

N. TRINIZ DR
WALTON BLVD
RAMP
MINNERSTATE 25
S. WALNUT ST
LEES DR
BOSTON DR
EL CAMINITO
HACKS DR
LOANNE ST
LOCUST ST
WYOMING AVE
JORDAN RD
E. UNIVERSITY AVE
WISCONSIN AVE
RAMP

ROADRUNNER PKWY
E. LOHMAN AVE
CANYON POINT RD
PASEO DE ONATE
FOOTHILLS RD
SUNDOWN RD
MORMON DR
HILLRISE DR
Roadrunner Parkway
Missouri Ave.
S. TELSHOR BLVD
HIGH ST
FAIRWAY DR
VIEW DR
S. SONOMA RANGH BLVD
Porter Dr.

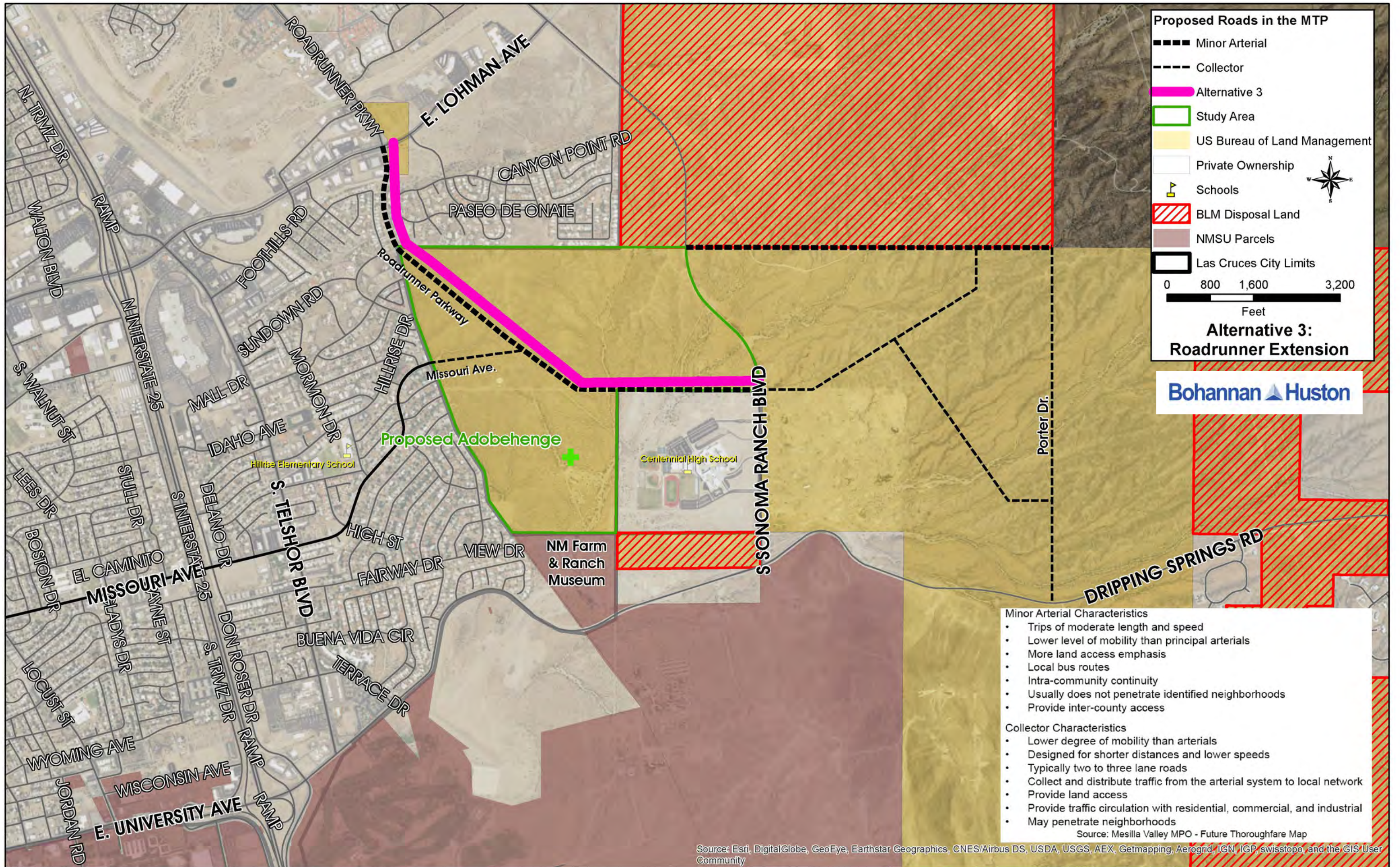
DRIPPING SPRINGS RD

Proposed Adobehenge

Hillrise Elementary School

