



LEXINGTON

**Bid 42-2020 Addendum 2
Cardno
Supplier Response**

Event Information

Number: Bid 42-2020 Addendum 2
Title: Greenway Maintenance
Type: Competitive Bid
Issue Date: 3/12/2020
Deadline: 4/16/2020 02:00 PM (ET)

Contact Information

Contact: Kristie Thomas
Address: Central Purchasing
Government Center Building
Room 338
200 East Main Street
Lexington, KY 40507
Phone: (859) 2583320
Fax: (859) 2583322
Email: kthomas@lexingtonky.gov

Cardno Information

Contact: Mike Silliman
Address: 10420 Bluegrass Parkway
Louisville, KY 40299
Phone: (502) 305-1350
Email: michael.silliman@cardno.com

ONLY ONLINE BIDS WILL BE ACCEPTED FOR THIS SOLICITATION.

Mike Silliman

Signature

Submitted at 4/16/2020 12:51:26 PM

michael.silliman@cardno.com

Email

Response Attachments

RFB_42-2020_LFUCG_GreenwayMaintenance_Cardno.pdf

Cardno RFB Response Package

42-2020_Addendum__1_Cardno.pdf

Addendum 1 signed

42-2020_Addendum__2_Cardno.pdf

Addendum 2 signed

Affidavit_Cardno.pdf

Affidavit Signed

LFUCG_MWDBE_PARTICIPATION_FORMS_Cardno.pdf

MWDBE forms signed

WORKFORCE_ANALYSIS_FORM_Cardno.pdf

WAF form signed

This Affidavit must be completed before your firm can be considered for award of this contract.

AFFIDAVIT

Comes the Affiant, Sean Clauson, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Sean Clauson and he/she is the individual submitting the bid or is the authorized representative of Cardno, Inc. the entity submitting the bid (hereinafter referred to as "Bidder")
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught. Sean J. Clauson

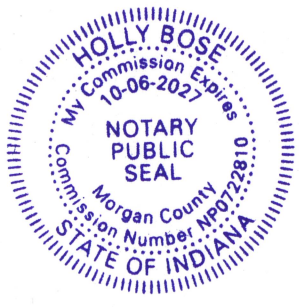
STATE OF Indiana

COUNTY OF Marion

The foregoing instrument was subscribed, sworn to and acknowledged before me by Sean J. Clauson on this the 16th day of April, 2020

My Commission expires: 10-06-2027

Holly Bose
Holly Bose



NOTARY PUBLIC, STATE AT LARGE

Please refer to Section II, Bid Conditions, Item "U" prior to completing this form.



LEXINGTON

LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

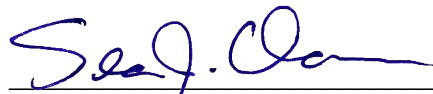
The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

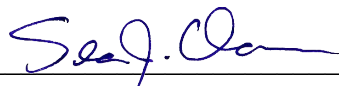
The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance


The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. **Failure to submit this form may cause rejection of the bid.**

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

MWDBE QUOTE SUMMARY FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

Company Name Cardno, Inc.	Contact Person Sean Clauson
Address/Phone/Email 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299, 574 229 8780, sean.clauson@cardno.com	Bid Package / Bid Date 42-2020, Greenway Maintenance, due April 15, 2020 2pm EST

MWDBE Company Address	Contact Person	Contact Information (work phone Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female	Veteran
Not Applicable at this time. See cover letter.								

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

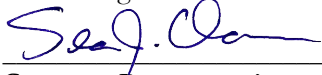
The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Cardno, Inc.

Company

4/16/2020

Date



Company Representative

Assistant Vice President

Title



LEXINGTON

LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Bid/RFP/Quote # 42-2020, Greenway Maintenance

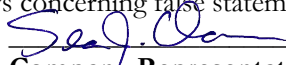
Total Contract Amount Awarded to Prime Contractor for this Project Not Applicable

Project Name/ Contract #	Work Period/ From:	To:
Company Name:	Address:	
Federal Tax ID:	Contact Person:	

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date
Not Applicable at this time. See cover letter.							

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company


Company Representative

4/16/2020
Date

Assistant Vice President
Title

LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote # 42-2020, Greenway Maintenance

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation. **Not Applicable at this time. See cover letter.**

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

_____ Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

_____ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

_____ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

_____ Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

_____ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce

_____ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.

_____ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

_____ Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

_____ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

_____ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

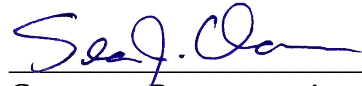
_____ Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE **and Veteran participation.**

NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

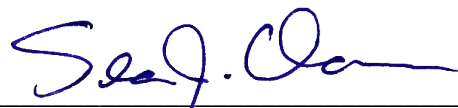
Assistant Vice President
Title

See attached for our official 2018 Employer Information Report

WORKFORCE ANALYSIS FORM

Name of Organization: Cardno, Inc.

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Administrators	See attached for 2018 report.																	
Professionals																		
Superintendents																		
Supervisors																		
Foremen																		
Technicians																		
Protective Service																		
Para-Professionals																		
Office/Clerical																		
Skilled Craft																		
Service/Maintenan																		
Total:																		

Prepared by: 
 (Name and Title)

Assistant Vice President

Date: 4 / 16 / 2020

CO= FW32370
 U= FW32370

**EQUAL EMPLOYMENT OPPORTUNITY
 2018 EMPLOYER INFORMATION REPORT
 CONSOLIDATED REPORT - TYPE 2**

SECTION B - COMPANY IDENTIFICATION

1. CARDNO INC.
 10004 PARK MEADOWS DR.
 SUITE 300
 LONE TREE, CO 80124

2.a. CARDNO INC.
 10004 PARK MEADOWS DR.
 SUITE 300
 LONE TREE, CO 80124
 DOUGLAS COUNTY
 c. Y

SECTION C - TEST FOR FILING REQUIREMENT

1-Y 2-Y 3-Y DUNS NO.:078391683 EIN :452663666

SECTION E - ESTABLISHMENT INFORMATION

NAICS: 541330 Engineering Services

SECTION D - EMPLOYMENT DATA

JOB CATEGORIES	HISPANIC OR LATINO		NOT-HISPANIC OR LATINO											OVERALL TOTALS		
	MALE	FEMALE	***** MALE *****						***** FEMALE *****							
			WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE		TWO OR MORE RACES	
EXECUTIVE/SR OFFICIALS & MGRS	0	1	6	0	0	1	0	0	1	0	0	0	0	0	0	9
FIRST/MID OFFICIALS & MGRS	7	0	143	2	0	0	1	1	33	0	0	2	0	1	190	
PROFESSIONALS	47	25	519	59	2	28	2	7	360	9	6	17	3	8	1092	
TECHNICIANS	37	3	206	31	1	2	2	4	49	1	0	0	1	1	338	
SALES WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ADMINISTRATIVE SUPPORT	3	4	46	7	0	2	2	0	77	6	0	3	0	2	152	
CRAFT WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OPERATIVES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
LABORERS & HELPERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SERVICE WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	94	33	920	99	3	33	7	12	520	16	6	22	4	12	1781	
PREVIOUS REPORT TOTAL	96	36	1031	72	3	37	9	12	535	24	2	25	2	9	1893	

SECTION F - REMARKS

DATES OF PAYROLL PERIOD: 12/09/2018 THRU 12/22/2018

SECTION G - CERTIFICATION

CERTIFYING OFFICIAL: DENISE DECKER
 EEO-1 REPORT CONTACT PERSON: denise.decker
 EMAIL: denise.decker@CARDNO.COM

TITLE: human resources business partner
 TITLE: HUMAN RESOURCES BUSINESS PARTNER
 TELEPHONE NO: 3025611135
 CERTIFIED DATE[EST]: 05/30/2019 12:52 AM



ADDENDUM #1

Bid Number: **#42-2020**

Date: April 9, 2020

Subject: **Greenway Maintenance**

Address inquiries to:
Kristie Thomas
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

1. The bid has been changed to an online only submission. Required submission forms have been uploaded to Ionwave replacing original bid document file.
2. Complete and sign (where appropriate) the bid documents and upload them to the Ion Wave system on the Response Attachments tab of the bid page.
3. Enter your name and email address which indicates your acceptance of the bid terms and conditions on the Response Submission tab.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Cardno, Inc.

ADDRESS: 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299

SIGNATURE OF BIDDER:





ADDENDUM #2

Bid Number: **#42-2020**

Date: April 9, 2020

Subject: **Greenway Maintenance**

Address inquiries to:
Kristie Thomas
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

1. LFUCG Risk Management Provisions have been uploaded to Ionwave.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Cardno, Inc.

ADDRESS: 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299

SIGNATURE OF BIDDER:





April 16, 2020

Ms. Kristie Thomas
Lexington-Fayette Urban County Government
Division of Central Purchasing
200 E Main St
Lexington, KY 40507

Cardno

10420 Bluegrass Parkway
Suite 10420
Louisville, KY 40299
USA
Phone +1 502 305 0185

www.cardno.com

RE: Request for Bid #42-2020 Greenway Maintenance

Dear Ms. Thomas,

Cardno appreciates the opportunity to submit our Statement of Qualifications to assist the Lexington-Fayette Urban County Government with greenway management services for 2020-2022.

