

Rock County, Wisconsin

51 South Main Street
Janesville, WI 53545
(608)757-5518



General Services

-Facilities Management
-Maintenance

**GENERAL SERVICES COMMITTEE
TUESDAY, DECEMBER 6, 2016 – 8:00 A.M.
CONFERENCE ROOM N-1 – FIFTH FLOOR
ROCK COUNTY COURTHOUSE-EAST**

Agenda

1. Call to Order and Approve Agenda
2. Citizen Participation
3. Approval of Minutes – November 15, 2016
4. Transfer
5. Review of Payments
6. Set Date(s) for Tours of Various Building Locations
7. Project Updates & Change Orders
 - A. Update on Building Energy Performance Initiatives
 - B. Update on Courthouse Security – Phase 1
 - C. Update on Traffic Study
 - D. Update on Parking Structure Conditions Report
 - E. Update on Job Center Bathroom – Change Orders
8. Communications, Announcements and Information
9. **EXECUTIVE SESSION:** Per Section 19.85(1)(c), Wis. Stats. – Employment Issue in Facilities Management
10. Adjournment

Please contact Marilyn at (608)757-5510 if you are going to be late or if you will not be able to attend the meeting.

Rock County Transfer Request - Over \$5,000

TO: FINANCE DIRECTOR Date 11/21/2016
Requested By Facilities Management
Department

Transfer No. 16-63
Brent Sutherland
Department Head

FROM:	AMOUNT	TO:	AMOUNT
Account #: 18-1815-0000-62203 Description: Natural Gas Current Balance: \$43,972	\$15,000	Account #: 18-1815-0000-62400 Description: Repair & Maintenance Services	\$15,000
Account #: Description: Current Balance:		Account #: Description:	
Account #: Description: Current Balance:		Account #: Description:	
Account #: Description: Current Balance:		Account #: Description:	

REASON FUNDS ARE AVAILABLE FOR TRANSFER - BE SPECIFIC

The funds are in our natural gas account due to the above normal temperatures.

REASON TRANSFER IS NECESSARY - BE SPECIFIC

We would like to add digital controls on our exhaust fans and hot water pumps. This will help improve energy efficiency, by allowing set back adjustments.

FISCAL NOTE:

Funds are available for transfer. *AS 11-21-16*

ADMINISTRATIVE NOTE:

Recommended *[Signature]* *11-21-16*

REQUIRED APPROVAL

DATE

COMMITTEE CHAIR

Governing Committee _____

Finance Committee _____

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
18-1810-0000-62112	SECURITY				
		P1600097	11/01/2016	JBM PATROL AND PROTECTION CORP	5,424.20
18-1810-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	11,225.00
18-1810-0000-62400	R & M SERV				
		P1600094	10/06/2016	JF AHERN COMPANY	185.00
		P1600101	10/07/2016	SAFEWAY PEST CONTROL	90.00
		P1600322	10/25/2016	ARAMARK UNIFORM SERVICES INC	99.86
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	138.00
		P1601233	11/01/2016	SGTS INC	1,441.17
		P1603160	11/11/2016	CONWAY,ERIC	100.00
18-1810-0000-62461	ELEVATOR				
		P1600992	10/20/2016	OTIS ELEVATOR COMPANY	444.88
18-1810-0000-63100	OFC SUPP & EXP				
		P1602052	10/26/2016	OFFICE PRO INC	113.29
		P1602147	10/19/2016	STAPLES BUSINESS ADVANTAGE	(0.21)
18-1810-0000-63500	R&M SUPPLIES				
		P1600100	11/01/2016	WRIGHT EXPRESS FSC	153.53
		P1600331	10/19/2016	CONGRESS GLASS INC	643.33
		P1600332	10/31/2016	DEGARMO PLUMBING INC	376.13
		P1600336	11/10/2016	ENERGETICS INC	164.28
		P1600339	08/09/2016	FIRST SUPPLY LLC	233.83
		P1600341	10/24/2016	HARRIS ACE HARDWARE LLP	341.74
		P1600352	11/02/2016	MC COTTER ENERGY SYSTEMS INC	1,582.50
		P1600360	10/14/2016	PUR CHEM LLC	492.00
		P1602077	11/09/2016	SGTS INC	143.21
		P1602102	11/02/2016	LAMP RECYCLERS INC	578.37
		P1602147	10/20/2016	STAPLES BUSINESS ADVANTAGE	450.87
		P1602769	10/26/2016	MADISON SIGN LETTERING	172.00
		P1602798	11/04/2016	NORTHLAND EQUIPMENT CO INC	689.04
		P1603065	10/06/2016	DEAN CLINIC CORPORATE OFFICE	85.00
		P1603080	10/24/2016	JC HEATING AND COOLING INC	95.00
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	54.00
				FACILITIES MGMNT PROG TOTAL	25,515.82
18-1811-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,449.67
18-1811-0000-62400	R & M SERV				
		P1600101	10/07/2016	SAFEWAY PEST CONTROL	50.00
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	101.00
18-1811-0000-63500	R&M SUPPLIES				
		P1600336	10/28/2016	ENERGETICS INC	101.61
		P1600337	10/06/2016	FASTENAL COMPANY	12.95
		P1600341	10/24/2016	HARRIS ACE HARDWARE LLP	12.98
		P1600343	11/02/2016	ILLINGWORTH KILGUST MECHANICAL	303.00
		P1600349	11/02/2016	JOHNSON TRACTOR INC	50.70
		P1600350	11/03/2016	JOHNSTONE SUPPLY	137.80

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
18-1811-0000-67200	CAPITAL IMPROV	P1600354	10/25/2016	MENARDS	52.51
		P1600381	11/02/2016	NAPA AUTO PARTS	101.03
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	27.00
		P1602011	10/31/2016	LAUERSDORF,LYNN R	2,000.00
		P1602344	10/24/2016	JOHNSON CONTROLS INC	1,450.31
		P1602347	10/17/2016	JOHNSON CONTROLS INC	1,050.00
		P1602708	10/27/2016	DOLLINGER MASONRY LLC	13,000.00
GLEN OAKS FACILITY OPERATION PROG TOTAL					19,900.56
18-1812-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,022.42
18-1812-0000-62400	R & M SERV				
		P1600101	10/07/2016	SAFEGWAY PEST CONTROL	30.00
		P1600322	10/25/2016	ARAMARK UNIFORM SERVICES INC	49.78
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	116.00
18-1812-0000-63500	R&M SUPPLIES				
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	13.50
YOUTH SERVICES CENTER PROG TOTAL					1,231.70
18-1815-0000-63500	R&M SUPPLIES				
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	135.00
HCC BUILDING COMPLEX PROG TOTAL					135.00
18-1816-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,476.34
18-1816-0000-62400	R & M SERV				
		P1600101	10/07/2016	SAFEGWAY PEST CONTROL	52.00
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	74.00
		P1603000	10/27/2016	DOLLINGER MASONRY LLC	500.00
18-1816-0000-63500	R&M SUPPLIES				
		P1600324	10/13/2016	BATTERIES PLUS LLC	51.90
		P1602147	10/12/2016	STAPLES BUSINESS ADVANTAGE	163.03
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	13.50
COMMUNICATIONS CTR.OPERATION PROG TOTAL					2,330.77
18-1817-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	966.67
18-1817-0000-62400	R & M SERV				
		P1600101	10/07/2016	SAFEGWAY PEST CONTROL	114.00
		P1600322	11/01/2016	ARAMARK UNIFORM SERVICES INC	24.89
18-1817-0000-63500	R&M SUPPLIES				
		P1600339	08/09/2016	FIRST SUPPLY LLC	300.26
		P1600360	10/08/2016	PUR CHEM LLC	855.00
18-1817-0000-67200	CAPITAL IMPROV				
		P1602346	11/02/2016	JOHNSON CONTROLS INC	2,429.90

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
DIVERSION PROG/ASC PROG TOTAL					4,690.72
18-1818-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	3,679.17
		P1600334	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,221.00
18-1818-0000-62400	R & M SERV				
		P1600101	10/05/2016	SAFEWAY PEST CONTROL	35.00
		P1600322	11/08/2016	ARAMARK UNIFORM SERVICES INC	201.99
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	435.78
		P1602683	11/04/2016	SGTS INC	600.00
		P1602685	10/22/2016	POWELL CONSTRUCTION INC	1,800.00
		P1602686	10/22/2016	POWELL CONSTRUCTION INC	4,950.00
		P1602687	10/22/2016	POWELL CONSTRUCTION INC	1,000.00
18-1818-0000-62461	ELEVATOR				
		P1600992	10/20/2016	OTIS ELEVATOR COMPANY	210.84
18-1818-0000-63500	R&M SUPPLIES				
		P1600321	10/20/2016	AARONS LOCK AND SAFE INC	80.50
		P1600326	10/19/2016	BJ ELECTRIC SUPPLY INC	1,619.88
		P1600329	10/12/2016	CITY OF JANESVILLE	63.00
		P1600331	10/25/2016	CONGRESS GLASS INC	2,830.99
		P1600332	10/17/2016	DEGARMO PLUMBING INC	4,545.00
		P1600336	10/17/2016	ENERGETICS INC	18.16
		P1600337	10/21/2016	FASTENAL COMPANY	25.83
		P1600344	10/24/2016	JACK AND DICKS FEED AND GARDEN	600.74
		P1600346	09/08/2016	JANESVILLE WINSUPPLY COMPANY	588.08
		P1600354	10/27/2016	MENARDS	35.98
		P1600358	10/31/2016	PIEPER ELECTRIC INC	386.25
		P1600360	10/14/2016	PUR CHEM LLC	1,106.00
		P1600362	09/28/2016	R E MICHEL COMPANY	29.09
		P1600381	10/25/2016	NAPA AUTO PARTS	270.47
		P1602077	11/11/2016	SGTS INC	1,350.00
		P1602688	09/15/2016	HOBART SALES AND SERVICE	564.87
		P1602776	10/31/2016	EMERSON NETWORK POWER	3,675.22
		P1602961	10/19/2016	MADISON WINDOW CLEANING CO INC	880.00
		P1603004	10/28/2016	PAUL REILLY COMPANY ILLINOIS I	115.03
		P1603014	10/25/2016	ANCHOR SCIENTIFIC INC	77.59
		P1603063	10/22/2016	POWELL CONSTRUCTION INC	2,900.00
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	81.00
		P1603161	10/27/2016	NATIONAL ELEVATOR INSPECTION S	267.00
JAIL PROG TOTAL					36,244.46
18-1819-0000-62400	R & M SERV				
		P1600093	10/10/2016	TRUGREEN	195.00
18-1819-0000-62461	ELEVATOR				
		P1600992	10/20/2016	OTIS ELEVATOR COMPANY	2,475.28
18-1819-0000-63500	R&M SUPPLIES				
		P1603127	10/20/2016	THIELE HEATING AND AIR CONDITI	215.00

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
		P1603135	10/25/2016	J VAN HORN PAINTING LLC	920.00
				UW-ROCK COUNTY PROG TOTAL	3,805.28
18-1820-0000-62160	CLEANING CONTRAC				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	200.42
18-1820-0000-62400	R & M SERV				
		P1600101	10/21/2016	SAFEWAY PEST CONTROL	40.00
18-1820-0000-63500	R&M SUPPLIES				
		P1600341	10/24/2016	HARRIS ACE HARDWARE LLP	118.90
		P1603064	10/13/2016	HENDRICKS COMMERCIAL	253.20
18-1820-0000-64911	CLEARING ACCT				
		P1600096	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,006.26
		P1600101	10/21/2016	SAFEWAY PEST CONTROL	40.00
		P1600824	10/24/2016	HENDRICKS COMMERCIAL	8,812.38
		P1600866	10/31/2016	ADVANCED DISPOSAL SERVICES	111.02
18-1820-0000-65321	BLDG/OFC LEASE				
		P1600824	10/24/2016	HENDRICKS COMMERCIAL	2,067.10
				ECLIPSE CENTER PROG TOTAL	12,649.28
18-1821-0000-62400	R & M SERV				
		P1600101	11/04/2016	SAFEWAY PEST CONTROL	23.00
		P1600322	09/30/2016	ARAMARK UNIFORM SERVICES INC	71.60
		P1602142	09/30/2016	JF AHERN COMPANY	285.00
18-1821-0000-63500	R&M SUPPLIES				
		P1600321	10/27/2016	AARONS LOCK AND SAFE INC	268.80
		P1600326	09/09/2016	BJ ELECTRIC SUPPLY INC	285.92
		P1600329	10/12/2016	CITY OF JANESVILLE	50.00
		P1600341	10/24/2016	HARRIS ACE HARDWARE LLP	40.56
		P1600344	10/18/2016	JACK AND DICKS FEED AND GARDEN	122.60
		P1600350	10/18/2016	JOHNSTONE SUPPLY	195.86
		P1602215	10/17/2016	FRANK SILHA AND SONS EXCAVATIN	1,600.00
		P1603078	10/30/2016	NU LINE STRIPING	1,530.72
		P1603094	11/07/2016	DVORAK LANDSCAPE SUPPLY LLC	765.00
		P1603125	10/28/2016	WILLIS OF WISCONSIN INC	27.00
18-1821-0000-67200	CAPITAL IMPROV				
		P1601679	10/03/2016	ANGUS YOUNG ASSOCIATES INC	765.00
		P1601828	10/03/2016	ANGUS YOUNG ASSOCIATES INC	1,470.00
				JOB CENTER PROG TOTAL	7,501.06
18-1837-0000-67200	CAPITAL IMPROV				
		P1601827	10/24/2016	KJWW ENGINEERING CONSULTANTS	9,298.60
		P1602710	10/28/2016	HONEYWELL INC	13,604.00
		P1602870	10/17/2016	DEGARMO PLUMBING INC	4,733.20
				JAIL CAPITAL IMPROVEMENTS PROG TOTAL	27,635.80
18-1842-0000-67200	CAPITAL IMPROV				
		P1601728	10/28/2016	STRUCTURAL RESEARCH INC	13,950.00

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
		P1602709	10/24/2016	COUNTRY GLASS INC	82,900.00
		P1602830	10/31/2016	AMERICAN DEMOLITION	182,011.00
		P1602856	10/27/2016	EUGENE MATTHEWS INC	18,500.00
COURTHOUSE FACILITY PROJECT PROG TOTAL					297,361.00
18-1843-0000-67200	CAPITAL IMPROV				
		P1602016	10/26/2016	ROCK ROAD COMPANIES INC	47,861.26
		P1602939	11/11/2016	CC AND N INC	2,659.00
U-ROCK EXPANSION PROJECT PROG TOTAL					50,520.26
18-1849-0000-67200	CAPITAL IMPROV				
		P1602607	11/02/2016	ANGUS YOUNG ASSOCIATES INC	840.00
		P1602799	10/03/2016	ANGUS YOUNG ASSOCIATES INC	1,273.28
HCC COMPLEX PROJECT PROG TOTAL					2,113.28
18-1855-0000-67200	CAPITAL IMPROV				
		P1600329	11/15/2016	CITY OF JANESVILLE	120.00
COURTHOUSE SECURITY SYSTEM PROG TOTAL					120.00