Centennial High School

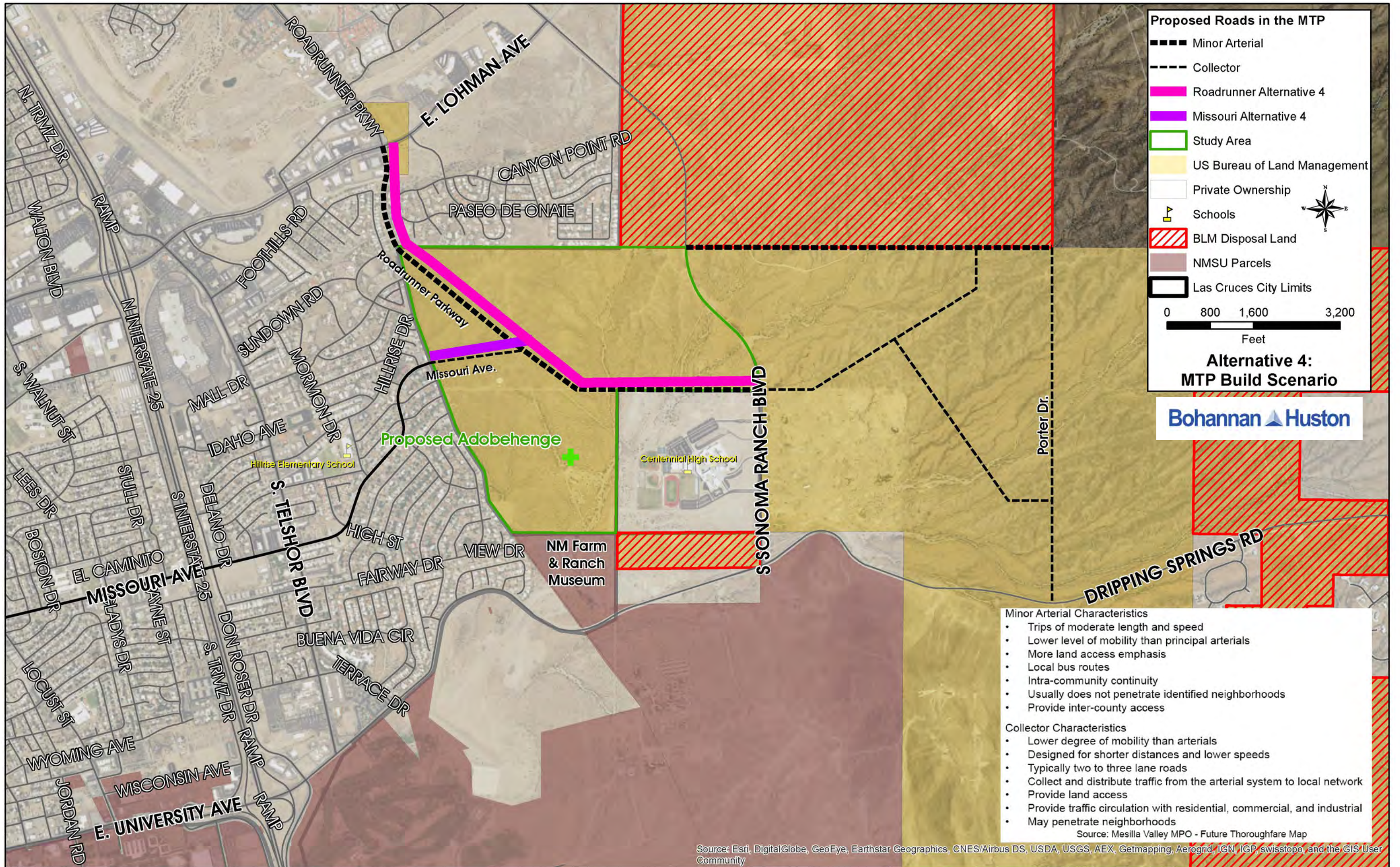
NM Farm & Ranch Museum



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FAIRWAY DR
VIEW DR
S. SONOMA RANGH BLVD
Porter Dr.
Centennial High School
NM Farm & Ranch Museum

DRIPPING SPRINGS RD



Proposed Roads in the MTP

- Minor Arterial
- Collector
- █ Roadrunner Alternative 4
- █ Missouri Alternative 4
- Study Area
- █ US Bureau of Land Management
- Private Ownership
- 📍 Schools
- ▨ BLM Disposal Land
- ▨ NMSU Parcels
- ▭ Las Cruces City Limits