Cardno is one of the largest full-service civil and environmental firms in the United States, providing full-service native landscaping design, native landscaping installation, native landscaping maintenance, and streambank stabilization services, in addition to operating our own Native Plant Nursery, which has an extensive offering of more than 350 species of native plant and seed species, along with bioengineering materials. We provide all the services required for this contract in-house, including invasive and exotic special control methods (chemical, mechanical, mowing, prescribed burning), native plant design, installation and maintenance; forestry management services, including tree and shrub pruning and removal; Emerald Ash Borer services; and streambank stabilization design and installation.

We have been actively engaged in providing these services across the Midwest, including Kentucky, since 1989. Our team of experienced professionals in the fields of water resource engineering, wetland science, aquatic and wildlife biology, botany, environmental science, habitat restoration, and native plants offers a unique set of skills and capabilities and is prepared and available to meet all of the services outlined in the attached statement of qualifications.

Please note regarding our completion of the required *LFUCG MWDBE Participation Forms*. Cardno has a long history of prioritizing MWDBE participation and has a successful program of subcontracting to small business concerns. Cardno intends to solicit quotes from MWDBE firms once we receive requests for bids for specific scope of work from the LFUCG under this contract. In this teaming process, we strive to exceed any DBE requirements set forth by the client.

Should you have any questions regarding this package or our team qualifications, please feel free to either of us at the phone numbers or email addresses below.

Sean Clauson
Business Unit Leader, Senior Principal
Direct 317 280 4594
Mobile 574 229 8780
Email sean.clauson@cardno.com

Michael S Silliman, USDA*TCH
Senior Project Ecologist, Forester
Office 502 305 1350
Mobile 828 506 1519
Email michael.silliman@cardno.com

Enc: One (1) electronic PDF copy of Cardno's Bid Package



Greenway Maintenance Statement of Qualifications

RFB #42-2020

Prepared for
Lexington-Fayette Urban
County Government

Prepared by
Cardno, Inc.
10420 Bluegrass Pkwy, Ste.
10420
Louisville, KY 40299
502 305 1350
www.cardno.com

April 16, 2020



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Appendices

Appendix A	Project Examples & Restoration Services Brochure
Appendix B	Resumes
Appendix C	Required Forms

Tables

Table 1. Key Staff Qualifications	3
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About Cardno

Founded in 1945, Cardno is one of the largest full-service civil and environmental firms in the United States. Cardno has provided innovative and sustainable solutions to challenging environmental issues in the Midwest for decades. Cardno specializes in vegetation and habitat assessment surveys and has decades of experience providing ecological consulting and natural resources management services to park districts, conservation organizations, local and state municipalities, and federal agencies. Our multidisciplinary teams of professionals provide a full range of ecological consulting and restoration services, with expertise in watershed planning, stream and ecosystem restoration, mitigation design, full wetland services, endangered species consulting, designing natural systems for stormwater/ wastewater, archaeology, and green infrastructure, as well as regulatory permitting and compliance.

Clients turn to Cardno's experienced team of professionals for help navigating complex environmental challenges because of our reputation for integrity, responsiveness, and innovation. Our multidisciplinary team of scientists, engineers, natural resource economists, litigation support, and business professionals provide clients with strategic access to the wealth of knowledge and problem-solving expertise of the Cardno team.

Our full-service approach to project delivery offers access to our extensive portfolio of ecological services, from preliminary site assessment through permitting, native plant supply, design- build construction, maintenance, and monitoring. We pride ourselves on following clear communications paths, careful quality assurance procedures, and disciplined safety processes. This comprehensive approach enables us to excel in providing efficient and cost- effective project management as we plan, design, manage, and deliver successful solutions that provide value to our clients.

Cardno offers a range of ecological consulting and restoration solutions for natural resources, cultural resources management, and environmental permitting and compliance.

Natural Resources Management

Our natural resources management approach begins with a clear understanding of the physical, chemical, and biological factors that impact the species and ecological processes within each ecosystem. Clients rely on our expertise in the following areas:

- > Avian & chiropteran surveys
- > Bioengineering & shoreline stabilization
- > Biological inventories
- > Botanical surveys
- > Brownfield redevelopment planning
- > Construction & construction oversight
- > Cultural resources surveys & investigation
- > Ecological restoration & mitigation
- > Emerald Ash Borer Services
- > Emergency response services
- > Forestry management services, including tree pruning and removal
- > GIS design, modeling & management
- > Habitat restoration & enhancement
- > Historic preservation planning & outreach
- > Invasive & exotic species control
- > Mitigation planning & design
- > Native landscape design and installation
- > Native plant & seed supply
- > Naturalized areas maintenance
- > Prescribed burning
- > RTE species surveys & monitoring
- > Structured decision making
- > Toxic substances & Areas of Concern
- > Wetland determinations & delineation



Water Resources Management

Our highly trained scientists develop and implement sustainable solutions for the full range of water resources issues. We specialize in a design-build approach to provide cost efficiencies and improved quality control, leading to better project outcomes:

- > Alternative stormwater management
- > Aquatic ecology
- > Comprehensive groundwater services
- > Construction & implementation
- > CSO & SSO mitigation
- > Fisheries management
- > Geomorphology
- > Green infrastructure solutions
- > Hydroelectric project licensing
- > Lake and stream design & restoration
- > Streambank Stabilization
- > Stream & riparian assessment
- > Water banking
- > Water quality assessment & compliance
- > Water resource economics
- > Water rights
- > Water supply planning
- > Watershed management
- > Wetland mitigation

Permitting & Compliance

Our consultants have the technical regulatory expertise and agency relationships to help clients effectively and efficiently negotiate the permitting process.

- > Clean Water Act Sections 401 & 404 Permits
- > Facility siting, permitting & licensing
- > Section 7(a) Federal Endangered Species Act
- > Mitigation permitting
- > Municipal & state stormwater regulations (Ohio EPA NPDES & Site Grading and Stormwater Management Plan Drainage Approval Form)
- > National Historic Preservation Act Section 106
- > NEPA & state-level environmental laws
- > State endangered species regulations
- > Toxic Substances Control Act (TSCA) compliance
- > Water supply permitting

Native Plant Nursery

We also operate a 130-acre Native Plant Nursery, which is one of the largest in the Midwest and has earned a reputation as a custom provider of solutions for restoration projects of any size. We are able to provide our clients with a local team of highly trained experts who have the in-depth industry experience, technical excellence, and strategic insight that make Cardno the right choice for your environmental management and consulting needs. Our extensive offering of quality-assured native plants and custom seed mixes for restoration, mitigation, and native landscape projects across the country, including:

- > DOT & roadside corridor projects
- > Habitat & ecosystem restoration
- > Pollinator habitat & CRP plantings
- > Shoreline & slope stabilization
- > Stormwater BMPs & rain gardens
- > Wetland mitigation
- > Wetlands, uplands, riparian & woodland corridors



Project Examples

See Appendix A for detailed project examples of our relevant project experience. Following is a list of client references for these projects:

HEPACO, LLC - Contact: Mr. Dan Clingan; 317-407-3248 Mobile; dclingant@hepaco.com

Project: Oldham Reserve Development Pond 5 Mitigation

Kentucky Department of Fish & Wildlife - Contact: Bethany Mulhall, Environmental Scientist Consultant; Office: (502) 564-5237, Cell: (502) 545-4759, Bethany.mulhall@ky.gov

Project: Rodgers Gap Stream Restoration Live Stake Project

Indiana Department of Natural Resources - Jason Larson, Regional Ecologist; 812-525-1870 Mobile; jl Larson@dnr.in.gov

Project: Brock Sampson Tract Forest Stand Improvement Project

Chicago Park District - Contact: Jason Steger, 312-907-2675; Jason.steger@chicagoparkdistrict.com

Project: Chicago Park District Natural Area Restoration and Stewardship Services

We've also included a copy of our Restoration Services Brochure in Appendix A.

Key Personnel Resumes

Table 1 provides a list of key staff proposed to work on this contract. Appendix B contains abbreviated resumes for these key staff members that includes project experience and additional details on relevant professional recognitions, memberships and specific certifications.

Table 1. Key Staff Qualifications

Staff	Experience
<p>Michael Silliman <i>Senior Consultant, Senior Forester</i></p> <ul style="list-style-type: none"> ▪ BS, Forestry, University of Kentucky, 2000 ▪ ISA Certified Arborist (#SO6029A) and TRAQ, ISA ▪ Certified Consulting Forester, NACF ▪ Commercial Pesticide Applicator, KY 	<p>For more than 20 years, Mr. Michael Silliman has developed forest management plans, conducted inventories, and managed forest landscapes at varying levels. He has worked with clients ranging from small, private urban properties to public parks and the large landscape scale of state-owned and national forests. He has worked extensively in habitat restoration including reforestation and invasive plant and pest management. Mr. Silliman is a Certified Arborist through the International Society of Arboriculture (ISA) and a Certified Consulting Forester through the Association of Consulting Foresters. Additionally, Mr. Silliman's past in construction and property management coupled with his many years of forestry exposure have provided him the experience necessary to understand the issues involved with individual tree protection and maintenance as well as the complexities involved with maintaining a healthy native landscape.</p>
<p>Henry Nash <i>Field Supervisor</i></p> <ul style="list-style-type: none"> ▪ BS, Rangeland Ecology (concentration in restoration ecology) ▪ Commercial Pesticide Applicator, KY 	<p>As a restoration field supervisor at Cardno, Mr. Henry Nash oversees implementation of restoration activities such as native planting, seeding, erosion control installation, and herbicide application. He has experience with habitat improvement and invasive species removal, and he communicates effectively with field team members to ensure smooth and safe operations at all time. Mr. Nash has a BS in rangeland ecology with a concentration in restoration ecology and has experience working across the Midwest, Kentucky, and Colorado.</p>



