

City of Albuquerque

Request for Proposals

Engineering Consultants for 98th Street and Benavides Road Intersection Improvements

Project No: 7697.90

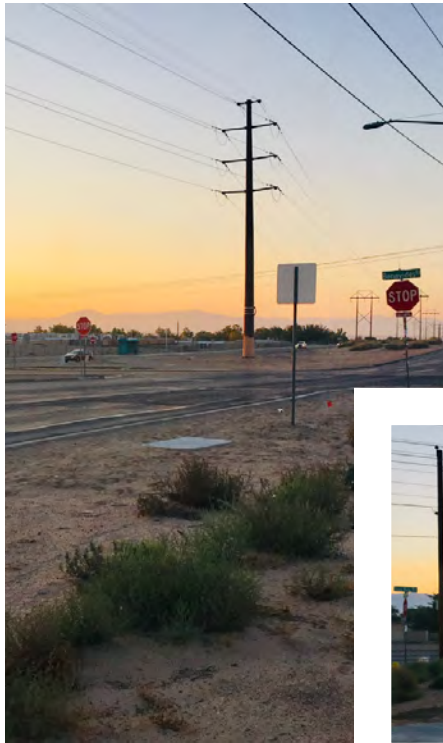
Submitted to:



City of Albuquerque
October 21, 2020, 3:00 pm

WSP USA Inc.
2440 Louisiana Blvd NE
Suite 400
Albuquerque, NM 87110
T: 505.881.5357

wsp.com





October 21, 2020

Jill Cuppernell, City of Albuquerque Project Manager
Capital Implementation Program (CIP) Division Office
One Civic Plaza, 7th Floor, Room 7057
Albuquerque/Bernalillo County Government Center
Albuquerque, NM 87102

RE: RFP for Project No: 7697.90 for 98th Street and Benavides Road Intersection Improvements

Dear Ms. Cuppernell and Members of the Selection Advisory Committee,

The 98th Street/Benavides Road Intersection is a vital link for commuters and pedestrians from the surrounding Westgate Heights neighborhoods and nearby Truman Middle School. The WSP USA Inc. (WSP) team is excited for the opportunity to continue supporting the City of Albuquerque in improving and addressing the safety concerns identified from our initial assessment. By selecting WSP, the COA Department of Municipal Development (DMD) will have gained a long-standing, trusted partner and will benefit from our team's key strengths as follows:

Project History & Expertise: The DMD tasked WSP to assess the intersection for this project. Performing this intersection assessment in a pre-COVID environment gives WSP a unique advantage of observing the intersection in a fully functioning capacity and a full understanding of the issues and challenges associated with it. This knowledge, combined with our team's expertise in traffic, roundabout, and roadway design, gives us the ability to deliver a safe, constructible project that considers all users of the intersection.

Public Involvement: Gaining public consensus will be imperative to the project's success. WSP is proposing an extensive and innovative approach to public outreach that will focus on engagement, education, and collaboration with the community and nearby school. WSP also proposes using this opportunity to work with the staff and student body from Truman Middle School to generate interest in the STEM fields. Our team has interacted similarly with schools in the past for the City such as with Albuquerque High School on our Broadway/Odelia task.

Capacity & Commitment: With 48 New Mexico employees, WSP is one of the largest transportations focused, public client-based groups in the state. Our Albuquerque office can provide unconstrained project coordination from each of our in-house service areas including, but not limited to: transportation; traffic analysis and design; drainage engineering; environmental; public involvement; cultural resources; and construction management. The COA is viewed locally and regionally by WSP as a top priority client, therefore, the City can rest assured that we have the capacity and drive to meet your needs.

We appreciate this opportunity to present our qualifications, and look forward to your favorable consideration of our proposal and continued relationship with the COA.

Sincerely,

A handwritten signature in blue ink that reads 'Robert Ortiz'.

Robert Ortiz, NM PE 12719
Principal-in-Charge

WSP USA Inc.
2440 Louisiana Blvd NE
Suite 400
Albuquerque, NM 87110
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wsp.com

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I. General Information

Our in-house team of civil, traffic, and drainage engineers, as well as environmental and public involvement professionals will be led by our Project Manager, Dan Sims. Dan has over 26 years of experience delivering multiple successful projects for the COA. He will lead our team in providing quality services to improve the intersection of 98th Street and Benavides Road.

1.1 Provide name, address, and telephone number of respondent, and, if firm, when firm was established.

WSP USA Inc. is located at 2440 Louisiana Blvd NE, Suite 400, Albuquerque, NM 87110. Our telephone number is 505.881.5357. Our Albuquerque office opened in 1994, while WSP and its predecessors have been in operation for over 130 years since being established in 1885. WSP has been providing services to the COA since 1994.

1.2 Provide number of employees, technical discipline, registration, and registration number.

WSP has over 48 local, multi-disciplinary employees in New Mexico available to assist with project needs as required. The table below shows our specific team members assigned to this contract.

TEAM MEMBERS ASSIGNED TO THIS CONTRACT			
Technical Discipline	Team Member	Project Role	Registration / Registration No.
Project Management	Dan Sims	Project Manager, Roadway Design Lead, & Utility Coordination Lead	-
QA/QC	Terry Ward	QA/QC Lead	NM PE 25183
Roadway Design	Andrew Sutliff	Roadway Engineer	NM PE 26129
	Nicole Tsabetsaye	Roadway Designer	-
Traffic / Lighting Analysis & Design	Paul Steffin	Traffic Analysis & Design Lead	NM PE 15352 PTOE 2773
	Virginia O'Connor	Traffic Designer	NM PE 25310
Roundabout Analysis	Joe Vaskovic*	Roundabout Analysis Lead	AZ PE 36850 PTOE 087 RSP1 524
Drainage Analysis & Design	Farshad Omidvaran	Drainage Analysis & Design Lead	NM PE 10720 CFM-05-00143
	Carlos Romo	Drainage Engineer	NM PE 22650
	Ryan Adams	Drainage Designer	NM EIT 7513
Public Involvement (PI) & Environmental/Cultural Resources (CR)	Jennifer Hyre	PI Lead & Env Lead	-
	Rebecca Reints	Env Planner	-
	Brian Cribbin	CR Lead	-
Principal-in-Charge (PIC)/Construction Management	Robert Ortiz	PIC & Construction Management Lead	NM PE 12719

1.3 Indicate where the services are to be performed.

WSP USA Inc.

- » 2440 Louisiana Blvd NE, Suite 400
Albuquerque, NM 87110
- » 177 N Church Ave #1105
Tucson, AZ 85701*

Maser Consulting P.A.