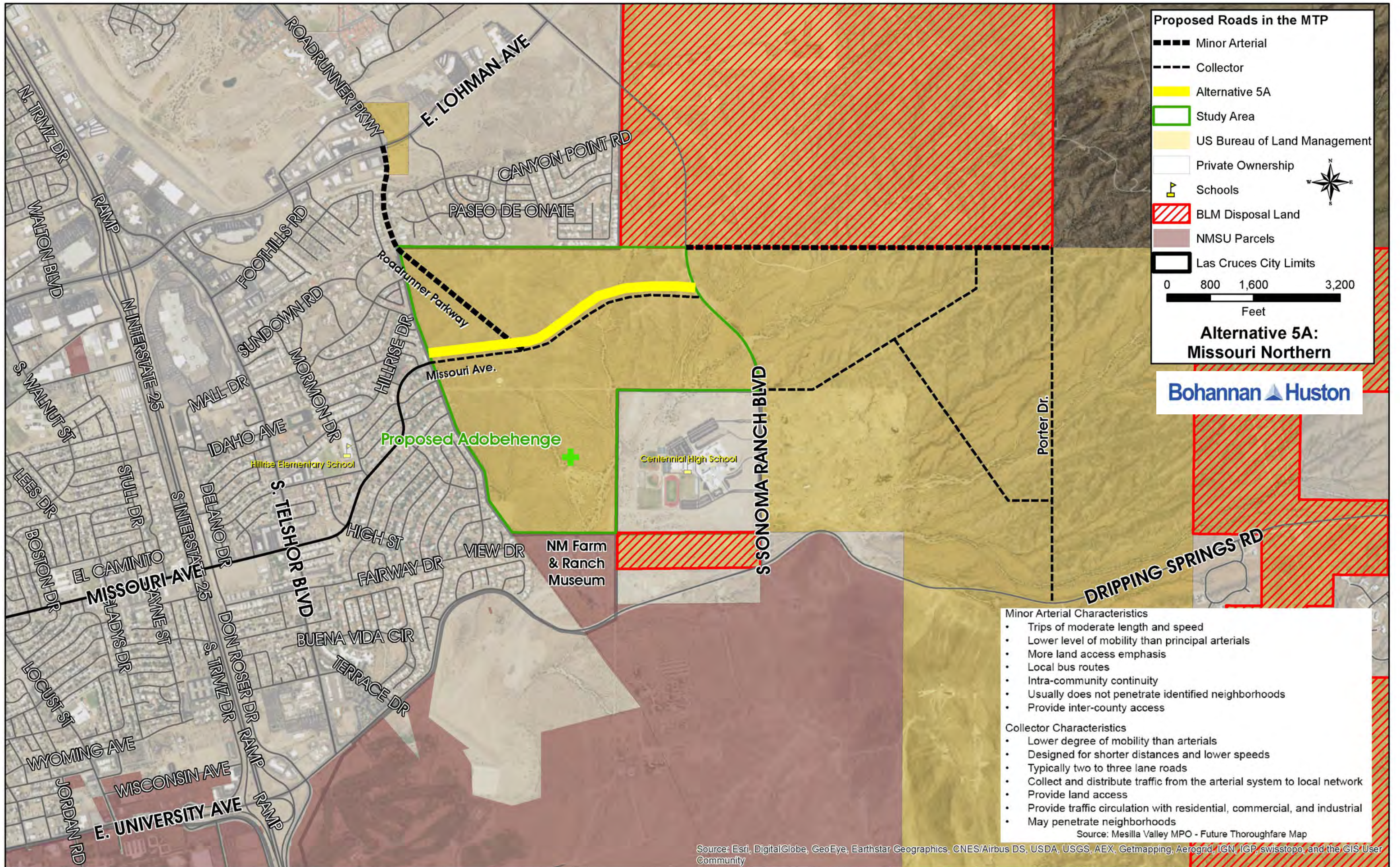
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Feet

**Alternative 4:
MTP Build Scenario**

Bohannon **Huston**

- Minor Arterial Characteristics**
- Trips of moderate length and speed
 - Lower level of mobility than principal arterials
 - More land access emphasis
 - Local bus routes
 - Intra-community continuity
 - Usually does not penetrate identified neighborhoods
 - Provide inter-county access
- Collector Characteristics**
- Lower degree of mobility than arterials
 - Designed for shorter distances and lower speeds
 - Typically two to three lane roads
 - Collect and distribute traffic from the arterial system to local network
 - Provide land access
 - Provide traffic circulation with residential, commercial, and industrial
 - May penetrate neighborhoods
- Source: Mesilla Valley MPO - Future Thoroughfare Map

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Proposed Roads in the MTP

- Minor Arterial
- Collector
- Alternative 5A
- Study Area
- US Bureau of Land Management
- Private Ownership
- 🏫 Schools
- ▨ BLM Disposal Land
- NMSU Parcels
- Las Cruces City Limits

