

Mount Rushmore Memorial Visitor Services Redevelopment – Keystone, South Dakota Methodology for Landscape Performance Benefits South Dakota State University *Case Study Investigation* 2015

> Research Fellow: Dr. Matthew James Assistant Professor, South Dakota State University Research Assistant: Bailey Peterson MLA Candidate, South Dakota State University Undergraduate Research Assistant: Erika Roeber Firm Liaison: Patrick Wyss, FASLA, Wyss Associates, Inc.

This Methods Document accompanies a *Landscape Performance Series* Case Study Brief. It was produced through the 2015 Landscape Architecture Foundation's *Case Study Investigation* (CSI) program, a unique research collaboration that matches LAF-funded faculty-student research teams with leading practitioners to document the benefits of exemplary high-performing landscape projects.

The full case study can be found at: https://landscapeperformance.org/case-study-briefs/mount-rushmore

#### **Environmental Benefits**

#### Performance Benefit 1

Sequesters 27,000 lbs of atmospheric carbon and intercepts 59,000 gallons of stormwater annually in newly-planted trees and shrubs.

#### Methodology

In 1 year, a 4-in caliper Ponderosa pine tree will reduce atmospheric carbon by 22 lbs.

150 Ponderosa Pine x 22 lbs of carbon sequestered = 3,300 lbs of carbon

In one year, a 1-in caliper coniferous evergreen small shrub will reduce atmospheric carbon by 3 lbs.

200 Coniferous Evergreen Small Shrubs x 3 lbs of carbon sequestered = 600 lbs of carbon

In one year, a 1-in caliper broadleaf deciduous small shrub will reduce atmospheric carbon by 13

lbs.

1,689 Broadleaf Deciduous Small Shrubs x 13 lbs of carbon sequestered = 21,957 lbs of carbon

In one year, a 1-in broadleaf deciduous medium shrub will reduce atmospheric carbon by 15 lbs.

55 Broadleaf Deciduous Medium Shrubs x 15 lbs of carbon sequestered = 825 lbs of carbon

Total Carbon Sequestration: 3,300 + 600 + 21,957 + 825 = 26,682 lbs of carbon

Ponderosa Pine will intercept 263 gallons of stormwater runoff annually.

150 ponderosa pine x 263 gallons of stormwater = 39,450 gallons of stormwater annually

Coniferous Evergreen Small Shrub will intercept 17 gallons of stormwater runoff annually.

200 coniferous evergreen small shrub X 17 gallons of stormwater = **3,400** gallons of stormwater annually

Broadleaf Deciduous Small Shrub will intercept 9 gallons of stormwater runoff annually.

1,689 broadleaf deciduous small shrub x 9 gallons of stormwater = **15,201** gallons of stormwater annually

Broadleaf Deciduous Medium Shrub will intercept 25 gallons of stormwater runoff annually.

55 broadleaf deciduous medium shrub x 25 gallons of stormwater = **1,375** gallons of stormwater annually

Total gallons of stormwater retained annually = 39,450 + 3,400 +15,201 +1,375 = 59,426

#### Limitations of Methodology

Since the redevelopment has been completed, there have been strenuous efforts to fight forest crown fires and pine beetle infestations in the redevelopment area. Because of these efforts, the planting plan does not show the exact amount of trees still on site. The smaller trees were thinned out from 2006 to 2015.

**Source:** Casey Trees and Davey Tree Expert Company (2012). National tree benefit calculator. <a href="http://www.treebenefits.com/calculator/">http://www.treebenefits.com/calculator/</a>

#### **Environmental Benefit 2**

Reduces soil compaction and plant ecosystem damage by achieving 95% pedestrian containment within designated areas through a 40% increase in hardscape, curbing, and railings.