I have reviewed the preceding payments in the total **\$491,754.99**

Date: _____ Dept: _____
Committee _____

COMMITTEE REVIEW REPORT
FOR THE MONTH OF NOVEMBER 2016

Account Number	Account Name	PO#	Inv Date	Vendor Name	Inv/Enc Amt
18-1815-0000-62201	ELECTRIC		10/24/2016	ALLIANT ENERGY/WP&L	10,471.08
18-1815-0000-62202	WATER		10/31/2016	JANESVILLE WATER AND	5,591.86
18-1815-0000-62203	NATURAL GAS		10/24/2016	ALLIANT ENERGY/WP&L	733.88
18-1815-0000-62400	R & M SERV				
		P1600076	10/31/2016	ADVANCED DISPOSAL SERVICES	110.00
		P1600080	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	7,282.83
		P1600311	10/19/2016	BANDT COMMUNICATIONS INC	44.00
		P1600314	10/17/2016	JOHNSON CONTROLS INC	3,973.64
		P1600317	11/09/2016	POMPS TIRE SERVICE INC	1,006.64
		P1600318	11/16/2016	PORTERS LAWN AND POWER	182.64
		P1600319	10/14/2016	SIMPLEX GRINNELL LP	100.00
		P1600379	10/25/2016	DIVERSIFIED BUILDING MAINTENAN	1,436.00
		P1600440	11/01/2016	ROCK COUNTY HEALTH CARE	21.50
		P1600461	10/10/2016	JF AHERN COMPANY	125.00
		P1600468	10/24/2016	MENARDS	21.94
		P1600470	10/18/2016	R E MICHEL COMPANY	212.91
		P1602819	11/02/2016	AUTOMATIC FIRE SYSTEMS INC	595.00
		P1603120	11/04/2016	AMERICAN INDUSTRIAL STEEL AND	58.60
		P1603178	11/01/2016	STATE OF WISCONSIN	200.00
18-1815-0000-63500	R&M SUPPLIES				
		P1600078	10/31/2016	WRIGHT EXPRESS FSC	237.07
		P1600310	11/02/2016	AIRGAS NORTH CENTRAL	107.75
		P1600316	10/25/2016	NAPA AUTO PARTS	705.65
		P1600447	11/17/2016	AARONS LOCK AND SAFE INC	17.49
		P1600448	11/01/2016	CITY OF JANESVILLE	25.00
		P1600449	11/01/2016	DEGARMO PLUMBING INC	262.00
		P1600468	10/21/2016	MENARDS	475.85
		P1600472	11/14/2016	SHERWIN WILLIAMS	43.49
		P1603011	11/04/2016	HALVERSON CARPET CENTER LTD	1,641.00
		P1603138	11/04/2016	CONWAY,ERIC	300.00
HCC BUILDING COMPLEX PROG TOTAL					35,982.82

Parking structure data

- Human Resources indicated there are **183 Fulltime County Employees and 8 Part time County Employees. = 191.**
- We also have **State employees in the Judicial area=18 full time and the DA's Office has 14 Full time. = 32 223 total Employees.**
- Typically, the current cost for new precast parking structures range from \$16,000 to \$20,000 per parking space, while the cast-in-place post-tensioned structure ranges from \$19,000 to \$24,000 per space. Some other cost they may have some influencing cost of both types of structures include: type of soils that you build on, site limitations such as: the number of retaining or sheet piling walls needed, exterior finishes, conveying systems and size of the structure. Also, you will probably need to add another 10% to 15% for legal, testing and A/E fees. Land cost and financing is not included in the cost per parking space.

Current Parking

Parking Lot	
Square Feet: Front(west) - 34,560 Back(east) -31,500	Number of Parking Stalls: Front(west) - 79 Back (east) -92
Parking Garage	
Square Feet: Front(west) -34,560 Back(east) - 31,500	Number of Parking Stalls: Front(west)- 81 + 2 motorcycle parking Back(east)-96
Total Front(West) Parking stalls- 160	Total Back(east parking stalls-188

Extending the Life
of the built environment

DUE DILIGENCE ASSESSMENT OF

ROCK COUNTY
COURTHOUSE -
EAST AND WEST PARKING
STRUCTURES

JANESVILLE, WISCONSIN

Prepared for:
ROCK COUNTY COURTHOUSE

SEPTEMBER, 2016



WALKER
RESTORATION CONSULTANTS

DUE DILIGENCE ASSESSMENT

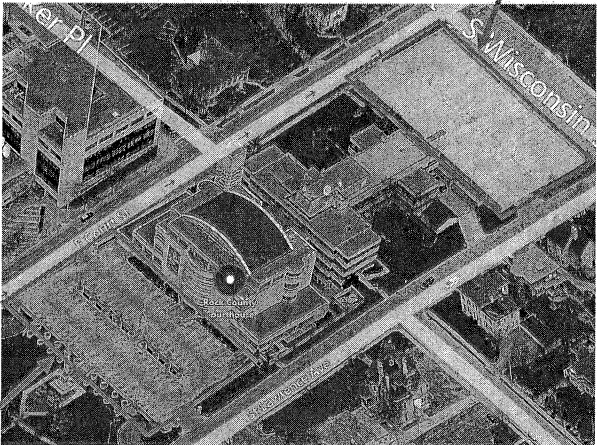
ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES

JANESVILLE, WISCONSIN

Prepared for:
ROCK COUNTY

WRC PROJECT NO. 31-8059.00

East Parking Structure



West Parking Structure

505 Davis Road
Elgin, IL 60123

Voice: 847.697.2640
Fax: 847.697.7439



ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES

DUE DILIGENCE ASSESSMENT



WALKER
RESTORATION CONSULTANTS

WRC PROJECT NO. 31-8059.00

SEPTEMBER 2016

TABLE OF CONTENTS

EXECUTIVE SUMMARYii

INTRODUCTION 1
 Objectives 1

BACKGROUND 1
 East Parking Structure 1
 West Parking Structure 1

RECOMMENDATIONS2
 Immediate Repairs2
 Recommended Repairs – East Parking Structure2
 Recommended Repairs – West Parking Structure3
 Opinion of Probable Repair Costs4
 Implementation6

DISCUSSION7
 East Parking Structure7
 Concrete Structure7
 Waterproofing7
 Stair Tower8
 Plumbing8
 Façade8
 Electrical8
 West Parking Structure8
 Concrete Structure9
 Waterproofing9
 Entrance Ramp Area 10
 Façade10
 Electrical10

OBSERVATIONS AND FINDINGS 10
 East Parking Structure 10
 West Parking Structure 11

LIMITATIONS 12

APPENDIX A - Photographs

LIST OF TABLES AND FIGURES

Table 1 - Recommended Repairs – East Parking Structure	Page 4
Table 2 - Recommended Repairs – West Parking Structure	Page 5

ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES

DUE DILIGENCE ASSESSMENT



WRC PROJECT NO. 31-8059.00

SEPTEMBER 2016

EXECUTIVE SUMMARY

This report contains the results of our Due Diligence Assessment of the East and West Parking Structures at the Rock County Courthouse in Janesville, Wisconsin. The Due Diligence Assessment of the two parking structures was performed to evaluate the present condition of each structure, identify conditions requiring immediate repair, recommend necessary repairs and identify maintenance items needed. We have included our opinion of probable costs for the repairs and maintenance items identified.

After approximately 21 winter cycles in operation, the East Parking Structure varies from fair to poor condition when compared with similar deterioration levels for other well-maintained precast concrete parking structures. Items observed included varying amounts of concrete deterioration to the floor, beams, columns, walls and tee stems, failed joint sealants, broken welds at tee-to-tee shear connectors, corroded floor drains and minor asphalt repair.

We recommend repairing all concrete deterioration to the floor slabs, beams, columns, walls, overhead tee flanges and stems, lifting loop pockets, total replacement of the joint sealants (including tee-to-tee, control joint, vertical and cove sealants), routing and sealing of the random cracks, replacement of the deteriorated shear connectors, replacement of all the floor drains, recoating of the traffic topping over the center beam line, application of a penetrating concrete sealer over the exposed precast tee surfaces and asphalt repair. The sealer is needed to keep chloride ions from penetrating into the concrete matrix. Sealers typically have a life cycle of only three to five years.

In addition to the repairs listed above, we also recommend installation of two expansion joints between the grade slab and supported parking area, provide supplemental bearing supports to two stems that have lost a portion of its bearing capacity on the beam and re-striping the top tier, since cleaning of the surface in order to apply the penetrating sealer will remove a portion of the existing parking striping.

Our opinion of probable construction cost for the maintenance and recommended repairs for the East Parking Structure is \$320,000. Please see Table 1 in the Recommendations section for a breakdown of the individual repair and maintenance cost items.

The West Parking Structure remains in fair condition after approximately 20 winter cycles. The amount of deterioration found was less than on the East Parking Structure. Items observed included varying amounts of concrete deterioration to the floor, beams, columns, walls and tee stems, failed joint sealants, broken welds at tee-to-tee shear connectors and corroded floor drains.

On this structure, we recommend repairing all concrete deterioration to the floor slabs, beams, columns, walls, overhead tee flanges and stems, total replacement of the joint sealants (including tee-to-tee, control joint, vertical and cove sealants), replacement of the deteriorated shear connectors, replacement of all the floor drains, recoating of the traffic topping in selective locations and application of a penetrating concrete sealer over the

ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES

DUE DILIGENCE ASSESSMENT



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WRC PROJECT NO. 31-8059.00

SEPTEMBER 2016

exposed precast tee surfaces. The sealer is needed to keep chloride ions from penetrating into the concrete matrix. Sealers typically have a life cycle of only three to five years.

In addition to the repairs listed above, we also recommend installation of two expansion joints between the grade slab and supported parking area and re-striping the top tier, since cleaning of the surface in order to apply the penetrating sealer will remove a portion of the existing parking striping.

Our opinion of probable construction cost for the maintenance and recommended repairs for the West Parking Structure is \$200,000. Please see Table 2 in the Recommendations section for a breakdown of the cost for the individual repair and maintenance cost items.

During our review of both parking structures, we noted the lighting level in the Lower Level is very low. For that reason, the County should consider two enhancements to both structures. The first enhancement would be to paint the underside of the supported floor slab of the precast tees, columns, beams and foundation walls. This enhancement would increase the reflective light in this area by approximately 20 to 25 percent. Typically, the cost to paint this area is approximately \$1.00 to \$1.50 per square foot.

The second enhancement we recommend is upgrading the lighting system for both structures. The current lighting levels, as recommended by the National Parking Association (NPA) and the Illumination Engineering Society (IES), are much higher today than when the two structures were built. Typically, the cost of this type of upgraded enhancement is approximately \$1.50 to \$2.50 per square foot.

Please see the attached discussion for a detailed report of our investigation.

 9/8/16

Laurence C. Susmarski Date
Project Manager/Principal Investigator

**INTRODUCTION**

At the request of the Rock County, Wisconsin, Walker Restoration Consultants conducted a Due Diligence Assessment of the East and West Parking Structures at the Rock County Courthouse in Janesville, Wisconsin. The work was performed in accordance our proposal dated June 27, 2016.

Project Manager/Principal Investigator Laurence Susmarski and Project Technician Jose Perez of Walker Restoration Consultants performed the site survey on Wednesday, July 24, 2016. The due diligence assessment included a visual review of exposed structural members, supported floor surfaces, wall surfaces, exterior façade, stair towers, plumbing, and electrical systems in readily accessible areas. In addition, chain dragging and hammer sounding of selected elements were conducted to identify sub-surface concrete delaminations.

OBJECTIVES

The objectives of the Due Diligence Assessment were to evaluate the existing condition of each structure to identify the current level of deterioration, develop conceptual repair and maintenance recommendations based on observed deterioration, and provide an opinion of probable cost for the recommended repair items.

BACKGROUND**EAST PARKING STRUCTURE**

The East Parking Structure was built in 1995. The structure consists of an on-grade level and one supported level and is rectangular in shape. The structure measures approximately 122 feet in the east-west direction with two bays and approximately 254 feet in the north-south direction with ten bays. There is one stair tower, which is located about mid-point on the west elevation. Vehicle access to the Upper Level is from the street on the east and south sides and to the Lower Level is from the street on the north side.

The structural framing system consists of nine-foot wide precast double-tees, conventionally reinforced columns and beams, and architectural spandrel panels.

WEST PARKING STRUCTURE

The West Parking Structure was built in 1996. The structure also consists of an on-grade level and one supported level. It too is rectangular in shape, but has a ten-foot open gap in the middle. The structure measures approximately 132 feet in the east-west direction with two bays and approximately 240 feet in the east-west direction with ten bays. The structure has direct access to the courthouse located on its east side. The structural framing system consists of



twelve-foot wide precast double-tees, conventionally reinforced columns, pre-stressed beams, and architectural spandrel panels. Vehicle access to the Ground Tier is from the east and west and vehicle access to the Top Tier is from a speed ramp on the west end of the structure.

RECOMMENDATIONS

The East Parking Structure is in fair to poor condition, while the West Parking Structure remains in fair condition considering the climate exposure of both structures. The observed deterioration is normal, but timely repairs are needed to address the conditions noted and minimize future deterioration. The recommended repairs below are intended to address the noted deterioration within each structure and to extend the service life of both structures. We recommend the following repairs:

IMMEDIATE REPAIRS

Immediate repairs, when required, are typically intended to mitigate potentially hazardous conditions and should be undertaken without delay. We did not observe any conditions in either structure that require immediate action or repairs.

RECOMMENDED REPAIRS – EAST PARKING STRUCTURE

1. Replacement of the deteriorated asphalt in the drive lane of the west bay.
2. Repair concrete floor and lifting loop pocket spalls/delaminations.
3. Repair concrete spalls/delamination on the beams, columns, column haunches, walls, tee stems and double-tee flanges.
4. Installation of expansion joints at the two entrance/exits to the Upper Level.
5. Rout and seal random cracks in the floor system with a urethane sealant.
6. Replacement of all the sealants at the tee-flange-to-tee-flange, cove, control and vertical joints.
7. Apply a penetrating sealer to the supported floor surfaces.
8. Re-coat existing worn traffic topping over the beam line.
9. Replacement of the corroded floor drains and piping.
10. Replacement of the broken shear connectors.
11. Installation of supplemental bearing supports below two tee stems that have lost partial bearing capacity.
12. Re-striping the parking stalls where the sealer is being applied. The original stripes will be partially removed when preparing the surface for the sealer application.