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Feet

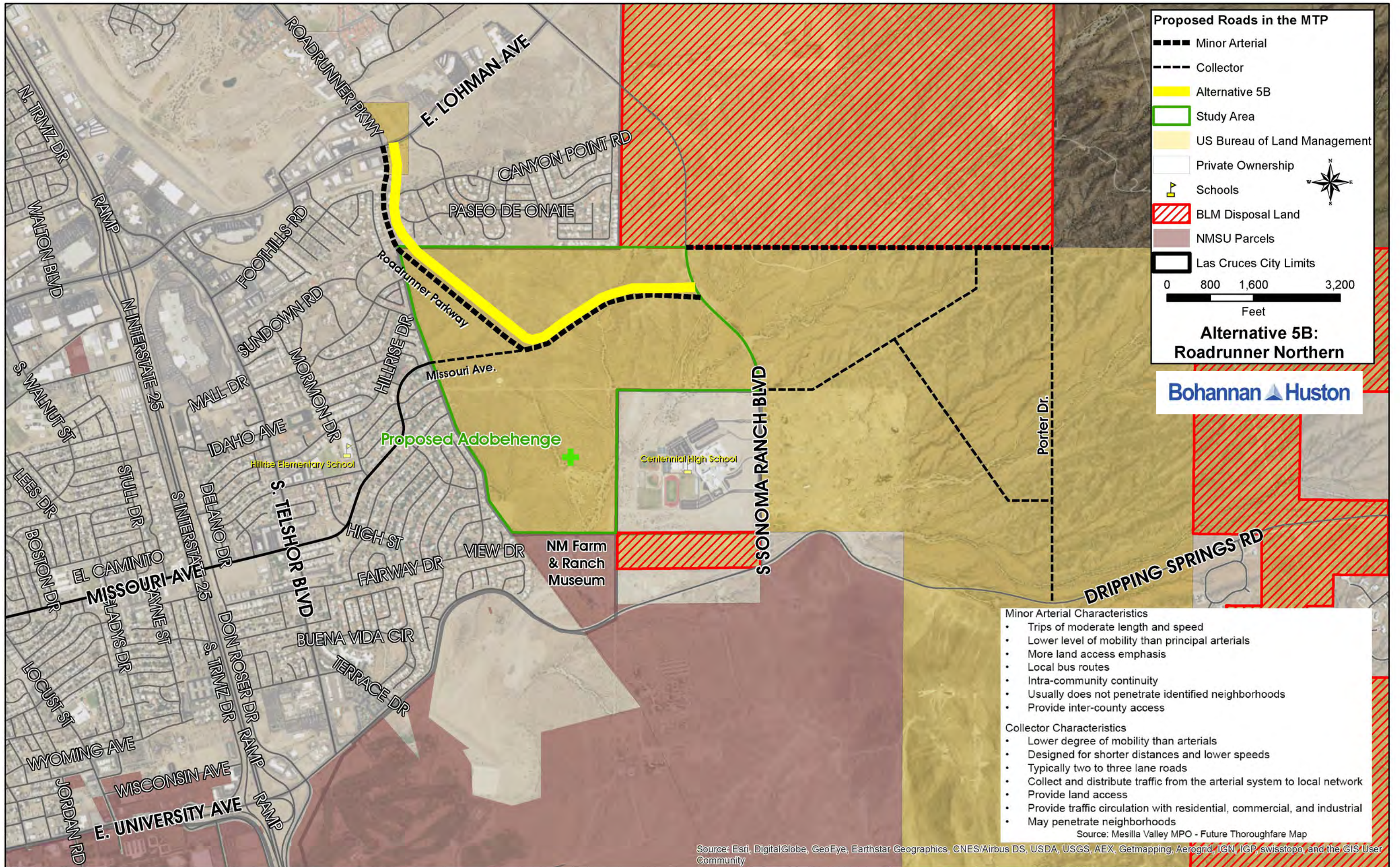
**Alternative 5A:
Missouri Northern**

Bohannon **Huston**

- Minor Arterial Characteristics**
- Trips of moderate length and speed
 - Lower level of mobility than principal arterials
 - More land access emphasis
 - Local bus routes
 - Intra-community continuity
 - Usually does not penetrate identified neighborhoods
 - Provide inter-county access
- Collector Characteristics**
- Lower degree of mobility than arterials
 - Designed for shorter distances and lower speeds
 - Typically two to three lane roads
 - Collect and distribute traffic from the arterial system to local network
 - Provide land access
 - Provide traffic circulation with residential, commercial, and industrial
 - May penetrate neighborhoods

Source: Mesilla Valley MPO - Future Thoroughfare Map

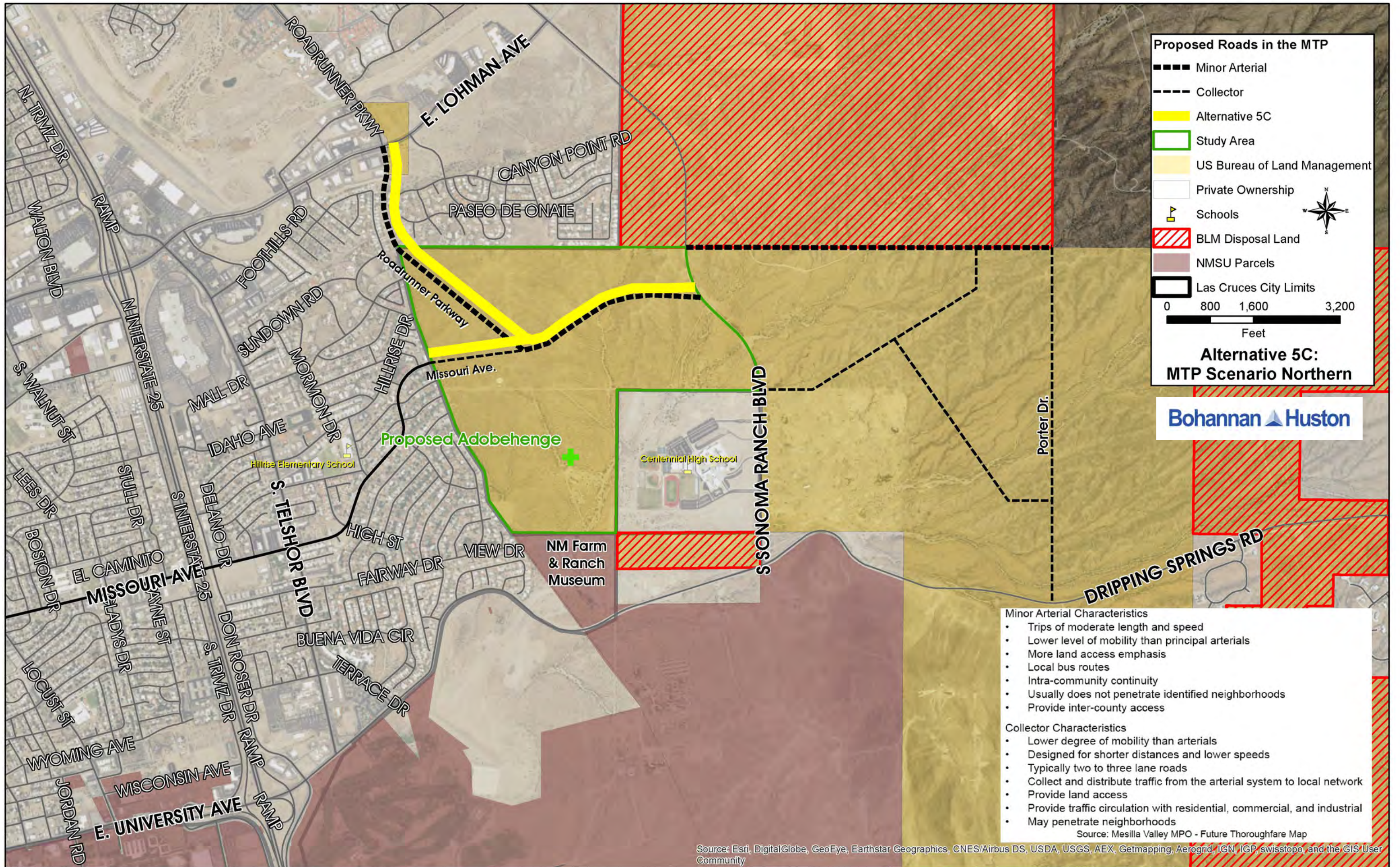
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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E. UNIVERSITY AVE
WISCONSIN AVE
SUNDOWN RD
MORMON DR
HILLRISE DR
MISSOURI AVE.
S. TELSHOR BLVD
DELANO DR
S. INTERSTATE 25
STULL DR
FAIRWAY DR
VIEW DR
TERRACE DR
BUENA VIDA CIR
DIPPING SPRINGS RD
PORTER DR
SONOMA RANGH BLVD

