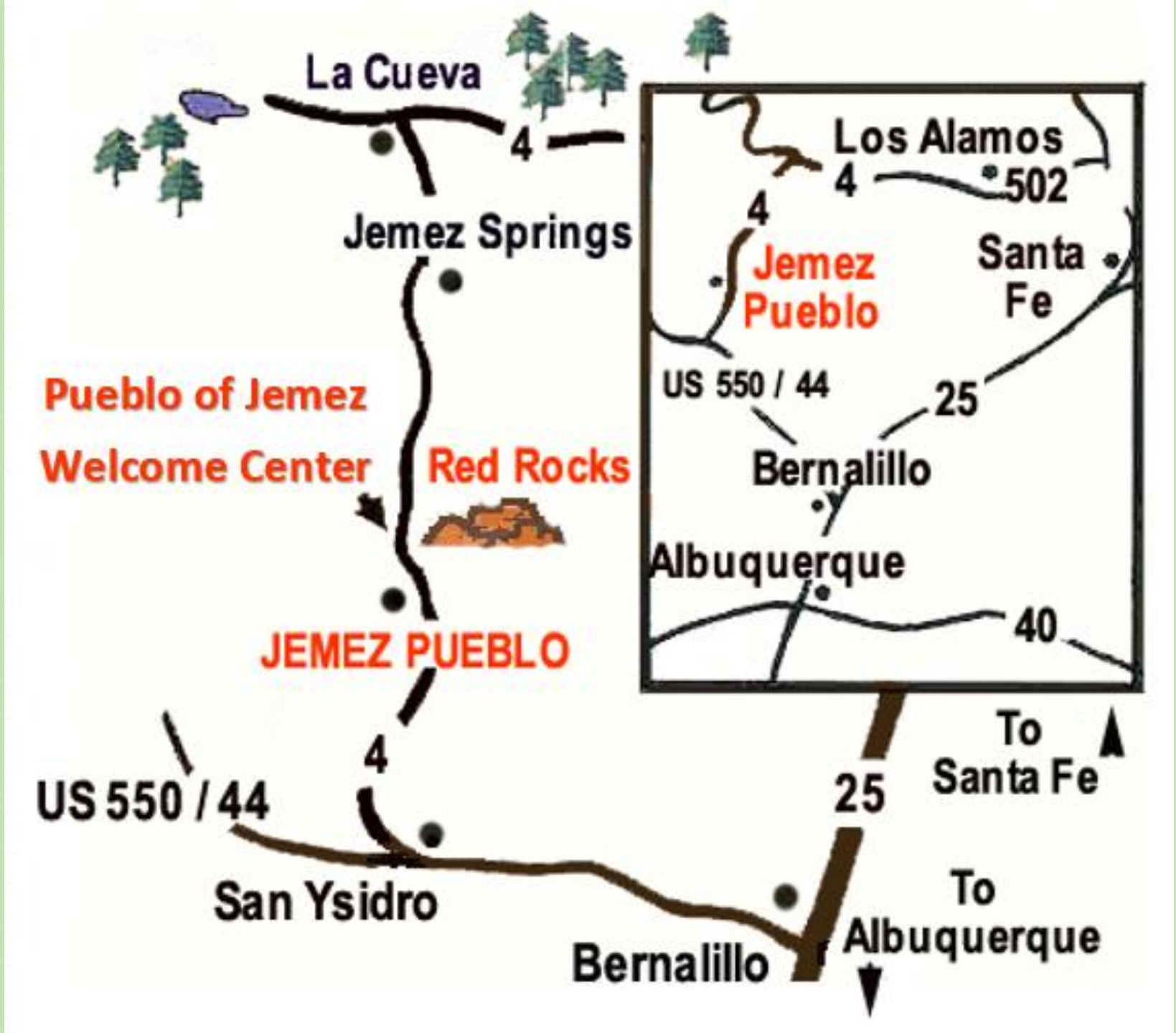
Pueblo of Jemez
Trails & Bikeways Facility Plan

Sheri Bozic, Director
Planning & Development/Transportation Department
Pueblo of Jemez, New Mexico
September 18, 2019

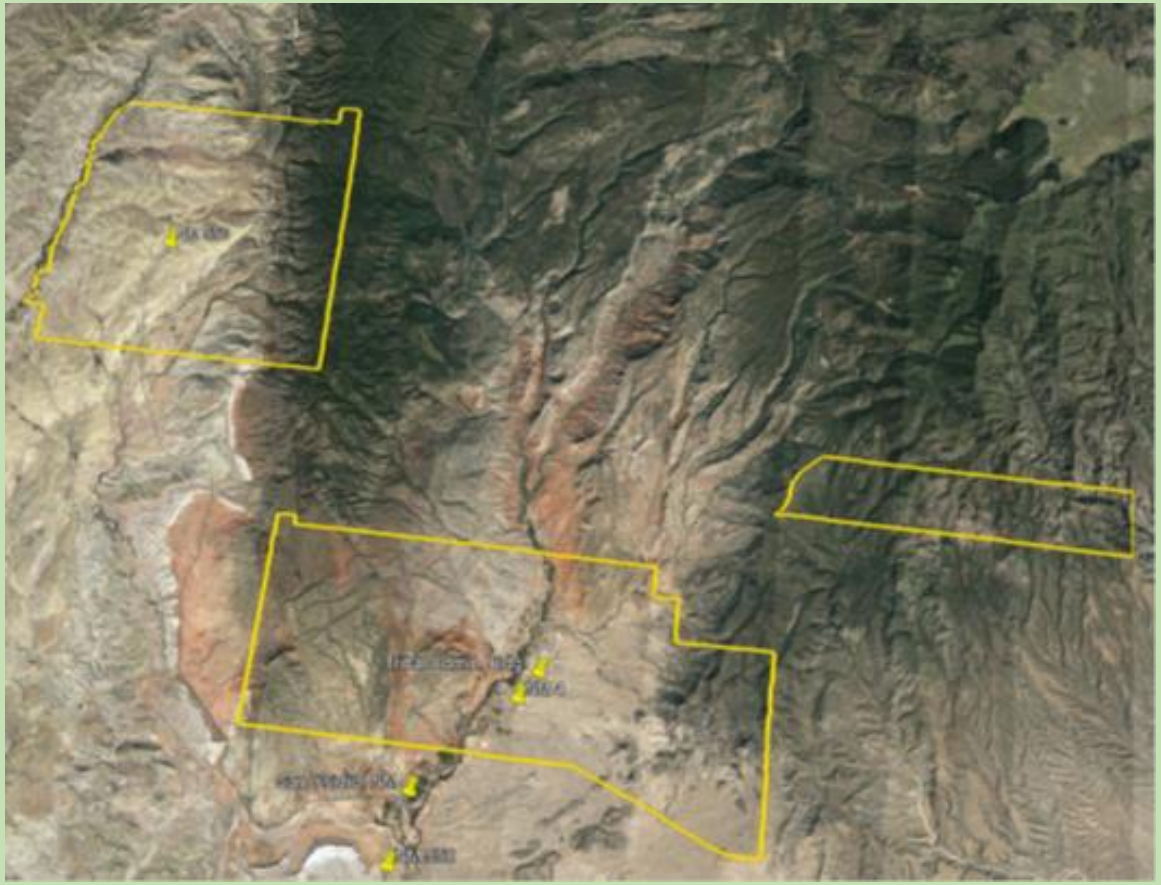
Presentation Outline

- Current Land Base/Population
- Ancestral Land Base/Population
- Significance of Jemez Trails
- Existing Planning Documents
- Trails & Bikeways Facility Plan Development
- NM 4 Multi-use Pedestrian Trail Project
- Technical/Regulatory Challenges
- Cultural/Environmental Considerations
- Community Outreach

