	ACAD-0300-12.713-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	74	Maintenance Action:	No Action

Wall Description

Wall Function:	Cut Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite block (1 to 4 ft) dry stacked cut wall		

Wall Measurements

Wall Length (ft.):	326	Face Area (sq.):	1630
Average Wall Height (ft.):	5	Face Angle (deg.):	70
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good condition, surface erosion causing voids at the top of the wall and minor interior voids that should be monitored.	7
WALL FOUNDATION MATERIAL 8.00	Solid granular material, no settlement, but small erosional feature by drain.	8
PLACED STONE 8.00	Solid granite blocks (1-4') with minor surface weathering, occasional voids.	7
CURB/BERM/DITCH 0.50	Unpaved ditch at the base of the wall, with minor erosion.	8
LATERAL SLOPE 0.50	Minor surface erosion, generally gentle slopes, not impacting wall.	8
VEGETATION 0.50	Minor grass and moss growth, not impacting wall performance.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is relatively flat with grass, not impacting wall.	9
UPSLOPE 1.00	About 2H:1V slope with surface water drainage and voids at the toe of the wall.	7
WALL DRAINS 1.00	4" diameter metal drain at base of wall, minor surface water issues associated with minor interior erosion.	7

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_12.713_L_1.jpg

Wall ID:	ACAD-0300-13.33-R		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	68	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut stone block (1 to 2 ft wide x 1 ft High) mortar stone headwall (downstream/outlet side)		

Wall Measurements

Wall Length (ft.):	28	Face Area (sq.):	145
Average Wall Height (ft.):	5	Face Angle (deg.):	80
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-5

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair to good condition, performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Active stream channel, moderate undermining, occasional missing stones.	7
MORTAR 8.00	Moderate to high cracking and spalling, with missing sections.	6
STONE MASONRY 8.00	Strong granite with surface weathering and moss, occasional stone displaced at the end of wall, one stone missing on each side at the culvert intersection.	7
CULVERT 0.50	5' wide x5' high concrete box culvert, good condition.	8
DOWNSLOPE 0.50	Active stream channel with gentle slope.	8
LATERAL SLOPE 0.50	Minor to moderate surface erosion, about 2H:1V slope.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road has new overlay with no signs of distress. Shoulder is about 5' wide with grass and moss, no distress, about 1.5H:1V slope down.	8
WALL DRAINS 0.50	None observed, not impacting wall.	8

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_13.330_R_1.jpg

Wall ID:	ACAD-0300-13.331-L		
Route Name:	PARK LOOP ROAD		
Inspection Date:	August 10, 2007	Approximate Year Built:	Unknown
*Wall Rating:	59	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	Gravity - Dry Stone
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Granite cut stone block (1 to 2 ft wide x 1 ft high) mortared stone headwall (upstream/inlet side) with upstream end added onto with dry stacked stones later (194 ft2)		

Wall Measurements

Wall Length (ft.):	82	Face Area (sq.):	353
Average Wall Height (ft.):	4	Face Angle (deg.):	80
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	-4

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Fair condition, mortar in poor condition with some displaced stones, but functioning as intended.	6
WALL FOUNDATION MATERIAL 8.00	Active stream channel, undermining, missing stones, settlement (3"), but functioning.	6
PLACED STONE 8.00	Dry stacked wall section at upstream end of wall added for erosion protection after original culvert headwall construction, approximately 55 feet long, rotated throughout with vegetation, functioning but with signs of movement.	5
MORTAR 8.00	Moderate to high cracking and spalling, missing sections, not holding rocks in place with limited functionality.	6
STONE MASONRY 8.00	Strong granite with surface weathering and moss, missing pieces at isolated locations, rotated at upstream end.	6
CULVERT 0.50	5'wide x 5' high box culvert, CaCO3 deposits, good condition.	8
DOWNSLOPE 0.50	Active stream channel feeds into a culvert, gentle slope.	8
LATERAL SLOPE 0.50	Minor surface erosion	8
WALL DRAINS 0.50	None observed, not impacting wall.	8

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0300: PARK LOOP ROAD

Retaining Wall Condition Photos



ACAD_0300_13.331_L_1.jpg

Wall ID:	ACAD-0911-0-P1		
Route Name:	BLUE HILL OVERLOOK PARKING AREA		
Inspection Date:	August 06, 2007	Approximate Year Built:	Unknown
*Wall Rating:	81	Maintenance Action:	No Action

Wall Description

Wall Function:	Head Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Mortared stone headwall in Blue Hill Overlook parking area.		