#### Methodology

Previous to the redevelopment, the Mount Rushmore Visitor Center's landscape was degraded to a point of concern with a high level of soil compaction and plant ecosystem damage. The redesign reduces the occurrence of unintended circulation on the landscape through a 40% increase in hardscape areas, curbing, railings, and implied separation. This helped to reduce unintended pedestrian traffic on the landscape, thus reducing soil compaction and plant ecosystem damage. As an example, before the redevelopment, the hardscape surfacing such as the entry promenade and trail network had limited defining boundaries, which allowed foot traffic to damage the nearby landscape.

The redevelopment added strategic hardscaping circulation amenities such as curbing, railing, and implied separation such as the use of 12-ft "super sidewalks." With the new site plan, very few areas were left without pedestrian control measures. Of the entire site redevelopment plan, only 1 significant location left an opportunity for unintended circulation. Parts of the path leading to the children's activity center and Presidential Trail do not contain curbing or railing; therefore, we located our observation study in this location. The research fellow observed individuals for a 3-hour time frame. The research fellow recorded 36 out of 720 total individuals, including both children and adults, who stepped off the pathway into the nearby landscape. Those leaving the path included wandering children, those looking to climb on rocks, and people looking for photo opportunities. This demonstrates the reduction of unintended pedestrian traffic in total on the landscape to 95% containment or a 5% incidence of people leaving the path.

#### Limitations of Methodology

Observation was only taken for a half an hour, if extended longer it may have shown differences during a busier time of day. It is expected that visitors remain on the path when there are noticeable boundaries between walking area and landscape; therefore, other parts of the path were not observed. Detailed information about the 40% increase in hardscape areas is unavailable.

*Source:* Patrick Wyss, FASLA, Wyss Associates, Inc.; Bruce A. Weisman, Integrated Resource Program Manager, Mount Rushmore National Memorial

### **Performance Benefit 3**

Prevented over 25 tons of polyethylene, equivalent to 3,360,000 plastic bags, from entering landfills through the use of composite decking made from 95% recycled materials.

### Methodology

Composite decking used for the Presidential Trail is made from 95% recycled materials, including reclaimed wood as well as recycled plastic from many common household items. Trex composite decking keeps more than 400 million lbs of plastic and wood scrap out of landfills annually, making them one of the largest plastic recyclers in the U.S. According to the Trex website, the average 500-sf composite Trex deck contains 140,000 recycled plastic bags. According to the American Chemistry Council, 2000 plastic bags = 30 lbs of polyethylene.

Calculations:

1200 ft (length) by 10 ft (width) = 12,000 sf

500 sf deck contains 140,000 recycled bags

12,000 sf (deck) X ( 140,000 (bags) / 500 sf )= 3,360,000 recycled bags

3,360,000 (plastic bags) X (30 lbs (polyethylene) / 2000 (plastic bags) ) = 50,400 lbs of vethylene

### polyethylene

50,400 lbs (polyethylene) X (1 ton / 2000 lbs) = 25.2 tons of polyethylene

## **Limitations of Methodology**

Calculations are based off an average for a 500-sf deck. Calculations are based off an average plastic shopping bag, not including other types of recycled household items that are used in the composition of composite decking.

## Source:

"Calculations to Estimate the Impacts of Plastic Single-Use Shopping Bags." N.p., n.d. Web. 14

July 2015. <http://www.bagbuddiesmovie.org/bag\_impacts\_estimate\_calculations.pdf>.

"Frequently Asked Questions." Questions about Trex? Find Answers Here. N.p., n.d. Web. 14 July

2015. <http://www.trex.com/why-trex/faq/#deckrail1>.

## **Social Benefits**

#### Social Benefit 1

Hosts an average of 20 events per month during the summer, including the popular Mount Rushmore Evening Program lighting ceremony, which attracts over 1,500 visitors nightly from May to August.

#### Methodology

Average number of public events held each month are calculated for events scheduled during the summer month (June-August).