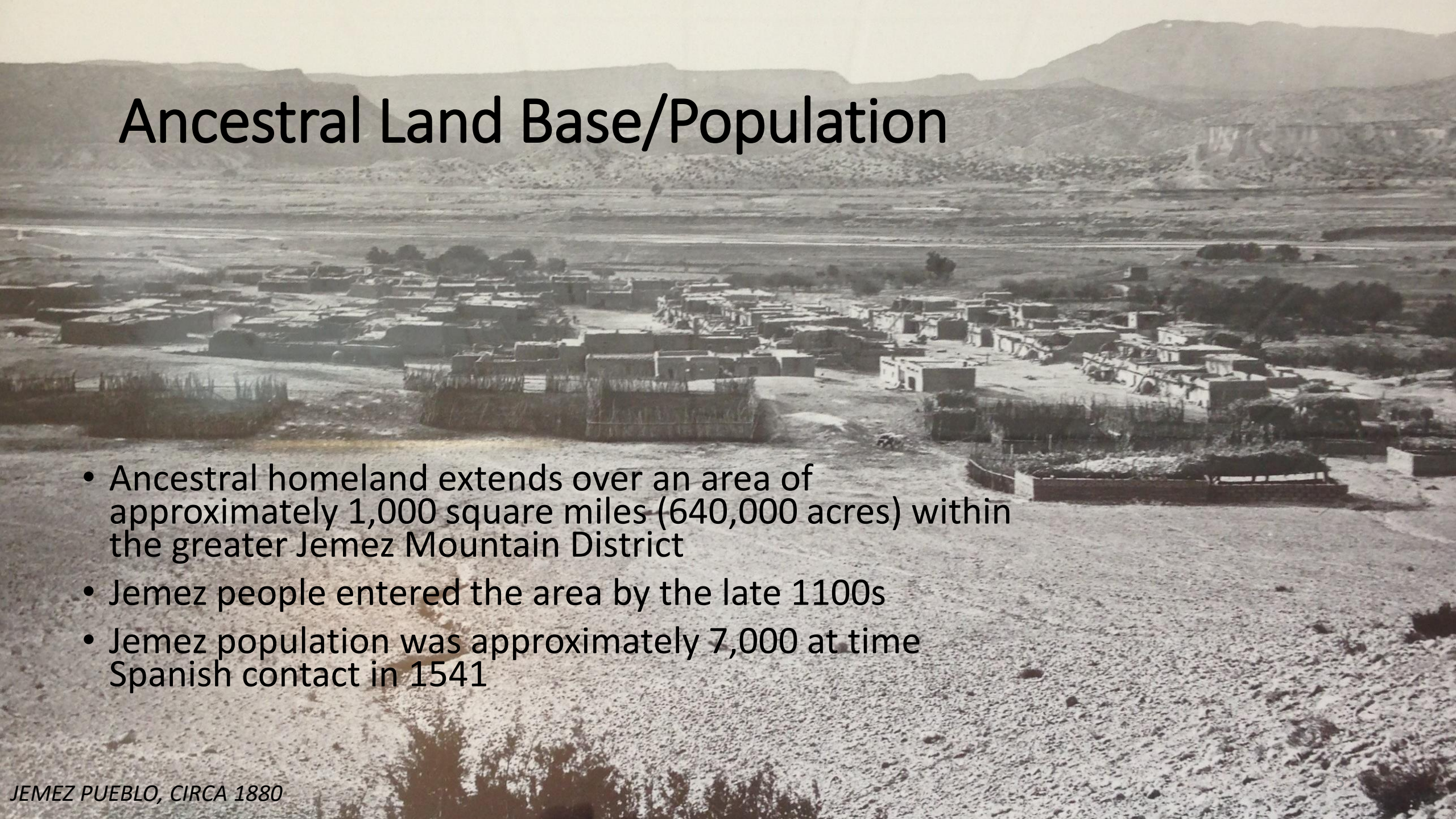

La Cueva
4
Jemez Springs
Pueblo of Jemez
Welcome Center
Red Rocks
JEMEZ PUEBLO
4
US 550 / 44
San Ysidro
Bernalillo
25
To
Albuquerque
To
Santa Fe
Los Alamos
4
502
4
Jemez
Pueblo
Santa
Fe
US 550 / 44
25
Bernalillo
Albuquerque
40

Current Jemez Land Base/Population

- Current land base ~89,650 acres
- Pueblo of Jemez land grant: 43,481 acres
- Ojo Del Espiritu Santo: 36,516 acres
- Canada de Cochiti: 9,648 acres
- Ancestral lands: Ancestral domain, Valles Caldera, & Spiritual Peaks
- Current Population: 3,887



Ancestral Land Base/Population



- Ancestral homeland extends over an area of approximately 1,000 square miles (640,000 acres) within the greater Jemez Mountain District
- Jemez people entered the area by the late 1100s
- Jemez population was approximately 7,000 at time Spanish contact in 1541