Staff	Experience
<p>Danielle Thompson <i>Senior Project Scientist</i></p> <ul style="list-style-type: none"> ▪ MEn, Environmental Science, Biological Conservation ▪ BS, Conservation Science ▪ 40-hour HAZWOPER 	<p>Ms. Danielle Thompson is a senior project scientist and project manager who conducts field evaluation and assessment of wetlands and streams, prepares Section 401 and 404 permit applications, develops mitigation and habitat restoration plans, and mitigation monitoring reports. She also provides technical assistance with design and implementation of alternative stormwater BMP projects, GIS mapping, and a variety of habitat restoration projects. Ms. Thompson has over 11 years of experience in working in the Midwest with municipalities, park districts, utilities, non-profit conservation groups, and a variety of engineering and development clients on projects to manage water resources and native habitats guiding projects from inception through completion.</p>
<p>Brian Padgett <i>Field Operations Lead</i></p> <ul style="list-style-type: none"> ▪ BS, Plant Biology ▪ Commercial Pesticide Applicator, KY ▪ 40-hour HAZWOPER 	<p>Mr. Brian Padgett assists with implementing ecological resource projects, including installation of native plants and bioengineering materials for erosion control, equipment operation, native prairie installations, removal and control of invasive plant species. He leads and directs field crews on sites throughout Mid-west for the Cincinnati and Indianapolis offices. Mr. Padgett has also been involved with data collection for wetland delineations and monitoring projects.</p>
<p>Crystal Renskers <i>Senior Staff Scientist</i></p> <ul style="list-style-type: none"> ▪ BS, Natural Resources and Environmental Science ▪ 40-hour HAZWOPER 	<p>Ms. Crystal Renskers serves as a project manager, monitoring botanist, and oversees all aspects of the wetland and stream mitigation monitoring program for the Indianapolis office. As a project manager, she oversees numerous projects ranging in size and complexity with multiple components such as invasive species control, restoration, mitigation site location, and long-term monitoring requirements related to state and federal permits across the state. She also conducts site set-up, desktop analysis, herbaceous and woody species sampling and inventory, GPS mapping, photo documentation, monitoring well installation and data analysis.</p>
<p>Heather Schwar, PE <i>Senior Water Resources Engineer</i></p> <ul style="list-style-type: none"> ▪ MS, Civil Engineering ▪ BS, Geological Engineering and Geology ▪ Professional Engineer, KY #31799 	<p>Ms. Heather Schwar is licensed as a Professional Engineer in 12 states with more than 20 years of extensive experience and practice. She currently serves as a senior water resources engineer responsible for leading design and engineering services on watershed management and ecological engineering type projects. Ms. Schwar primarily focuses on water resources by evaluating and designing various hydrologic and hydraulic (H&H) projects, including stormwater programs with basin, sewer, floodplain, bridge and culvert improvements, scour analyses, stream bank protection, and stream habitat restoration.</p>

Kentucky Business License

Cardno was incorporated in Delaware on June 10, 2011. Cardno is legally authorized to operate and do business in all 50 states, including Kentucky. Cardno’s Kentucky Business License # is 180636. Cardno is also current with the Division of Revenue, LFUCG.

Lexington-Fayette County Contractor Registration

Per email communication with Contract Specialist Kristie Thomas on April 13th on whether a contractor registration is required with this bid, Cardno confirms that if we are recommended for award, we will obtain a Lexington-Fayette County contractor license at that time.

Required Forms

Appendix C contains signed Addendums and other required forms.



Appendix A

PROJECT EXAMPLES AND RESTORATION
SERVICES BROCHURE

Oldham Reserve Development Pond 5 Mitigation



Client:
EMS/Hepaco

Location:
La Grange, Oldham County,
Kentucky

Cost:
\$101,650

Start and completion dates:
2019-2020

**Project Manager or
Principal-in-Charge:**
Danielle K. Thompson
Mike Silliman

Key Services:

- > Native Seeding
- > Native Tree and Shrub Installation
- > Erosion Control Matting Installation
- > Restoration

Cardno participated as a member of a multidisciplinary team working to restore a former 4.2-acre open water impoundment to a free flowing stream and wetland complex in order to improve water quality in the Curry's Fork watershed.

Overview

Cardno was involved in the Oldham Reserve Development Pond 5 Mitigation project in La Grange, Oldham County, Kentucky. As a part of a multidisciplinary team, Cardno assisted in the project by providing ecological restoration contracting expertise and ecological restoration services. The project provided significant ecological lift by converting a formerly 4.2-acre open water impoundment into a free flowing stream with wetland complexes. Restoration metrics include reestablishment of 1,250LF of restored perennial stream, 225 LF of restored intermittent stream, and 3.4 acres of restored floodplain wetlands. Cardno provided and installed a variety of native wetland seed mixes across a diversity of habitat types including riparian, forested wetland, emergent wetland, and upland prairie habitats. Native seeding areas were covered with erosion control matting in high flow and steep gradient areas, and covered with blown and crimped straw in upland areas. Additionally, Cardno installed over 1,280 containerized trees across the site in planting zones ranging from riparian, forested wetland, and forested upland habitats. The project was substantially completed in 2019 and is currently under its performance period and ecological monitoring obligation.

Rodgers Gap Stream Restoration

Live stake planting



Client:
Kentucky Department of Fish & Wildlife

Location:
Veteran's Memorial Wildlife Management Area, Scott County, Kentucky

Cost:
\$19,500

Project Manager:
Mike Silliman

Start and completion dates:
04/01/20 – 04/10/20

Key services:

- > Afforestation
- > Stream bank stabilization
- > Native Tree Planting
- > Lakes/Streams
- > Restoration

Cardno installed 5,550 live stake plantings on exposed and eroded meanders along perennial or intermittent streams within an 800-acre treatment area.

Overview

Cardno was contracted by the Kentucky Department of Fish and Wildlife to complete a live stake planting job at the Veteran's Memorial Wildlife Management Area in Scott County, Kentucky. The initial project was constructed by another contractor in 2018. By 2020, the need for maintenance arose. To maintain regulatory compliance, outside bends throughout the projects reach required additional stabilization with dense live stake material. Cardno installed 5,500 live stakes across a total of 384 outside bends/meanders. Cardno installed all required live stake material and incorporated a mix of five different species to encourage more diversity within the treatment area.

Brock Sampson Tract Forest Stand Improvement Project



Client:
Indiana Department of Natural Resources

Location:
Floyd County, Indiana

Cost:
\$89,500

Project Manager:
Mike Silliman

Start and completion dates:
10/01/19 – 03/31/20

Key services:

- > Ecosystem maintenance
- > Forestry
- > Restoration
- > Wildlife Habitat Improvement

Cardno conducted Forest Stand Improvement (FSI) activities across 216 acres and completed invasives control measures across 350 acres.

Overview

Cardno conducted Forest Stand Improvement (FSI) activities on five separate parcels scattered around the knobs region in Floyd County, Indiana. Parcels averaged around 45 acres each and were primarily comprised of the ridge and upper slopes sections. These areas were historically an oak-savannah ecotype that have been altered and disturbed creating more of a mixed mesophytic forest ecotype. Cardno field crews removed all undesirable understory and canopy trees, allowing more light penetration to the forest floor, creating oak establishment and herbaceous plant development on the forest floor and allowing crown expansion on residual oak trees in the canopy. Cardno field crews felled unwanted trees and treated with herbicide on the stump to prevent sprouting.

Cardno field crews performed invasive tree control activities on a separate 350-acre contiguous tract. Target invasive trees included Tree-of-Heaven and Royal Paulownia. Cardno field crews worked in groups of two and scoured the entire tract looking for any presence of the two targeted tree species. Once discovered, trees were treated with systemic application of imazapyr, a soil active herbicide which attacks root systems of targeted plants. Cardno field crews encountered and treated very dense stands of these two tree species.

Chicago Park District Natural Area Restoration and Stewardship Services



Client:
Chicago Park District

Location:
Chicago, Cook County,
Illinois

Cost:
\$12.7 Million

Start and completion dates:
2016-Ongoing

**Project Manager or
Principal-in-Charge:**
James Melledy

Key Services:

- > Forest and Tree Management
- > Invasive Species Control
- > Native Landscaping
- > Native Planting and Seeding
- > Native Plant Nursery
- > Prescribed Burn
- > Restoration

As part of a multi-year contract, Cardno is assisting with the restoration of over 300 acres of new natural areas for the largest municipal park manager in the United States.

Overview

Cardno is providing management of natural areas for the Chicago Park District (CPD) as part of a 5-year contract. The CPD is the largest municipal park manager in the United States and owner of more than 8,100 acres of green space. Cardno's natural area stewardship services at over 60 CPD natural areas include prairie and forest management; tree removal; hardscape installation and repair; and landscape waste disposal. Nature garden services include ongoing maintenance; spring clean-up activities; planting beds, trees, shrubs; and winterization services. Additional maintenance services include prescribed burn management; arborist services and woodland management, ecological restoration and consulting; as well as community outreach and volunteer stewardship coordination. Cardno is also working closely with CPD on the design, construction, maintenance, restoration and incorporation of over 300 acres of new natural areas within the greater natural areas program. Cardno has also been instrumental in the design and construction new Nature Play Spaces. Since 2016, Cardno Native Plant Nursery provided and sown over 10,000 pounds of native seed and supplied and installed over 500,000 native plants throughout the various parks.