June Events = 12

1 - 2015 Naturalization Ceremony

- 9 Mount Rushmore Evening Program (Lighting Ceremony)
- 2 Introduction to Lakota Dance and Song

#### July Events = 36

- 30 Mount Rushmore Evening Program (Lighting Ceremony)
- 2 Mount Rushmore National Memorial Independence Day
- 4 Introduction to Lakota Dance and Song

#### August Events = 13

- 8 Mount Rushmore Evening Program (Lighting Ceremony)
- 5 Introduction to Lakota Dance and Song

#### Calculations:

- 12 (June) + 36 (July) + 13 (August) = 61 summer events
- 61 events / 3 months = **20.333 events per month**

## **Limitations of Methodology**

Calculations are based off 2015's calendar data.

Source:

Patrick Wyss, FASLA, Wyss Associate, Inc.

National Park Service

http://www.nps.gov/moru/planyourvisit/calendar.htm

## Social Benefit 2

Contributed to a 6% increase in average annual visitors from the 1990s to the post-redevelopment 2000s.

#### Methodology

Year	Recreation Visitors
1990	1,671,673
1991	2,044,522
1992	1,917,134
1993	1,930,053
1994	2,043,988
1995	1,687,529
1996	1,904,991
1997	1,752,014
1998	2,014,485
1999	1,972,289
Total	18,938,678
Average per year in decade	1,893,867.8

Year	<b>Recreation Visitors</b>
2000	1,868,876
2001	1,904,119
2002	2,162,570
2003	2,217,894
2004	2,037,820
2005	2,037,861
2006	1,989,771
2007	1,856,118
2008	1,789,328
2009	2,260,192
Total	20,124,549
Average per year in decade	2,012,454.9

Difference in average annual visitation numbers during decade before and after redevelopment:

2,012,454.9 (After redevelopment decade average annual visitation) - 1,893,867.8 (Before redevelopment decade average annual visitation) = **118,587.1** average visitor difference over a decade

118,587.1/10 = **11,858.71** per year

Change in visitorship: (2,012,454.9 - 1,893,867.8)/1,893,867.8 x 100 = 6% increase

### **Limitations of Methodology**

Calculations show an overall change in visitation numbers from decade to decade. Visitation numbers do not specifically correlate the increase in visitors to the redevelopment. The calculations do not take into account change in visitor numbers from gas prices or recession.

Source:

Integration Resource Management Applications

https://irma.nps.gov/Stats/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recre ation%20Visitation%20(1904%20-%20Last%20Calendar%20Year)?Park=MORU

## Social Benefits 3 & 4

Provides appropriate access to and visibility for the monument for 91% of 23 surveyed visitors.

Provides the appearance and feeling of a national memorial for 81% of 23 surveyed visitors.

### Methodology

To measure the social performance benefits, the research fellow developed a voluntary, on-site survey. The survey included Likert scale, multiple choice, and checkbox answers. The surveys were posted onto social media on July 13, 2015. 23 adults participated in the survey.

See Appendix for Survey Questions

## **Limitations of Methodology**

Due to an unforeseen issue, we were not able to conduct on-site surveys at the Memorial. Upon interviewing with Bruce Weisman, the Integrated Resource Program Manager at Mount Rushmore Memorial, we were informed that strenuous paperwork and applications are needed in order to conduct research and surveys on the site. In order to conduct research the research team must apply for a research permit, which is granted by the individual National Park Service site. This process can take anywhere from 1 to 6 months. If approved, the research team can only conduct 9 surveys. In order to conduct more than 9 surveys, the team must then apply through the Paperwork Reduction Act (PRA) and PRA Clearance. This process can take anywhere from 6 months to a year to complete. Due to the lengthy amount of time needed for survey approval, the surveys were posted on social media instead.

## **Economic Benefits**

#### **Economic Benefit 1**

Contributes to Mount Rushmore's impact on the regional economy, which amounts to \$346 million in visitor spending annually.