JEMEZ PUEBLO, CIRCA 1880

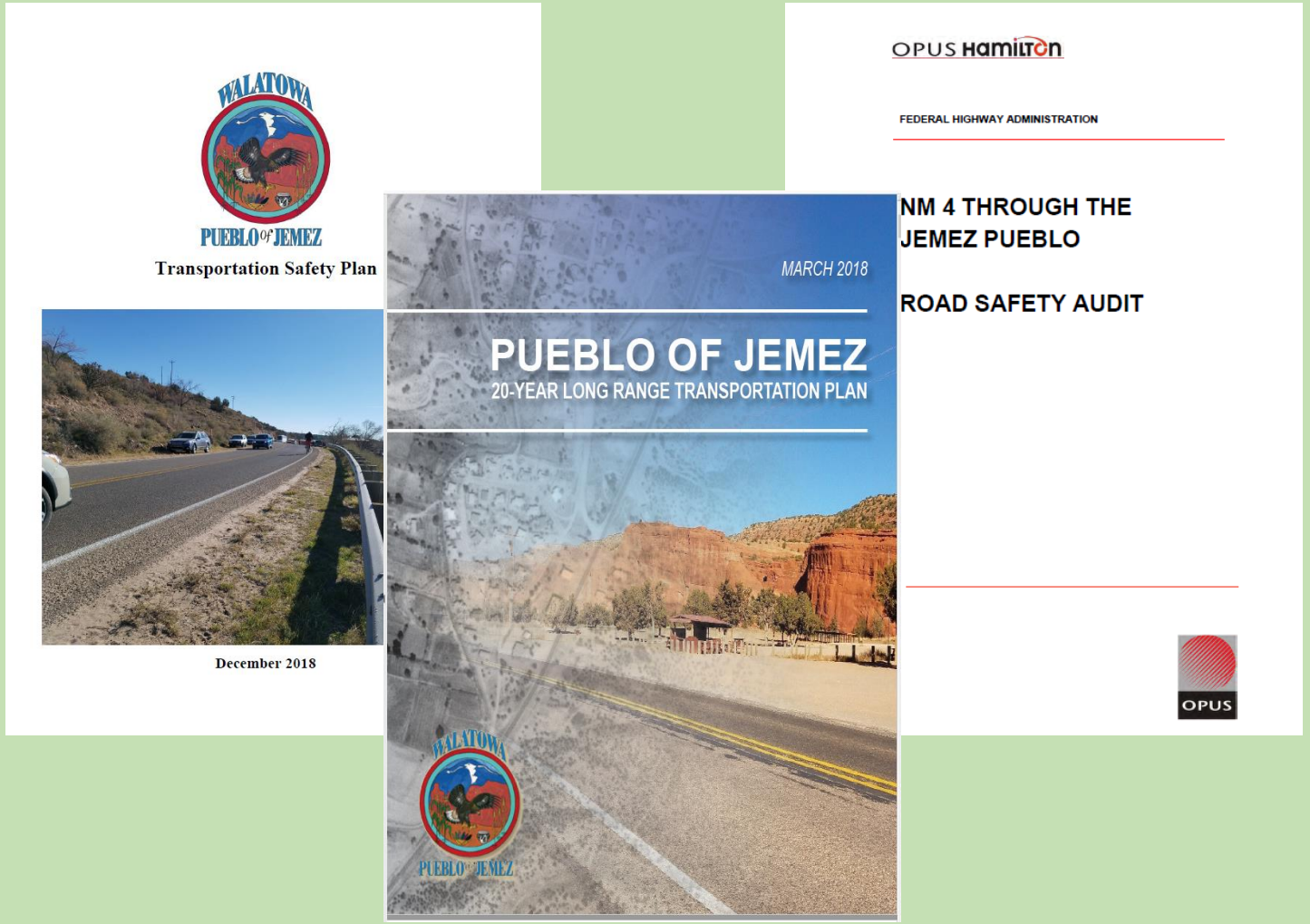
Significance of Jemez Trails

- Trade routes
- Cultural activities
- Spiritual pilgrimages
- Hunting
- Gathering medicinal & ceremonial items
- Access to residences, schools, & community services
- Land surveys
- Boundary fence maintenance
- Running/health & wellness events

Valles Caldera National Preserve, New Mexico – Image from NPS website.

Existing Planning Documents

- Long-range Transportation Plan, 2018
- Transportation Safety Plan, 2018
- Safe Transportation Initiative (STI), 2018
  - Collaboration of Tribal Departments/Programs
- Tribal Transportation Improvement Plan (TTIP), 2019-2023
- Infrastructure Capital Improvement Plan (ICIP), 2021-2025
- Road Safety Audit, 2007
- Pedestrian safety is a high priority



Trails & Bikeways Facilities Plan Development

Preliminary Planning

- Establish Pedestrian Facility Planning Committee (PFPC)
  - Planning/Transportation, Public Health, Natural Resources, THPO, Injury Prevention, Realty/GIS, STI & Community Members/Cultural Leaders
- Determine Goals & Objectives
  - Document Pedestrian Trail Network
  - Pedestrian Safety/Health
  - Connectivity
  - Seek Funding to Design/Construct
- Research/Analyze Existing Plans/Data

Trails & Bikeways Facilities Plan Development

Preliminary Planning

- Gather Stakeholder Input
  - Visioning Sessions, Focus Groups, Interactive Workshop & Community Meetings
- Identify New Pedestrian Facilities & Improvements for Existing Facilities
  - Determine existing trails that can be included in the Plan

Trails & Bikeways Facilities Plan Development

Plan Development

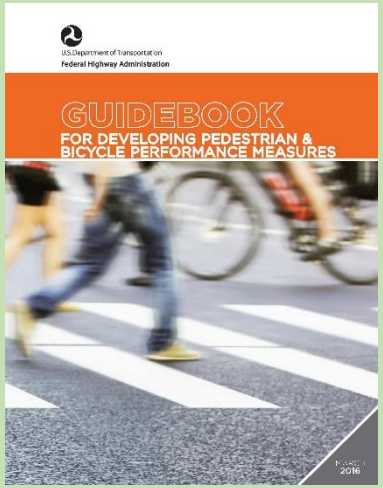
- Prioritization and phasing plan
- Maps/graphics
- Pedestrian facility types/surfaces
- Preliminary cost estimates
- Facility features
- O&M activities, frequency and costs
- Performance measures – bicycle counts, meeting ADA standards
- Connectivity to other modes of transportation
- Environmental compliance requirements/right-of-way
- Potential funding sources