Wall Measurements

Wall Length (ft.):	12	Face Area (sq.):	58
Average Wall Height (ft.):	4	Face Angle (deg.):	90
Maximum Wall Height (ft.):	6	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Performing as intended, only issue is erosion around wall end.	9
WALL FOUNDATION MATERIAL 8.00	Stable stream bed.	8
MORTAR 8.00	One piece removable, few 1/8" cracks or less.	7
STONE MASONRY 8.00	Fresh hard granite.	9
WALL DRAINS 0.50	None present, no water problems.	9
CULVERT 1.00	24" CMP, moderate corrosion, not affecting wall performance.	6
LATERAL SLOPE 1.00	1.5:4 slope. Vegetated, grass, shrubs. 6" deep erosion rills behind each end.	6

Repair Recommendations

Failure Consequence:	LOW
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park

ROUTE 0911: BLUE HILL OVERLOOK PARKING AREA

Retaining Wall Condition Photos



ACAD_0911_0.000_P1_1.jpg

Wall ID:	ACAD-0914-0-P1		
Route Name:	EGG ROCK OVERLOOK		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	77	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Mortared Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Stone mortared fill wall at the Egg Rock Overlook.		

Wall Measurements

Wall Length (ft.):	260	Face Area (sq.):	3120
Average Wall Height (ft.):	12	Face Angle (deg.):	87
Maximum Wall Height (ft.):	15	Vertical Offset (ft.):	-8

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	8
WALL FOUNDATION MATERIAL 8.00	Founded on soil /rock mix. No sign of settlement.	8
MORTAR 8.00	Old, brittle, some cracks. Not affecting overall wall performance.	7
STONE MASONRY 8.00	Hard, durable granite, slightly weathered, uniform block sizes, well placed . Caprock present.	8
DOWNSLOPE 0.50	Well vegetated trees, 2:1 slope. No erosion.	8
WALL DRAINS 0.50	6" weep holes, some calcium carbonate precipitate present. No sign of water related problems.	8
LATERAL SLOPE 1.00	Ties into loose rock, 2:1 slope at wall start and wall end. No sign of erosion.	7
UPSLOPE 1.00	Rock fill material, 2:1 slope, some loose rock. No erosion.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0914: EGG ROCK OVERLOOK

Retaining Wall Condition Photos



ACAD_0914_0.000_P1_1.jpg



ACAD_0914_0.000_P1_2.jpg

Wall ID:	ACAD-0918-0-P1		
Route Name:	LOWER SAND BEACH PARKING AREA		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	86	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	236	Face Area (sq.):	1062
Average Wall Height (ft.):	4	Face Angle (deg.):	90
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Very good. Performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Founded on lower parking lot pavement, no sign of settlement.	8
STONE MASONRY 8.00	Fresh granite blocks, well placed, uniform size.	9
LATERAL SLOPE 0.50	Ties into flat turf. No sign of erosion.	8
UPSLOPE 0.50	Turf, flat, no sign of erosion.	8
WALL DRAINS 0.50	None visible. No sign of water related problems.	8

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0918: LOWER SAND BEACH PARKING AREA

Retaining Wall Condition Photos



ACAD_0918_0.000_P1_1.jpg

Wall ID:	ACAD-0918-0-P2		
Route Name:	LOWER SAND BEACH PARKING AREA		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	86	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall.		

Wall Measurements

Wall Length (ft.):	204	Face Area (sq.):	775
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	4	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Very good. Performing as intended.	9
WALL FOUNDATION MATERIAL 8.00	Founded on pavement. No sign of settlement.	8
STONE MASONRY 8.00	Fresh granite blocks, well placed.	9
LATERAL SLOPE 0.50	Flat, grassy slope. No sign of erosion.	8
UPSLOPE 0.50	Flat, turf. No sign of erosion.	8
WALL DRAINS 0.50	None visible. No sign of water related problems.	8

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0918: LOWER SAND BEACH PARKING AREA

Retaining Wall Condition Photos



ACAD_0918_0.000_P2_1.jpg

Wall ID:	ACAD-0919-0-P1		
Route Name:	UPPER SAND BEACH PARKING AREA		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	70	Maintenance Action:	No Action

Wall Description

Wall Function:	Switchback Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked switchback wall below Park Loop Road, above parking lot.		