- » 2703 Broadbent Pkwy NE, Suite B
Albuquerque, NM 87107

Tierra Right of Way Services

- » 4107 Montgomery Blvd NE
Albuquerque, NM 87109

YeDoma Consultants, LLC

- » 523 Louisiana Blvd SE
Albuquerque, NM 87108

MRMW Landscape Architects

- » 1102 Mountain Rd NW #201
Albuquerque, NM 87102

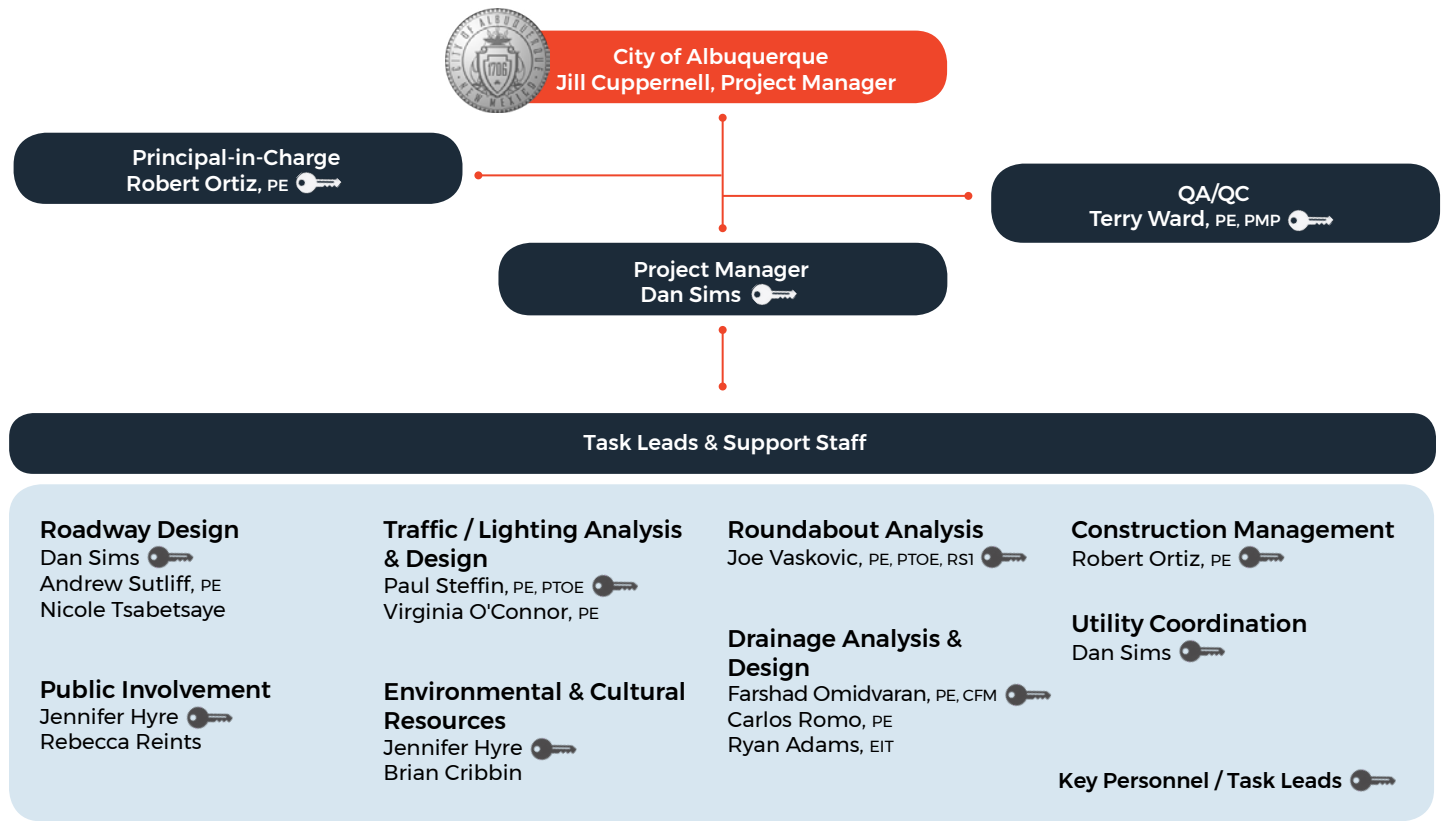
WSP Team Advantages Include:

- **WSP recently performed the intersection assessment for this project.** Our team best understands your goals to improve pedestrian safety through the reconfigured intersection, while being mindful to avoid utility conflicts and residual impacts to nearby residents.
- **Having recently provided similar services for the COA on the 12th Street and Menaul Great Streets Improvements project,** our team understands the City's expectations for roundabout design and can provide lessons learned, resulting in a successful project outcome. Additionally, WSP has regional roundabout experts that can provide quality reviews of the concepts that our team develops.
- **Our in-house PI team** can work with the City to gain public consensus through innovative techniques including: virtual or in-person PI meetings for nearby residents; roundabout workshops with Truman Middle School staff and students; and social media engagement to educate the public on how to navigate roundabouts.

II. Project Team Members

2.1 Provide an organization plan for management of the project.

Our team organizational chart shows the relationships between our team members and task leads who will provide professional services. Project Manager Dan Sims will collaboratively lead our management team, consisting of the Task Leads identified below, to ensure all project objectives are met. He will frequently communicate with the DMD and all project stakeholders to ensure project milestones are met in compliance with City standards and processes.



2.2 Identify all consultants to be used on the project.

The City will benefit from the strength of our team's expertise and commitment. WSP has partnered with our proposed subconsultants because:

- » They are experts in their respective disciplines
- » We have built successful working relationships with them from previous COA projects
- » Our relationships are founded on mutual trust, responsiveness, and quality project delivery

SUBCONSULTANTS		
Firm	Role	Reason Selected
Maser	3D Utility Mapping, Mobile LiDAR Survey, & ROW Exhibits	» Mobile LiDAR expertise and familiarity with City ROW Exhibits
Tierra ROW	ROW Acquisition	» Extensive experience with COA ROW acquisition
YeDoma	Geotechnical Engineering	» Extensive geotechnical experience working with the COA, including pavement evaluations, and with City materials testing standards
MRMW	Landscape Design	» Extensive landscape design experience working with the COA

2.3 Provide qualifications of project team members shown in organization plan, including registration and membership in professional organizations.



Dan Sims
PROJECT MANAGER

Dan will serve as our Project Manager because he has over 26 years of experience in transportation design, specializing in urban roadway design and PROWAG compliance. His familiarity with the COA's project development process and expertise in urban roadway projects will lead our team to success. Dan is familiar with COA standard practices such as the Complete Streets Ordinance and the Development Review Committee (DRC) and DMD requirements.

COA Benefit

- Ability to implement recent roundabout design experience and lessons learned from 12th Street and Menaul Great Streets Improvements project
- Managed/led design efforts for over a dozen COA projects increasing the DMD's confidence in our knowledge of the City's project development processes and ability to execute a successful project
- Availability to communicate often with the DMD's Project Manager saving time by quickly identifying and resolving project issues that may arise

Education

Coursework, Adams St. College/University of New Mexico

Professional Organization

ACEC COA Committee, Member

Relevant Experience

- COA 98th Street/Benavides Road Intersection Study | Contract Manager
- COA On-Call Engineering Services | PM
- COA 12th Street and Menaul Great Streets Improvements | Deputy PM and Lead Designer

Roadway Team



Andrew Sutliff, NM PE 26129 (5 years)

Education: BS, Civil Engineering;
Membership: ASCE NM Vice President;
Experience: COA Citywide On-Call Engineering Services (3 contracts)



Nicole Tsabetsaye (<1 year)

Education: BS, Civil Engineering; **Experience:** COA 12th Street and Menaul Great Streets Improvements, COA Comanche / Vassar Signal



Paul Steffin, PE, PTOE
TRAFFIC / LIGHTING
ANALYSIS & DESIGN LEAD

Paul will serve as our Traffic/Lighting Analysis and Design Lead because he has 23 years of experience in bicycle and pedestrian planning/design, traffic control plans, intersection signalization, and corridor lighting. Paul has successfully led numerous projects with the DMD, and has experience working with the Greater ABQ Bicycle Advisory Committee (GABAC) and Greater ABQ Recreational Trail Committee (GARTC).