#### Methodology

According to "Impacts of visitor spending on the local economy: Mount Rushmore Memorial, 2013" the regional economic impact estimates were calculated using the Money Generation Model 2. Three areas were used in the model, "number of visits broken down by lodging-based segment, spending averages for each segment, and economic multipliers for the local region" (Cook, 3).

The Visitor Service Project conducted an on-site survey June 21-27, 2013. The survey asked participants to record expenditures within the park and within a 100-mile radius drive. "The local region for determining economic impact was defined as a 12-county area around the park including Pennington, Custer, Fall River, Shannon, Meade, Butte, and Lawrence counties in South Dakota, Weston, Niobrara counties in Wyoming, and Sioux and Dawes counties in Nebraska" (Cook, 3).

The Money Generation Model 2 divides the visitors into sections to show the differences in spending among various groups. 5 sections were created based on the reported trip and lodging expenses: Local, visitors that were residents within a 100-mile drive; Day trip, visitors from outside the 100-mile drive who did not stay overnight in the region; Motel, visitors that recorded motel expenses locally; Camping, visitors who recorded camping expenses locally; and Other overnight, non-local visitors who stayed in the area overnight, but did not record lodging expenses.

The survey collected data covering the expenses of the various visitor groups. Averages showed that the average visitor group spent a total of \$620 on the trip. Visitor groups spent 95% of their total spending outside of the park in lodging, transportation, and food.

						All .
Expenditures	Local	Day trip	Motel	Camping	Other OVN	visitors
Inside Park						
Restaurants & bars	5.63	6.35	7.00	6.21	8.05	6.94
Groceries & takeout food	0.00	0.22	0.36	3.05	1.74	0.83
Local transportation	0.00	9.04	4.57	4.17	4.93	4.94
Admission & fees	0.00	0.00	0.43	0.25	0.12	0.32
Souvenirs & other expenses	<u>13.13</u>	15.51	19.64	<u>15.83</u>	<u>12.70</u>	17.88
Total Inside Park	18.75	31.12	32.00	29.51	27.53	30.92
Outside Park						
Motels	0.00	0.00	315.11	2.65	0.00	205.35
Camping fees	0.00	0.00	2.48	169.88	0.00	22.80
Restaurants & bars	13.75	5.63	134.13	111.81	17.50	103.95
Groceries & takeout food	1.25	0.09	30.40	70.95	9.17	29.70
Gas & oil	12.50	17.04	90.92	188.60	23.58	87.20
Local transportation	1.50	1.07	28.51	35.87	2.92	23.49
Admission & fees	1.38	5.37	65.26	81.06	8.80	54.12
Souvenirs & other expenses	<u>5.00</u>	<u>21.32</u>	72.88	<u>83.03</u>	<u>19.87</u>	<u>62.19</u>
Total Outside Park	35.38	50.53	739.69	743.85	81.84	588.81
Total Inside & Outside Park	54.13	81.65	771.69	773.36	109.37	619.73

Table 1. Average spending by section (dollars per visitor group per trip).

Weighted by percent visitor group trips.

*Source:* Impacts of visitor spending on the local economy: Mount Rushmore National Memorial, 2013.

Total spending within the local region was calculated by multiplying the number of visitor group trips for every section by the average spending per trip. Mount Rushmore visitors spent a total of \$345,969,000 in the local region in 2013.