Plan Approval/Adoption

- Tribal Council approval/adoption

Trails & Bikeways Facility Plan Development

Design guidelines for pedestrian facilities

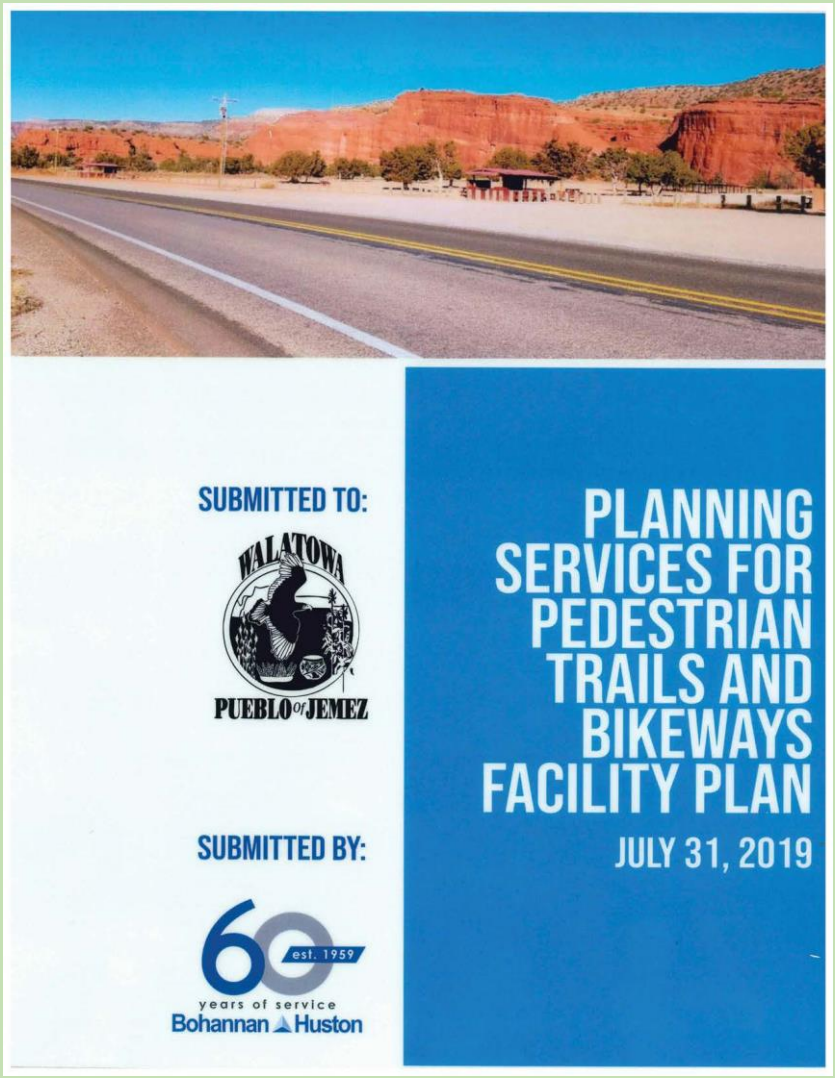


- 2019/2012 AASHTO - Guide for the Development of Bicycle Facilities
- 2019 FHWA - Bikeway Selection Guide
- 2017 FTA - Manual on Pedestrian and Bicycle Connections to Transit
- 2016 FHWA - Pursuing Equity in Pedestrian and Bicycle Planning
- 2016 Guidebook for Developing Pedestrian and Bicycle Performance Measures
- 2016 FHWA Small Town and Rural Multimodal Networks
- 2015 FHWA Guidance: Bicycle and Pedestrian Provisions of Federal Transportation Legislation
- 2015 FHWA - Bicycle and Pedestrian Funding, Design, and Environmental Review: Addressing Common Misconceptions
- 2014 National Association of City Transportation Officials - Urban Bikeway Design Guide
- 2012/2009 Manual on Uniform Traffic Control Devices
- 2011 U.S. Access Board - Public Rights-of-Way Accessibility Guidelines
- 2010 USDOT - Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations
- 2010 Update of the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- 2010 Institute of Transportation Engineers - Designing Urban Walkable Thoroughfares
- 2007 USDA/USFS - Trail Construction and Maintenance Notebook
- 2001/1999 FHWA - Designing Sidewalks and Trails for Access, Parts 1 & 2

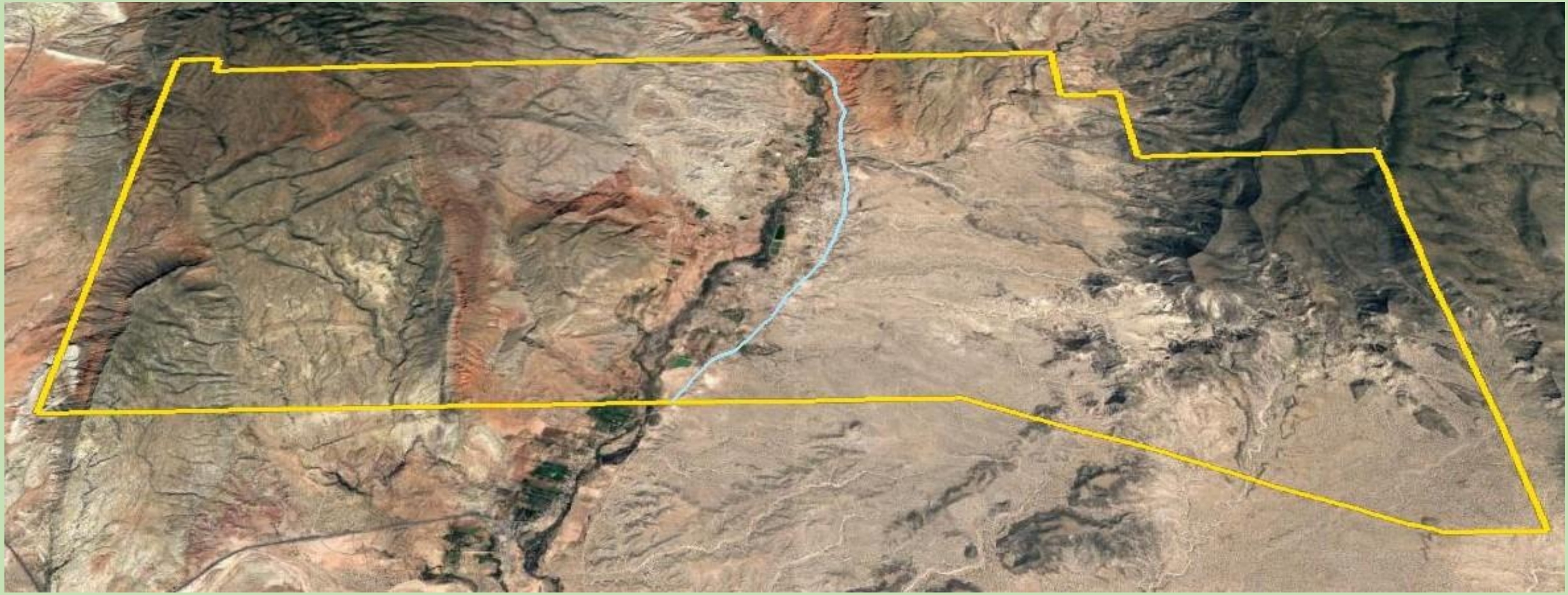
Trails & Bikeways Facility Plan Development

Schedule & Cost

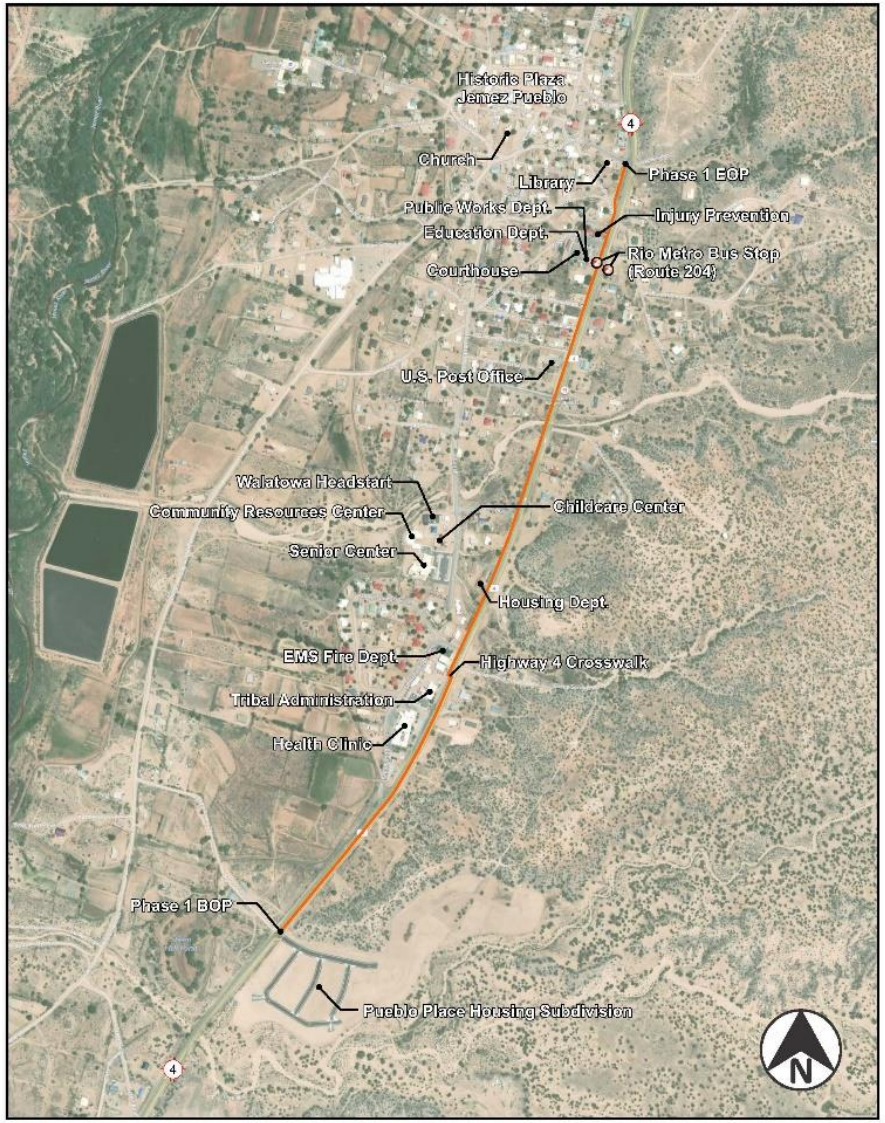
- Estimated 10 months to complete
  - Consistent facilitation by PFPC/Participation of Leadership/Community is crucial to staying on schedule
- Consultant Fee: $55K
- Proposals ranged between $55K and $200K