COA Benefit

- Project Manager for the 98th Street/Benavides Road Intersection Study providing the City with in-depth project knowledge and best solutions for traffic and pedestrian safety challenges
- Broad background developing innovative traffic solutions in the Albuquerque community leading to quality traffic solutions for this project addressing pedestrian and bicycle facilities, intersection lighting, and traffic signal design, and interconnect coordination for the COA

Education

BS, Civil Engineering, University of Washington

Licenses and Certifications

NM PE 15352; NM PTOE 2773

Professional Organization

ITE, Member; ITS New Mexico, Secretary

Relevant Experience

- COA 98th Street/Benavides Road Intersection Study | PM
- COA 12th Street and Menaul Great Streets Improvements | Traffic Design Lead
- NMDOT Study & Rehabilitation of NM 14 | PM

Traffic / Lighting Analysis & Design Team



Virginia O'Connor, NM PE 25310 (5 years)

Education: MS, Civil Engineering (in-progress); **Membership:** ITE NM, Member / ITS NM, Member; **Experience:** NMDOT MLK/I-25 Traffic Study, MRCOG ABQ Active Traffic Management Plan



Joe Vaskovic, PE, PTOE
**ROUNABOUT
 ANALYSIS LEAD**

Joe will serve as our Roundabout Analysis Lead because he has over 36 years of experience on small- and large-scale roadway improvement projects, focused in roundabout design. He has a background in projects that have included conceptual evaluations referencing NCHRP 672 guidelines, RODEL software for capacity evaluations, Bentley TORUS CAD software for development of roundabout concepts, and final design experience with signing, pavement markings, signalization, and geometric review.

COA Benefit

- Roundabout expert, familiar with COA processes and standards from recent work on Santa Barbara-Martineztown Pedestrian Improvements project, providing the City with regional roundabout best-practices and comparable design perspective
- Offering the City roundabout experience from New Mexico and Arizona including:
 - Capacity Analysis (RODEL)
 - Conceptual Layout
 - Signing/Marking Design
 - Signalization (PROWG Guidelines)
 - Geometric Evaluation
 - Retrofit Evaluation
 - Construction Phasing

Licenses and Certifications

AZ PE 36850; PTOE 087; RSP1 524

Education

BS, Civil and Environmental Engineering, Clarkson University

Relevant Experience

- COA Santa Barbara-Martineztown Pedestrian Improvements and Conceptual Layout of a Mini-Roundabout | Roundabout Design
- ADOT SR 202 Design of Signing, Pavement Markings, and Pedestrian Activated Signalization at two (2) Roundabouts | Roundabout Design
- ADOT Evaluation of a Multi-Lane Roundabout for SR 189 Design-Build Project | Roundabout Design
- ADOT Roundabout Design Review | Roundabout Design



Jennifer Hyre
**PUBLIC INVOLVEMENT &
 ENVIRONMENTAL LEAD**

Jennifer will serve as our Public Involvement and Environmental Lead because she has over 20 years of experience facilitating public and stakeholder outreach. Jennifer understands the benefits of effective public involvement, from addressing individual concerns, to building relationships with community leaders. She was formerly an Environmental Analyst with the NMDOT Environmental Bureau. Her expertise includes endangered species assessments, Clean Water Act planning/permitting, cultural resources management, controversial public involvement campaigns, and NEPA analysis.

COA Benefit

- Pioneer in the use of alternative public meeting formats for infrastructure projects in New Mexico, (such as virtual town halls conducted for NMDOT) helping the City gain public approval by providing meaningful project information to school and surrounding neighborhoods
- Ability to navigate the environmental and cultural resource management process, ensuring environmental compliance for the City to minimize project schedule impacts

Education

Master's Certificate Program for NEPA; BS, Environmental Science and French, Juniata College

Professional Organization

ACEC, Governmental Affairs Committee Member

Relevant Experience

- COA 12th Street and Menaul Great Streets Improvements | PI & Environmental Lead
- COA North 4th Street Sidewalk Improvements | Environmental Lead

Public Involvement & Environmental Team



Rebecca Reints (5 years)

Education: MS, Environmental Biology;
Experience: NMDOT US 64 Corridor Study, NMDOT NM 566 Bridge Replacement



Brian Cribbin (20 years)

Education: MA, Anthropology; BA, History;
Experience: COA North 4th Street Sidewalk Improvement, BernCo Prosperity Quiet Crossing



Farshad Omidvaran, PE, CFM

DRAINAGE ANALYSIS & DESIGN LEAD

Farshad will serve as our Drainage Analysis and Design Lead because he has 37 years of diverse experience in hydrologic and hydraulic engineering and has prepared numerous drainage reports for the COA. Prior to joining WSP, Farshad was a Drainage Development Engineer with NMDOT for over 25 years. He was responsible for designing transportation drainage facilities; preparing technical reports; applying for Clean Water Act permits; providing technical support to district and legal division offices; and preparing and reviewing contractor's SWPPPs.

COA Benefit

- Prepared over 100 storm drain designs and drainage reports providing the City assurance that all improvements will adhere to the current City of Albuquerque DPM
- Positioned to expedite the drainage design for the DMD with knowledge of existing drainage conditions and proposed drainage improvements recommended in the latest Drainage Management Plan

Education

BS, Civil Engineering, University of New Mexico

Licenses and Certifications

NM PE 10720; CFM NM-05-00143

Relevant Experience

- COA 12th Street and Menaul Great Streets Improvements | Drainage Engineering Lead
- NMDOT Study & Rehabilitation of NM 14 | Drainage Engineering Lead
- BernCo 2nd Street Trail | Drainage Engineering Lead

Drainage Engineering Team



Carlos Romo, NM PE 22650 (8 years)

Education: BS, Civil Engineering; **Experience:** COA 98th Street/Benavides Road Intersection Study; COA 12th Street and Menaul Great Streets Improvements, NMDOT Study & Rehabilitation of NM 14



Ryan Adams, NM EIT 7513 (2 years)

Education: BS, Civil Engineering; **Membership:** ASCE New Mexico, Member; **Experience:** COA Citywide On-Call Engineering Services (2 contracts), COA Ladera Improvements Phase II



Terry Ward, PE, PMP

QA/QC LEAD

Terry is proposed to serve as our QA/QC Lead because he has 35 years of professional engineering experience and extensive expertise throughout all phases of project development in delivering quality projects. He has worked on projects with complex design requirements and funding plans and understands the importance to owners of quality deliverables that meet all funding requirements. He has worked with both COA and NMDOT standards and specifications. Terry specializes in assessing and mitigating construction risks in the design phase to provide the overall best value for owners. He is a certified Project Management Professional (PMP) from the Project Management Institute.