Cardo has also provided forestry activities include monitoring and treatment of disease outbreaks in natural areas, hazardous tree removal, and on-going mitigation of emerald ash borer killed trees.

Full Service
Ecological Solutions



Great Lakes Region

Cardno offers a range of ecological consulting and restoration solutions for natural resources, cultural resources management, and environmental permitting and compliance.



Cardno provides an integrated approach to complex and natural resources challenges. Our multidisciplinary teams of experienced scientists, archaeologists, and business professionals offer the expertise to meet your ecological consulting and restoration needs.

Clients turn to Cardno's experienced team of professionals for help navigating complex environmental challenges because of our reputation for integrity, responsiveness, and innovation. Our multidisciplinary team of scientists, engineers, natural resource economists, litigation support, and business professionals provide clients with strategic access to the wealth of knowledge and problem-solving expertise of the Cardno team.

Our full-service approach to project delivery offers access to our extensive portfolio of ecological services, from preliminary site assessment through permitting, native plant supply, design-build construction, maintenance, and monitoring. We pride ourselves on following clear communications paths, careful quality assurance procedures, and disciplined safety processes. This comprehensive approach enables us to excel in providing efficient and cost-effective project management as we plan, design, manage, and deliver successful solutions that provide value to our clients.

We also operate our own Native Plant Nursery, which has an extensive offering of native plant and seed species, along with bioengineering materials needed for successful restoration, mitigation, and native landscape projects.

Our nursery is one of the largest in the Midwest and has earned a reputation as a custom provider of solutions for restoration projects of any size. We are able to provide our clients with a local team of experts along with access to the company's extensive global resources. Cardno's highly trained professionals have the in-depth industry experience, technical excellence, and strategic insight that make Cardno the right choice for your environmental management and consulting needs.

Natural Resources Management

Our natural resources management approach begins with a clear understanding of the physical, chemical, and biological factors that impact the species and ecological processes within each ecosystem. Clients rely on our expertise in the following areas:

- > Avian & chiropteran surveys
- > Bioengineering & shoreline stabilization
- > Biological inventories
- > Botanical surveys
- > Brownfield redevelopment planning
- > Construction & construction oversight
- > Cultural resources surveys & investigation
- > Ecological restoration & mitigation
- > Emergency response services
- > Environmental economics
- > GIS design, modeling & management



- > Habitat restoration & enhancement
- > Historic preservation planning & outreach
- > Invasive & exotic species control
- > Mitigation planning & design
- > Native plant & seed supply
- > Prescribed burning
- > RTE species surveys & monitoring
- > Structured decision making
- > Toxic substances & Areas of Concern
- > Wetland determinations & delineations

Water Resources Management

Our highly trained scientists develop and implement sustainable solutions for the full range of water resources issues. We specialize in a design-build approach to provide cost efficiencies and improved quality control, leading to better project outcomes:

- > Alternative stormwater management
- > Aquatic ecology
- > Comprehensive groundwater services
- > Construction & implementation
- > CSO & SSO mitigation
- > Fisheries management
- > Geomorphology
- > Green infrastructure solutions
- > Hydroelectric project licensing
- > Lake and stream design & restoration
- > Stream & riparian assessment
- > Water banking
- > Water quality assessment & compliance

- > Water resource economics
- > Water rights
- > Water supply planning
- > Watershed management
- > Wetland mitigation

Permitting & Compliance

Our consultants have the technical regulatory expertise and agency relationships to help clients effectively and efficiently negotiate the permitting process.

- > Clean Water Act Sections 401 & 404
- > Facility siting, permitting & licensing
- > Federal Endangered Species Act (ESA)
- > Mitigation permitting
- > Municipal & state stormwater regulations
- > National Historic Preservation Act Section 106
- > NEPA & state-level environmental laws
- > Product safety, assessment, & regulatory support
- > State endangered species regulations
- > Toxic Substances Control Act (TSCA) compliance
- > Water supply permitting

Liability Management

Our experienced litigation support team of scientists, engineers, and economists assist clients in addressing site-based and emerging liabilities.

- > CERCLA management
- > Decision analysis & risk management
- > Financial & economic feasibility studies
- > Natural Resource Damage Assessment (NRDA) management
- > NRDA/Oil Pollution Act response
- > Resource economics & cost analysis
- > Risk assessment & toxicology
- > Toxic torts & property value diminution

Native Plant Nursery

Our 130-acre nursery provides quality-assured native plants and custom seed mixes for restoration, mitigation, and native landscape projects across the country, including:

- > DOT & roadside corridor projects
- > Habitat & ecosystem restoration
- > Pollinator habitat & CRP plantings
- > Shoreline & slope stabilization
- > Stormwater BMPs & rain gardens
- > Wetland mitigation
- > Wetlands, uplands, riparian & woodland corridors



Appendix B

Resumes

Michael Silliman

Current Position

Senior Consultant,
Senior Forester

Discipline Areas

- > Forest Management Planning
- > Habitat Restoration
- > Natural Resources Management
- > Invasive Plant and Pest Management Planning
- > Construction Practices
- > Tree Surveys and Inventory Assessments
- > Forest Stand Sampling

Years' Experience

20

Joined Cardno

2019

Education

- > BS, Forestry, University of Kentucky, 2000

Professional Certifications

- > ISA Certified Arborist (#SO6029A), ISA
- > ISA Tree Risk Assessment Qualified (TRAQ)
- > Certified Consulting Forester, National Association of Consulting Foresters
- > Technical Service Provider, NRCS
- > Commercial Pesticide Applicator, KY, TN, NC, OH, IN and IL

Summary of Experience

For more than 20 years, Mr. Michael Silliman has developed forest management plans, conducted inventories, and managed forest landscapes at varying levels. He has worked with clients ranging from small, private urban properties to public parks and the large landscape scale of state-owned and national forests. He has worked extensively in habitat restoration including reforestation and invasive plant and pest management. Mr. Silliman is a Certified Arborist through the International Society of Arboriculture (ISA) and a Certified Consulting Forester through the Association of Consulting Foresters. Additionally, Mr. Silliman's past in construction and property management coupled with his many years of forestry exposure have provided him the experience necessary to understand the issues involved with individual tree protection and maintenance as well as the complexities involved with maintaining a healthy native landscape.

Significant Projects

Project Manager – Rodgers Gap Stream Restoration – Scott County, Kentucky

Cardno was contracted by the Kentucky Department of Fish and Wildlife to complete a live stake planting job at the Veteran's Memorial Wildlife Management Area in Scott County, Kentucky. The initial project was constructed by another contractor in 2018. By 2020, the need for maintenance arose. To maintain regulatory compliance, outside bends throughout the projects reach required additional stabilization with dense live stake material. Cardno installed 5,500 live stakes across a total of 384 outside bends/meanders. Cardno installed all required live stake material and incorporated a mix of five different species to encourage more diversity within the treatment area. Mr. Silliman served as project manager, overseeing all aspects of the project.

Field Crew Member – Oldham Reserve Development Pond 5 Mitigation – Oldham County, Kentucky

As a part of a multidisciplinary team, Cardno assisted in the project by providing ecological restoration contracting expertise and ecological restoration services. The project provided significant ecological lift by converting a formerly 4.2-acre open water impoundment into a free flowing stream with wetland complexes. Restoration metrics include reestablishment of 1,250LF of restored perennial stream, 225 LF of restored intermittent stream, and 3.4 acres of restored floodplain wetlands. Cardno provided and installed a variety of native wetland seed mixes across a diversity of habitat types including riparian, forested wetland, emergent wetland, and upland prairie habitats. Native seeding areas were covered with erosion control matting in high flow and steep gradient areas, and covered with blown and crimped straw in upland areas. Additionally, Cardno installed over 1,280 containerized trees across the site in planting zones ranging from riparian, forested wetland, and forested upland habitats. The project was substantially completed in 2019 and is currently under its performance period and ecological monitoring obligation. Mr. Silliman served as field crew member.

Project Manager – Brock Sampson Tract Forest Stand Improvement Project – Floyd County, Indiana

Cardno conducted Forest Stand Improvement (FSI) activities on five separate parcels scattered around the knobs region in Floyd County, Indiana. Parcels averaged around 45 acres each and were primarily comprised of the ridge and upper slopes sections. Cardno field crews removed all undesirable understory and canopy trees. Cardno field crews

felled unwanted trees and treated with herbicide on the stump to prevent sprouting. Cardno field crews performed invasive tree control activities on a separate 350-acre contiguous tract. Mr. Silliman served as project manager, overseeing all aspects of the project.

Past Project Experience

Owner – Barnwell Forestry, LLC – Louisville, KY

Prior to joining Cardno, Mr. Silliman founded and operated a Kentucky-based Limited Liability Company focusing on forest management. Barnwell Forestry provided forest management services to a diverse client base. Tasks included:

- > Developing working management plans for forest owners complete with actionable recommendations and providing services to implement these recommendations.
- > Providing complete plant health care services, including assessment to treatment from an individual plant scale to a forested landscape scale.
- > Serving as a Technical Service Provider for the Natural Resources Conservation Service (NRCS) administering the USDA Farm Bill Environmental Quality Incentives Program. Mr. Silliman helped private landowners use the incentives provided them through the Farm Bill to enhance their natural areas.