NM 4 Multi-use Pedestrian Trail Project



NM 4 Multi-use Pedestrian Trail Project



NM 4 Multi-use Pedestrian Trail Project

Decision-making

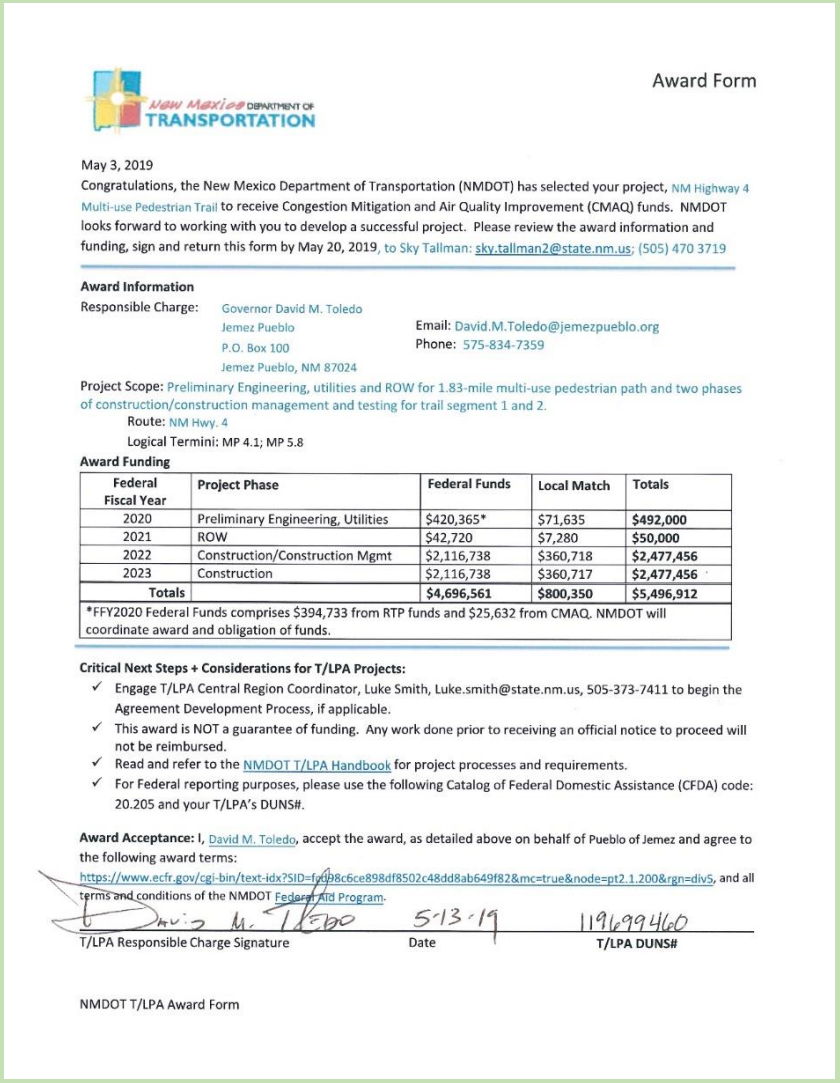
- New NM Administration
- Selection of priority trail project – highest safety risk

NMDOT Grant Application Process

- Meeting w/RTPO Planner, July 2018
- Submitted PFF; NMDOT Consultation; Presentations, Oct. 2018
- Submitted PPF/Application, Dec. 2018
- Notice of Award, May 2019

Potential Funding Sources

- Congestion Mitigation Air Quality Program (CMAQ)
- Recreational Trails Program (RTP)
- Transportation Alternatives Program (TAP)



New Mexico DEPARTMENT OF TRANSPORTATION

Award Form

May 3, 2019

Congratulations, the New Mexico Department of Transportation (NMDOT) has selected your project, NM Highway 4 Multi-use Pedestrian Trail to receive Congestion Mitigation and Air Quality Improvement (CMAQ) funds. NMDOT looks forward to working with you to develop a successful project. Please review the award information and funding, sign and return this form by May 20, 2019, to Sky Tallman: sky.tallman2@state.nm.us; (505) 470 3719

Award Information

Responsible Charge: Governor David M. Toledo
Jemez Pueblo
P.O. Box 100
Jemez Pueblo, NM 87024
Email: David.M.Toledo@jemezpueblo.org
Phone: 575-834-7359

Project Scope: Preliminary Engineering, utilities and ROW for 1.83-mile multi-use pedestrian path and two phases of construction/construction management and testing for trail segment 1 and 2.
Route: NM Hwy. 4
Logical Termini: MP 4.1; MP 5.8

Award Funding

Federal Fiscal Year	Project Phase	Federal Funds	Local Match	Totals
2020	Preliminary Engineering, Utilities	$420,365*	$71,635	**$492,000**
2021	ROW	$42,720	$7,280	**$50,000**
2022	Construction/Construction Mgmt	$2,116,738	$360,718	**$2,477,456**
2023	Construction	$2,116,738	$360,717	**$2,477,456**
Totals		**$4,696,561**	**$800,350**	**$5,496,912**

*FFY2020 Federal Funds comprises $394,733 from RTP funds and $25,632 from CMAQ. NMDOT will coordinate award and obligation of funds.

Critical Next Steps + Considerations for T/LPA Projects:

- ✓ Engage T/LPA Central Region Coordinator, Luke Smith, Luke.smith@state.nm.us, 505-373-7411 to begin the Agreement Development Process, if applicable.
- ✓ This award is NOT a guarantee of funding. Any work done prior to receiving an official notice to proceed will not be reimbursed.
- ✓ Read and refer to the NMDOT T/LPA Handbook for project processes and requirements.
- ✓ For Federal reporting purposes, please use the following Catalog of Federal Domestic Assistance (CFDA) code: 20.205 and your T/LPA's DUNS#.

Award Acceptance: I, David M. Toledo, accept the award, as detailed above on behalf of Pueblo of Jemez and agree to the following award terms: https://www.ecfr.gov/cgi-bin/text-idx?SID=fe98c6ce898df8502c48dd8ab649f82&mc=true&node=pt2.1.200&rgn=div5, and all terms and conditions of the NMDOT Federal Aid Program.