COA Benefit

- Ability to identify project issues and risks early on, providing the DMD with a high degree of schedule and cost certainty with no surprises during the later stages of project development (when it becomes more difficult to react), minimizing impacts to the City's overall program

Education

MS, Infrastructure Systems Engineering, University of Minnesota; BS, Civil Engineering, North Dakota State University

Licenses and Certifications

NM PE 25183, PMP 1529212

Professional Organization

Project Management Institute

Relevant Experience

- COA AIS Parking Ramp Painting and Wayfinding Project | Project Engineer
- COA AIS Basic Economy Parking Lot | Project Engineer
- BernCo Prosperity Quiet Crossing (COA Specifications) | Project Engineer
- City of Rio Rancho Specifications Development | Project Manager



Robert Ortiz, PE

PIC & CONSTRUCTION MANAGEMENT LEAD

Robert is proposed to serve as our PIC and Construction Management Lead because he has more than 36 years of experience in construction management, construction programs administration, and transportation in New Mexico. Robert served for 27 years within the construction program of the NMDOT ranging from Project Inspector, Project Engineer, to Deputy Secretary of Operations. He has experience in state and federal highway funding programs and requirements, as well as state and federal highway specifications administration and development.

COA Benefit

- Ability to provide the City with construction management services proven to reduce oversight efforts from experience providing similar services for many local agencies including the COA, Bernalillo County, AMAFCA, NMDOT, and the City of Santa Fe
- Understanding of the City's construction management needs will ensure the project is built in accordance with the plans and specifications and that project closeout is streamlined for the COA

Education

BS, Mechanical Engineering, University of New Mexico

Licenses and Certifications

NM PE 12719

Relevant Experience

- COA Daytona Transit Facility Upgrades for Electric Buses | Assistant PM
- NMDOT Construction Management/Augmentation Services | PM
- City of Santa Fe Cerrillos Road Phase IIc | PM
- AMAFCA Construction Management On-Call Services | PM

2.4 Provide unique knowledge of key team members relevant to the project.

» Dan Sims, Project Manager

Dan's familiarity with the COA process, knowledge of the 98th/Benavides Intersection, and recent roundabout experience with the design and public involvement at the 12th Street/Menaul intersection provides the City a PM who knows exactly how to prioritize your needs and what it takes to deliver this roundabout.

» Paul Steffin, Traffic Analysis & Design Lead

Paul was the Project Manager for the 98th/Benavides Intersection Traffic Study and can provide the City with cost-effective solutions from his in-depth understanding of the traffic and pedestrian issues that are drivers at the site (conditions were evaluated on-site Pre-COVID).

» Joe Vaskovic, Roundabout Analysis

Joe is familiar with the COA process from his work on the Santa Barbara-Martineztown Pedestrian Improvements project where he provided a conceptual mini-roundabout design at the intersection. As a roundabout design expert, he will provide the City with quality reviews of the concepts that our team develops and can suggest best-practices used on previous projects regarding pedestrian/ bicycle safety.

» Jennifer Hyre, Public Involvement & Env Lead

Jennifer will lead our public involvement efforts beyond the average scope to include a safety and educational component that will engage the school and surrounding neighborhoods, focusing on education and the benefits of roundabouts. Jennifer will work collaboratively with both the City and our team of engineers from the early planning process, to actual meeting facilitation (virtually or in-person).

» Farshad Omidvaran, Drainage Analysis & Design Lead

Familiar with the existing drainage conditions of the project, Farshad will coordinate with AMAFCA and City Hydrology to evaluate the proposed improvements utilizing the existing infrastructure, where feasible, while minimizing utility impacts.

» Terry Ward, QA/QC Lead

Terry will focus the efforts of our team early in the design process to ensure the accuracy and adequacy of our work, minimizing the overall project schedule and cost risk for the COA.

» Robert Ortiz, PIC & Construction Management Lead

If construction management is required for this project, Robert will support the COA by providing services such as: acting as the single point of contact for the contractor, providing recommendations on contractor's work and schedule; providing constructability reviews, administering project pay requests; and inspecting the contractor's work to verify compliance with plans and specifications.

III. Respondent Experience

3.1 Describe previous projects of a similar nature, including client contact (with phone numbers), year services provided, construction cost (if applicable), and narrative description of how they relate to this project.

.....
WSP's current COA workload includes the West Central Improvements project and on-call tasks. Our team has significant capacity to continue meeting these current project milestones, without compromising schedule goals for this intersection improvements project.

COA	98 th Street & Benavides Road Intersection Study •Year Services Provided: 2018 - 2019, Construction Cost: N/A			✓		✓					✓	✓	✓		
COA	12 th Street & Menaul Great Streets Improvements •Year Services Provided: 2013 - Present, Construction Cost: Phase II \$3.3M; Phase III \$4.6M est.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DOT	Study & Rehabilitation of NM 14 (Phase I-III) •Year Services Provided: 2019 - Present, Construction Cost: N/A			✓		✓			✓		✓	✓	✓		
LAC	Los Alamos County Diamond Drive •Year Services Provided: 2006 - 2007, Construction Cost: Phase I \$5.1M	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

Project Descriptions:

COA 98TH STREET & BENAVIDES INTERSECTION STUDY

WSP completed an assessment of the 98th Street/Benavides Road Intersection in 2019. The assessment presented existing site conditions, traffic operations, historical crash data and evaluated the application of several potential mitigative improvements including a signalization, median U-turn treatment, pedestrian enhancements, and roundabout intersection configuration. It was found that operational and access deficiencies exist at the intersection with high congestion on 98th Street approaching Benavides Road attributable to the volume of commuting traffic. **A roundabout was recommended for the intersection; due to operational and safety improvements, the configuration provides for both vehicular and multi-modal users.**

Client Contact: John MacKenzie, City of Albuquerque, DMD, 508.768.3965



COA 12TH STREET & MENAUL GREAT STREETS IMPROVEMENTS

This project includes approximately 1.2 miles of urban arterial transportation analysis and design for 12th Street, Menaul Blvd, and the I-40 Frontage Road. WSP has completed construction plans for Phase II and III. **The urban corridor improvements include street sections that achieve Complete Streets principles and a multi-lane roundabout that accommodates multi-modal users, as well as improving traffic operations for the intersection. WSP worked side-by-side with the City on an extensive public involvement campaign to gain public approval of the roundabout.** Extensive coordination was required with the Indian Pueblo Marketing, Inc., Albuquerque City Council, and the Near North Valley Neighborhood Association, COA DMD, Planning Department, and ABQ Ride, which resulted in positive social, economic, safety, and welfare impacts for the community.