Senior Forester – Eco-Tech Consultants – Louisville, KY

Prior to joining Cardno, Mr. Silliman developed, administered, and operated the forestry department within Eco-Tech Consultants, a private environment consultant firm working with private and government landowners. Tasks included:

- > Administering and overseeing the forestry branch, including supervising foresters, field technicians, and seasonal employees.
- > Developing, managing, and maintaining client relations, project proposals, and bidding submissions, and providing project management from development to completion.
- > Serving as the field lead during project implementation, providing client services and quality assurance.

Chief Forester – Kentucky Division of Forestry – Pineville, Kentucky

Prior to joining Cardno, Mr. Silliman managed, implemented, and supervised statewide forest management programs and forest fire suppression efforts at the district level for the Southeast District in Kentucky. Tasks included:

- > Developing management plans for private landowners, monitoring and implementing USDA Farm Bill practices, coordinating resources for wildland fire suppression efforts, and supervising Service Foresters.
- > Successfully working with a diversity of partnering agencies to ensure program quality and providing technical assistance to public and private landowners and other conservation industry professionals to promote sustainable management strategies.
- > Planning and overseeing \$100,000+ annual budget for the district, working with department heads to ensure division and district needs were met.

State Forest Forester – Kentucky Division of Forestry – Pineville, Kentucky

Prior to joining Cardno, Mr. Silliman served as State Forest forester, managing state-owned forest tracts totaling 19,528 acres in southeastern Kentucky. Tasks included:

- > Developing forest management strategies for state-owned lands. Mr. Silliman wrote a management plan with sound resource practices in agreement with the state's objectives.
- > Implementing and supervising the Kentucky Ridge State Forest beautification project, including construction of entrance feature, installing two stockade structures marking the entry to the forest, and installing a picnic area and information kiosks.
- > Maintaining and policing forest boundaries, roads, and trails and monitoring for timber theft or any abuse of state-owned property.

Service Forester – Kentucky Division of Forestry – Pineville, Kentucky

Prior to joining Cardno, Mr. Silliman served as a Service Forester for the Southeastern District in Kentucky. Tasks included:

- > Assisting county rangers with required logging inspections, educational programs, and other duties as requested.
- > Training and supervising inmate crews and provided aerial observation for direct attack fire suppression efforts within the district.
- > Providing forest management assistance to private landowners within a 10-county district in Southeastern Kentucky.

Henry R. Nash

Current Position

Restoration Field Supervisor

Discipline Areas

- > Native and Invasive Plant Identification
- > Native Seed and Plant Installation
- > Wetland and Stream Restoration
- > Invasive/Non-Native Species Control
- > Equipment Operation
- > GIS Data Collection

Years' Experience

4

Joined Cardno

2019

Education

- > BS, Rangeland Ecology (concentration in restoration ecology), Colorado State University, 2017

Professional Registrations

- > Licensed Pesticide Applicator, Kentucky

Affiliations

- > Society for Ecological Restoration, Student Chair

Summary of Experience

As a restoration field supervisor at Cardno, Mr. Henry Nash oversees implementation of restoration activities such as native planting, seeding, erosion control installation, and herbicide application. He has experience with habitat improvement and invasive species removal, and he communicates effectively with field team members to ensure smooth and safe operations at all time. Mr. Nash has a BS in rangeland ecology with a concentration in restoration ecology and has experience working across the Midwest, Kentucky, and Colorado.

Significant Projects

Field Supervisor – Rodgers Gap Stream Restoration – Scott County, Kentucky

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Field Crew Member – Oldham Reserve Development Pond 5 Mitigation – Oldham County, Kentucky

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Field Supervisor – Brock Sampson Tract Forest Stand Improvement Project – Floyd County, Indiana

Cardno conducted Forest Stand Improvement (FSI) activities on five separate parcels scattered around the knobs region in Floyd County, Indiana. Parcels averaged around 45 acres each and were primarily comprised of the ridge and upper slopes sections. Cardno field crews removed all undesirable understory and canopy trees. Cardno field crews felled unwanted trees and treated with herbicide on the stump to prevent sprouting. Cardno field crews performed invasive tree control activities on a separate 350-acre contiguous tract. Mr. Nash served as field supervisor.

Past Experience

Restoration Supervisor – Various Environmental Restoration Projects– Louisville, Kentucky (2018)

Prior to joining Cardno, Mr. Nash used a variety of restoration techniques for habitat improvement and invasive species removal. He aided in developing management plans for restoration projects throughout the Midwest, and documented field activities and organized materials needed for daily field operations.

Restoration Intern – Wildlands Restoration Volunteers – Fort Collins, Colorado (2016–2017)

Mr. Nash translated a project scope of work into a project plan that included determining the number of volunteers, crew assignments, and a recommended tool list. He developed knowledge of construction of various wetland and riparian structures, and inventoried cattle fence lines and identified areas for streambank repair.

Natural Resource Ecology & Measurements, Colorado State University Mountain Campus – Fort Collins, Colorado (2016)

Mr. Nash identified over 200 plant/animal species in the Western and Southern regions and used sampling methods such as quadrats, line-intercepts, belt transects, and variable radius plots.

Park Maintenance – Larimer County Department of Natural Resources – Loveland, Colorado (2015)

Mr. Nash maintained the cleanliness and orderliness of park grounds, including repairing and maintaining erosion control, drainage, and diversion structure.

Danielle K. Thompson

Current Position

Senior Project Scientist

Discipline Area

- > Wetland and Stream Delineation
- > Wetland and Stream Mitigation Design and Implementation
- > Federal and State Permitting
- > Wetland and Stream Restoration
- > Stormwater BMP Design and Installation
- > Invasive Species Identification and Management Techniques
- > Ohio Amphibian Identification/Population Assessment
- > GPS/GIS Systems
- > Habitat Restoration

Years' Experience

11

Joined Cardno

2007

Education

- > MEn, Environmental Science, Biological Conservation, Miami (Ohio) University, 2008
- > BS, Conservation Science, Muskingum College, 2005

Training

- > 40-hour HAZWOPER and Annual Refreshers
- > DOT Hazardous Materials Transportation
- > RCRA Hazardous Waste Generator

Summary of Experience

Ms. Danielle Thompson is a senior project scientist and project manager who conducts field evaluation and assessment of wetlands and streams, prepares Section 401 and 404 permit applications, develops mitigation and habitat restoration plans, and mitigation monitoring reports. She also provides technical assistance with design and implementation of alternative stormwater BMP projects, GIS mapping, and a variety of habitat restoration projects. Ms. Thompson has over 11 years of experience in working in the Midwest with municipalities, park districts, utilities, non-profit conservation groups, and a variety of engineering and development clients on projects to manage water resources and native habitats guiding projects from inception through completion.

Significant Projects

Project Manager – Sacred Heart Academy, Stormwater BMP Retrofits – Kentucky

Cardno was contracted to install a total of five bio-retention features on the Sisters of Ursuline Campus and Sacred Heart Academy School in Louisville, Kentucky as a part of Jefferson County's efforts to reduce stormwater inputs to the county's combined sewer systems. Cardno installed more than 1,250 tons of amended soils, more than 100 tons of stone for erosion prevention and infiltration assistance, and over 370 native perennials in one-gallon containers, 1,200 native perennials in plug form, 60 native shrubs, and thirteen 2.5-inch caliper native trees across the five bio-retention features on the 10-acre campus. Cardno managed stormwater and sediment controls during the installation process, and worked under tight deadlines to complete the project in a safe manner within the constraints of the school calendar. Ms. Thompson was the project manager for installation of the bio-retention features including overseeing a crew from initial site excavation through the amended soil placement, final grading, and native plant installation in the cells.

Project Manager – Norton's Kosair Children's Medical Center – Kentucky

Cardno assisted the project landscape architect in the design phase of the LEED-certified Children's Medical Center and worked closely with the construction site supervisors to install a combination of three bio-swales and three bio-cells as a part of the stormwater management aspect of the LEED project. Three of the bio-retention features, as well as approximately 0.5 acre of impermeable roof top surface flow to a re-circulating stream feature. Cardno's Native Plant Nursery supplied the 850 perennial plants installed in the bio-retention features. Ms. Thompson was the project manager for installation of six bio-retention features as well as a re-circulating stream.

Project Manager – Miller Valley Wetland Restoration – Ohio

Cardno assisted the Wilds in preparing a Surface Water Improvement Funds (SWIF) Grant from Ohio EPA in order to restore approximately 20 acres of wetland habitat in the Miller Valley on the Wild's property in Muskingum County, Ohio. Cardno prepared final restoration drawings for the wetland restoration including an invasive species management plan, design for a PVC sheet wall weir structure, and planting plan. Additionally, Cardno attained the Corps Section 404 Nationwide Permit for Restoration to facilitate the project. Upon grant issuance Cardno was contracted to assist in implementing the restoration plan for the Miller Valley Wetland. Cardno implemented invasive species control using an innovative method incorporating a boomless sprayer and a tracked mini-excavator in order to efficiently deliver herbicide to 20 acres of

cattails. In the summer of 2011, after the Wilds and USFWS installed the weir structure establishing hydrology on the site, Cardno installed over 17,000 plants in the form of plugs, bare roots, 5- and 25-gallon containerized trees and ball and burlap trees across the restoration area all supplied by Cardno's native plant nursery. Ms. Thompson was project manager responsible for all coordination with the client, assistance in grant preparation, creation of restoration plans, permit preparation and coordination, procurement of materials, field work coordination, and project implementation.