ROADRUNNER PKWY
E. LOHMAN AVE
CANYON POINT RD
PASEO DE ONATE
Roadrunner Parkway
Missouri Ave.
Proposed Adobehenge
Centennial High School
NM Farm & Ranch Museum

BLM Disposal Land
NMSU Parcels
Las Cruces City Limits

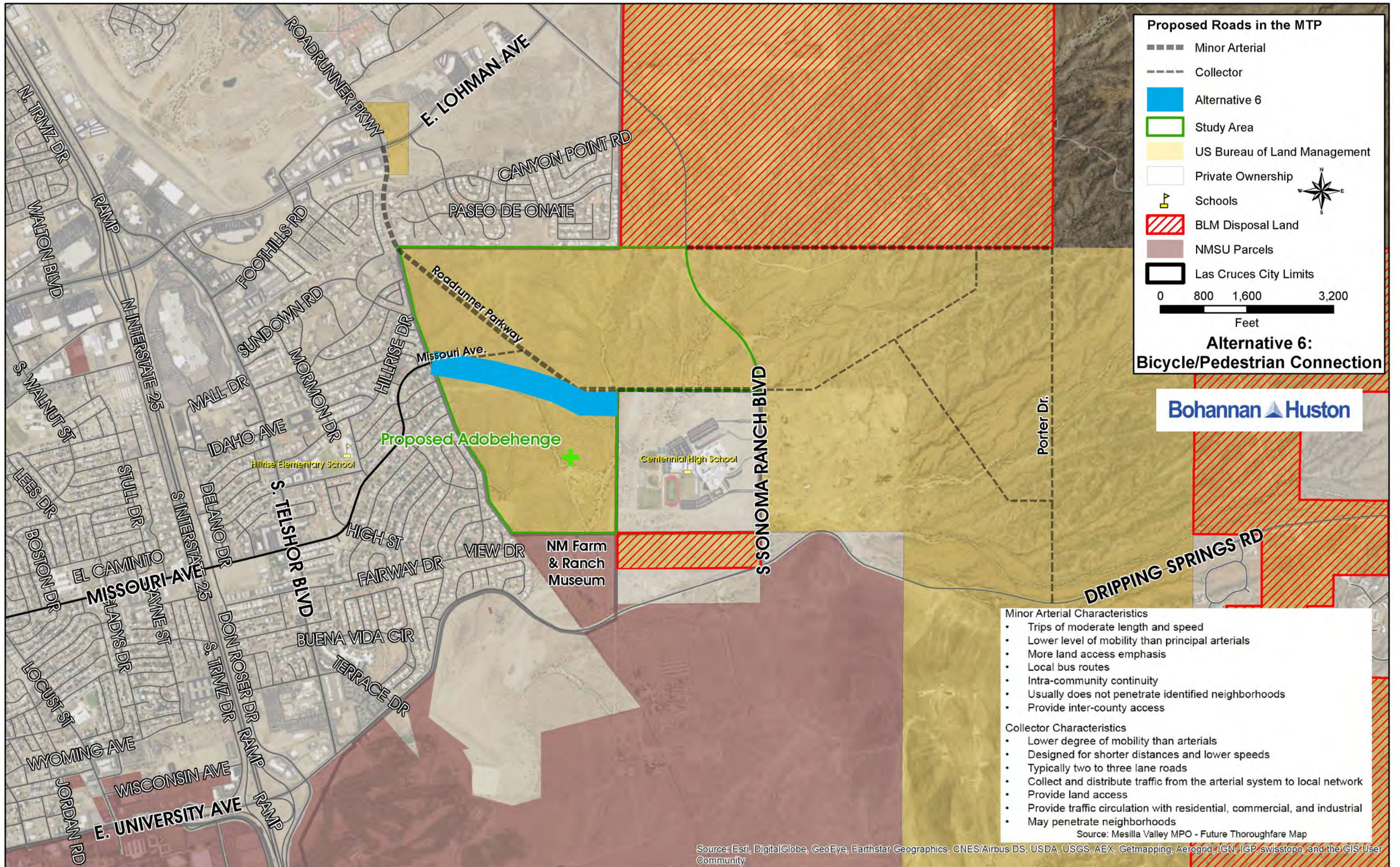


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 Roadrunner Parkway
 MISSOURI AVE.
 HILLRISE DR
 VIEW DR
 NM Farm & Ranch Museum
 S. SONOMA RANGH BLVD
 PORTER DR.
 DRIPPING SPRINGS RD