Expenditures	Local	Day trip	Motel	Camping	Other OVN	All visitors
Inside Park	Local	Dayinp	moter	_ camping _	0/11	VISICOIS
Restaurants & bars	41	343	2,544	432	517	3,877
Groceries & takeout food	0	12	129	212	111	465
Local transportation	0	488	1,662	290	317	2,756
Admission & fees	0	0	154	18	8	180
Souvenirs & other expenses	<u>95</u>	837	7,135	1,102	815	9,984
Total Inside Park	135	1,680	11,624	2,055	1,768	17,262
Outside Park						
Motels	0	0	114,456	185	0	114,640
Camping fees	0	0	901	11,828	0	12,730
Restaurants & bars	99	304	48,722	7,785	1,124	58,034
Groceries & takeout food	9	5	11,041	4,940	589	16,583
Gas & oil	90	920	33,025	13,132	1,514	48,680
Local transportation	11	58	10,357	2,497	188	13,111
Admission & fees	10	290	23,703	5,644	565	30,213
Souvenirs & other expenses	<u>36</u>	<u>1,151</u>	<u>26,472</u>	<u>5,782</u>	1,276	<u>34,716</u>
Total Outside Park	255	2,727	268,676	51,793	5,255	328,707
Total Inside & Outside Park	390	4,407	280,301	53,847	7,023	345,969
Segment Percent of Total	0%	1%	81%	16%	2%	100%

Table 2. Total visitor spending by section, 2013 (thousands of dollars)

Note: Totals may not equal sum of individual categories due to rounding.

Source: Impacts of visitor spending on the local economy: Mount Rushmore National Memorial,

#### **Limitations of Methodology**

These numbers do not reflect the specific impact of the landscape design.

Source:

2013.

Cook, P. S. 2014. Impacts of visitor spending on the local economy: Mount Rushmore National Memorial, 2013. Natural Resource Report NPS/NRSS/EQD/NRR—2014/796. National Park Service, Fort Collins, Colorado.

### **Economic Benefit 2**

Generates an average of \$3,895,000 in annual parking revenue.

The parking management is operated by the Mount Rushmore Society, a 501(c)3 nonprofit organization, which uses various means of revenue generation, including parking to *preserve*, *promote*, *and enhanc*e the memorial through a partnership with the National Parks Service.

#### Methodology

Annual reports of the Mount Rushmore Society were accessed off the group's website at <u>http://www.mountrushmoresociety.com</u> for the fiscal years of 2007-2008 through 2013-2014. These

annual reports demonstrate the parking revenue generated for the mentioned years during the fiscal year of October 1 to September 30. The original intent and the mission of the memorial was to always provide free admission, and that technically remains true today although there are now parking fees. The following chart indicates the annual revenue generated by the 2 new tiered parking structures that were added during the time of site redevelopment. Parking spaces were increased from 120 to 200 in 1998 because of redesign decisions for the entry experience and the intent to accommodate increased visitorship.

Mt. Rushmore Memorial Annual Parking Revenue					
Fiscal Year	Parking Revenue Generated by Fees				
FY 2007-2008	\$3,387,702				
FY 2008-2009	\$3,783,528				
FY 2009-2010	\$3,935,207				
FY 2010-2011	\$3,796,053				
FY 2011-2012	\$4,119,077				
FY 2012-2013	\$4,237,973				
FY 2013-2014	\$4,007,163				
Average	\$3,895,243				
Parl	king Fees				
Cars, Motorcycles, & RV's	\$11 per vehicle				
Commercial Tour Bus	\$50				
Verified, nonprofit Educational Bus	\$25				

# **Limitations of Methodology**

The years chosen to calculate the annual parking revenue generation were the only years made available to the public. Having contacted the Mount Rushmore Society, the researchers were told that records, and more specifically annual financial reports, were not made public until 2007, and information that would provide those numbers dating back to when the tiered parking garages were installed was not available.

Source:

Mount Rushmore Society – ("News" link)

http://www.mountrushmoresociety.com/Content/127.htm

## **Cost Comparison**

The design team chose recycled composite decking for the Presidential Trail, even though the total material cost was \$82,132 more than standard wood decking. The recycled material was more expensive but had a better coefficient of friction when wet, thereby offering a safer walking surface on rainy days and with the heavy dew that sometimes occurs on this site in the mornings. The composite decking also requires less maintenance, which is vital in a high traffic area.