Project Assistant – Great Miami (Trotwood) Mitigation Bank, Five Rivers MetroParks – Ohio

Cardno worked with Five Rivers MetroParks to identify, evaluate, assess, rank, prioritize and ultimately acquire land for a new MetroPark within Montgomery Co, Ohio. Cardno identified sites suitable for a new 300-acre park with significant wetland and stream mitigation banking opportunities and created a county-wide geodatabase producing a ranking matrix to critique qualifying sites. Cardno provided final site recommendations to the Five Rivers MetroParks Board of Directors, which were used to purchase all recommended land tracts. Cardno continued work with Five Rivers and the Ohio Interagency Review Team (Ohio IRT) to design and permit the site as an approved mitigation bank. The final Prospectus and Banking Instrument in addition to all final restoration and mitigation plans were approved by the Corps and Ohio IRT on November 12, 2010. Currently in the process of preparing final construction plans and bid documentation for anticipated Spring 2011 installation activities. Ms. Thompson was an assistant project manager responsible for aspects of project including mitigation bank feasibility study, design and permitting through the Ohio IRT and affiliated agencies. She assisted to design and permit the site and assisted with preparing the final Prospectus and Banking Instrument while also finalizing all final planting plans as a part of the restoration and mitigation plans. Ms. Thompson is currently serving and project manager for all aspects of the wetland and stream monitoring assessments and report preparation. Additionally, she collaborates with FRMP staff in coordinating site visits and a variety of requests with the IRT.

Project Assistant – Upper Mill Creek Water Quality Improvement Project - The Hopewell Stormwater and Riparian Enhancement Project – Ohio

Cardno assisted the Mill Creek Watershed Council of Communities (MCWCC), Lakota Local School District and the Butler County Soil and Water Conservation District (SWCD) in successfully obtaining over \$120,000 in grant funds from the Surface Water Improvement Fund (SWIF) for a retrofit project along a sensitive portion of the Upper Mill Creek to treat runoff from the Hopewell Elementary School campus. Cardno surveyed, designed, and installed a series of Best Management Practices (BMPs) and Green Infrastructure retrofit measures to detain and assimilate runoff from the campus. Cardno surveyed, designed and installed an approximately 2-acre wetland and wet prairie complex. Cardno staff planted over 4,000 native wetland and wet prairie plants across the wetland and bioretention systems. We also conducted invasive species control and trash removal along 1,100 LF of the riparian stream corridor, and installed approximately 1,500 woody tree and shrub species. As project assistant, Ms. Thompson prepared the full scale design plans for the bioretention cells as well as the onsite wetland. Additionally, Ms. Thompson assisted in the construction of the bioretention cells and wetland.

Brian Padgett

Current Position

Field Operations Lead

Discipline Area

- > Native and Ornamental Plant Identification
- > Native Seed and Plant Installation
- > Wetland and Stream Restoration
- > Invasive/Non-Native Species Control
- > Equipment Operation
- > GIS Data Collection

Years' Experience

7

Joined Cardno

2012

Education

- > BS, Plant Biology, Ohio University, 2009

Summary of Experience

Mr. Brian Padgett assists with implementing ecological resource projects, including installation of native plants and bioengineering materials for erosion control, equipment operation, native prairie installations, removal and control of invasive plant species. He leads and directs field crews on sites throughout Mid-west for the Cincinnati and Indianapolis offices. Mr. Padgett has also been involved with data collection for wetland delineations and monitoring projects.

Significant Projects

Sacred Heart Academy, Stormwater BMP Retrofits – Kentucky

Cardno was contracted to install a total of five bio-retention features on the Sisters of Ursuline Campus and Sacred Heart Academy School in Louisville, Kentucky as a part of Jefferson County's efforts to reduce stormwater inputs to the county's combined sewer systems. Cardno installed more than 1,250 tons of amended soils, more than 100 tons of stone for erosion prevention and infiltration assistance, and over 370 native perennials in one-gallon containers, 1,200 native perennials in plug form, 60 native shrubs, and thirteen 2.5-inch caliper native trees across the five bio-retention features on the 10-acre campus. Cardno managed stormwater and sediment controls during the installation process, and worked under tight deadlines to complete the project in a safe manner within the constraints of the school calendar. Mr. Padgett assisted the project manager with all tasks associated with the installation of the bio-retention features. This included overseeing a crew and operating the equipment from initial site excavation through the amended soil placement, final grading, and native plant installation in the cells.

Norton's Kosair Children's Medical Center – Kentucky

Cardno assisted the project landscape architect in the design phase of the LEED-certified Children's Medical Center and worked closely with the construction site supervisors to install a combination of three bio-swales and three bio-cells as a part of the stormwater management aspect of the LEED project. Three of the bio-retention features, as well as approximately 0.5 acre of impermeable roof top surface flow to a re-circulating stream feature. Cardno's Native Plant Nursery supplied the 850 perennial plants installed in the stormwater bio-retention features. Mr. Padgett assisted in the construction of bio-cells, bio-swales, and a re-circulating stream feature. He was responsible for directing maintenance crews on site for water feature repair, spraying, and irrigation.

Field Crew Supervisor – Five Rivers MetroParks – Great Miami Mitigation Bank – Montgomery County, Ohio

For the past decade, Cardno has been the lead consultant and restoration services provider to Five Rivers MetroParks. Cardno identified the most suitable site for a new 360-acre park with significant wetland and stream mitigation banking opportunities. Cardno completed all design and permitting services and continues to maintain and monitor the site for Five Rivers MetroParks. The Bank incorporates over 60 acres of wetland restoration credits, 4,900 linear feet of stream restoration credits, 75 acres of wetland and riparian buffer credits, and 220 acres of upland prairie, forest and oak savanna habitat. Mr. Padgett served as field crew supervisor for maintenance and adaptive management activities on this project.

Field Crew Supervisor – MetroParks of Butler County, Meadow Ridge Stream Restoration – Butler County, Ohio

Cardno restored and enhanced a degraded 300 LF section of streambank at the Meadow Ridge (Sebald Park Expansion) site at the former Weatherwax Golf Course. Cardno's design included proposed bank grading to expand the bankfull capacity, provide floodplain storage capacity and create a more stable bank angle at sensitive meanders. Mr. Padgett served as field crew supervisor for restoration aspects of this project.

Field Crew Supervisor – ODOT Crooked Creek Stream Mitigation – Pike County, Ohio

Cardno completed site assessments, mitigation planning and construction services to support impacts associated with OH-State Route 104 improvements on the Lake White dam in Pike County, Ohio (PID 83667; PIK-104). Cardno relocated and rehabilitated approximately 1200 LF of stream in order to allow for new road and dam improvements. Mr. Padgett served as field crew supervisor for maintenance and adaptive management activities on this project.

Field Crew Supervisor – Tait Station Dam Removal – Dayton, Ohio

Cardno worked with the Ohio Department of Transportation (ODOT) to remove the Tait Station Dam located on the Great Miami River just south of the city of Dayton, Montgomery County, Ohio, as a means to provide permittee-responsible mitigation for two current projects in the Great Miami River watershed. Established as a new "pooled" stream mitigation project, Cardno assisted ODOT by preparing mitigation plans and construction drawings and securing all necessary permits to authorize upward of 9,300 linear feet (LF) of combined stream mitigation credit. In July 2018, ODOT hired Cardno to complete this full delivery restoration project as well as oversee the removal of the Tait Station Dam. Mr. Padgett served as field crew supervisor for restoration components of this project.

Project Manager – Upper Mill Creek Water Quality Improvement Project - The Hopewell Stormwater and Riparian Enhancement Project – Ohio

Cardno assisted the Mill Creek Watershed Council of Communities (MCWCC), Lakota Local School District and the Butler County Soil and Water Conservation District (SWCD) in successfully obtaining over \$120,000 in grant funds from the Surface Water Improvement Fund (SWIF) for a retrofit project along a sensitive portion of the Upper Mill Creek to treat runoff from the Hopewell Elementary School campus. Cardno surveyed, designed, and installed a series of Best Management Practices (BMPs) and Green Infrastructure retrofit measures to detain and assimilate runoff from the campus. Cardno surveyed, designed and installed an approximately 2-acre wetland and wet prairie complex. Cardno staff planted over 4,000 native wetland and wet prairie plants across the wetland and bioretention systems. We also conducted invasive species control and trash removal along 1,100 LF of the riparian stream corridor, and installed approximately 1,500 woody tree and shrub species. As project manager, Mr. Padgett implemented the design plans for the bioretention cells as well as the onsite wetland. In addition, he scheduled and supervised the field crew, and operated the equipment during construction.

Certifications

- > Licensed Commercial Pesticide Applicator; Ohio, Indiana, Kentucky
- > Caterpillar Level I Operators Training Certification
- > 40-hour OSHA HAZWOPER Certification
- > Wildland Firefighter Certified Training: S-130, S-190, I-100, National Wildfire Coordinating Group

Crystal Renskers

Current Position
Senior Staff Scientist

Discipline Area

- > Installation and understanding of techniques of erosion control items
- > Native tree, shrub, and plant habitat requirements and installation
- > Exotic and native tree, shrub and plant identification
- > Control/Eradication methods of undesirable plants
- > ArcMap and Mobile Mapper
- > Frog/butterfly surveys
- > Vegetation surveys

Years' Experience
12

Joined Cardno
2007

Education

- > BS, Natural Resources and Environmental Science, Purdue University, 2004

Summary of Experience

Ms. Crystal Renskers serves as a project manager, monitoring botanist, and oversees all aspects of the wetland and stream mitigation monitoring program for the Indianapolis office. As a project manager, she oversees numerous projects ranging in size and complexity with multiple components such as invasive species control, restoration, mitigation site location, and long-term monitoring requirements related to state and federal permits across the state. She also conducts site set-up, desktop analysis, herbaceous and woody species sampling and inventory, GPS mapping, photo documentation, monitoring well installation and data analysis, client and agency coordination via official reports as well as regular updates and coordination with the client. Ms. Renskers' collaborates with site leads and other project managers to ensure permit success criteria as well as client objectives are met. She excels at logistical insight, project management, supporting a safe working culture and working as part of a team to provide quality services. Ms. Renskers also assists with Storm Water Pollution Prevention Plans (SWPPP), Line Environmental Assessment Reports, wetland delineations, wildlife surveys and site assessments.