Wall Measurements

Wall Length (ft.):	167	Face Area (sq.):	585
Average Wall Height (ft.):	3	Face Angle (deg.):	80
Maximum Wall Height (ft.):	5	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on parking lot pavement. No sign of settlement.	8
STONE MASONRY 8.00	Moderately to slightly weathered block granite. Some voids and loose pieces.	6
LATERAL SLOPE 1.00	Ties into 2:1 grassy slope at wall start. Ties into bedrock at wall end. No sign of erosion.	7
UPSLOPE 1.00	2:1 slope. No sign of erosion.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0919: UPPER SAND BEACH PARKING AREA

Retaining Wall Condition Photos



ACAD_0919_0.000_P1_1.jpg

Wall ID:	ACAD-0919-0-P2		
Route Name:	UPPER SAND BEACH PARKING AREA		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	69	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall below parking lot.		

Wall Measurements

Wall Length (ft.):	230	Face Area (sq.):	820
Average Wall Height (ft.):	3	Face Angle (deg.):	90
Maximum Wall Height (ft.):	8	Vertical Offset (ft.):	0

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on soil, no sign of settlement.	7
STONE MASONRY 8.00	Moderately to slightly weathered angular to blocky granite.	7
TRAFFIC BARRIER/FENCE 1.00	Guardwall hit by vehicles in several locations.	5
DOWNSLOPE 1.00	Boulders/soil mix, gentle 3:1 and flatter. No sign of erosion.	7
LATERAL SLOPE 1.00	Ties into soil/rock mix, gentle 3:1 slope. No sign of erosion.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0919: UPPER SAND BEACH PARKING AREA

Retaining Wall Condition Photos



ACAD_0919_0.000_P2_1.jpg



ACAD_0919_0.000_P2_2.jpg

Wall ID:	ACAD-0919-0-P3		
Route Name:	UPPER SAND BEACH PARKING AREA		
Inspection Date:	August 07, 2007	Approximate Year Built:	Unknown
*Wall Rating:	69	Maintenance Action:	No Action

Wall Description

Wall Function:	Fill Wall	Primary Wall Type:	Gravity - Dry Stone
Surface Treatment:		Secondary Wall Type:	
Secondary Surface Treatment:		Architectural Facing:	
General Description:	Dry stacked fill wall below parking lot.		

Wall Measurements

Wall Length (ft.):	145	Face Area (sq.):	890
Average Wall Height (ft.):	6	Face Angle (deg.):	78
Maximum Wall Height (ft.):	12	Vertical Offset (ft.):	-1

Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	Good. Performing as intended.	7
WALL FOUNDATION MATERIAL 8.00	Founded on soil/rock mix. No sign of settlement.	7
STONE MASONRY 8.00	Slightly to moderately weathered angular granite.	7
ROAD/SIDEWALK/SHOULDER 1.00	Edge of parking lot shows some erosion at one spot.	5
LATERAL SLOPE 1.00	Ties into soil/rock mix, 2:1 slope at wall start and 1.5:1 at wall end. No sign of erosion.	6
TRAFFIC BARRIER/FENCE 1.00	Haphazardly placed rock barriers, not affecting wall performance.	6
DOWNSLOPE 1.00	Gentle 3:1 and flatter slope, heavy vegetation, no sign of erosion.	7
WALL DRAINS 1.00	None visible. No sign of water related problems.	7

Repair Recommendations

Failure Consequence:	MODERATE
Recommendation Narrative:	None
Repair Cost:	\$0

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

Acadia National Park
ROUTE 0919: UPPER SAND BEACH PARKING AREA

Retaining Wall Condition Photos



ACAD_0919_0.000_P3_1.jpg

Appendix A

Summary of WIP Definitions



Acadia National Park



Federal Lands Highway
Road Inventory Program

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 Retaining Wall Inventory Program Field Guide (WIFG)-

Retaining Wall Acceptance Criteria

- *All classes of paved roadways and parking areas included in the RIP Route Investigation Report and/or identified by park staff.
- *Walls must reside within the constructed roadway/parking area prism.
- *Maximum wall height, including only that portion actively retaining soil and/or rock, must be ≥ 4 ft. (>6ft for culvert headwalls).
- *Consider known/verifiable wall embedment in determining maximum retaining wall height. Include fully buried retaining structures.
- *Walls have an internal wall face angle $\geq 45^\circ$ ($\geq 1H:1V$ face slope ratio).
- *Include all walls where the intent is to support/protect the travelway, and where failure would require replacement with a retaining wall.