The recommended repairs are tabulated in Table 1 along with the estimated cost. Our opinion of the probable cost of the recommended repairs is \$320,000.

RECOMMENDED REPAIRS – WEST PARKING STRUCTURE

1. Repair of the concrete floor spalls/delamination.
2. Repair of the concrete spalls/delamination on the beams, columns, walls, tee stems and double-tee flanges.
3. Installation of expansion joints at the two entrance/exits to the Upper Level.
4. Replacement of all the sealants at the tee-flange-to-tee-flange, cove, control and vertical joints.
5. Apply a penetrating sealer to the supported floor surfaces.
6. Re-coat existing worn traffic topping.
7. Replacement of the corroded floor drains and piping.
8. Replacement of the broken shear connectors.
9. Re-striping the parking stalls where the sealer is being applied. The original stripes will be partially removed when preparing the surface for the sealer application

The recommended repairs are tabulated in Table 2 along with the estimated cost. Our opinion of the probable cost of the recommended repairs is \$200,000.

ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES
DUE DILIGENCE ASSESSMENT



WALKER
RESTORATION CONSULTANTS

WRC PROJECT NO. 31-8059.00

SEPTEMBER 2016

OPINION OF PROBABLE REPAIR COSTS

Our opinion of probable repair costs for the recommended actions for each parking structure, including a recommended construction contingency and estimated engineering fees are summarized in the following tables:

Table 1 – Recommended Repairs and Maintenance – East Parking Structure

WORK ITEM	DESCRIPTION	EXTENSION
1.1	Mobilization	\$ 14,000
2.1	Asphalt Repair	500
3.1	Floor Repair	93,000
3.5	Floor Repair – Lifting Loops	500
5.1	Beam Repair	2,500
6.1	Column Repair	2,500
6.6	Column Haunch Repair	2,000
7.1	Wall Repair	4,000
8.1	Tee Stem Repair	4,000
8.4	Double-Tee Flange Repair	6,500
10.3	Expansion Joint – Elastomeric	7,000
11.1	Rout and Seal Random Cracks	2,000
11.2	Control Joint Sealant	4,500
11.3	Vertical Joint Sealant	1,000
11.4	Tee-to-Tee Joint Sealant	36,500
11.7	Cove Sealant	7,500
15.1	Penetrating Sealer	13,500
16.5	Traffic Topping - Recoat	4,500
25.2	Replacement Floor Drains	15,000
25.3	Pipe and Hangers	5,000
40.3	Shear Connector Replacement	20,000
40.4	Supplemental Bearing Support	4,000
45.1	Paint Traffic Markings	1,000
Construction Subtotal		\$ 251,000
Construction Contingency		39,000
Engineering Design, Field Services & Testing		30,000
TOTAL		\$ 320,000

Notes for Table 1

1. Estimated costs are in 2016 U.S. dollars and are based on the repairs being completed in one construction season.
2. Estimated costs are based on historical records of similar types of work.
3. Costs may vary due to local economy, time of year, phasing, or other factors.

ROCK COUNTY COURTHOUSE EAST AND WEST PARKING STRUCTURES
DUE DILIGENCE ASSESSMENT



WALKER
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WRC PROJECT NO. 31-8059.00

SEPTEMBER 2016

Table 2 – Recommended Repairs and Maintenance – West Parking Structure

WORK ITEM	DESCRIPTION	EXTENSION
1.1	Mobilization	\$ 10,000
3.1	Floor Repair	5,000
3.3	Floor Repair – Full Depth	2,000
5.1	Beam Repair	2,500
6.1	Column Repair	11,000
7.1	Wall Repair	5,500
8.1	Tee Stem Repair	1,500
8.4	Double-Tee Flange Repair	1,500
10.3	Expansion Joint – Elastomeric	10,500
11.2	Control Joint Sealant	4,500
11.3	Vertical Joint Sealant	500
11.4	Tee-to-Tee Joint Sealant	33,000
11.7	Cove Sealant	15,000
15.1	Penetrating Sealer	27,000
16.4	Traffic Topping - Recoat	11,500
25.2	Replacement Floor Drains	7,000
25.3	Pipe and Hangers	2,000
40.3	Shear Connector Replacement	6,000
45.1	Paint Traffic Markings	1,000
Construction Subtotal		\$ 157,000
Construction Contingency		23,000
Engineering Design, Field Services & Testing		20,000
TOTAL		\$ 200,000

Notes for Table 2

1. Estimated costs are in 2016 U.S. dollars and are based on the repairs being completed in one construction season.
2. Estimated costs are based on historical records of similar types of work.
3. Costs may vary due to local economy, time of year, phasing, or other factors.

IMPLEMENTATION

The repair program outlined in the tables can be competitively bid and executed by experienced restoration contractors. The first step in this process is to obtain a quality set of bidding documents prepared by an experienced restoration engineer. This will allow for appropriately designed repairs and objectively estimated quantities, so the project can be competitively bid by restoration contractors. The availability and bid prices will depend on the market conditions at the time of the bids. Issuing for bids in the early part of a year will produce the best results.



We recommend that the construction be scheduled in moderate weather due to the weather sensitive repair procedures. Implementation of the repairs during winter months is possible, but at increased costs and with some technical difficulties.

If desired, the repairs may be phased to fit within yearly budgetary constraints. It is important to note that deferring the repairs will result in an increase in repair quantities as the deterioration cycle continues.

DISCUSSION

EAST PARKING STRUCTURE

In general, we found the East Parking Structure varies from a fair to poor condition. Each type of observed deterioration is discussed in this section in conjunction with the recommended repairs and maintenance actions necessary to address the items noted and properly maintain the structure. A list of detailed observations (including photo references) is included under the heading Observations and Findings.

CONCRETE STRUCTURE

Chain dragging of the floor surfaces revealed a number of floor delaminations, particularly along the tee flange edges, which need to be repaired. Previous repairs done in this area with an epoxy material have nearly all failed. Varying amounts of concrete delaminations/spalls on the beams, columns, column haunches, walls, double-tee stems, and tee flanges were located throughout the Lower Level also in require repair. A couple of delaminated lifting loop pockets were also noted.

Shear connectors are simple metal connections that provide transfer of loads from one precast element to another. These connections are required for the individual precast double-tees to act compositely as a structure and perform as designed. A number of locations revealed corrosion and/or failed shear connectors. At locations of corrosion or concrete deterioration, the connectors should be replaced with a new support angle and the concrete repaired.

WATERPROOFING

Proper maintenance of waterproofing systems is vital to extending the life of the parking structure, particularly in a precast structure where there are many joints for potential infiltration. Waterproofing systems are intended to minimize the intrusion of chloride (road salt) contaminated moisture into the concrete, which leads to corrosion of the embedded steel reinforcement and connections, as well as concrete deterioration. The waterproofing systems within the parking structure include sealants at the tee-to-tee joints and control joints and cove sealant along the exterior walls.



A majority of the tee-to-tee joint sealants have failed and are leaking into the Lower Level. The deteriorated condition of the joint sealants is largely responsible for the concrete deterioration described in the above paragraphs. For this reason, we recommend totally replacing the tee-to-tee joint sealants on the Upper Level. Also, the perimeter cove sealants and control joint sealants have failed and water is leaking to the Lower Level, and they too need to be totally replaced. Urethane sealants typically have a life expectancy of approximately 5 to 7 years when exposed to UV rays, after which time replacement is necessary to maintain their effectiveness. In general, the joint sealants on the supported tier were in fair condition. During our walkthrough, we noted a few isolated random cracks in the precast floor surfaces. At these locations, we recommend the cracks be routed and sealed with a quality urethane sealant to prevent leakage.

In addition to the measures above, we recommend re-coating the area over the center beam line with traffic topping. The traffic topping has been an effective waterproofing material for keeping water from leaking into the Lower Level. At a number of locations, the traffic topping has worn off or been damaged by snow plows.

Finally, a re-application of a clear concrete silane sealer to minimize moisture infiltration into the precast tees is recommended. A silane sealer will help minimize further chloride ingress into the concrete and slow the potential rate of corrosion. Application of the sealer involves shot blasting the concrete surface, which also removes much of the striping paint. For this reason, we have also included costs for restriping the supported tier. Concrete sealers typically have an effective life of 3 to 5 years, after which time a reapplication is necessary to maintain their effectiveness.

STAIR TOWER

The stair tower is in good condition. There were no concerns noted during our review.

PLUMBING

The plumbing system is in very poor condition. Most of the drain bodies are severely corroded with holes in them. We have recommended that all the drains be replaced at this time along with a section of lateral pipe that connects to the vertical downspout.

FAÇADE

The façade remains in fairly good condition based on our visual review. Some of vertical sealants have cracked and need to be replaced. These vertical sealants interface directly with the cove sealants which are to be replaced.

ELECTRICAL

The electrical systems appeared to be in relatively fair condition without any significant deterioration. No visible problems were noted during our review.



WEST PARKING STRUCTURE

The West Parking Structure was found to be in fair condition, with less deterioration problems than the East Parking Structure. A list of detailed observations (including photo references) is included under the heading Observations and Findings.

CONCRETE STRUCTURE

Chain dragging of the floor surfaces on this structure revealed several small floor delaminations which need to be repaired. In addition, concrete delamination/spalls were noted on the walls, beams, double-tee stems, and tee flanges throughout the structure. These items also require repair.

Shear connectors are simple metal connections that provide transfer of loads from one precast element to another. These connections are required for the individual precast double-tees to act compositely as a structure and perform as designed. At a number of locations, we found these connectors corroded and the welds have broken. These deteriorated shear connectors should be replaced with a new support angle and the concrete repaired.

WATERPROOFING

Similar to the East Parking Structure, proper maintenance of waterproofing systems is vital to extending the life of the parking structure, particularly in a precast parking structure where there are many joints for potential infiltration. Waterproofing systems are intended to minimize the intrusion of chloride (road salt) contaminated moisture into the concrete, which leads to corrosion of the embedded steel reinforcement and connections, as well as concrete deterioration. The waterproofing systems within the parking structure include sealants at the tee-to-tee joints and control joints and cove sealant along the exterior walls.

A majority of all the tee-to-tee joint sealants have failed and is leaking into the Lower Level. The deteriorated condition of the joint sealants is largely responsible for the concrete deterioration described in the above paragraphs. For this reason, we recommend totally replacing the tee-to-tee joint sealants on the Upper Level. Also, the perimeter cove sealants and control joint sealants have failed and water is leaking to the Lower Level and they too need to be totally replaced. Urethane sealants typically have a life expectancy of approximately 5 to 7 years when exposed to UV rays, after which time replacement is necessary to maintain their effectiveness. In general, the joint sealants on the supported tier were in fair condition.

In addition to the measures above, we recommend re-coating the areas with traffic topping, where it had been previously installed. The traffic topping has been an effective waterproofing material for keeping water from leaking into the Lower Level. At a number of locations, the traffic topping has worn off or been damaged by snow plows.



As in the East Parking Structure, a re-application of a clear concrete silane sealer to minimize moisture infiltration into the precast tees is recommended. A silane sealer will help minimize further chloride ingress into the concrete and slow the potential rate of corrosion. Application of the sealer involves shot blasting the concrete surface, which also removes much of the striping paint. For this reason, we have also included costs for restriping the supported tier within the structure. Concrete sealers typically have an effective life of 3 to 5 years, after which time a reapplication is necessary to maintain their effectiveness.

ENTRANCE RAMP AREA

The entrance ramp area into the Courthouse is in good condition. However, the two planter boxes' walls and decorative columns on either side of the ramp are in poor condition. A lack of sealant at the base have led to the deterioration problem. These need be repaired to re-establish their integrity.

PLUMBING

The plumbing system is in very poor condition. Similar to the East Parking Structure, the drain bodies are severely corroded. We recommend that all the drains be replaced at this time along with a section of lateral pipe that connects to the vertical downspout.

FAÇADE

The masonry façade remains in fairly good condition based on our visual review. Some of the vertical sealants have cracked and need to be replaced near the northeast corner. No other items were noted.

ELECTRICAL

The electrical systems appeared to be in relatively fair condition without any significant deterioration. No visible problems were noted during our review.

OBSERVATIONS AND FINDINGS

On August 24, 2016 Walker Restoration Consultants performed a Due Diligence Assessment of the East and West Parking Structures in Janesville, Wisconsin for the Rock County Courthouse. The assessment consisted of a visual review of readily visible exposed structural elements (columns, beams, walls, and floor slabs), waterproofing (sealants and expansion joints), chain dragging, and hammer sounding of representative areas, to identify concrete delaminations and possible corrosion of the embedded steel reinforcement. In addition, the stair towers, façade, and floor drainage systems were visually reviewed.

The following conditions were noted; representative photos may be found in Appendix A:



EAST PARKING STRUCTURE

1. Spalled and delaminated concrete was observed on the Upper Level (Photos 1 and 2).
2. Delamination's were noted over several embedded shear connectors on the Upper Level (Photo 3).
3. A number of random floor cracks were seen on the supported tee surface (Photo 4).
4. A few through slab spalls were seen on the tee flange edges (Photos 5 and 6).
5. Failed vertical sealants at joints were seen along the west wall (Photo 7).
6. Failed construction joint sealant was noted in the membrane area on the Upper Level (Photo 8).
7. Failed cove joint sealant was observed at several locations (Photo 9).
8. Failed tee-to-tee joint sealant was noted throughout the Upper Level (Photo 10).
9. Spalled tee flanges were noted along tee-to-tee leaking joints (Photos 11 and 12).
10. Delaminated tee stems were noted at several locations (Photo 13).
11. All the existing floor drains were severely corroded and leaking (Photo 14).
12. Spalled areas were noted on the inverted tee beams (Photo 15).
13. At two locations, the tee stem has lost bearing capacity on the foundation wall (Photo 16).

WEST PARKING STRUCTURE

1. Spalled and delaminated concrete was observed at a few locations on the Upper Level floor slab (Photo 17).
2. Broken shear connectors were noted randomly throughout the Upper Level (Photos 18).
3. Spalled and delaminated concrete was located on the grade slab adjacent to the Upper Level (Photo 19).
4. A number of random floor cracks were noted (Photo 21).
5. At several locations, delaminated concrete was seen on the underside of double-tee flanges (Photos 21 and 22).
6. Delaminated tee stems were noted at several locations (Photo 23).
7. Spalled areas were noted on the inverted tee beams (Photo 24).
8. Water was leaking down the interior of the foundation wall (Photo 25).
9. A majority of the tee-to-tee flange joints were actively leaking (Photo 26).
10. Several areas of worn out traffic topping was noted on the Upper Level (Photo 27).