David M. Toledo — 5-13-19 — 119699460

T/LPA Responsible Charge Signature — Date — T/LPA DUNS#

NMDOT T/LPA Award Form

NM 4 Multi-use Pedestrian Trail Project

Use of Photographs & Videos to Tell the Story/Demonstrate Need for Pedestrian Facilities

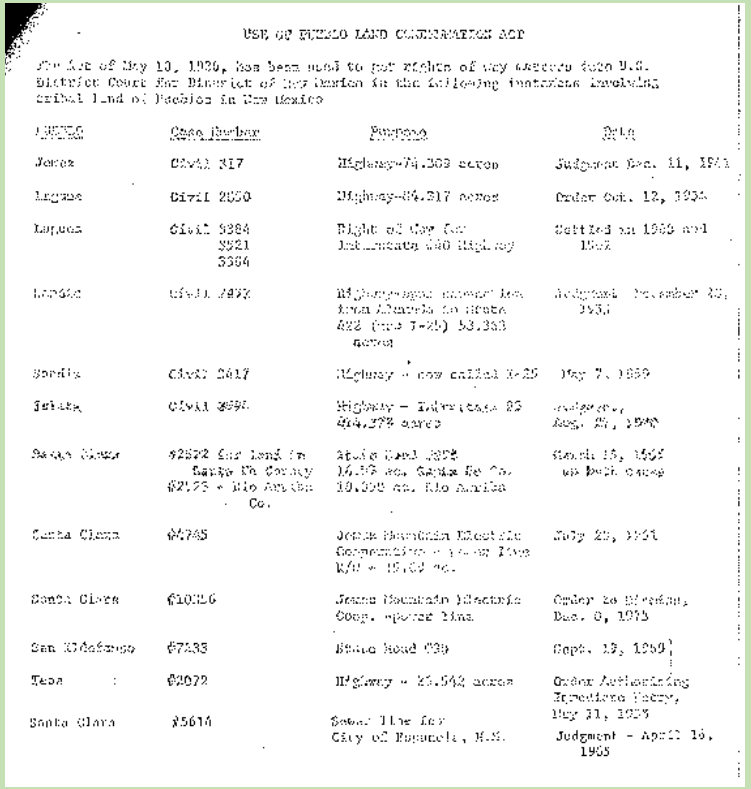
https://youtu.be/qtrU2HJKWnQ

NM 4 Multi-use Pedestrian Trail Project

Use of Data and Historical Documents to Tell the Story/Demonstrate Need for Pedestrian Facilities

CITATION TYPE	FY 2015	FY 2016	FY 2017	FY 2018
Speeding Citations	3,462	5,471	6,669	4,946
Seat Belt Citations	81	21	82	49
Unlicensed Driver	123	130	176	111
Unregistered Vehicle	86	98	165	162
Uninsured Vehicle	457	306	247	238
Total Moving Violations	4,298	6,172	7,572	5,344

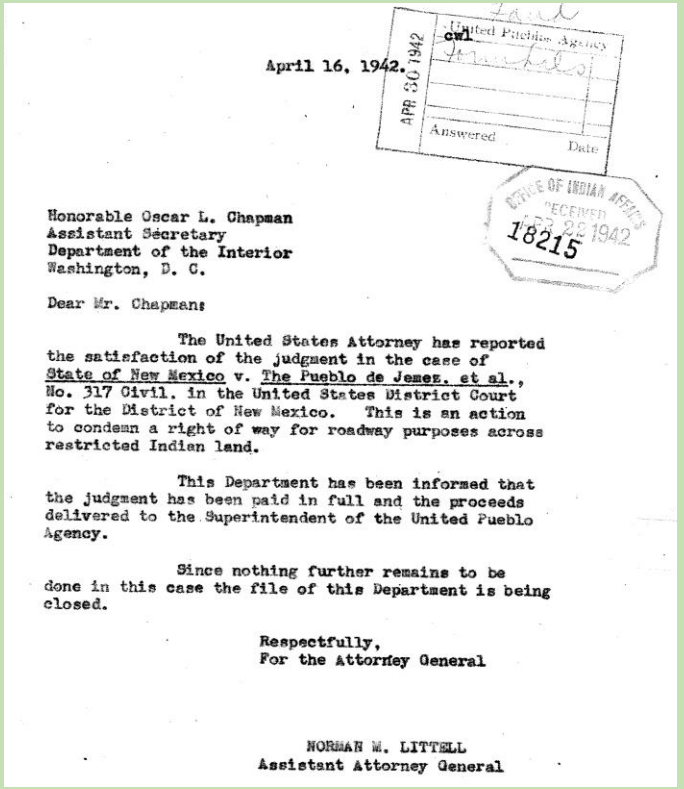
- Jemez Police Dept. speeding citations
- NMDOT Crash Database: 11 accidents, 3 injuries, and 1 fatality on NM 4 between 2012 and 2016



USE OF PUEBLO LAND CONDEMNATION ACT

The Act of May 10, 1926, has been used to get rights of way easements from U.S. District Court for District of New Mexico in the following instances involving tribal land of Pueblos in New Mexico

PUEBLO	Case Number	Purpose	Date
Jemez	Civil 317	Highway-74.388 acres	Judgment Dec. 11, 1941
Laguna	Civil 2050	Highway-84.317 acres	Order Oct. 12, 1934
Laguna	Civil 3384 3521 3364	Right of Way for Interstate 40 Highway	Settled in 1959 and 1962
Laguna	Civil 3892	Rights-of-way easements from Acoma Pueblo to State 422 (now I-25) 53.383 acres	Judgment December 22, 1953
Sandia	Civil 2617	Highway - now called I-25	May 7, 1939
Isleta	Civil 3894	Highway - Interstate 25 414.27% acres	Judgment Aug. 25, 1949
Santa Clara	#2872 for land in Santa Fe County #2175 - Rio Arriba Co.	State Road #28 16.38 ac. Santa Fe Co. 10.000 ac. Rio Arriba	March 16, 1955 no Deft cases
Santa Clara	#4745	Jemez Mountain Electric Cooperative - right-of-way R/W - 15.02 ac.	July 25, 1961
Santa Clara	#10126	Jemez Mountain Electric Coop. power line	Order to Dismiss, Dec. 8, 1975
San Ildefonso	#7433	State Road #30	Sept. 19, 1950
Taos	#2072	Highway - 23.542 acres	Order Authorizing Immediate Entry, May 31, 1939
Santa Clara	#5614	Sewer line for City of Espanola, N.M.	Judgment - April 16, 1965



United Pueblos Agency
APR 30 1942
cwl
Answered Date

April 16, 1942.

OFFICE OF INDIAN AFFAIRS
RECEIVED
APR 22 1942
18215

Honorable Oscar L. Chapman
Assistant Secretary
Department of the Interior
Washington, D. C.

Dear Mr. Chapman:

The United States Attorney has reported the satisfaction of the judgment in the case of State of New Mexico v. The Pueblo de Jemez, et al., No. 317 Civil, in the United States District Court for the District of New Mexico. This is an action to condemn a right of way for roadway purposes across restricted Indian land.

This Department has been informed that the judgment has been paid in full and the proceeds delivered to the Superintendent of the United Pueblo Agency.