Client Contact: Melissa Lozoya, City of Albuquerque, DMD, 505.768.3830



NMDOT STUDY & REHABILITATION OF NM 14 (PHASE I-III)

This project included the reconstruction of six miles of urban arterial roadway including a mill and overlay, ADA, driveway and drainage improvements for the NMDOT. It also included the development of an access control plan for over 300-driveways along the corridor and the evaluation of alternatives for the NM 14/Frost Road intersection following the State of New Mexico Location Study Procedures. Alternative concepts were developed for the intersection to address operational and driver expectation issues and coordinated with the users of the intersection through public outreach, including a public meeting. **A roundabout alternative and High-T alternative were ultimately selected for further consideration.**

Client Contact: Jill Mosher, NMDOT, 505.553.5174



LOS ALAMOS COUNTY (LAC) DIAMOND DRIVE

The scope of this project included pavement rehabilitation/reconstruction of Diamond Drive between the Los Alamos Canyon (Omega) bridge up to and including the San Ildefonso roundabout. The project was designed and constructed in four phases. The LAC Council directed that Diamond Drive, the primary arterial serving the north side of Los Alamos, be reconstructed/rehabilitated with signalized intersections at Diamond Drive and West Road, Trinity Drive, Canyon Road, Sandia/Orange, and Arkansas/38th Street. Bike lanes and pedestrian facilities were made continuous for the 2.7 mile length of the project. Diamond Drive from the Los Alamos Canyon Bridge to Sandia Drive was continuously lit; Sandia Drive to San Ildefonso has streetlights at intersections and other key locations in an effort to enhance night time safety. The project also included bus pullouts and shelters, utility work, storm drains, retaining walls, a pedestrian underpass, pedestrian bridge rehabilitation, and landscaping.

Client Contact: Alipio Mondragon, LAC Traffic Operations Manager, 505.622.8176



3.2 Provide examples of project manager's city experience within the past five (5) years that serve to demonstrate the Project Manager's knowledge of City's procedures.

Project Manager Dan Sims has extensive experience delivering COA projects over his 26-year career in New Mexico. His involvement in these projects has provided him a strong understanding of the COA's project development process and procedures. His working experience with the City of Albuquerque over the last five years includes:

PROJECT MANAGER EXPERIENCE		
City of Albuquerque Project	Project Role	Services Provided
Citywide On-Call Engineering Services 7525.00	Project Manager	Agreement Manager, point of contact and managed tasks including Complete Streets Striping and North 4 th Street Sidewalks
Citywide On-Call Engineering Services 7703.10	Project Manager	Agreement Manager, point of contact and managed tasks including Ladera Drive Revisions, Lomas and 14 th Bicycle Crossing, and COA CADD Training
North 4 th Street Sidewalk Improvements (Federal)	Project Manager	Managed and led design for the project that included environmental clearance and SHPO coordination
Ladera Drive NW Improvements Phase II	Project Manager	Project Manager and Lead Roadway Designer from design through construction
12 th Street & Menaul Great Streets Improvements *	Deputy Project Manager/Lead Designer	Deputy PM and Lead Roadway Designer for the project from design through construction

For the last decade, the City of Albuquerque has been Dan's primary client. Together, they have successfully delivered numerous projects resulting in lasting impacts for the Albuquerque community. Dan will continue to demonstrate his commitment to the City as a trusted partner throughout the development of this project with a focus on quality deliverables aligned with the DMD's expectations.

***ACEC Project Award**

IV. Technical Approach



4.1 Describe respondent's understanding of the project scope.

The DMD identified the 98th Street/Benavides Road Intersection as a safety concern for pedestrians while evaluating safe school zone crossings for middle schools in the city. That evaluation prompted the DMD to request WSP to perform an intersection assessment for the 98th Street/Benavides Road Intersection with the primary objective to identify safety improvements for students and staff going to and from Truman Middle School, located in the southeast quadrant of the intersection.

WSP assessed the existing site conditions, traffic operations and crash data for the intersection, and provided intersection improvement alternatives to the DMD. From the assessment, the DMD identified a multi-lane roundabout as the solution that would benefit the corridor the most. This roundabout will be designed with pedestrian safety as a priority. The geometry of the roundabout must be optimized for speed control at the approaches and departures, and use raised crosswalks or signalized crossings to increase driver awareness of pedestrians in the roundabout.

WSP has the experience and expertise to design a roundabout that will prioritize multi-modal users with an emphasis on pedestrian safety. Proper design, combined with a public outreach program to educate the users on the proper use of a roundabout, will result in a safe and successful project.

▲ 98th/Benavides Intersection | WSP's roundabout design will lead to improved pedestrian safety by lowering vehicle speeds, creating shorter crossing distances, increasing greater visibility for pedestrians, and raising the attentiveness of drivers.

The WSP team has reviewed the following planning and programming documents for the 98th/Benavides Intersection corridor improvements:

- » **Complete Streets Ordinance** – Along with the 2040 MTP, improvements to this intersection will be consistent with the City's Complete Street Ordinance
- » **MRCOG Long Range Bike System** – Proposes bike lanes on the corridor
- » **COA Bikeways & Trails Facilities Plan** – We will use this guide for designing on-street bike lanes along 98th Street
- » **Intersection Assessment for 98th Street SW/Benavides Road** – This assessment will provide the basis for the roundabout analysis and design
- » **Development Process Manual (DPM)** – The DPM standards will be followed for access management on the corridor

WSP will leverage these planning and programming documents prepared by the City to develop a buildable, affordable, and efficient enhancement of 98th/Benavides Intersection that is consistent with COA expectations and compliant with the Complete Streets Ordinance.

4.2 Describe how respondent plans to perform the services required by the project scope.

There are several key issues that will drive the project development process for the proposed improvements to the 98th Street/Benavides Road Intersection described below:

Safety

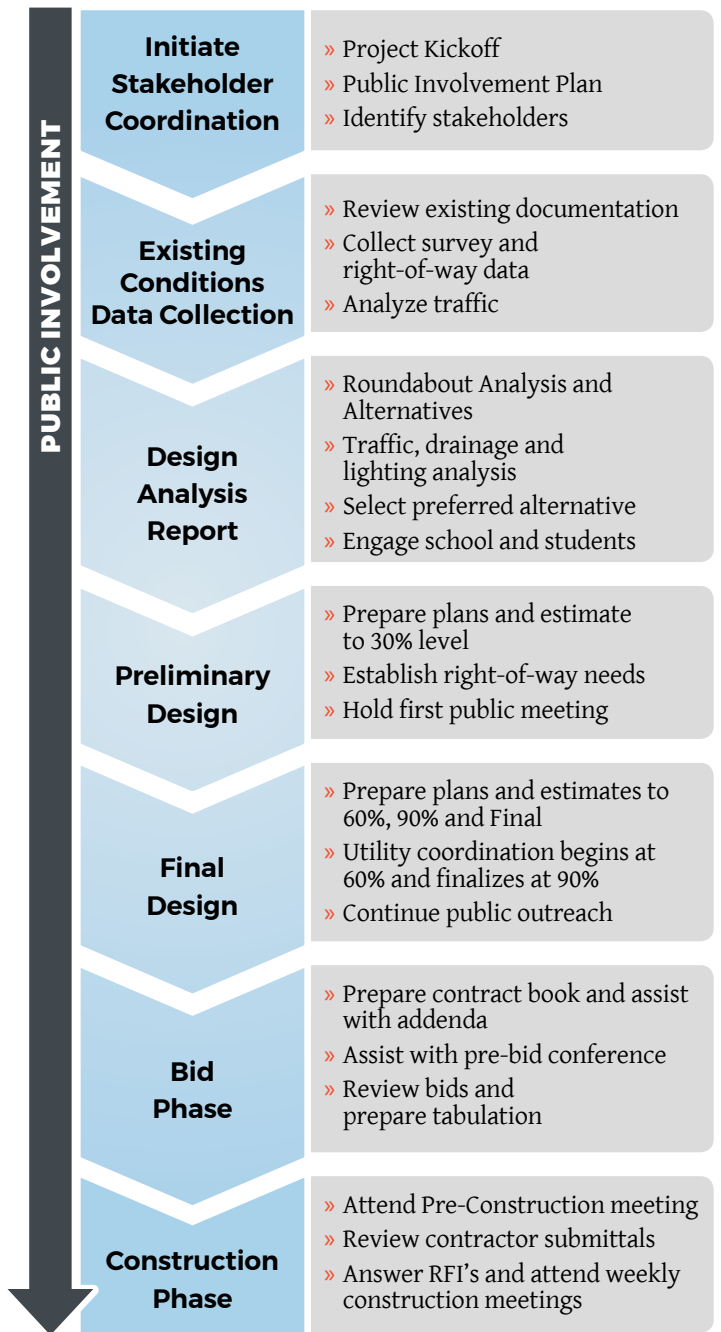
The objective of this project is to increase safety at this intersection for all users. WSP will design the roundabout focusing on the safety of pedestrians that will navigate the roundabout to get to and from Truman Middle School and the nearby community center. Options for increased pedestrian safety to be considered includes signalized pedestrian crossings that would function during heavy pedestrian use. PROWAG guidelines discuss activated signals on multi-lane approaches to a roundabout and the United States Access Board provides guidance for the needs for signalization. Operationally, the roundabout will improve the functionality of the intersection, which currently contributes to congestion in the area.