Proposed Adobehenge

Hillrise Elementary School

Centennial High School



Proposed Roads in the MTP

- Minor Arterial
- - - Collector
- Alternative 6
- Study Area
- US Bureau of Land Management
- Private Ownership
- Schools
- BLM Disposal Land
- NMSU Parcels
- Las Cruces City Limits

0 800 1,600 3,200
Feet

**Alternative 6:
Bicycle/Pedestrian Connection**

Bohannon **Huston**

- Minor Arterial Characteristics**
- Trips of moderate length and speed
 - Lower level of mobility than principal arterials
 - More land access emphasis
 - Local bus routes
 - Intra-community continuity
 - Usually does not penetrate identified neighborhoods
 - Provide inter-county access
- Collector Characteristics**
- Lower degree of mobility than arterials
 - Designed for shorter distances and lower speeds
 - Typically two to three lane roads
 - Collect and distribute traffic from the arterial system to local network
 - Provide land access
 - Provide traffic circulation with residential, commercial, and industrial
 - May penetrate neighborhoods
- Source: Mesilla Valley MPO - Future Thoroughfare Map

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



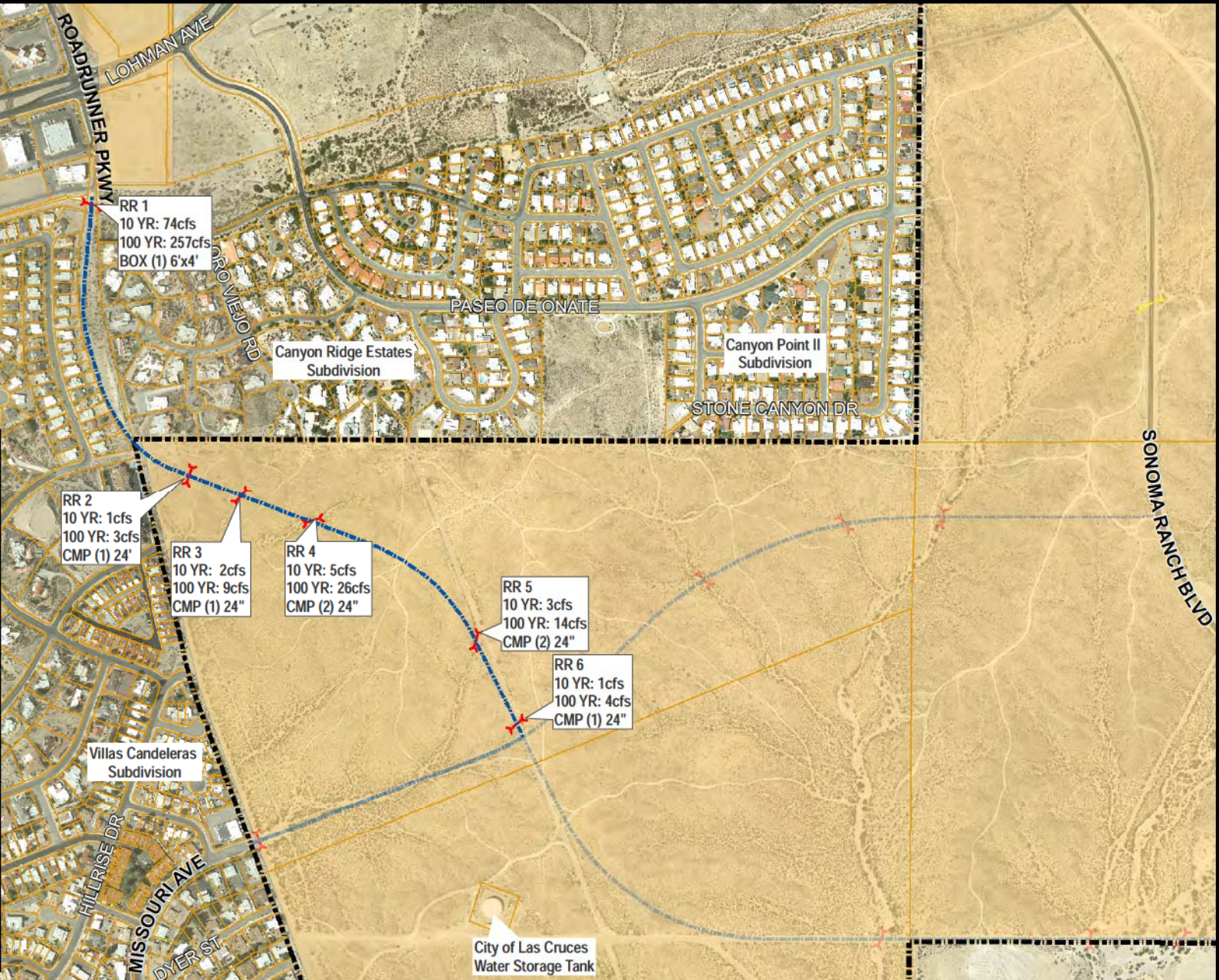
Legend

- Proposed Roadrunner Pkwy. Corridor
- Future Culvert Crossings
- Existing Culvert Crossings
- Las Cruces City Limits
- Parcels
- US Bureau of Land Management
- Private Ownership








500 250 0 500
Feet
1 inch = 500 feet

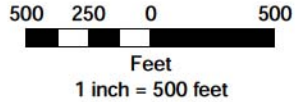
**Roadrunner Parkway Extension
Proposed Drainage**