11. Severe wall spalls were noted on the two planters at the entrance to the Courthouse (Photo 28).
12. Spalling was also occurring on the decorative columns adjacent to the planters (Photo 29).
13. The two planter boxes were not waterproofed and had unsealed joints (Photo 30).

**LIMITATIONS**

This report contains the professional opinions of Walker Restoration Consultants based on the conditions observed as of the date of our site visit and documents made available to us by ROCK COUNTY, WISCONSIN (CLIENT). This report is believed to be accurate within the limitations of the stated methods for obtaining information.

We have provided our opinion of probable costs from visual observations, and field survey work. The opinion of probable repair costs is based on available information at the time of our assessment and from our experience with similar projects. There is no warranty to the accuracy of such cost opinions as compared to bids or actual costs. This Due Diligence Assessment and the recommendations therein are to be used by CLIENT with additional fiscal and technical judgment.

It should be noted that our renovation recommendations are conceptual in nature and do not represent changes to the original design intent of the structure. As a result, this report does not provide specific repair details or methods, construction contract documents, material specifications, or details to develop the construction cost from a contractor.

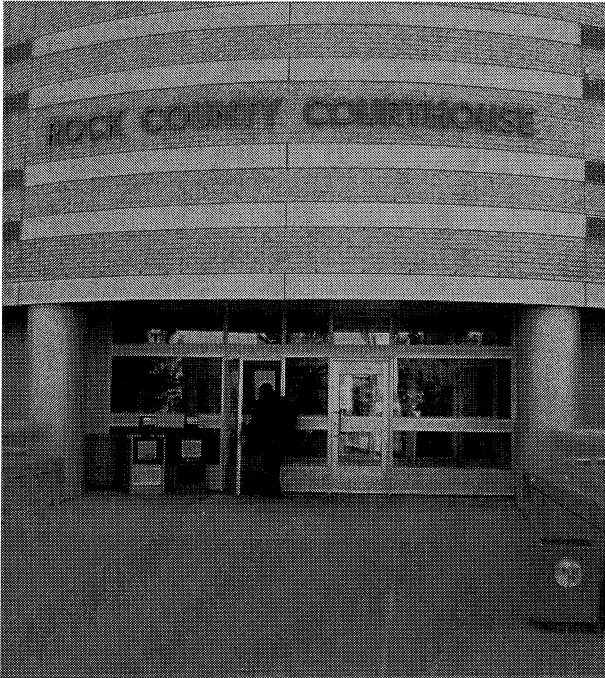
Based on the agreed scope of services, the assessment was based on certain assumptions made on the existing conditions. Some of these assumptions cannot be verified without expanding the scope of services or performing more invasive procedures on the structure. More detailed and invasive testing may be provided by Walker Restoration Consultants as an additional service upon written request from CLIENT.

The recommended repair concepts outlined represents current generally accepted technology. This report does not provide any kind of guarantee or warranty on our findings and recommendations. Our assessment was based on and limited to the agreed scope of work. We do not intend to suggest or imply that our observation has discovered or disclosed latent conditions or has considered all possible improvement or repair concepts.

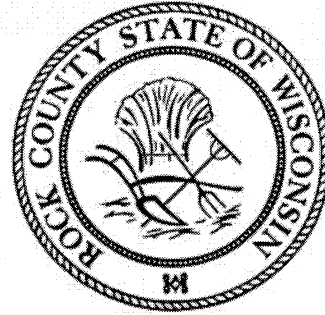
A review of both structures for Building Code compliance and compliance with the Americans with Disabilities Act (ADA) requirements was not part of the scope of this project. However, it should be noted that whenever significant repair, rehabilitation or restoration is undertaken in an existing structure, ADA design requirements may become applicable if there are currently unmet ADA requirements.

Similarly, we have not reviewed or evaluated the presence of, or the subsequent mitigation of, hazardous materials including, but not limited to, asbestos and PCB.

This report was created for the use of CLIENT and may not be assigned without written consent from Walker Restoration Consultants. Use of this report by others is at their own risk. Failure to make repairs recommended in this report in a timely manner using appropriate measures for safety of workers and persons using the structures could increase the risks to users of the structures. CLIENT assumes all liability for personal injury and property damage caused by current conditions in both structures or by construction, means, methods and safety measures implemented during repairs to the structures. CLIENT shall indemnify or hold Walker Restoration Consultants harmless from liability and expense including reasonable attorney's fees, incurred by Walker Restoration Consultants as a result of CLIENT's failure to implement repairs or to conduct repairs in a safe and prudent manner.



Memo



Rock County Courthouse Pedestrian and Vehicle Count

Report prepared by

**Mead
& Hunt**

Date: November 23, 2016

**Administrating
Agencies:**

**Rock County Administration
51 South Main Street
Janesville, WI 53545**

County Board Chair: Russ Podzilni
County Administrator: Josh Smith
Assistant to the County Administrator: Nick Osborne
Director of Facilities Management: Brent Sutherland

**Count
Consultant:**

**Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53226**

Project Manager: Dustin Wolff, AICP
Planner: Gregg May
Phone: (414) 935-4240
Mobile: (414) 940-0101

**Count
Subconsultant:**

**TranSmart Technologies, Inc.
15 Ellis Potter Court
Madison, WI 53711**

Project Manager: Seth Johnson, PE
Phone: (608) 268-3916
Mobile: (608) 332-0528

Executive Summary

A. Pedestrian Study Results

- 15,051 persons entered the building and 14,687 exited the building during the two-week study period.
- Week one had 7,910 persons enter the building, week two had 8,278.
- The busiest individual day of the study occurred on Thursday, October 20th, when 1,755 persons entered the building.
- County Staff building movements are clearly evident
 - AM peak entries at 7:45-8:00 am and a departure at 12:00-12:15 pm for lunch
 - PM peak entries after lunch at 12:45-1:00 pm and leaving for the day at 5:00-5:15 pm.
- The highest amount of pedestrian building entries in a 15-minute interval was 186 entries. It occurred on Thursday, October, 13th during the beginning of the workday period (7:45-8:00 am).
- 8,636 persons entered security during the two-week pedestrian study.
 - On average, 49% of individuals who entered the building also entered security.
- The highest number of security entries in a 15-minute interval was 101 persons. It occurred on Thursday, October, 20th during the beginning of the workday period (7:45-8:00 am).

B. Traffic Study Results

- 5,840 vehicles entered the premises during the one-week traffic study period. 3,191 vehicles entered the West Parking structure, 2,649 entered the East Parking Structure.
- Thursday has the highest traffic usage. 1,259 vehicles entered the parking structures on Thursday.
- The highest number of traffic entries in a 15-minute interval was 154 vehicles. It occurred on Thursday, October, 20th during the beginning of the workday period (7:45-8:00 am). Note that this corresponded to the busiest time period for persons entering security.
- On average, the County Building experiences approximately 1.4 persons per vehicle parked on-site
- The east and west parking structures appear to be used equally by County Staff, based upon peak building entries and traffic ingress times.

Introduction

The Rock County Courthouse is anticipating facility and security upgrades in the near future and would like a better understanding of the number of people accessing the courthouse building. Rock County is interested in both pedestrian and traffic counts to improve the experience of visitors on the premise. The study aims to identify the peak times and days from collected data and highlight the findings.

Facility Background

The Rock County Courthouse is located at 51 S. Main Street. The original courthouse facility was constructed in 1955. In 1991, the Rock County Board of Supervisors adopted resolutions that lead to the Courthouse addition which was completed in 1999. Parking garages were added to the east side of the facility in 1996 and west side of the facility in 1998. The site has eight pedestrian entrances.

Methodology

C. Pedestrian Methodology

Mead & Hunt, Inc. (Mead & Hunt) provided pedestrian ingress/egress counts at three primary building entry locations—the East Stairwell, the Main Entryway, and the North Corridor—using EcoCount Instant Counting Mats. Additionally, Mead & Hunt provided ingress/egress counts at the 2nd floor security area to track the number of people who enter the secure area.

Eleven (11) mats in total were used for building entry counts. Several

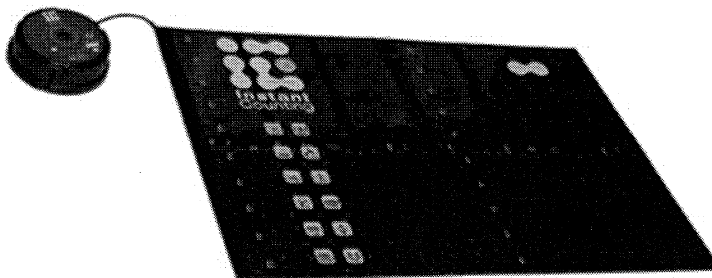
alternative entry locations were closed during the pedestrian count to consolidate counting mat locations and ensure the most accurate count.

The counting system mats are ultra-thin, and count pedestrians travelling in both directions in 15-minute increments with a 95-percent accuracy rating. The mats are interconnected by a ZigBee/Ethernet Gateway (similar to Bluetooth) which reports data to a central computer connected by Wi-Fi.

The pedestrian count was conducted for a two week period from 7am-7pm, Sunday through Friday, for the dates of October 8th through October 21st. One anomaly, a fire drill on Friday, October 14th at 11:00 am, has been taken into account.

During the Study, the weather was clear and sunny, and did not affect parking or pedestrian activities.

The average low temperatures were in the upper 40's with average highs in the low 70's. The only precipitation occurred on Sunday, October 16th.



EcoCount Instant Counting Mats

D. Vehicle Parking Methodology

Mead & Hunt—in conjunction with subconsultant TranSmart Technologies, Inc.—conducted ingress/egress traffic counts at the Rock County Courthouse. The one week count (seven consecutive days) was conducted from 7am-7pm at eight (8) driveway locations for the dates of October 17th through October 22nd. Counts only included vehicular traffic entering and exiting each of the eight driveways for parking in surface lots and parking structures. Four (4) cameras were employed, each recording two (2) driveways simultaneously.



TranSmart Technologies Camera

TranSmart utilized video cameras to record traffic.

Staff then counted traffic recorded by the cameras. Mead & Hunt assisted TranSmart in locating acceptable infrastructure (such as street light poles) on which to mount the video recording equipment. The requisite permissions to utilize the utility poles was received from the City of Janesville and Alliant Energy. The traffic count results were provided in spreadsheet form utilizing 15-minute intervals.

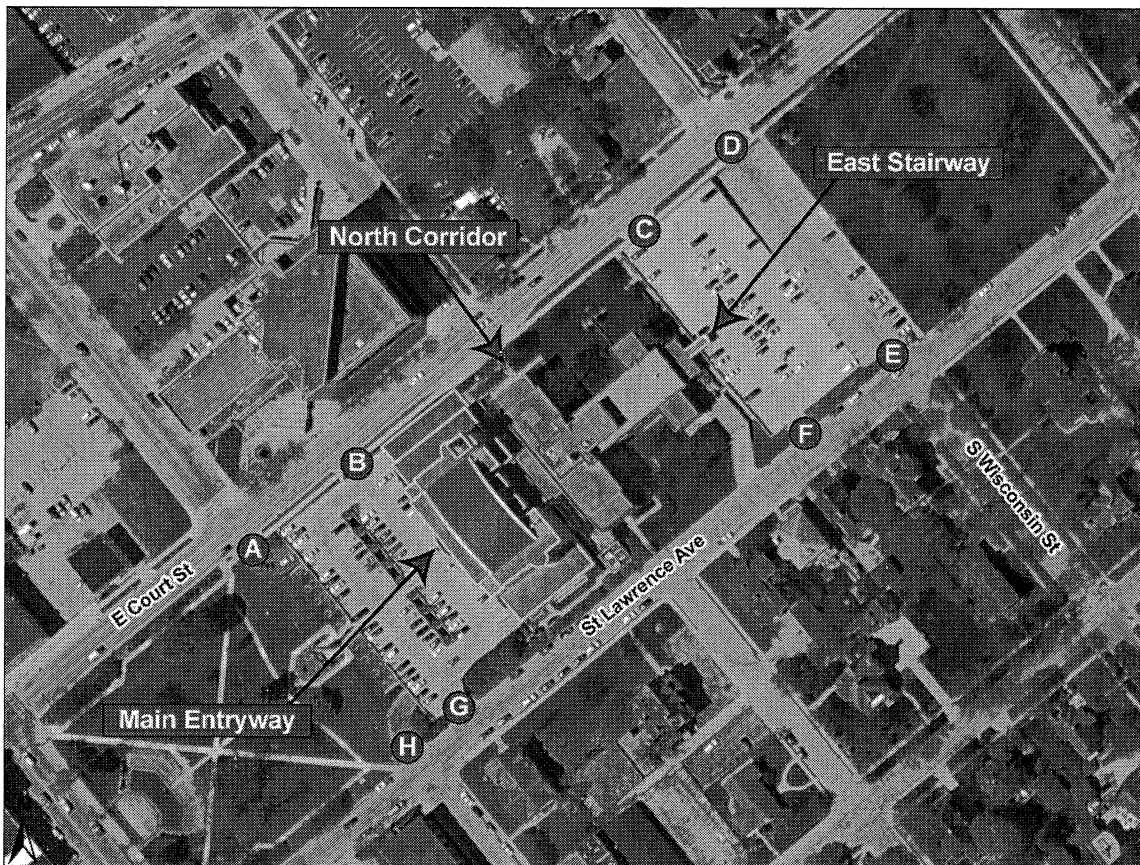


Figure 1: Rock County Courthouse Pedestrian and Traffic Count Locations

Pedestrian Count Study Results

A. Busiest Doors

Based on the results of the pedestrian count, shown in Figure 2, the main entryway was the most popular entrance. Over the course of the weekdays studied, the main entryway received more than twice as many pedestrians as the east stairway entrance.

One result showed the imbalance of entry and exit at certain locations. The study indicates a slight pedestrian preference to enter the building through the main entryway and exit through the east stairway.

Lastly, the North Corridor entry has a relatively small, but consistent pedestrian user base. The North Corridor entry is the closest entry to public transit.