Definitions

Design Criteria	Measure of how well current design criteria are satisfied: None - Does not meet any known standards. Non-AASHTO - Does not meet AASHTO, but is consistent with other structures of its type/period with good performance. AASHTO - Apparently meets current AASHTO Geometric, Design, 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, Monitor, Maintenance, Repair Elements, Replace 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	[BW] Bridge Wall	[SW] Switchback Wall
[CW] Cut Wall	[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, Micropile	[CM] Crib, Metal	[MP] MSE, Precast Panel
[AS] Anchor, Tieback Sheet Pile	[CT] Crib, Timber	[MS] MSE, Segmental Block
[BC] Bin, Concrete	[GB] Gravity, Concrete Block/ Brick	[MW] MSE, Welded Wire Face
[BM] Bin, Metal	[GC] Gravity, Mass Concrete	[SN] Soil Nail
[CL] Cantilever, Concrete	[GD] Gravity, Dry Stone	[TP] Tangent/ Secant Pile
[CP] Cantilever, Soldier Pile	[GG] Gravity, Gabion	[OT] Other, User Defined
[CS] Cantilever, Sheet Pile	[GM] Gravity, Mortared Stone	[NO] None

Architectural Facing Type Codes

[BV] Brick Veneer	[PF] Planted Face	[SS] Simulated Stone
[CO] Cementitious Overlay	[SC] Sculpted Shotcrete	[SV] Stone Veneer
[FF] Fractured Fin Concrete	[SH] Shotcrete (nozzle finish)	[TI] Timber
[FL] Formlined Concrete	[SM] Steel/Metal	[OT] Other, User Defined
[PC] Plain Concrete (float finish or light texture)	[SO] Stone	[NO] None

Surface Treatment Codes

[BG] Bush Gun (tool-textured concrete)	[PS] Preservative	[WS] Weathering Steel
[CA] Color Additive	[SE] Silane Sealer	[OT] Other, User Defined
[GL] Galvanized	[ST] Stain	[NO] None
[PA] Painted	[TR] Tar Coated	

Condition Ratings

Condition Ratings apply to all Primary and Secondary Wall Elements, and are intended to assist in consistently defining element **severity**, **extent**, and **repair/replace urgency** of wall element distresses.

9-10 (Excellent)	-Any defects are minor and are within normal range for <i>newly constructed or fabricated</i> elements. -Defects may include those typically caused from fabrication or construction.
7-8 (Good)	-Low-to-moderate extent of low severity distress. -Distress present does not significantly compromise the element function, nor is there significantly severe distress to major structural components of an element.
5-6 (Fair)	-High extent of low severity distress and/or low-to-medium extent of medium to high severity distress. -Distress present does not compromise element function, but lack of treatment may lead to impaired function/elevated risk of element failure in the near term.
3-4 (Poor)	-Medium-to-high extent of medium-to-high severity distress. -Distress present threatens element function, and strength is obviously compromised and/or structural analysis is warranted. -The element condition does not pose an immediate threat to wall stability and road closure is not necessary.
1-2 (Critical)	-Medium-to-high extent of high severity distress. -Element is no longer serving intended function. Element performance threatening overall stability of the wall at the time of inspection.

Wall Performance Condition Ratings

Performance	Evaluation of overall wall performance as indicated by observations not necessarily captured by observed distresses for specific elements, including global wall distresses (rotation, settlement, translation, displacement, etc.) and/or evidence of prior repairs that may further indicate component problems.	<p>Good to Excellent - No observation of distresses not already captured by individual element condition assessment. No combination of element distresses indicating unseen problems or creating significant performance problems. No history of remediation or repair to wall or adjacent elements.</p> <p>Fair - Some observed global distress is not associated with specific elements. Some observation of element distress combinations that indicate wall component problems. Minor work on primary elements or major work on secondary elements has occurred improving overall wall function.</p> <p>Poor to Critical - Global wall rotation, settlement, and/or overturning is readily apparent. Combined element distresses clearly indicate serious stability problems with components or global wall stability. Major repairs have occurred to wall structural elements, though functionality has not improved significantly.</p>
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