The design team also debated the cost savings of using concrete or granite in the design. Concrete could have been selected for the primary walkways as a less expensive alternative, but the granite pavers were selected due to the consistency of materials with the granite sculpture and their long-term durability and lifespan. This design feature cost \$199,218.75 more than standard concrete.

Major design decisions were context- and quality-driven rather than cost-driven. There were some standard comparisons between materials, selections, and manufacturers, but in the end, the designs, interpretations, and public value were the determining factors. In the end, the design cost \$281,350.75 more than if it had specified only standard materials, but the durability of the materials was made to stand up to wear and tear of over a million annual visitors.

## Calculations:

## Decking

## Decking Area:

1,200 ft (length) X 10 ft (width) = 12,000 sf

## Wood Decking:

150 sf at Standard Bid = \$723.35

## \$723. 35 / 150 sf = **\$4.82233333 per sf**

12,000 sf (decking area) X \$4.82233333 / sf = \$57,868

Trex Select:

# \$12 per sf

12,000 sf (decking area) X \$12.00 / sf = **\$144,000** 

# **Cost Difference**

\$144,000 (Trex Decking) - \$57,868 (Standard Wood Decking) = **\$82,132** 

## Walkways

<u>Granite</u>

5000 granite pavers used

Average Sf = 2.5 ft X 2.5 ft = **31,250 sf** 

\$10.625 / sf X 31, 250 sf = **\$332,031.25** 

<u>Concrete</u>

Plain concrete – Average bid cost = \$4.25 sf

\$4.25 / sf X 31,250 sf = **\$132,812.50** 

## **Cost Difference**

\$332,031.25 (Granite Pavers) - \$132,812.50 (Concrete) = \$199,218.75

### **Total Cost Difference:**

\$82,132 (decking) + \$199,218.75 (walkways) = \$281,350.75

Source: Patrick Wyss, FASLA, Wyss Associates, Inc.

#### Appendix

### **Survey Questions**

I am:

Male\_\_\_\_\_ Female\_\_\_\_\_ I do not wish to disclose\_\_\_\_

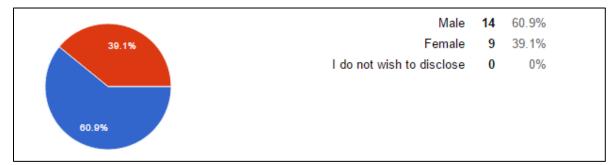


Figure 1. 60.9% of the survey respondents were male, 39.1% of the survey respondents were female.

My age range is:

- a. 18-25 years old
- b. 26-35 years old
- c. 36-45 years old
- d. 46-55 years old
- e. 56-65 years old
- f. 66-75 years old
- g. 76-85 years old
- h. 85 and above years old
- i. I do not wish to disclose this information.

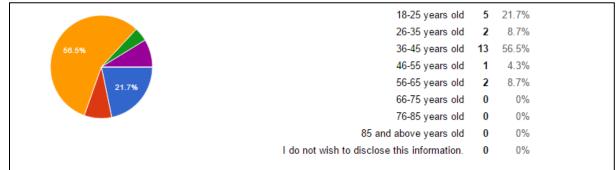


Figure 2. 56.5% of the individuals surveyed were 36-45 years old.

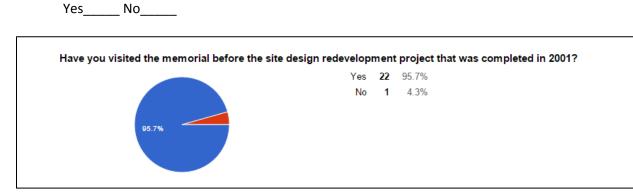
Please select the response below that most accurately describes your geographic relationship to this place.

- a. I reside in South Dakota
- b. I reside in the United States, but not South Dakota
- c. I am a visitor from another country



*Figure 3.* 78.3% of respondents reside in South Dakota.