Bohannon & Huston
www.bhinc.com 800.877.5332

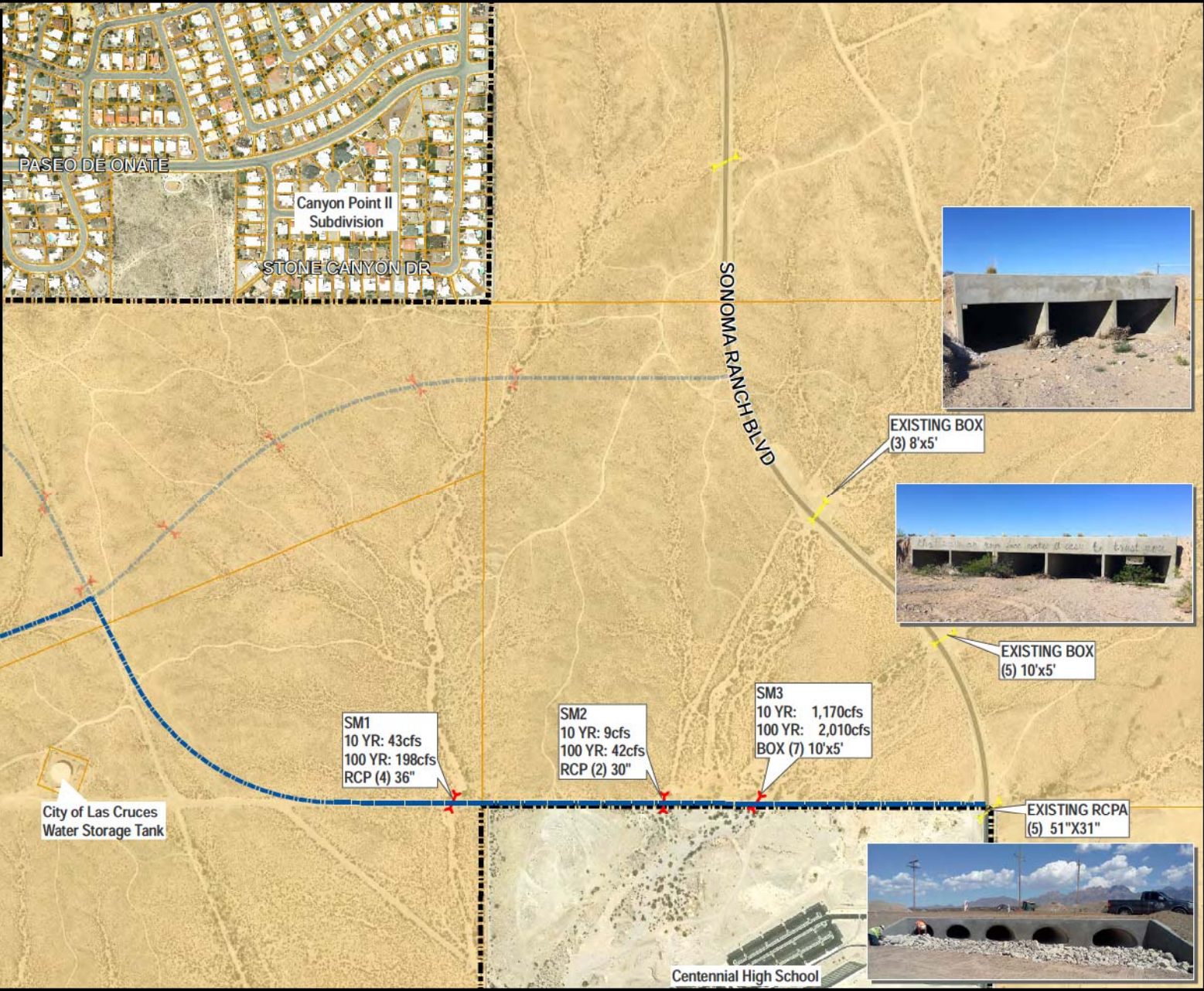


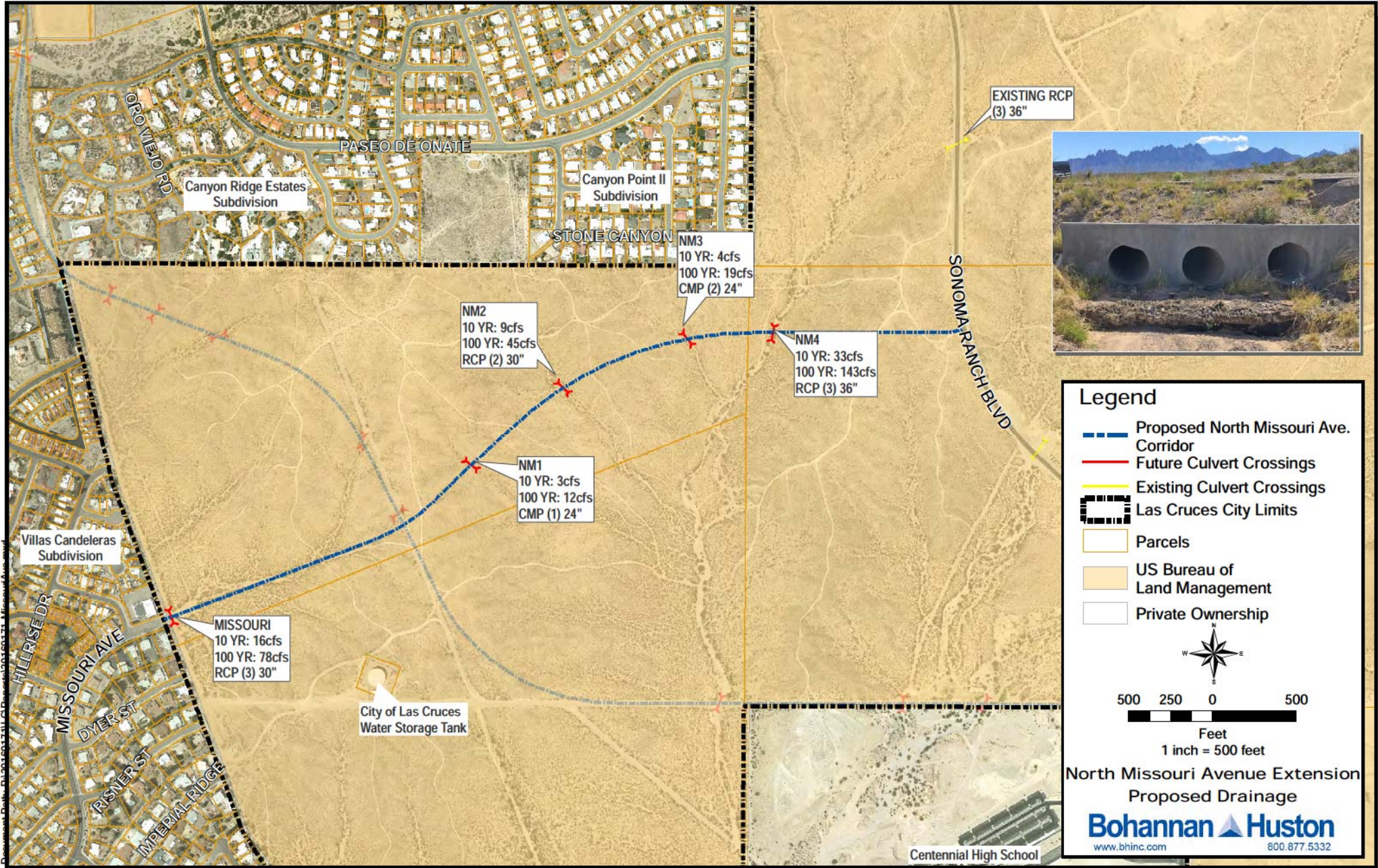
Legend

-  Proposed South Missouri Ave. Corridor
-  Future Culvert Crossings
-  Existing Culvert Crossings
-  Las Cruces City Limits
-  Parcels
-  US Bureau of Land Management
-  Private Ownership



South Missouri Avenue Extension Proposed Drainage





Legend

- Proposed North Missouri Ave. Corridor
- Future Culvert Crossings
- Existing Culvert Crossings
- Las Cruces City Limits
- Parcels
- US Bureau of Land Management
- Private Ownership

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Feet
1 inch = 500 feet

North Missouri Avenue Extension
Proposed Drainage

Bohannon & Huston
www.bhinc.com 800.877.5332

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Missouri Ave Corridor Study - Alternatives Evaluation Matrix - DRAFT

May 23, 2016

Criteria	Definition	Alternative							
		1. No Build	2. Missouri Extension	3. Roadrunner Extension	4. MTP Build Scenario	5A. Missouri Northern	5B. Roadrunner Northern	5C. MTP Scenario Northern Route	6. Bicycle/Pedestrian Connection
		No Build Scenario - Keep Missouri Ave and Roadrunner Pkwy on the MTP project list.	Build Missouri Ave to Sonoma Ranch Blvd (2-lane collector, including bicycle lanes) along MTP corridor; No Build Roadrunner Pkwy (project remains on MTP list).	Build Roadrunner Pkwy (2-lane arterial, including bicycle lanes) along the MTP corridor; No-Build Missouri Ave (project remains in the MTP).	Build Missouri Ave (2-lane collector) to tie in with Roadrunner Pkwy (2-lane arterial) which connects with Sonoma Ranch Blvd along the MTP Corridor.	