Bicyclist safety will also be a primary consideration. While some experienced bicyclists will choose to navigate the roundabout as a vehicle, bike ramps will be designed at each approach to give the option of using the sidewalks and trails to navigate the roundabout as a pedestrian. The trails and sidewalks in these areas will be widened to accommodate both bicyclists and pedestrians. Removing the trail from the median and relocating it to the east side of 98th will improved the connectivity between the Middle School and the community center and will eliminate the mid-block crossing south of the intersection.

Public Involvement (PI)

A proactive outreach and educational plan will be imperative to the success of the project. We have a public engagement toolbox that includes traditional methods, as well as innovative methods being used by other DOT and local governments. This has allowed us to pivot from traditional public meetings during COVID-19 and allowed our clients to stay on schedule and on budget during this time. WSP proposes a public involvement approach that goes beyond the standard scope and includes an educational component that will engage the school and surrounding neighborhoods, focusing on education and benefits of roundabouts. Our proposed outreach would include:

- » **Roundabout Workshops** with Truman Middle School staff to demonstrate how roundabouts operate, and how to navigate them as a motorist and pedestrian. WSP would also use this as an opportunity to engage students in the STEM fields, potentially working with math and science teachers to develop project assignments focusing on the design and construction of the roundabout.



▲ WSP Work Plan

WSP used a similar approach with Albuquerque High School on our Broadway/Odelia on-call task working interactively with students regarding the intersection's safety and mitigative measures that could be taken.

- » **Neighborhood meetings** to address question and concerns from nearby residents. WSP recently participated with City staff in a virtual neighborhood Zoom meeting with the Wells Park neighborhood association, where we presented work that was completed to date and answered questions the neighborhood had regarding the project.

- » **Public Meetings** hosted to hear questions and concerns at 30% and 90% Design. These can be virtual, in-person, or a hybrid format depending on COVID-19 requirements at the time. Recently, WSP has been hosting virtual town hall meetings for NMDOT projects, which combine active phone (landline and mobile) participation in tandem with live audio-video internet streaming. The meeting style mimics a radio show and is similar to facilitated in-person meetings with a moderator, combined verbal/Power Point presentation, and 'Question and Answer' interaction between the project team and participating public. Following the event, a recording of the meeting is available. WSP retains the capacity and capability for a shift back to traditional, in-person meetings. WSP stands ready to implement blended public involvement processes as necessary for the City, while continuing to provide meaningful information to the public.
- » **Use of social media** for meeting notifications and information sharing; utilizing videos and alternative public engagement material such as context-sensitive outreach brochures available for bilingual communities (English/Spanish) to educate the public on how to navigate roundabouts. The FHWA has compiled many educational videos regarding the benefits and usage of roundabout that would be beneficial to the public.

Design Analysis Report (DAR)

The first step of the project will be to develop a DAR utilizing the data collected and solutions WSP identified in the Intersection Assessment. WSP has the advantage of observing and evaluating the intersection pre-COVID and will use that information to identify design alternatives for the roundabout and roadway, perform a drainage analysis, traffic analysis, and develop a traffic flow model. The design will be compliant with the Complete Streets Ordinance O-219-022 and the current DPM, which WSP is familiar with and will be sized for future design year conditions.

Roundabout Alternatives/Traffic Analysis

As part of the DAR, WSP will work with the DMD to develop roundabout concepts at the 98th Street/Benavides Road Intersection, similar to the services provided on the 12th Street and Menaul Great Streets Improvements project. As part of the assessment, WSP's traffic engineers will develop a traffic flow model to analyze the traffic impacts of the roundabout concepts. These traffic flow models will also incorporate pedestrian signalization that could be used. An estimate of construction costs will be developed for each concept that will take into account ROW impacts (not anticipated) and utility impacts. **Coordination with PNM will need to occur regarding the large transmission line in the median, whether or not relocation is required.**

Considerations for the roundabout will include:

- » **Multi-lane vs single lane** - While a multi-lane roundabout is anticipated, WSP will evaluate the impact to traffic of single lane versus multi-lane, or a combination of both (as shown in the concept).
- » **Pedestrians** - WSP will evaluate pedestrian safety and options such as signalization of crossings. During the intersection assessment, WSP observed pedestrians crossing from the north and west, and heavy travel to the shopping center to the north of the intersection.
- » **Location/Utilities** - WSP will evaluate the optimal placement of the roundabout.

WSP's experts in roundabout design and will provide quality reviews of the concepts that are developed and suggest best-practices used on previous projects. The alternatives analysis will identify a roundabout configuration that is the best solution for the COA and community.

▼ Roundabout Concept for 98th Street/Benavides Road



ISSUES

- | | |
|---|--|
| 1 Maintain cross-over | 6 Utility pole to remain in place |
| 2 Bike ramp | 7 Multi-use trail relocated to east side of 98th St |
| 3 Realign multi-use trail to connect to round-about | 8 Potential signalized crossing or raised cross-walk |
| 4 Move bus shelter south of round-about | 9 Approach geometry optimized for speed control |
| 5 Optional Free-Right would require additional right-of-way | |

Roadway Design

WSP will implement the preferred roundabout design that was identified by the DMD in the DAR. Minimizing the construction limits beyond the roundabout and avoiding underground and above ground utilities will save construction costs. Some of the primary challenges to the design will be minimizing construction costs without compromising the functionality and safety of the new roundabout and designing a roundabout that will keep the intersection functional through construction. Other issues to address during design include:

- » **Construction Limits**- Minimizing the construction limits of the roadway beyond the roundabout and leaving as much of the existing infrastructure in place will reduce construction costs, i.e., tee-ing in the improvements east of the channel crossing on Benavides and south of the median crossing on 98th.
- » **Right of Way (ROW)** - This intersection has adequate ROW to accommodate the new roundabout without impacting adjacent properties. As shown in our concept, additions such as free-rights on northbound and southbound movements could require additional ROW. These areas will be identified at the 30% level.
- » **Multi-Use Trail**- The existing West Gate multi-use path is located in the median south of 98th Street. During WSP's Intersection Assessment, Parks and Recreation communicated a desire to relocate the multi-use trail out of the median and to the west along the Snow Vista Channel. This will also allow the trail to connect to the bus stop that will be located south of the roundabout. Constructing the multi-use trail to Cam San Martin will be needed to maintain connectivity with the West Gate Community Center.
- » **Utilities** - Utility conflicts and relocations can be costly and time consuming. Thorough SUE investigations along with utility owner coordination will help to identify any potential conflicts starting at the 60% design level. WSP will design the roundabout, roadway and storm drain to minimize impacts and avoid utilities such as the large transmission line in the 98th Street median and the large waterline in the 98th Street outside southbound lane.