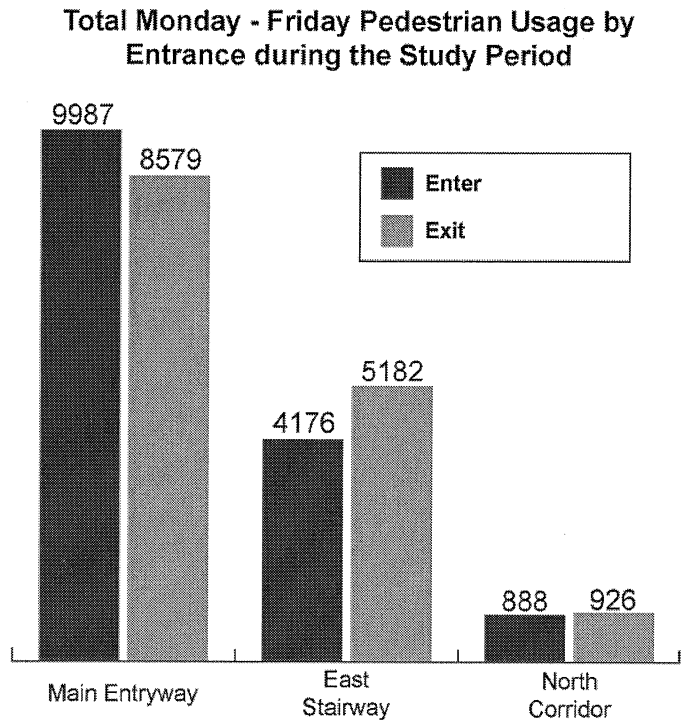


Figure 2: Total Weekday Pedestrian Usage by Entrance

B. Average Pedestrian Traffic

The data presented in Figures 4, 5, 6, and 7 show the average pedestrian traffic, by entry and aggregate, in 15-minute intervals, across all ten weekdays of the study. Four distinct peak times emerged. These peaks are, in order of largest to smallest: the beginning of the workday (7:45-8:00 am), the end of the workday (5:00-5:15 pm), returning from lunch (12:45-1:00 pm), and beginning of lunch (12:00-12:15 pm). The following graphics are broken down further to display entry and exit, with the beginning of the workday (7:45-8:00 am) and returning from lunch (12:45-1:00 pm) being the peak entry times. The highest amount of entries, 186 entries, occurred on Thursday, October, 13th during the beginning of the workday period (7:45-8:00 am).

Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals - All Entrances

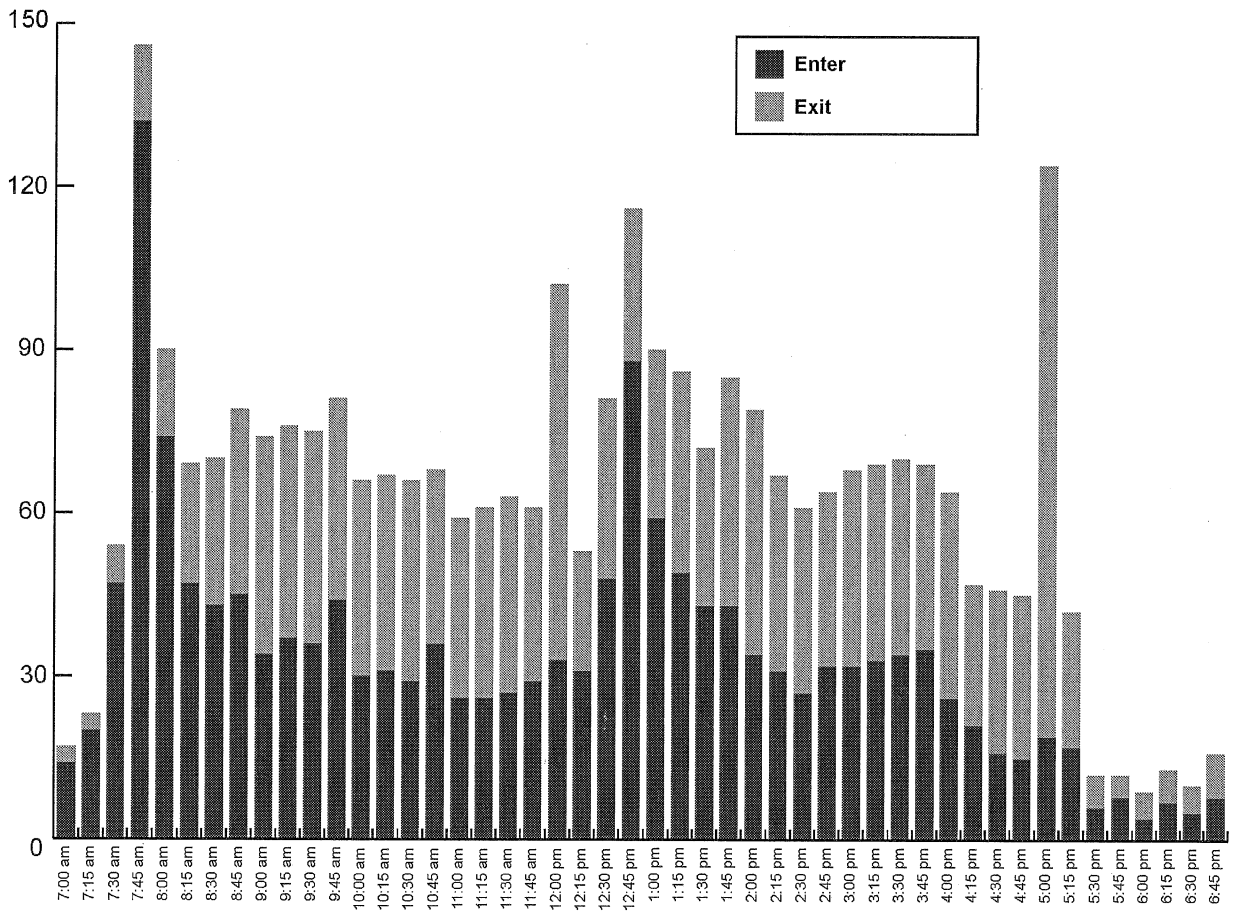


Figure 3: Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals – All Entrances

Average Monday - Friday Pedestrian Ingress/Egress by 15-Minute Intervals - Main Entrance

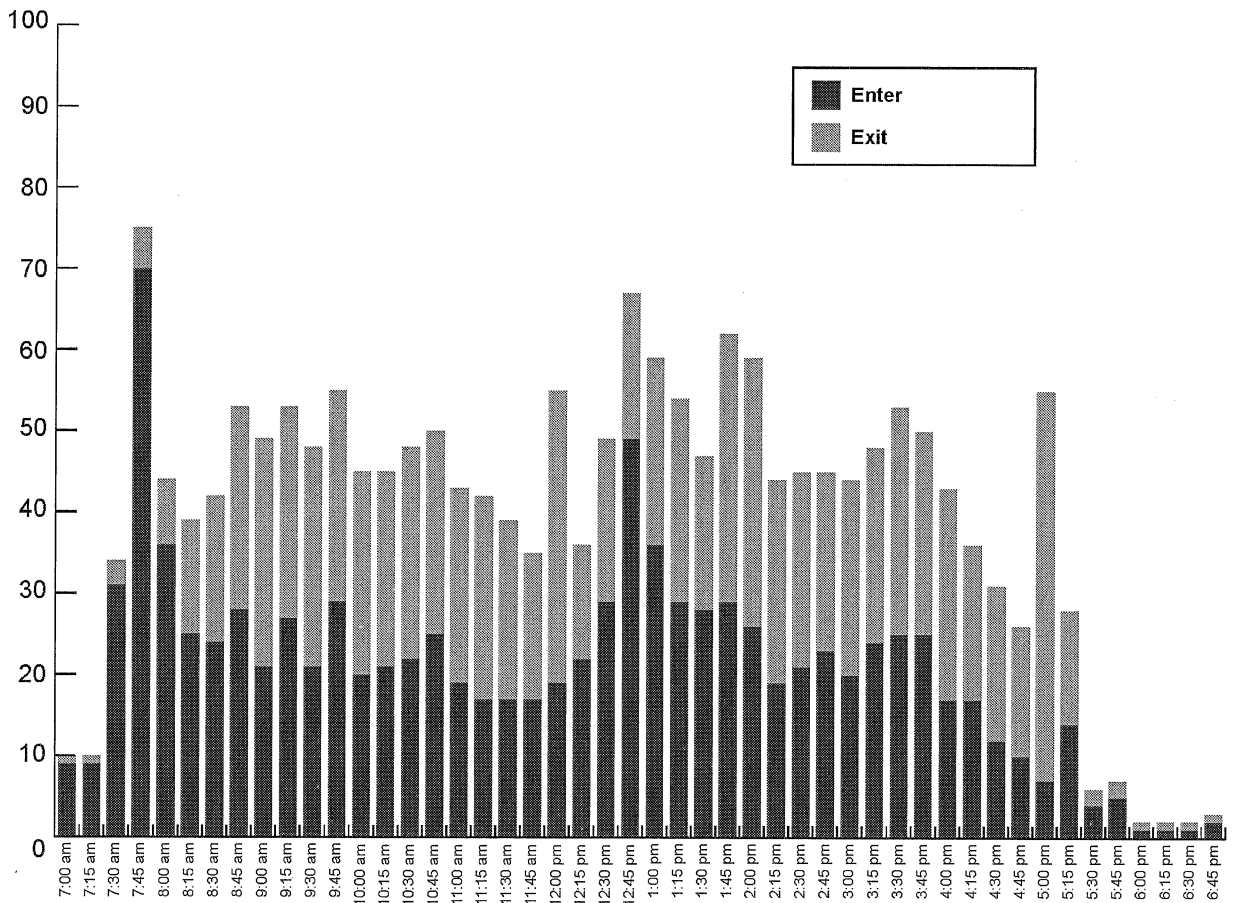


Figure 4: Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals – Main Entrance

Average Monday - Friday Pedestrian Ingress/Egress by 15-Minute Intervals - East Stairway

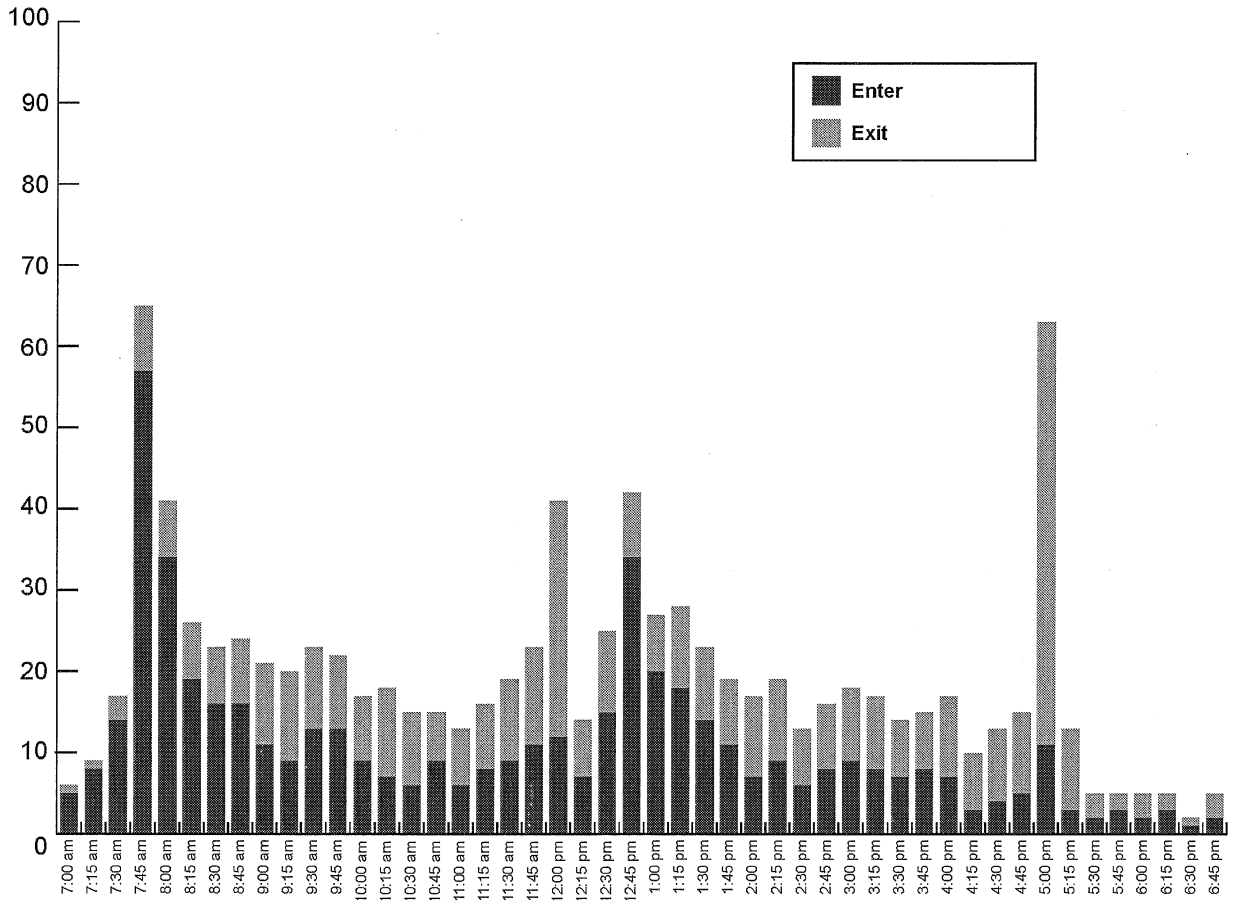


Figure 5: Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals – East Stairway

Average Monday - Friday Pedestrian Ingress/Egress by 15-Minute Intervals - North Corridor