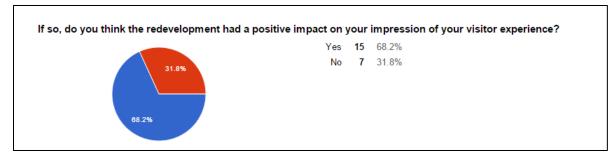
Have you visited the Memorial before the site design redevelopment project was completed in 2001?



*Figure 4.* 95.7% of respondents visited the memorial before the site design project was completed in 2001.

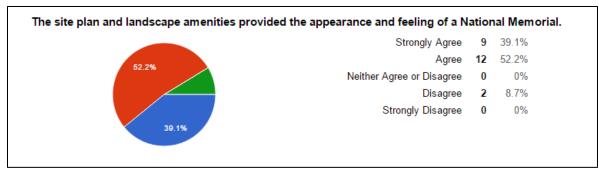
If so, do you think the redevelopment had a positive impact on your impression of your visitor experience?

Yes\_\_\_\_ No\_\_\_\_



*Figure 5.* 68.2% of respondents think the redevelopment had a positive impact on their impression of the visitor experience.

The site plan and landscape amenities provide the appearance and feeling of a National Monument?Strongly AgreeAgreeDisagreeDisagreeStrongly DisagreeStrongly Disagree



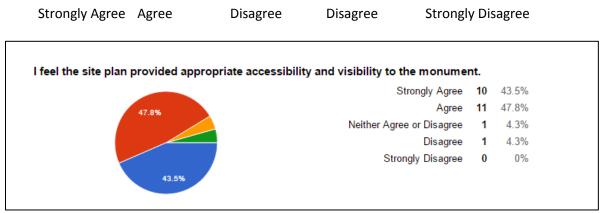
*Figure 6.* 81.3% agree the site plan and landscape amenities provided the appearance and feeling of a National Memorial.

The interpretive signage and information communication seen in the landscape added to my visitor experience?

Strongly Agree Agree	Disagree	Disagree	Strongly Disagree
The interpretive signage and informatic	on communication se	een in the landscape ad	dded to my visitor experience.
		Strongly Agree	<b>6</b> 26.1%
39.1%		Agree	7 30.4%
	١	Neither Agree or Disagree	<b>9</b> 39.1%
		Disagree	<b>1</b> 4.3%
30.4% 26.1%		Strongly Disagree	0 0%
20.1 //			

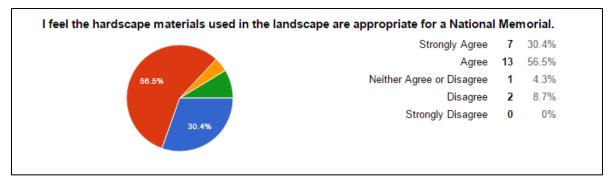
*Figure 7.* 56.5% agree that the interpretive signage and information communication seen in the landscape added to the visitor experience. 39.1% neither agreed or disagreed that the signage added to the experience.

I feel the site plan provided appropriate accessibility and visibility to the monument?



*Figure 8.* 91.3% respondents agree that the site plan provided appropriate accesibility and visibility to the monument.

I feel the hardscape materials used in the landscape are appropriate for a National Monument? Strongly Agree Agree Disagree Disagree Strongly Disagree



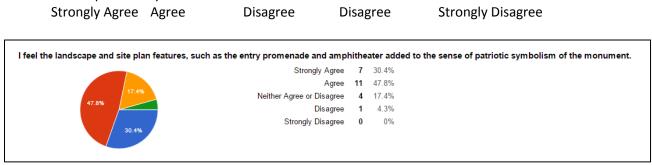
*Figure 9.* 86.9% of respondents feel the hardscape materials used in the landscape are appropriate for a National Memorial.

Considering this is a national monument with large numbers of daily visitation I feel the security measures were adequate?