Significant Projects

Indiana DOT, On-Call Maintenance and Monitoring Contract – Indiana

Cardno provides site assessment, invasive species control, minor maintenance, monitoring services (in relation to state and federal permits), and agency coordination between Indiana DOT and regulating agencies on approximately 30 sites throughout Indiana. Ms. Renskers conducted all monitoring tasks such as vegetative sampling, vegetative inventories, hydrology documentation, photo documentation, invasive species control recommendations, wildlife observations and stream stabilization assessments, as well as repair recommendations. Data collected was provided to Indiana DOT and the regulating agencies in ongoing formal reports. Ms. Renskers provided essential direct and indirect support between the client and corresponding regulatory agencies. She acquired approved planting materials and worked with crew leaders to ensure the installation was completed based on specific site and maintenance needs in order to meet specific success criteria.

Project Manager – Webb Residence Native Planting – Indiana

Dr. Tom Webb awarded Cardno a contract to install thousands of wetland plugs on his private property in 2008. The following year, quality/survival concerns were addressed with the client resulting in supplemental native planting and native landscaping installed in 2010. Around his new home, native planting was designed and implemented to complement the overall wildlife restoration goals for Dr. Webb's property. Due to the quality of work, and excellent relationship built, this project continues to present day. As project manager, Ms. Renskers designed and ensured the layout of the plants fit the requested landscape design. She also provided guidance on restoration methods, while supervising the installation and maintenance.

Project Oversight – Grant County Economic Development: Dollar General Mitigation Monitoring and Maintenance – Indiana

Cardno provides annual monitoring services (in relation to state and federal permits), agency coordination, and maintenance for the forested wetland mitigation site along the Mississinewa River. Ms. Renskers conducted and provided oversight on all maintenance

and monitoring tasks such as herbaceous and tree sampling, vegetative inventories, hydrology documentation, shallow ground well installation and analysis and photo documentation. Ms. Renskers worked with the client to develop and then implement effective and economics plans to improve forest wetland development and improve hydrology input which included installation of ground well to better document the ground water profile. Data collected was provided to the client and the regulating agencies in annual formal reports. Ms. Renskers provided essential direct and indirect support between the client and corresponding regulatory agencies pertaining to wetland development, coordination with Red Tail Conservancy and addressing site needs throughout the year.

Project Lead – U.S. I-69 Extension NEPA-Related Ecological Studies and Mitigation – Indiana

Cardno was contracted to implement the restoration of three sites associated with the I-69 construction project. Cardno installed 450 acres of native seed and straw mulch, 200,000 bare root trees and shrubs seedlings, 13,000 3-gallon container trees and shrubs, and 25,000 live willow stakes. Ms. Renskers was the project lead for all areas with focus on offsite coordination of crews, equipment, and documentation during site preparation and material installation. She ordered, tracked, and led the installation of plants while being in continual communication with the client and Indiana DOT.

Field Crew Supervisor – Central Indiana Land Trust, Inc. – Burr Oak Bend, Indiana

Cardno designed and implemented a restoration plan covering 44 acres in Hamilton County, Indiana. The plan primarily consisted of invasive species control, reforestation, prairie restoration, and site maintenance activities. Approximately 12.5 acres were restored to native prairie. On the remaining land, Cardno, along with CILTI volunteers, planted approximately 440 trees per acre. Ms. Renskers was a field crew supervisor for specific tree maintenance to close out a government funded contract on the site. She coordinated with the client to meet the all of the site and documentation needs.

Project Manager – Eiteljorg Museum – Indiana

Cardno was hired to provide a design and planting plan for a native prairie installation as a component of a museum exhibit. Services also included installation of the prairie, complete with long term maintenance. As project manager, Ms. Renskers was responsible for balancing the site's location and high visibility to the public, with the natural prairie development process, resulting in an increased focus on aesthetics as well as healthy native plant development.

Certifications

- > Licensed Commercial Pesticide Applicator. Categories: Right-of-Way, Aquatics, Indiana, Michigan, Ohio
- > Wildland Firefighter Training: S-130/190 and I-100 (Red Card)
- > 40-Hour OSHA HAZWOPER Certification

Continuing Education

- > 38-hour U.S. Army Corps of Engineers Wetland Delineation Training Program, Richard Chinn Environmental Training, Inc., 2016

Heather Schwar, PE

Current Position

Senior Water
Resources Engineer

Discipline Area

- > Hydrologic and Hydraulic Modeling
- > Stream Restoration Analysis and Design
- > Watershed Management
- > Stormwater BMP Design

Years' Experience

20

Joined Cardno

2015

Education

- > MS, Civil Engineering (Water Resources), University of Wisconsin-Madison, 2002
- > BS, Geological Engineering and Geology, University of Wisconsin-Madison, 2000

Professional Registrations

- > Professional Engineer,
KY #31799
WI #38355-6
IL #062068101
MN #53062
IN #PE11500602
MI #6201063307
OH #80838
MO, #2017022063
FL #83128
LA #41831
WA #51377
NY #98347

Summary of Experience

Ms. Heather Schwar is licensed as a Professional Engineer in 12 states with more than 20 years of extensive experience and practice. She currently serves as a senior water resources engineer responsible for leading design and engineering services on watershed management and ecological engineering type projects. Ms. Schwar primarily focuses on water resources by evaluating and designing various hydrologic and hydraulic (H&H) projects, including stormwater programs with basin, sewer, floodplain, bridge and culvert improvements, scour analyses, stream bank protection, and stream habitat restoration. She also has expertise in numerous hydrologic and hydraulic models including Hydrologic Engineering Centers River Analysis System (HEC-RAS), Geo-River Analysis System (Geo-RAS), Hydrologic Engineering Centers-Hydrologic Modeling System (HEC-HMS), Geo-Hydrologic Modeling System (Geo-HMS), XP-Storm Water Management Model (XP-SWMM), PondPack, Culvert Master, in addition to various Geographic Information System (GIS) applications.

Significant Projects

Engineering Design Lead – Tait Station Dam Removal – Ohio

The Ohio Department of Transportation (ODOT) sought to remove the Tait Station Dam located on the Great Miami River just south of the City of Dayton, Montgomery County, Ohio as a means to provide permittee-responsible mitigation for two current projects: HAM-75-3.85 (Mill Creek Expressway) and BUT-73/177-1.47/2.12 (SR-73 and SR-177 Improvements). Combined as a “pooled” stream mitigation project, ODOT received 9,471 linear feet (LF) of combined stream mitigation credit for these two projects by removing the dam. ODOT hired Cardno to complete the planning, preliminary engineering, final design, and construction and restoration services for the removal of the Tait Station Dam. Ms. Schwar led the preliminary engineering and design including hydraulic modeling to provide water-surface elevation information for the existing conditions (with dam) and post-dam removal conditions. She also completed an analysis of the sediment within the impoundment to develop a sediment management plan, in addition to leading the development of the 30%, 60% and final design planset for the dam removal and the subsequent proposed channel and floodplain improvements. Ms. Schwar also assisted in the development of the preliminary and final construction costs for the dam removal and provided construction oversight and engineering services during construction.

Project Manager – Oakton Community College: Natural Area Restoration – Des Plaines, Illinois

Cardno is currently providing ecological restoration services across 80+ acres of woodlands surrounding the Des Plaines, IL campus of Oakton Community College. The project includes conducting woody clearing, including the removal of over 400 large caliper trees, invasive species management throughout the entirety of the project area, the creation and maintenance of a new native prairie installation surrounding a pond located on the site, and prescribed burning activities, including conducting two years' worth of Prescribed Burns on 75+ acres of actively managed woodlands surrounding their campus in Des Plaines, IL. These wooded areas consist of Northern Flatwoods Forest, Mesic Upland Forest, and Floodplain Forest communities. The purpose of this ongoing project is to improve habitat diversity, to improve the overall health and composition of the existing native vegetation, and to aid in the efficacy of land management on this property. Ms. Schwar serves as project manager.

Project Engineer – Skunk Creek Stream Restoration and Bank Stabilization Project – Carlton County, Minnesota

The Carlton County Transportation Department hired Cardno, along with our subconsultant, Northflow, to develop a design to restore 200 feet of Skunk Creek and stabilize two severely eroding banks that threaten the integrity of County Road 103. Through the use of Natural Channel Design principles, Cardno has surveyed the project sites and will use reference reach data to develop a stable dimension, pattern, and profile for Skunk Creek. Future design elements include removing the existing pipe, creating a floodplain with a meandering channel, and installing grade control and woody habitat structures such as toewood and log vanes to provide enhanced aquatic habitat for trout and other aquatic organisms. As the Project Engineer, Ms. Schwar assisted with the design and construction plan set for the stream restoration and stabilization.