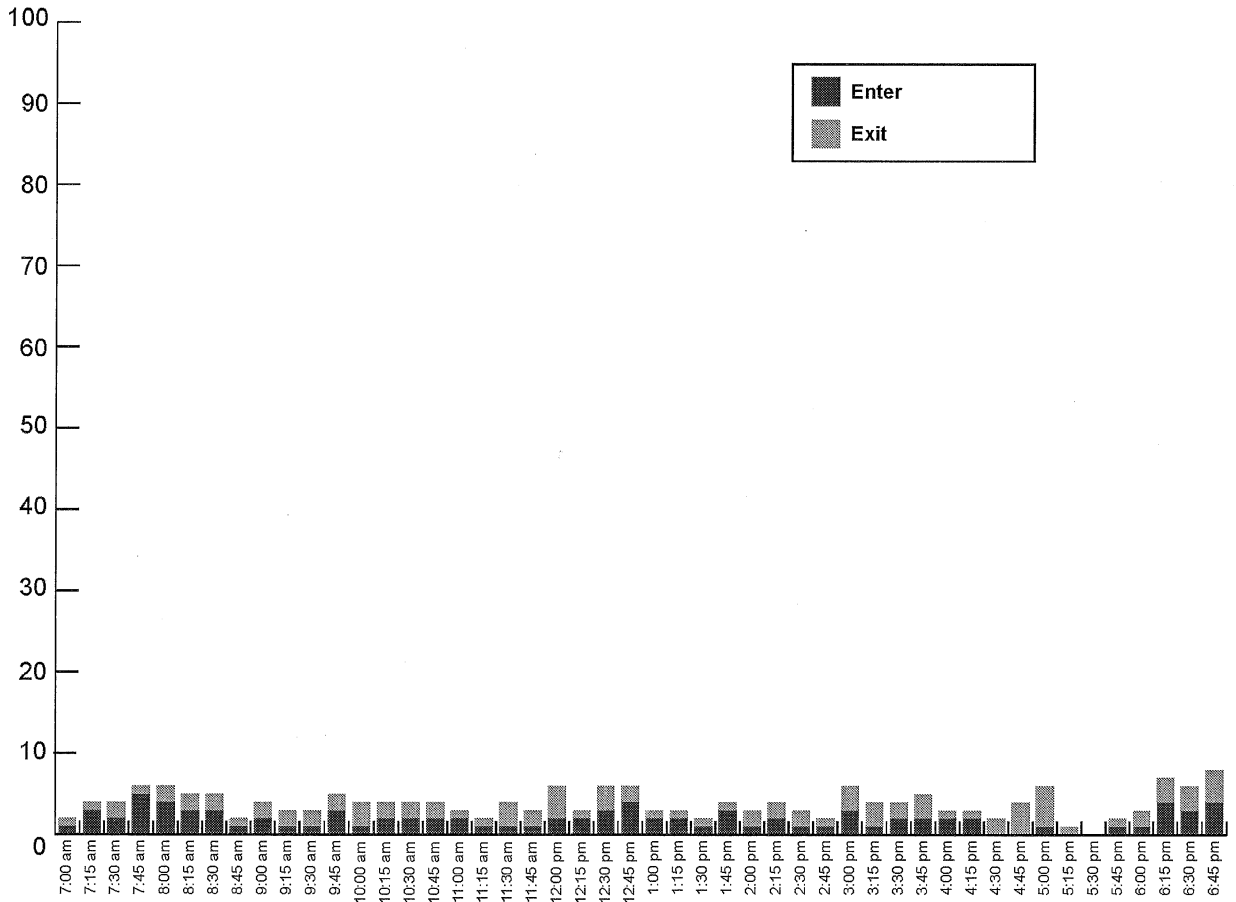


Figure 6: Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals – North Corridor

C. Daily Pedestrian Usage

Figure 7 shows the average number of pedestrian entries by day. The results for busiest day of the week are ranked below:

1. **Thursday**
2. **Wednesday**
3. **Friday**
4. **Monday**
5. **Tuesday**
6. **Saturday**
7. **Sunday**

The busiest individual day of the study occurred on Thursday, October 20th, when 1,755 persons entered the building from 7:00 am to 7:00 pm.

D. Security Entrances

During the weekday, shown in Figure 8 49-percent of pedestrians who entered the building also went through security. During traditional work hours (8:00 am – 5:00 pm), this percentage increased to 55-percent. This percentage increases even further during off-peak hours, when regular staff has already arrived, but residents are still traveling through security. The security data presented in Figures 9 and 10 shows the average pedestrian entries across all ten weekdays of the study based on 15-minute intervals. Two distinct peaks emerged, with the beginning of the workday (7:45-8:00 am) and returning from lunch (12:45-1:00 pm) being the peak entry times. The highest number of entries—101 persons—occurred on Thursday, October, 20th during the beginning of the workday period (7:45-8:00 am).

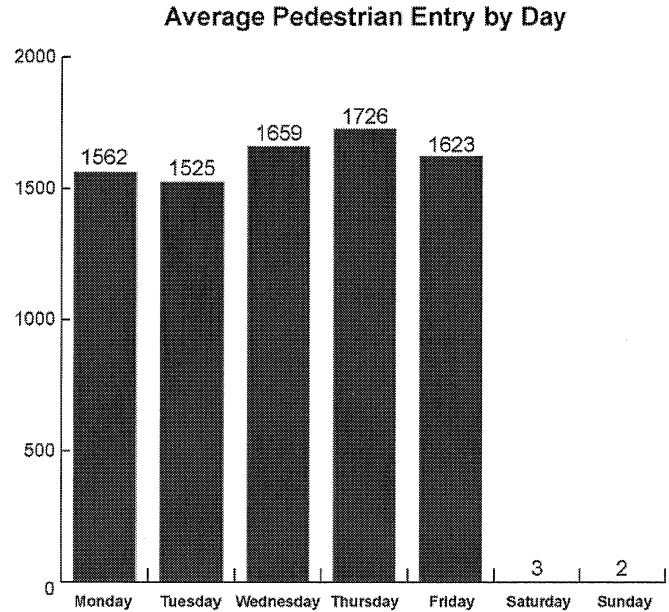


Figure 7: Average Pedestrian Entry by Day

Average Weekday Pedestrian Activity by Day

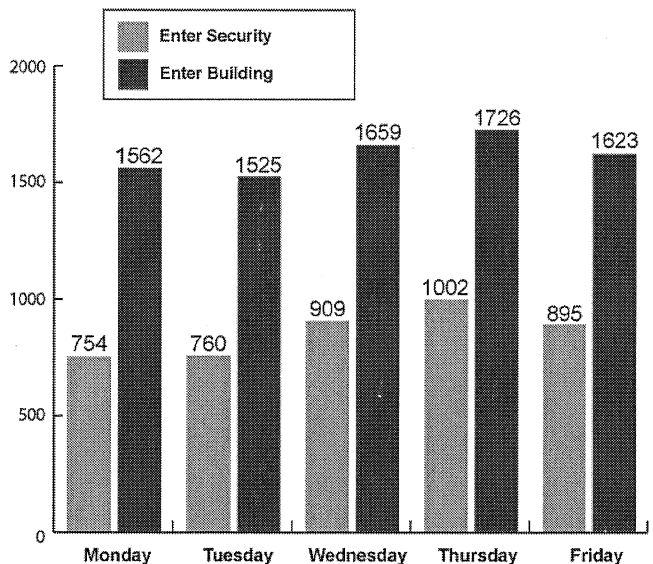


Figure 8: Average Weekday Pedestrian Activity by Day

Average Weekday Pedestrian Ingress by 15-Minute Interval - Security Usage

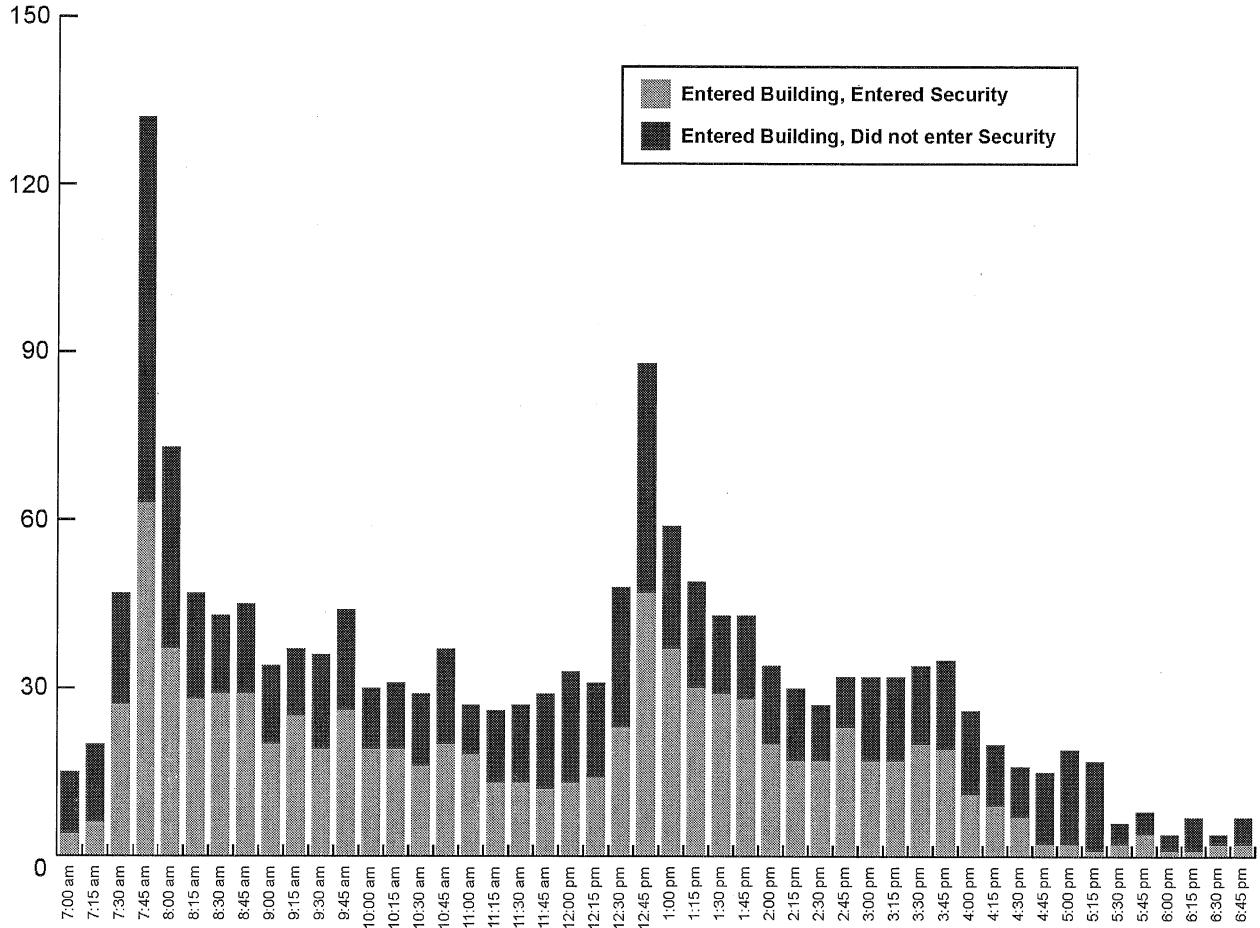


Figure 9: Average Weekday Pedestrian Security Ingress by 15-Minute Interval

Average Monday - Friday Pedestrian Ingress/Egress by 15-Minute Intervals - Security

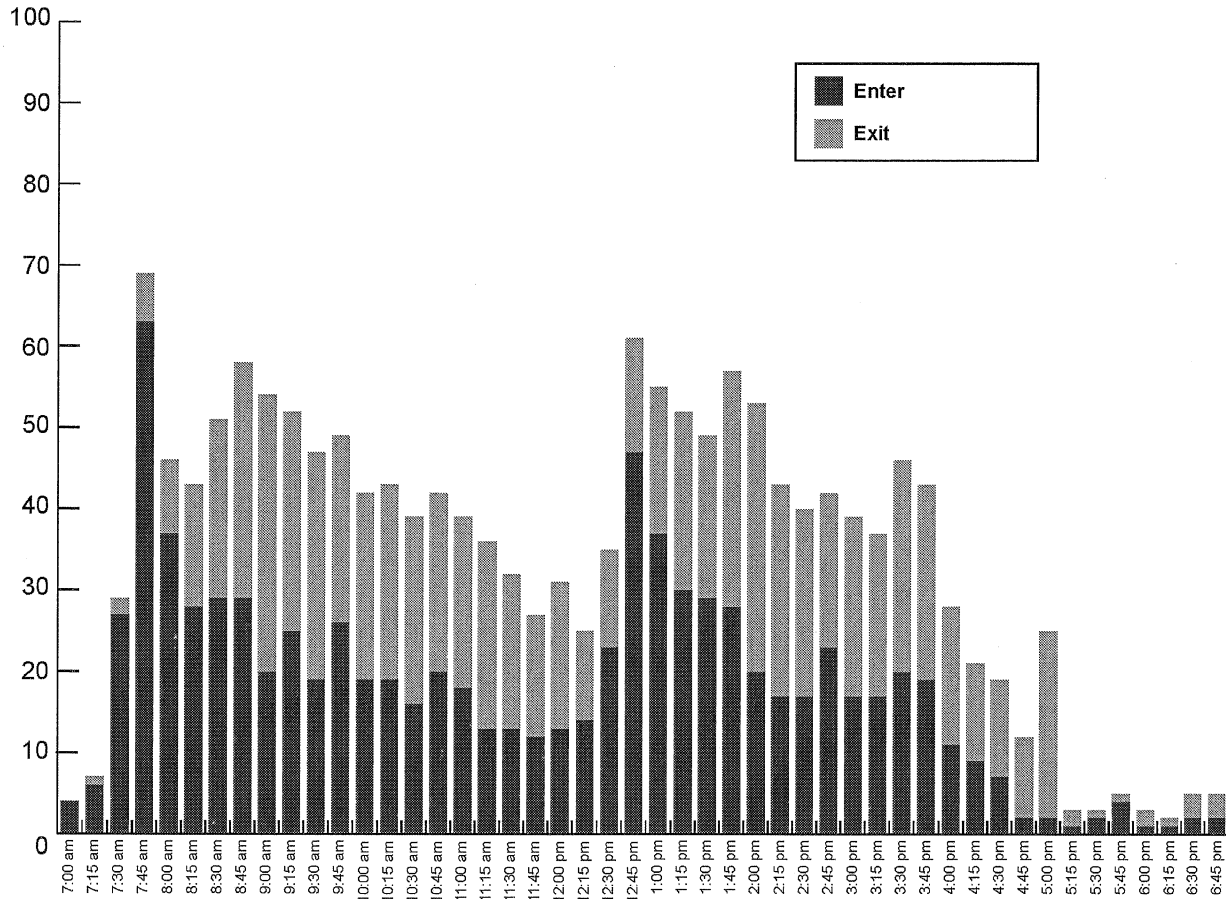


Figure 10: Average Weekday Pedestrian Ingress/Egress by 15-Minute Intervals – Security

Traffic Count Study Results

A. Busiest Entries

Based on the results of the Traffic count, shown in Figure 11 the east parking structure (Entries C, D, E, F) was more frequented than the west parking structure (A, B, G, H). Over the course of the study, the west parking structure received 3,191 total vehicle entries, while the east parking structure received 2,649 total vehicle entries. Entries B, E, and G were the most popular for ingress, while entries G, D and E were the most popular for egress. Note that Entry B is signed for ingress only. On the following pages, Figures 14 and 15 breakdown the distribution between parking structures.