▲ 98th/Benavides Intersection | WSP will coordinate with PNM regarding the large transmission line in the median.

Drainage Design

WSP is familiar with the existing drainage conditions and proposed drainage improvements recommended in the latest Drainage Management Plan. The project lies with the Snow Vista Basin and drainage within the project area outfalls into the Snow Vista Channel, which will require coordination with AMAFCA. Drainage from the north and northwest side of the 98th Street and Benavides Road Intersection is captured by an existing storm drain system. Drainage south of the intersection is conveyed to the Snow Vista Channel via curb cuts, surface flow, and existing sag inlets north of 86th Street. Drainage from the west discharges into the Snow Vista Channel before arriving at the intersection.

WSP plans to utilize the existing storm drain infrastructure on the north and add additional inlets upstream to prevent excess flows from entering the roundabout. The existing system will be analyzed to ensure it has sufficient capacity. In addition, WSP will evaluate the feasibility of additional drainage improvements south of the intersection, such as a new storm drain trunk line to safely convey flows and reduce the amount of median sediment collected in the roadway. The proposed drainage improvements will be designed so that any excess runoff from the proposed improvements is accounted for and that there are no adverse impacts downstream. All improvements will adhere to the current COA Development Process Manual. WSP is aware of the existing utilities within the project area and will take the necessary precautions to mitigate any utility impacts due to the proposed improvements.

Traffic Design

WSP has in-house staff with extensive experience working together with the DMD and City Traffic Engineering. We have done many complete streets striping and signing, lighting analysis and designs, and intelligent transportation system (ITS) designs as will be required for this project.

- » **Signing and Markings** - WSP has considerable experience with the implementation of the Section 2900 Signing and Striping Standard drawings developed in July 2012. The WSP team has worked with the City on improvements to the standards that are not documented including buffered great streets applications and buffered bike lines, which though not documented by the City as a part of their standards, are fully understood by this design team. We will also present a preliminary layout for the roundabout signing and markings for DMD and City Traffic Engineering. Roundabout guide signing is an integral part of safe operations.

» **Intersection Lighting** – WSP evaluated the existing lighting conditions as part of the intersection assessment and found the lighting to not meet current standards. WSP, as demonstrated during the recent development of the Wells Park Lighting Design project, understands the new City lighting requirements as defined in ANSI/IES RP-8-18. Intersection lighting will be modeled in AGI32 and developed at signalized intersection that adheres to this new City standard to be implemented through LED installations and standalone lighting poles and circuits to meet the requirements of City Traffic Engineering.

Lighting for a roundabout will require attention and be a focus of the design. Sufficient lighting will need to be provided on approaches and departures of the roundabout. Light "spillover" will need to be addressed to avoid significant impacts to the neighborhood on the northeast quadrant of the intersection. Pedestrian facilities will be evaluated for adequate lighting levels, as pedestrian safety is driver for project.

Coordination

Effective communication is essential to the success of a project. WSP's Project Manager, Dan Sims, will coordinate closely with the DMD Project Manager to ensure that critical path items are discussed, expectations are being met, and any issues that arise are dealt with promptly. It is anticipated that the following entities will require coordination with the development of this project:

- » Truman Middle School
- » Westgate Heights neighborhood
- » Westgate Heights Community Center
- » AMAFCA
- » District Counselor
- » PNM

Schedule

The WSP team is committed to meeting the prescribed schedule for this project with design completion by spring 2022, and construction completion fall 2023. Due to our intimate knowledge of the project from our recent completion of intersection study, we have already identified project risks and have the skills and capacity to accelerate the schedule if funding for this project becomes available earlier than anticipated.

Quality Control

Ensuring the accuracy and adequacy of our work is an important part of the overall process and is performed for both WSP's work and the products from our subconsultants. WSP has provided the City with our QA/QC process. WSP's team will focus on the following goals: complete and accurate designs, delivery of work products on schedule, a quality bid package, and a close working relationship with City personnel. Achieving these goals will contribute to a successful project.

- » WSP's Project Manager will develop a Project Management Plan (PMP) that will include quality control procedures such as checking and back-checking design submittals, reports and other deliverables. Approximately five to seven percent of a project's hours are allocated to quality reviews and other quality control functions.
- » Our quality reviews of design plans are performed by qualified staff not involved in the plan development and specific to each technical discipline. The technical specialists and the scope and schedule of each person's review will be identified.
- » WSP will incorporate quality reviews into our schedule for each submittal in the City review process.
- » At each submittal, WSP will provide calculations and quantity takeoffs to the City, along with documentation that proper quality reviews were performed.
- » Construction plans can only be as accurate as the existing data the project is designed from. WSP proposes using Maser to perform a mobile LiDAR scan combined with traditional ground survey to provide the most accurate information possible and eliminate the need for additional survey as the project develops. YeDoma will perform the geotechnical operations, which includes existing pavement assessment and geotechnical investigations.



▲ WSP's Quality Management System is ISO 9001:2015 certified by third party global assurance for engineering services. WSP is required to perform thorough quality reviews on all deliverables and will do so for this project.



4.3 Describe specialized problem solving required in any phase of the project.

The aspects of the proposed improvements where specialized problem solving may be needed include:

- » **Roundabout Design** - A well designed roundabout can improve safety for all users. WSP's local office has designed multiple roundabouts and has national experts that can provide innovative solutions for design and construction. A roundabout at 98th Street and Benavides Road will be sized based on the projected design year traffic, evaluated for proper speed through the roundabout based on the configuration of the approaches and departing geometry, and integrate features for pedestrians and cyclists to travel safely through the roundabout to the school and nearby neighborhoods.
- » **3D Civil Information Model (CIM)** - WSP will develop a CIM for the project that can be used through design and into construction. The CIM will include 3D modeling of the proposed improvements with 3D modeling of remaining existing infrastructure including utilities. This will allow WSP to identify potential impacts of utilities and assess any drainage issues in the proposed improvements. Roundabout grading can be difficult to convey in construction plans, so a 3D model of the project will remove any ambiguity in the design.
- » **Roadway/Complete Streets** - WSP has extensive experience with the City process, and Complete Streets Ordinance and PROWAG compliance. WSP understands the needs of the multi-modal users of this intersection, including pedestrians, bicyclists, and transit, and has the expertise to balance these needs with a design that meets the project objectives.
- » **Public Outreach** - As proven from our work on the 12th Street and Menaul Great Streets Improvements project, WSP can implement creative solutions to gain stakeholder consensus on this project including: roundabout workshops with students/staff of Truman Middle School, virtual or in-person neighborhood/public meetings, and social media utilization for information sharing such as educational videos, meeting information, and project status updates. WSP has developed processes for safe public outreach during the COVID pandemic.
- » **Traffic Analysis** - WSP has a proven track record of delivering creative traffic alternatives to meet the needs of complicated traffic issues, also incorporating pedestrian movements through the roundabout. The develop of VISSIM models/RODEL evaluation will help the public understand how traffic, pedestrian and bicycles will navigate the roundabout.
- » **Drainage Analysis** - WSP has extensive experience with drainage system analysis for City. WSP's drainage engineers will work closely with the roundabout/roadway designers to optimize the drainage, while utilizing the existing system where feasible. WSP also has extensive experience working with AMAFCA, resulting in close coordination for any outfall into AMACA facilities.
- » **Existing Data** - We will utilize mobile LiDAR for accurate survey and SUE. Accurate 3D modeling of the existing terrain and utilities will be imperative to the accuracy of the CIM model and minimize issues during construction.