Senior Water Resources Engineer – City of Lebanon Sewer Line Protection – Warren County, Ohio

Cardno was contracted by the City of Lebanon, Ohio, City Engineer to design and implement a plan to protect a partially exposed sewer line crossing the North Fork of Turtle Creek near downtown Lebanon. As a senior water resources engineer, Ms. Schwar provided guidance regarding the hydraulic modelling, permitting and construction plans.

Yahara River Conservancy Place Stream Restoration Project – Wisconsin

Cardno developed and implemented low cost environmental approaches to increase bank stability and enhance habitat along the Yahara River in DeForest, Wisconsin. Cardno modelled sediment and nutrient inputs from eroded banks and calculated nutrient reduction as a result of the project effort. Cardno secured permits and oversaw construction of the final design. Bio-stabilization techniques in the design plan set included: bankfull bench grading, rootwad composites, toewood stabilization and a canoe launch. Cardno also provided construction oversight. Ms. Schwar served as the water resources engineer and technical reviewer for the project, including review of design and construction plans. Construction was completed in 2017.

Miller Creek Streambank Restoration Design – Minnesota

Cardno was hired by the City of Duluth to complete a stream design to stabilize approximately 875 feet of eroding stream bank along Miller Creek in Lincoln Park. The stream design will stabilize the stream banks, preserve the character of the walls within the park and provide additional stream function and habitat. Cardno also completed a cultural resource investigation to determine the eligibility of the walls for the National Register of Historic Places and supported the Section 105 process with the City of Duluth and FEMA. Cardno also led the permitting process, coordination with state resource agencies, developed construction bid documents, and provided on-site construction oversight. Ms. Schwar is performing the hydraulic analysis, coordinating with state resource agencies and providing engineering oversight on the design plan set and construction bid documents.

Certifications

- > Rosgen Level I: Applied Fluvial Geomorphology

Greenway Maintenance
Statement of Qualifications



Appendix C

REQUIRED FORMS



ADDENDUM #1

Bid Number: **#42-2020**

Date: April 9, 2020

Subject: **Greenway Maintenance**

Address inquiries to:
Kristie Thomas
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

1. The bid has been changed to an online only submission. Required submission forms have been uploaded to Ionwave replacing original bid document file.
2. Complete and sign (where appropriate) the bid documents and upload them to the Ion Wave system on the Response Attachments tab of the bid page.
3. Enter your name and email address which indicates your acceptance of the bid terms and conditions on the Response Submission tab.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Cardno, Inc.

ADDRESS: 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299

SIGNATURE OF BIDDER:





ADDENDUM #2

Bid Number: **#42-2020**

Date: April 9, 2020

Subject: **Greenway Maintenance**

Address inquiries to:
Kristie Thomas
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

1. LFUCG Risk Management Provisions have been uploaded to Ionwave.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Cardno, Inc.

ADDRESS: 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299

SIGNATURE OF BIDDER:



This Affidavit must be completed before your firm can be considered for award of this contract.

AFFIDAVIT

Comes the Affiant, Sean Clauson, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Sean Clauson and he/she is the individual submitting the bid or is the authorized representative of Cardno, Inc. the entity submitting the bid (hereinafter referred to as "Bidder")
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught. Sean Clauson

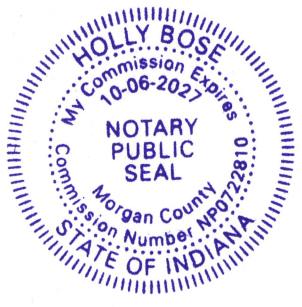
STATE OF Indiana

COUNTY OF Marion

The foregoing instrument was subscribed, sworn to and acknowledged before me by Sean J. Clauson on this the 16th day of April, 2020

My Commission expires: 10-06-2027

Holly Bose
Holly Bose



NOTARY PUBLIC, STATE AT LARGE

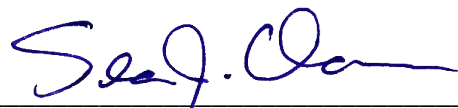
Please refer to Section II, Bid Conditions, Item "U" prior to completing this form.

See attached for our official 2018 Employer Information Report

WORKFORCE ANALYSIS FORM

Name of Organization: Cardno, Inc.

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Administrators	See attached for 2018 report.																	
Professionals																		
Superintendents																		
Supervisors																		
Foremen																		
Technicians																		
Protective Service																		
Para-Professionals																		
Office/Clerical																		
Skilled Craft																		
Service/Maintenan																		
Total:																		

Prepared by: 
 (Name and Title)

Assistant Vice President

Date: 4 / 16 / 2020

CO= FW32370
 U= FW32370

**EQUAL EMPLOYMENT OPPORTUNITY
 2018 EMPLOYER INFORMATION REPORT
 CONSOLIDATED REPORT - TYPE 2**

SECTION B - COMPANY IDENTIFICATION

1. CARDNO INC.
 10004 PARK MEADOWS DR.
 SUITE 300
 LONE TREE, CO 80124

2.a. CARDNO INC.
 10004 PARK MEADOWS DR.
 SUITE 300
 LONE TREE, CO 80124
 DOUGLAS COUNTY
 c. Y

SECTION C - TEST FOR FILING REQUIREMENT

1-Y 2-Y 3-Y DUNS NO.:078391683 EIN :452663666

SECTION E - ESTABLISHMENT INFORMATION

NAICS: 541330 Engineering Services

SECTION D - EMPLOYMENT DATA

JOB CATEGORIES	HISPANIC OR LATINO		NOT-HISPANIC OR LATINO											OVERALL TOTALS		
	MALE	FEMALE	***** MALE *****						***** FEMALE *****							
			WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE		TWO OR MORE RACES	
EXECUTIVE/SR OFFICIALS & MGRS	0	1	6	0	0	1	0	0	1	0	0	0	0	0	0	9
FIRST/MID OFFICIALS & MGRS	7	0	143	2	0	0	1	1	33	0	0	2	0	1	190	
PROFESSIONALS	47	25	519	59	2	28	2	7	360	9	6	17	3	8	1092	
TECHNICIANS	37	3	206	31	1	2	2	4	49	1	0	0	1	1	338	
SALES WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ADMINISTRATIVE SUPPORT	3	4	46	7	0	2	2	0	77	6	0	3	0	2	152	
CRAFT WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OPERATIVES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
LABORERS & HELPERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SERVICE WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	94	33	920	99	3	33	7	12	520	16	6	22	4	12	1781	
PREVIOUS REPORT TOTAL	96	36	1031	72	3	37	9	12	535	24	2	25	2	9	1893	

SECTION F - REMARKS

DATES OF PAYROLL PERIOD: 12/09/2018 THRU 12/22/2018

SECTION G - CERTIFICATION

CERTIFYING OFFICIAL: DENISE DECKER
 EEO-1 REPORT CONTACT PERSON: denise.decker
 EMAIL: denise.decker@CARDNO.COM

TITLE: human resources business partner
 TITLE: HUMAN RESOURCES BUSINESS PARTNER
 TELEPHONE NO: 3025611135
 CERTIFIED DATE[EST]: 05/30/2019 12:52 AM



LEXINGTON

LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

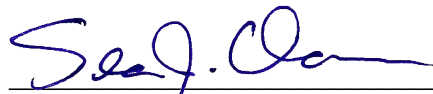
The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

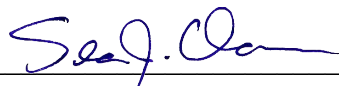
The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

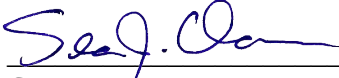
The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. **Failure to submit this form may cause rejection of the bid.**

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1. Not Applicable at this time. See cover letter.					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title



LEXINGTON

MWDBE QUOTE SUMMARY FORM

Bid/RFP/Quote Reference # 42-2020, Greenway Maintenance

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

Company Name Cardno, Inc.	Contact Person Sean Clauson
Address/Phone/Email 10420 Bluegrass Parkway Suite 10420, Louisville, Kentucky 40299, 574 229 8780, sean.clauson@cardno.com	Bid Package / Bid Date 42-2020, Greenway Maintenance, due April 15, 2020 2pm EST

MWDBE Company Address	Contact Person	Contact Information (work phone Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female	Veteran
Not Applicable at this time. See cover letter.								

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

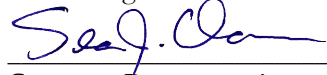
The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Cardno, Inc.

Company

 4/16/2020

Date



Company Representative

 Assistant Vice President

Title



LEXINGTON

LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Bid/RFP/Quote # 42-2020, Greenway Maintenance

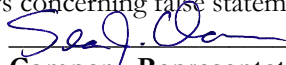
Total Contract Amount Awarded to Prime Contractor for this Project Not Applicable

Project Name/ Contract #	Work Period/ From:	To:
Company Name:	Address:	
Federal Tax ID:	Contact Person:	

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date
Not Applicable at this time. See cover letter.							

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

Cardno, Inc.
Company


Company Representative

4/16/2020
Date

Assistant Vice President
Title

LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote # 42-2020, Greenway Maintenance

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation. **Not Applicable at this time. See cover letter.**

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

_____ Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

_____ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

_____ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

_____ Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

_____ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce

_____ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.

_____ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

_____ Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

_____ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

_____ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

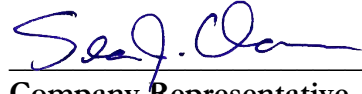
_____ Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Cardno, Inc.
Company

4/16/2020
Date


Company Representative

Assistant Vice President
Title

ABOUT CARDNO

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD]. For additional information, visit www.cardno.com.

Cardno
**ZERO
HARM**
EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field. Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.