Total Weekday Traffic Usage by Entrance

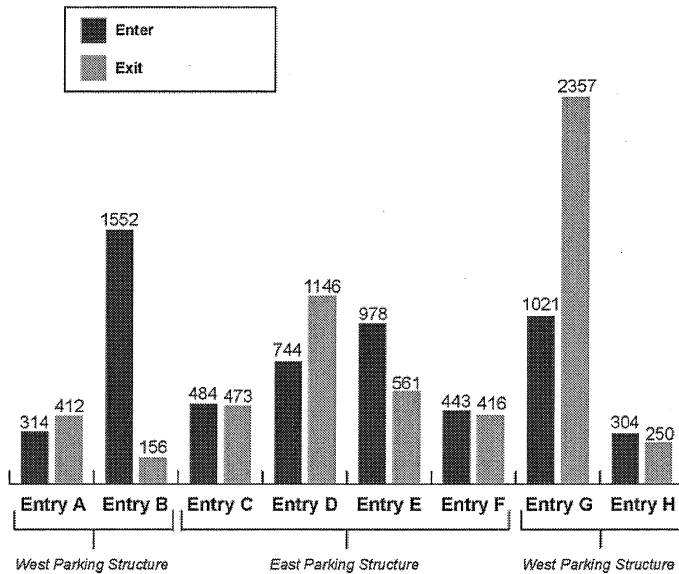


Figure 11: Total Weekday Traffic Usage by Entrance

B. Daily Traffic Usage

Daily traffic usage yielded slightly different results than the pedestrian count. The results of the study, shown in Figure 12 give the following ranking for busiest traffic days:

1. Thursday
2. Friday
3. Wednesday
4. Tuesday
5. Monday
6. Saturday
7. Sunday

Figure 13 further breaks down the weekday traffic ingress by entry.

Total Traffic Ingress by Day

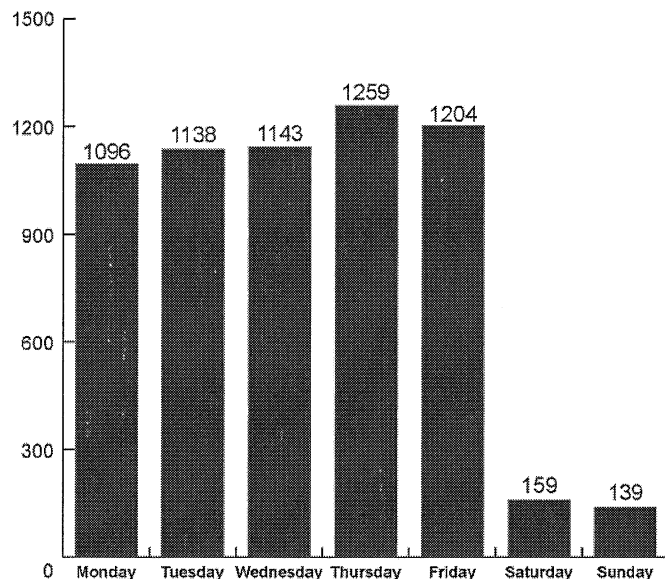


Figure 12: Total Traffic Ingress by Day

Weekday Traffic Ingress by Entry

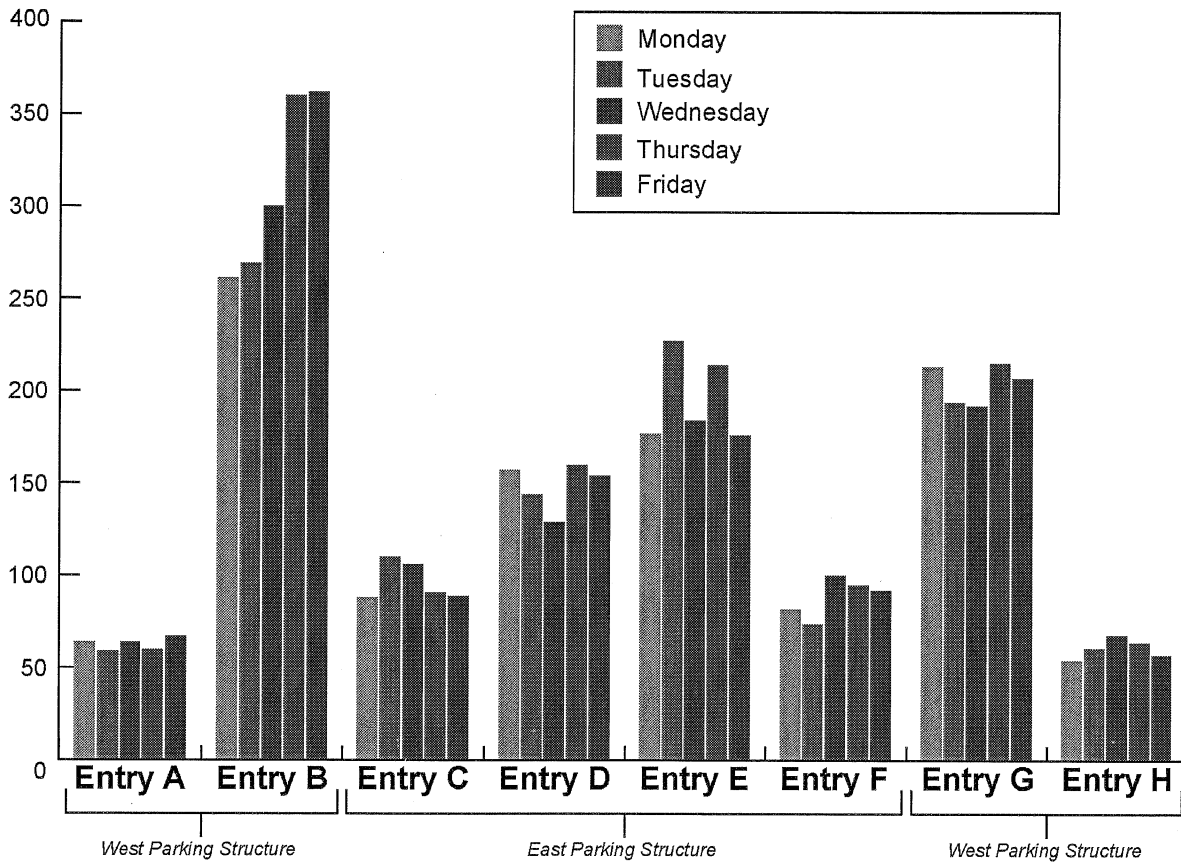


Figure 13: Weekday Traffic Ingress by Entry

Total Traffic Ingress by Parking Structure by Day

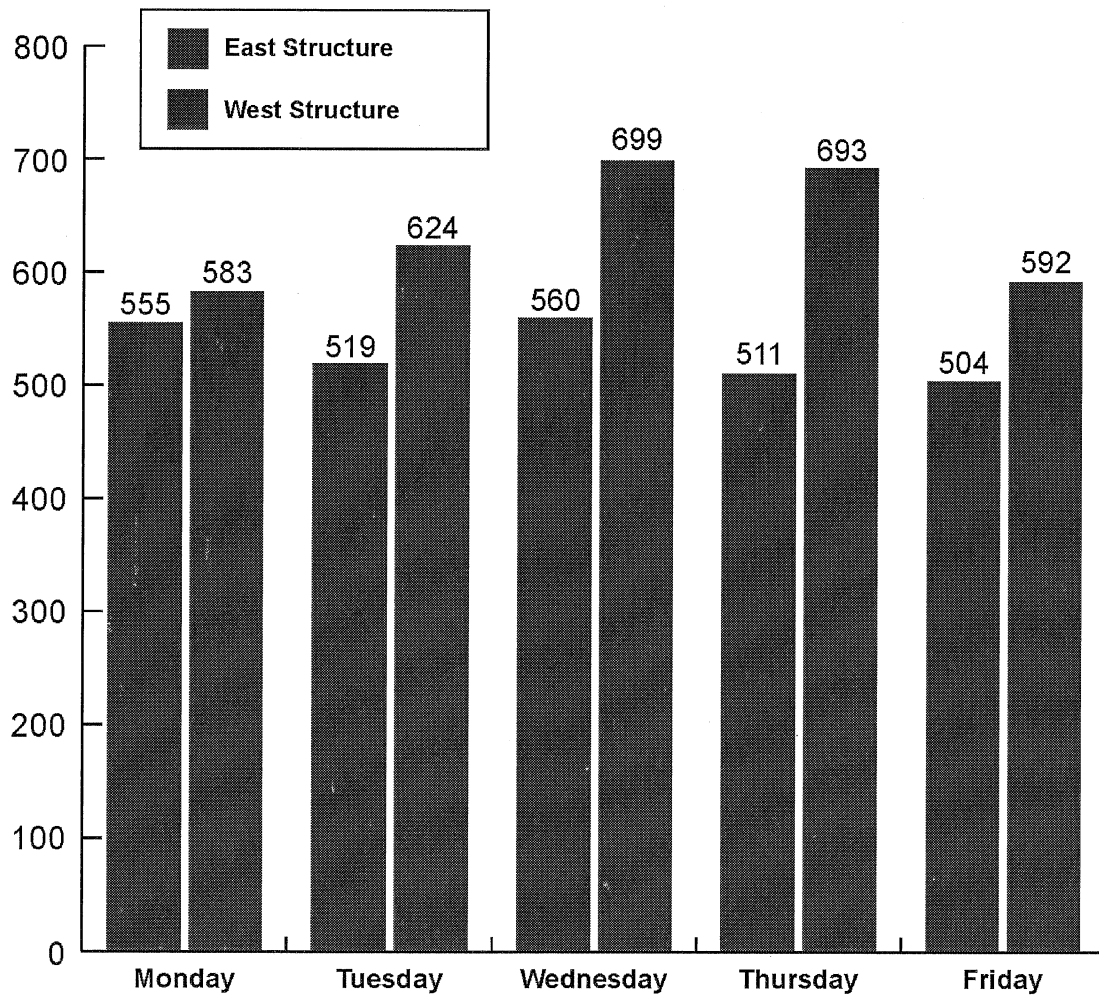


Figure 14: Weekday Traffic Ingress by Parking Structure

Average Monday - Friday Traffic Ingress by 15-Minute Intervals by Parking Structure

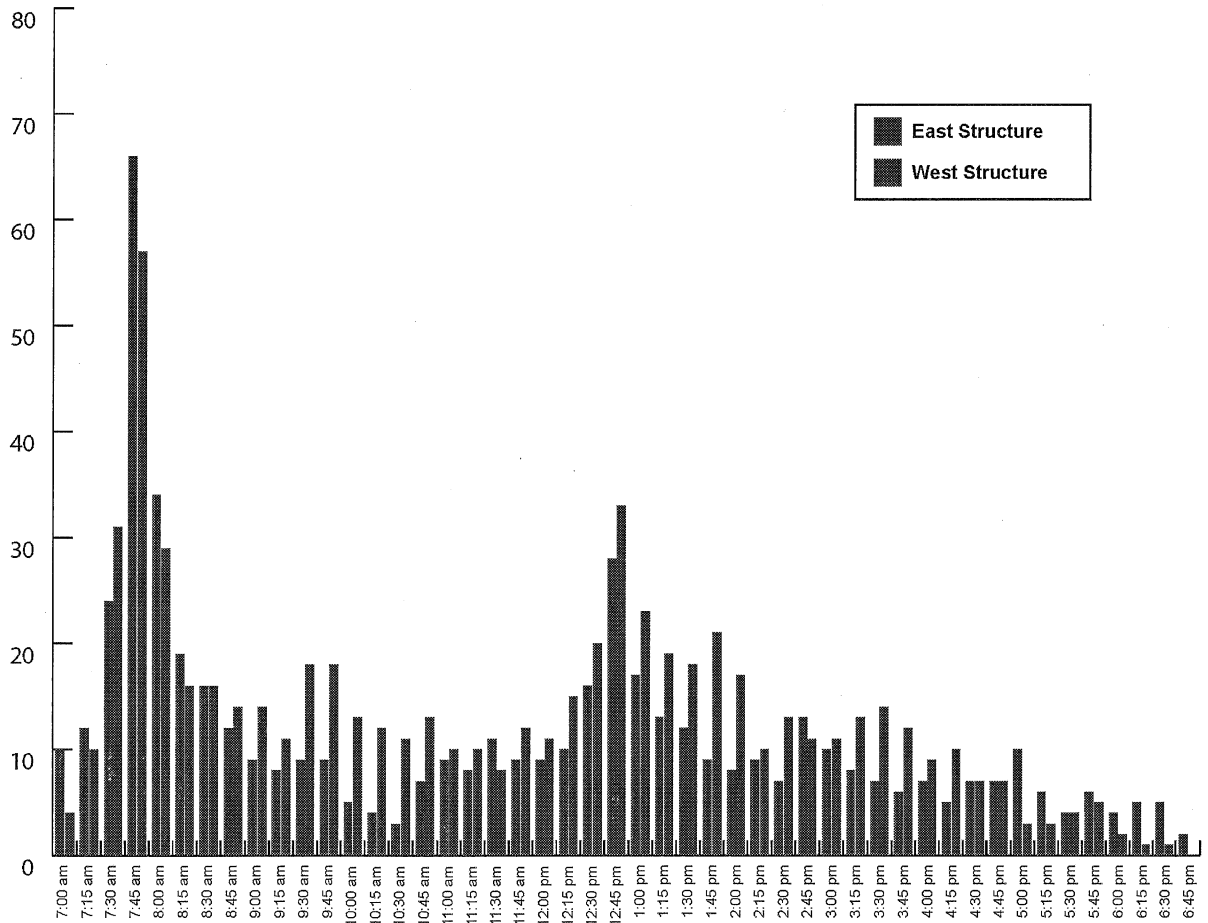


Figure 15: Average Weekday Traffic Ingress by 15-Minute Intervals by Parking Structure

C. Traffic vs. Pedestrian

The traffic, pedestrian, and security data presented in Figure 16 shows that a majority of people traveling to the Rock County Courthouse arrive by automobile. Most notable about the data illustrated in Figure 16 is that the County Building experiences approximately 1.4 persons per vehicle parked on-site. This number will be important in determining future parking needs for the planned improvements.

Figure 17 on the following page, breaks down the average weekday pedestrian and traffic ingresses by 15-minute intervals. The results between the two are similar. The largest difference occurs during the returning from lunch period (12:45-1:00 pm). This could potentially be a result of workers walking to lunch or eating outside.