Since nothing further remains to be done in this case the file of this Department is being closed.

Respectfully,
For the Attorney General

NORMAN M. LITTELL
Assistant Attorney General

- NM 4 Constructed in 1942
- Via use of Pueblo Land Condemnation Act
- State paid Jemez $3,134 for 74 acres of land to construct NM 4

NM 4 Multi-use Pedestrian Trail Project

Project Cost Estimate

- Contracted with engineering firm for CE
- Avoid budget shortfall
- Include Contingency

NM Highway 4 Multi-use Pedestrian Trail Summary of Costs					
Year	**Length (ft.)**	**Total Construction Cost**	**[1]Conceptual Planning/Design Costs (12% of construction)**	**Conceptual CM Services Costs (10% of construction)**	**Total Conceptual Cost**
1			$542,000		$542,000
2	6,200	$3,178,405		$318,000	$3,496,405
3	3,460	$1,326,507		$132,000	$1,458,507
Total	**9,660**	**4,504,912**	**542,000**	**450,000**	**$5,496,912**

[1]The Engineer's Cost Estimate includes a breakdown of Planning/Design costs per Project Phase. The Pueblo is proposing to complete all Planning/Design Activities during Year 1.

Pueblo of Jemez NM 4 Mutil-Use Trail
Jemez, NM
Conceptual Design TOTAL PROJECT
WCI Project No. 1810004500
CONSTRUCTION COST ESTIMATE

NMDOT ITEM NO.	ITEM DESCRIPTION	UNIT	QUANT	PRICE	AMOUNT
201000	CLEARING AND GRUBBING	LPSM	1	$45,000.00	$45,000.00
203000	UNCLASSIFIED EXCAVATION	CUYD	6,400	$12.00	$76,800.00
203100	BORROW	CUYD	20,900	$20.00	$418,000.00
203200	SUB-EXCAVATION	CUYD	2,700	$30.00	$81,000.00
207000	SUBGRADE PREPARATION	SQYD	18,900	$4.00	$75,600.00
303000	BASE COURSE, 6"	TON	6,400	$22.00	$140,800.00
408100	PRIME COAT MATERIAL	TON	45	$625.00	$28,125.00
423282	HMA SP-III COMPLETE, 3"	TON	3,000	$100.00	$300,000.00
506008	MSE BLOCK WALL	SF	5,200	$100.00	$520,000.00
511000	STRUCTURAL CONCRETE, CLASS A	CUYD	60	$550.00	$33,000.00
540060	REINFORCING STEEL BARS GRADE 60	LBS	1,000	$4.00	$4,000.00
541200	STRUCTURAL STEEL FOR MISC. STRUCTURES	LBS	1,180	$10.00	$11,800.00
543100	METAL RAILING, PEDESTRIAN, 4.5' HEIGHT	LNFT	900	$100.00	$90,000.00
570036	36" CULVERT PIPE	LNFT	85	$185.00	$15,725.00
570437	24" STORM DRAIN CULVERT PIPE (RCP)	LNFT	40	$200.00	$8,000.00
570441	24" STORM DRAIN CULVERT PIPE END SECTION	EACH	2	$1,000.00	$2,000.00
570449	30" STORM DRAIN CULVERT PIPE (RCP)	LNFT	40	$300.00	$12,000.00
570461	36" STROM DRAIN CULVERT PIPE (RCP)	LNFT	50	$400.00	$20,000.00
601000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LPSM	1	$35,000.00	$35,000.00
602000	RIPRAP, CLASS A	CUYD	25	$450.00	$11,250.00
602010	RIPRAP, CLASS B	CUYD	155	$200.00	$31,000.00
603280	SWPPP PLAN PREPARATION AND MAINTENANCE	LPSM	1	$40,000.00	$40,000.00
607004	FENCE, BARBED WIRE, 4 STRAND	LNFT	12,000	$4.00	$48,000.00
609200	HEADER CURB	LNFT	1,000	$12.00	$12,000.00
613000	CLEANING CULVERTS AND DRAINAGE STRUCTURES	LPSM	1	$15,000.00	$15,000.00
618000	TRAFFIC CONTROL MANAGEMENT	LPSM	1	$35,000.00	$35,000.00
621000	MOBILIZATION	LPSM	1	$267,000.00	$267,000.00
623412	DROP INLET TYPE II, OVER 4'	EACH	1	$12,000.00	$12,000.00
631000	RUMBLE STRIPS	LNFT	6,700	$1.50	$10,050.00
632000	CLASS A SEEDING	ACRE	5	$5,000.00	$25,000.00
702810	TRAFFIC CONTROL DEVICES FOR CONSTRUCTION	LPSM	1	$70,000.00	$70,000.00
715000	SOLAR POWERED BEACON ASSEMBLY	LPSM	1	$50,000.00	$50,000.00
801000	CONSTRUCTION STAKING BY CONTRACTOR	LPSM	1	$70,000.00	$70,000.00
901000	CONTRACTOR SAMPLING & TESTING	LPSM	1	$35,000.00	$35,000.00
XXXXXX	PERMANENT SIGNING & STRIPING	LPSM	1	$35,000.00	$35,000.00
XXXXXX	UTILITY RELOCATION ALLOWANCE	ALLOW	1	$30,000.00	$30,000.00
XXXXXX	CORRIDOR LIGHTING	LPSM	1	$200,000.00	$200,000.00
XXXXXX	PRE-FABRICATED PEDESTRIAN BRIDGE	EACH	3	$100,000.00	$300,000.00
XXXXXX	RIGHT OF WAY MONUMENTS	EACH	8	$550.00	$4,400.00
XXXXXX	RIGHT OF WAY MARKERS	EACH	40	$150.00	$6,000.00
	SUBTOTAL				$3,223,550.00
	PROJECT SUBTOTAL				$3,223,550.00
	30% E&C				$967,065.00
	NMGRT (7.5% ASSUMED)				$314,296.13
	TOTAL				**$4,504,911.13**

NM 4 Multi-use Pedestrian Trail Project

Total estimated project cost: $5.5M

- NMDOT: $4,696,561
- TTP: $800,350

Fiscal Years 2020-2023

- 2020: Preliminary engineering 2021: Right-of-way & Intergovernmental agreement w/NMDOT (crosswalks)
- 2022-2023: Construction & CM