Strongly Agree Agree	Disagree Disag	e Disagree		Strongly Disagree	
Considering this is a National Memorial with	large numbers of daily visitation, I	felt th	e percei	ved on-site security measures were adequate	
	Strongly agre	2	8.7%		
34.8%	Agre	e 11	47.8%		
	Neither Agree or Disagre	8	34.8%		
	Disagre	2	8.7%		
	Strongly Disagre	e 0	0%		
47.8%					

*Figure 10*. 56.5% of survey respondents agree that the perceived on-site security measures were adequate.

Do you feel the landscape and site plan features, such as the entry promenade and amphitheater, adds to the sense of patriotic symbolism of the monument.



*Figure 11.* 78.2% agree that they feel the landscape and site plan features, such as the entry promenade and amphitheater add to the sense of patriotic symbolism of the monument.

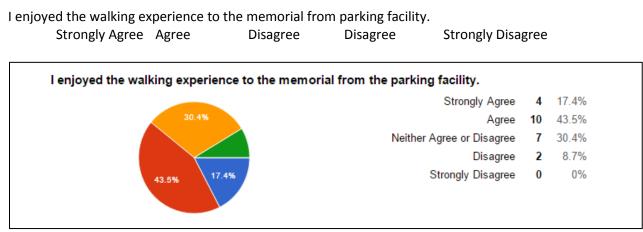
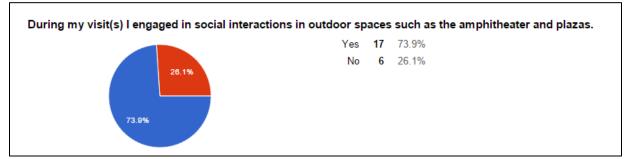


Figure 12. 60.9% agree they enjoyed the walking experience to the memorial from the parking facility.

During my visits I engaged in social interactions in outdoor spaces such as the amphitheater and plazas.

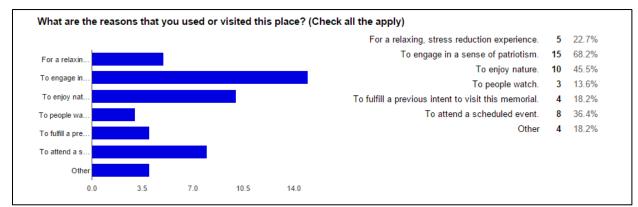
Yes\_\_\_\_ No\_\_\_\_



*Figure 13.* 73.9% agree that during their visit(s) they engaged in social interactions in outdoor spaces such as the amphitheater and plazas.

What are the reasons that you use or visit this place? (check all that apply):

- a. For relaxing/stress reduction
- b. To engage in a sense of patriotism
- c. To enjoy nature
- d. To people watch
- e. To fulfill a previous intent to visit this monument
- f. To attend a scheduled event
- g. Other (Please explain)



*Figure 14.* 68.2% responded that they use or visit the Memorial to engage in a sense of patriotism.

The features I enjoy most in the space are (check all that apply):

- a. Views
- b. Overall character of the place
- c. Plants, (trees, lawn, flowers)
- d. Amphitheater
- e. Plazas
- f. Fresh air, sunshine, breezes
- g. The Presidential Trail
- h. Scheduled events
- j. Other: \_\_\_\_\_

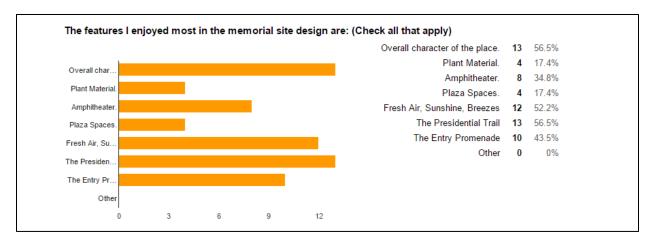


Figure 15. 56.5% enjoyed the overall character of the place as well as the Presidential Trail.