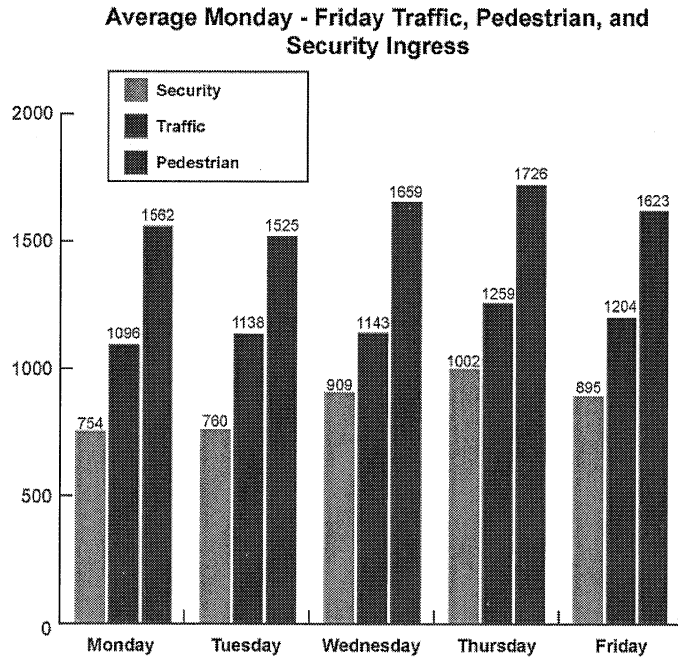


Figure 16: Average Weekday Traffic and Pedestrian Ingress

The Rock County Courthouse has approximately 389 stalls, 224 in the East Structure and 165 in the West Structure. Figures 18 shows the pedestrian and traffic activity of the East Parking Structure and the East Stairway. Figure 19 shows the pedestrian and traffic activity of the West Parking Structure and the Main Entryway. The arrival and departures of the County Staff are clearly event from the breakdown.

Average Weekday Traffic and Pedestrian Ingress - All Entrances

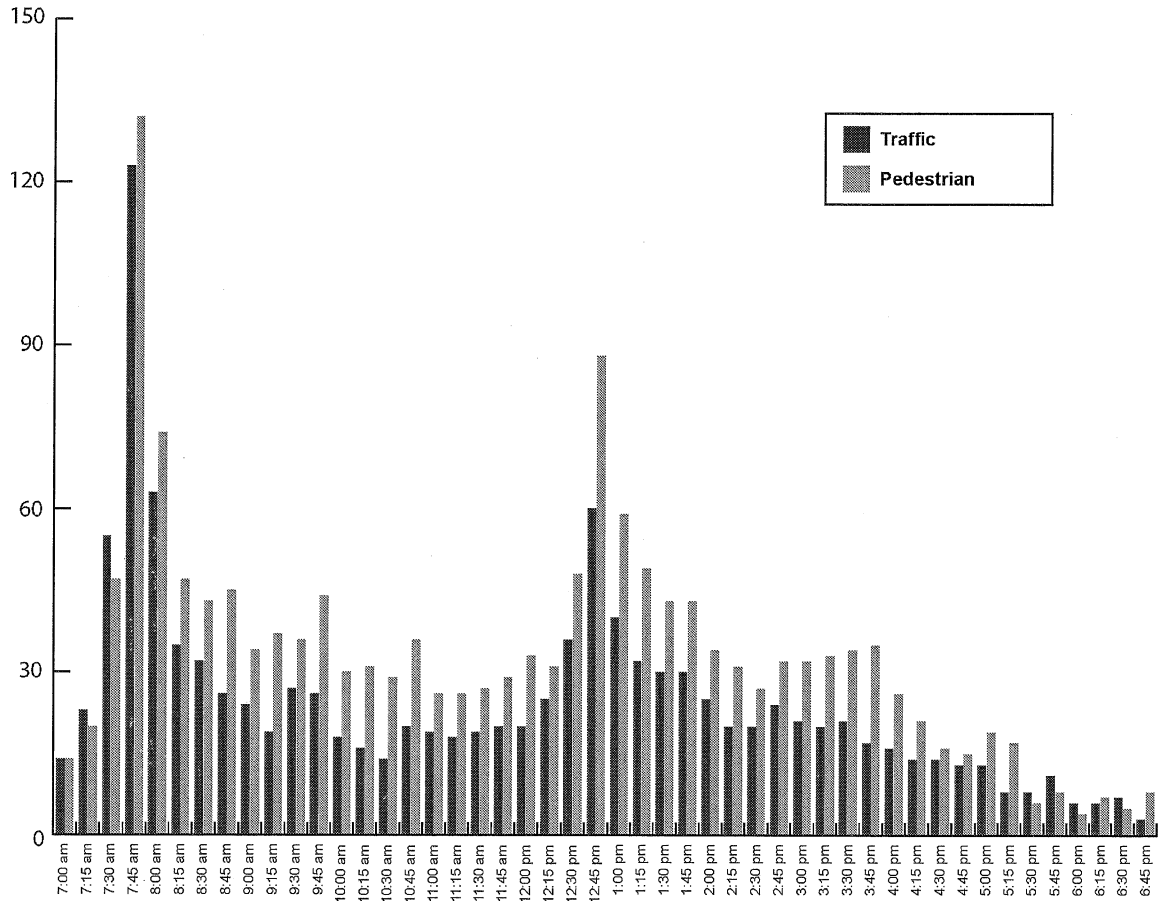


Figure 17: Average Weekday Traffic and Pedestrian Ingress - All Entrances

Average Traffic and Pedestrian Ingress by 15-Minute Intervals - East Entrances

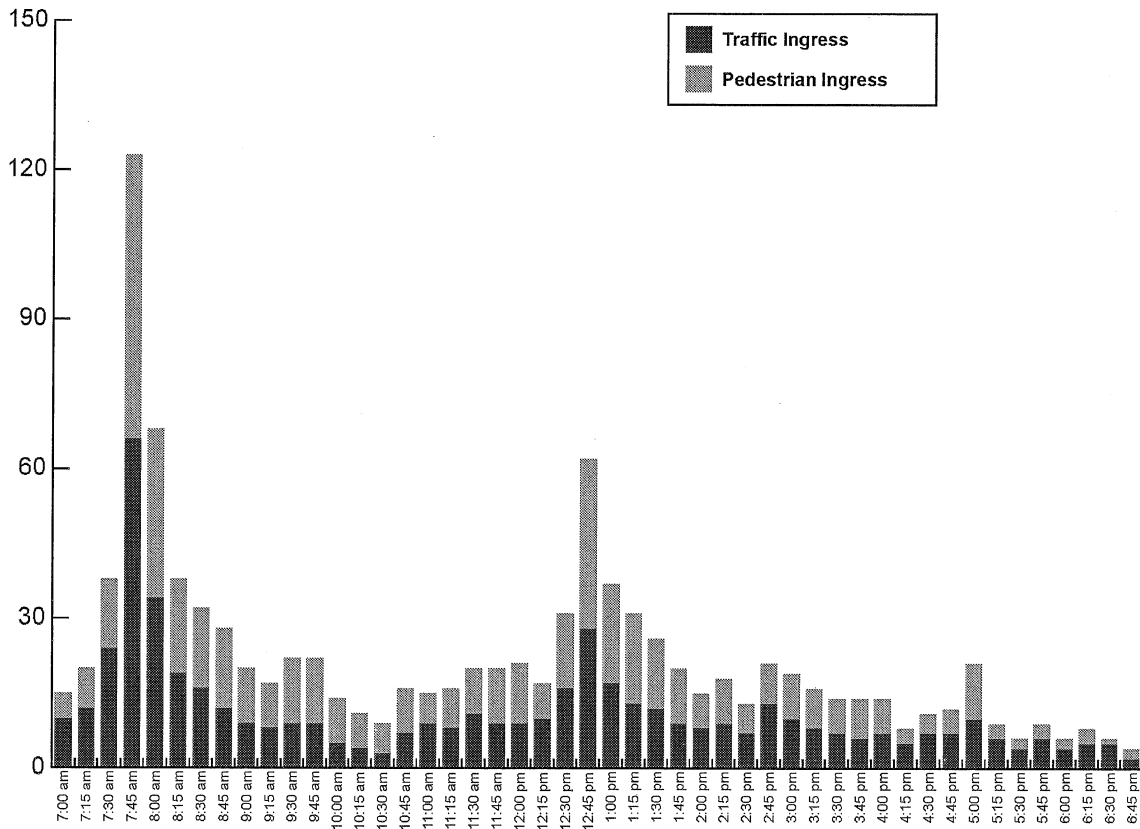


Figure 18: Average Weekday Traffic and Pedestrian Ingress by 15-Minute Intervals – East Entrance

Average Traffic and Pedestrian Ingress by 15-Minute Intervals - West Entrances

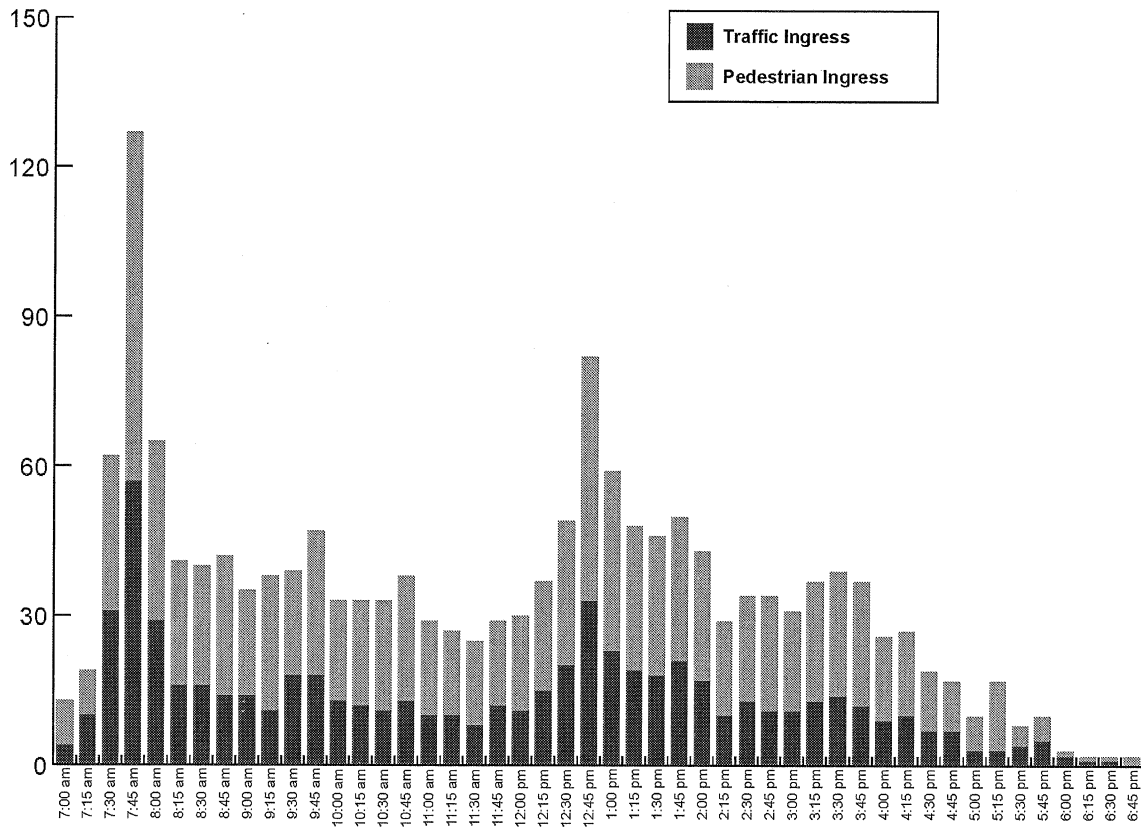


Figure 19: Average Weekday Traffic and Pedestrian Ingress by 15-Minute Intervals – West Entrance

ALT #3 DELETE CERAMIC TILE, REPLACE EPOXY FLOORING & FRP PANELS								
0.0	FLOOR TILE CREDIT	-1	1	EA		(7,500.00)	\$	(7,500.00)
0.0	ADD EPOXY FLOORING	1	1	EA		5,900.00	\$	5,900.00
0.0	WALL TILE CREDIT	-1	1	EA		(11,900.00)	\$	(11,900.00)
0.0	ADD FRP WALL PANELS	1	1	EA		6,500.00	\$	6,500.00
0.0		-1	1	EA		-	\$	-
0.0	SUBTOTAL					-	\$	(7,000.00)

VE #4: CONSTRUCTION EGRESS- MOVE FROM WINDOW TO TOILET ROOM								
0.0	OPTION #1: CREDIT- WINDOW EGRESS DEMO	-1	1	EA	1,700.00	(1,700.00)	\$	(1,700.00)
0.0	CREDIT- WINDOW EGRESS REPAIR	-1	1	EA	950.00	(950.00)	\$	(950.00)
0.0	CREDIT- MISC REPAIR WINDOW EGRESS IN LOBBY & WAITING AREAS	-1	1	EA	900.00	(900.00)	\$	(900.00)
0.0	ADD- DEMO TOILET RM EGRESS	1	1	EA	500.00	500.00	\$	500.00
0.0	ADD- REPAIR TOILET RM EGRESS	1	1	EA	900.00	900.00	\$	900.00
0.0	ADD- REMOVAL OF EXTERIOR WALL STONE PANEL VENEER AND REPLACE WITH POWDER COATED STEEL PANELING TO THE NORTH AND SOUTH OF MAIN ENTRANCE	1	2,400	SF	7.50	18,000.00	\$	18,000.00
0.0	SUBTOTAL						\$	15,850.00
0.0	OPTION #2: CREDIT- WINDOW EGRESS DEMO	-1	1	EA	1,700.00	(1,700.00)	\$	(1,700.00)
0.0	CREDIT- WINDOW EGRESS REPAIR	-1	1	EA	950.00	(950.00)	\$	(950.00)
0.0	CREDIT- MISC REPAIR WINDOW EGRESS IN LOBBY & WAITING AREAS	-1	1	EA	900.00	(900.00)	\$	(900.00)
0.0	ADD- DEMO TOILET RM EGRESS	1	1	EA	500.00	500.00	\$	500.00
0.0	ADD- REPAIR TOILET RM EGRESS CMU WALL	1	1	EA	900.00	900.00	\$	900.00
0.0	ADD- REPAIR RESTORE EXT. WALL PANELING	1	1,200	SF	3.00	3,600.00	\$	3,600.00
0.0	SUBTOTAL					1,450.00	\$	1,450.00

TOTAL #1 (INCL VE 2-OPT 2 VE 4-OPT 1)							\$	(10,103.00)
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TOTAL #2 (INCL VE 2- OPT 2 VE 4 OPT 2)							\$	(24,503.00)
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