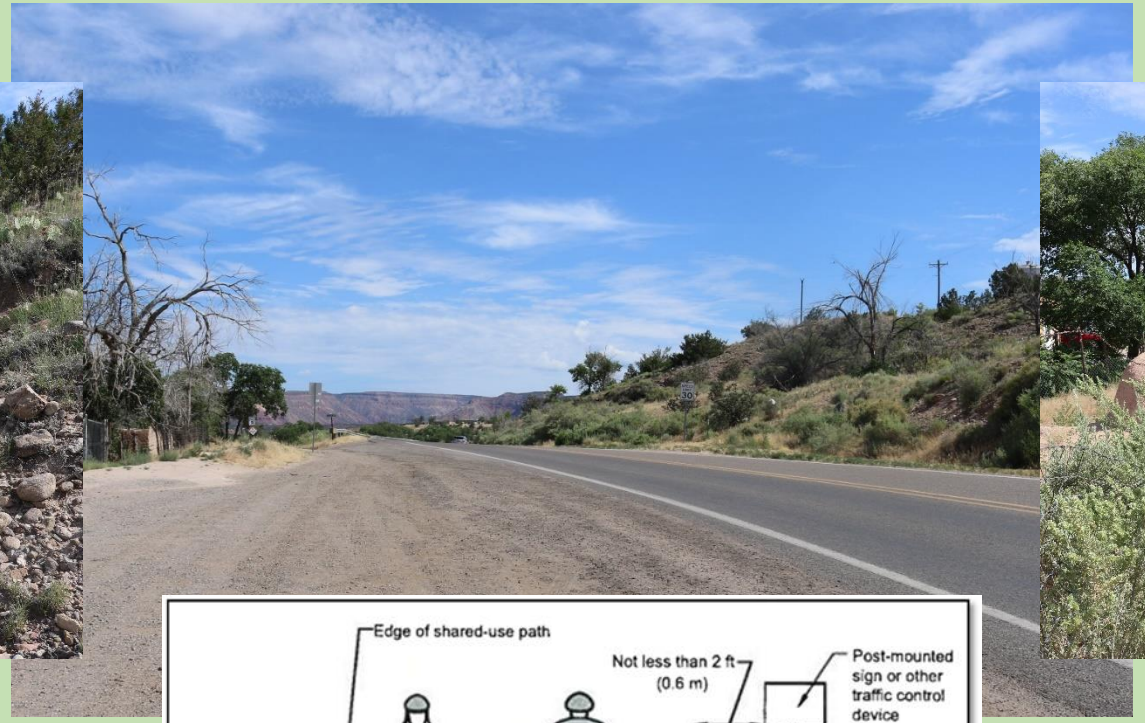
Collaboration with NMDOT Planners

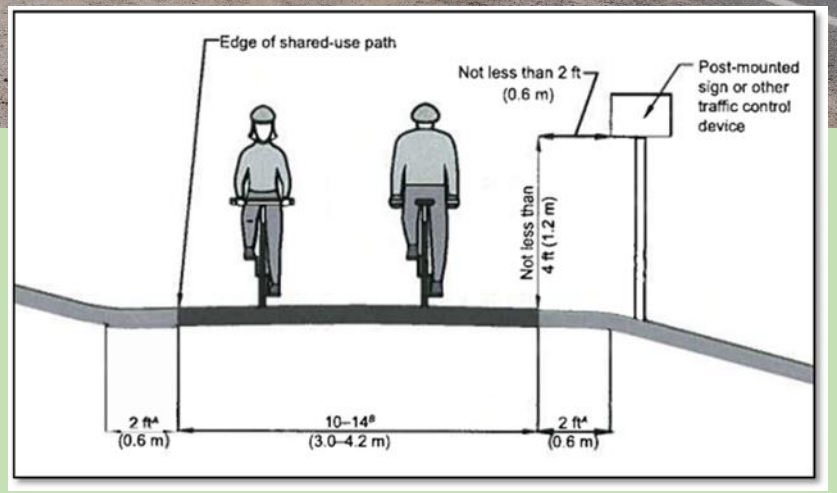
- Pre-/post-pedestrian trail installation bicycle counts

NM 4 Multi-use Pedestrian Trail Project

Pueblo of Jemez Bicycle & Traffic Counts																		
Summary Statistics																		
					Direction 1		Direction 2		AM Peak Hour				PM Peak Hour					
Route Name	Location Description	Beginning Count Date	Ending Count Date	Total Volume	Daily Volume	Direction	Daily Volume	Direction	Time Begin	Volume	% Daily	Peak Direction	Time Begin	Volume	% Daily	Peak Direction	Vehicle Type	Count Type
NM 4	North of Sheep Springs Way, South of Clinic	7/31/2019	8/5/2019	324	65	N	159	S	11:00 AM	75	23.15	N	1:00 PM	57	17.59	S	B	Tube
NM 4	North of Sheep Springs Way, South of Clinic	7/31/2019	8/5/2019	29,898	14,947	N	14,951	S	11:00 AM	2,435	8.14	S	3:00 PM	2,792	9.34	N	MV	Tube
NM 4	North of Civic Center, South of Library	7/31/2019	8/5/2019	466	255	N	211	S	11:00 AM	88	18.88	N	12:00 PM	69	14.81	N	B	Tube
NM 4	North of Civic Center, South of Library	7/31/2019	8/5/2019	28,816	14,036	N	14,780	S	11:00 AM	2,397	8.32	S	3:00 PM	2,654	9.21	S	MV	Tube
NM 4	North of Sheep Springs Way, South of Clinic	8/5/2019	8/16/2019	501	271	N	230	S	11:00 AM	84	16.77	N	12:00 PM	124	24.75	N	B	Tube
NM 4	North of Sheep Springs Way, South of Clinic	8/5/2019	8/16/2019	51,703	25,678	N	26,025	S	7:00 AM	3,790	7.33	N	5:00 PM	4,606	8.91	S	MV	Tube
NM 4	North of Civic Center, South of Library	8/5/2019	8/16/2019	737	407	N	330	S	11:00 AM	105	14.25	S	2:00 PM	141	19.13	N	B	Tube
NM 4	North of Civic Center, South of Library	8/5/2019	8/16/2019	52,097	25,963	N	26,134	S	7:00 AM	3,906	7.5	N	5:00 PM	4,705	9.03	S	MV	Tube
NM 4	North of Sheep Springs Way, South of Clinic	9/4/2019	9/10/2019	360	184	N	176	S	10:00 AM	70	19.44	N	1:00 PM	72	20	S	B	Tube
NM 4	North of Sheep Springs Way, South of Clinic	9/4/2019	9/10/2019	23,321	14,667	N	14,654	S	11:00 AM	1,916	8.22	N	5:00 PM	2,854	12.24	N	MV	Tube
NM 4	North of Civic Center, South of Library	9/4/2019	9/10/2019	444	203	N	241	S	10:00 AM	71	15.99	N	1:00 PM	88	19.82	S	B	Tube
NM 4	North of Civic Center, South of Library	9/4/2019	9/10/2019	29,104	14,809	N	14,295	S	10:00 AM	1,906	6.55	N	5:00 PM	2,919	10.03	N	MV	Tube

NM 4 Multi-use Pedestrian Trail Project





Technical/Regulatory Challenges

- Design Challenges
  - Drainage – 15 drainage basins
  - Driveways
  - Arroyos – pedestrian foot bridges
    Earthwork – cut and fill
  - ADA compliance – steep slopes
- Land availability – narrow roadways
- Right-of-way (NMDOT, BIA, Tribal)
- Facilities on National Tribal Transportation Facility Inventory
- Funding

Cultural/Environmental Considerations

- Community Support/Trust
  - Balance of cultural/traditional aspects with modern infrastructure
  - Homes located adjacent to trails – fences, unapproved driveways
- Closure of existing roads
- Facilities open to public, per Federal regulation
- Privacy

Community Outreach

- Previous Planning Efforts (LRTP, TSP, TTIP)
- Public Meetings
- Monthly Newsletter
- Informational Brochure
- Community Survey
- Door-to-door sharing of information and gathering input
- Community Meetings/Interactive Workshop

Questions?

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