▲ 98th/Benavides Intersection | The large existing median on 98th Street results in a split intersection, which increases conflict points for pedestrians in the intersection.

V. Cost Control

5.1 Describe cost control and cost estimating techniques to be used for the project.

Cost Control of the Design

Our approach to cost control during the design process will include the following elements:

- » Meeting with the City Project Manager and stakeholders in the scoping phase to confirm the scope of work that is consistent with the COA's expectations
- » Developing a scope of work, fee proposal, and design schedule approved by our PIC to ensure all deliverables and costs are suitable to meet task requirements
- » Strategically structuring our team with experienced senior and mid-level staff, supported by junior staff to meet the COA's project design budget, while providing the level of expertise required to deliver a quality project
- » Implementing our proven and efficient project delivery system, working closely with City staff to develop cost effective standards for deliverables
- » Proactively working with the City Project Manager to mitigate challenges that may affect project cost as the project develops
- » Actively utilizing our proposed specialty subconsultants to meet project needs

Cost Control of the Construction Cost

Our goal is to ensure the engineer's estimate of probable cost captures the full project scope and considers the COA's budget constraints. We understand the complexities of contractors and how these projects are priced. WSP will develop a sound, detailed design that is refined through constructability review. We will prepare thorough and complete construction documents that are clear in design intent, providing control of the work, minimizing risks to the contractor, and protecting the COA's interests.

WSP proposes to develop a CIM of the project that is a 3D model of the proposed design including roadway, storm drain, and utilities combined with existing infrastructure. This will minimize change orders and RFI's during construction.

WSP will prepare an engineer's estimate at each design plan submittal: 30%, 60%, 90%, and Final. In addition, we will monitor construction market trends to ensure fluctuations in material costs are incorporated in the engineer's estimate. If estimated construction costs exceed the budgeted amount and cannot be addressed through design or process changes, the City Project Manager will be notified, and we will assist in developing strategies to reconcile any differences between estimates.

Cost Estimating Techniques

WSP understands the effects of the fluid economic conditions of COVID-19 and will use several sources to ensure current trends are incorporated in our construction cost estimates. The COA's most recent estimated unit prices for contract items, recent COA construction bid tabs, and current NMDOT average unit bid prices are used.

Actual bids for recently let City, County, and NMDOT projects in the Albuquerque area will be reviewed, providing a broad basis for estimating unit prices and overall construction costs. We recognize these construction costs fluctuate constantly and proactively incorporate the latest cost information available.

5.2 Provide comparisons of bid award amount to final cost estimate for projects designed by the respondent during the past two (2) years.

WSP's design and construction package quality allowed for consistent bidding across all of our projects, eliminating the need for additional funding requests from the City.

BID COMPARISON				
Name of Project	Month & Year Bid	No. of Bids	Final Cost Est.	Bid Award Amount
12 th Street & Menaul Great Streets Improvements Phase III	April 2020	2	\$4,749,240	\$4,658,898
NM 6 Bridge Replacement	August 2019	3	\$20,467,664	\$18,490,159
Ladera Drive NW Improvements Phase II	June 2019	4	\$3,327,222	\$2,839,055
Regional Transportation Management Center (613593)	January 2019	2	\$13,436,410	\$12,140,325

VI. Certifications

WSP USA Inc. agrees to enter into the Standard Agreement that applies to the project, meet the insurance requirements in that Agreement, and comply with the applicable federal requirements including those relating to Equal Opportunity in Employment.

City of Albuquerque Capital Implementation Program

Agreement and Insurance Certification

We have reviewed the standard agreement for Engineering or Architectural or Landscape Architectural Services that are required for the project listed below, and hereby certify that we will, if selected for the project, enter into this standard agreement for this project and meet all insurance requirements listed therein.

This Certification is intended for the use of the City of Albuquerque only, in conjunction with the award of the Engineering or Architectural or Landscape Architectural Services Agreement for Project:

Project Name Engineering Consultant for 98th Street and Benavides Road Intersection Improvements

Project Number 7697.90

Date October 21, 2020 Firm Name WSP USA Inc.

Signature 

Title Principal-in-Charge

STATE OF NEW MEXICO)

) ss


COUNTY OF BERNALILLO)

The above Certification was subscribed before me, the undersigned authority, by:

Robert Ortiz, PE

who swore upon oath that this Certification was signed of free act and deed, on this

21 day of October, 20 20


(Notary Public)

My commission expires: 10/25/21



Pay Equity Reporting Form PE10-249

Company name:
Mailing address line 1:
Mailing address line 2:
City, state, zip code:
Phone:
E-mail address:
FEIN number:
EAN number:
SHARE vendor number
Reporting calendar year:

WSP USA Inc.
2440 Louisiana Blvd NE, Suite 400
Albuquerque, New Mexico 87110
11-1531569
7356
2020

Job Category	No. Females	No. Males	Gap (Absolute %)
1 - Officers and Managers	3	11	11.91%
2 - Professionals	9	14	1.13%
3 - Technicians	2	13	5.16%
4 - Sales Workers	0	0	N/A
5 - Office and Admin. Support	2	0	N/A
6 - Craft Workers (Skilled)	0	0	N/A
7 - Operatives (Semi-Skilled)	0	0	N/A
8 - Laborers (Unskilled)	0	0	N/A
9 - Service Workers	0	0	N/A

Total # Job Categories With No Employees	5
Total # Female Only Job Categories	1
Total # Male Only Job Categories	0
Total # Females (all categories)	16
Total # Full Time Females	13
Total # Part Time Females	3
Total # Males (all categories)	38
Total # Full Time Males	26
Total # Part Time Males	12
Total # Employees	54
Female % Workforce	29.62963%
Male % Workforce	70.37037%

Document must be signed by the principal executive of the company:

ITB #: RFP# 7697.90

Robert Ortiz, PE, Principal-in-Charge
 Name and title, printed

PO#

Robert D Ortiz
 Signature

October 21, 2020
 Date



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About WSP USA Inc.

WSP USA is the U.S. operating company of WSP, one of the world's leading engineering and professional services firms. Dedicated to serving local communities, we are engineers, planners, technical experts, strategic advisors and construction management professionals. WSP USA designs lasting solutions in the buildings, transportation, energy, water and environment markets. With more than 9,500 employees in 150 offices across the U.S., we partner with our clients to help communities prosper.