Build Missouri Ave to Sonoma Ranch Blvd along northern route (No Build of Roadrunner Pkwy).	Build Roadrunner Pkwy to Sonoma Ranch along northern route (No Build of Missouri Ave)	Build Missouri Ave (2-lane collector) to tie in with Roadrunner Pkwy (2 lane arterial) which connects with Sonoma Ranch Blvd along a northern corridor.	Build bike and pedestrian facilities independently, evaluating the best route to connect the Missouri Ave neighborhood to Centennial High School as well as Adobehenge and the Farm and Ranch Museum.
Purpose and Need	Enhanced transportation network connectivity and improved options for non-motorized travel.	Does not meet purpose and need.	Fully meets purpose and need.	Provides additional connection to Sonoma Ranch Blvd, but route is somewhat redundant to Lohman Ave. Does not meet need of improved east-west pedestrian and bicycle connections from Missouri Ave.	Fully meets purpose and need.	All three northern routes provide east-west connectivity to Sonoma Ranch Rd. The route does not meet the need of providing direct pedestrian and bicycle connectivity through study area for residents along Missouri Ave.			East-west connectivity needs are met for non-auto modes only. However, large benefits to be gained by bicycle and pedestrian connections.
Access	Multi-modal access to Centennial HS, New Mexico Farm & Ranch Museum, Adobehenge, and to east Las Cruces.	Does not provide improved access.	Provides direct access to major destinations within study area plus areas further east.	Access to study area destinations is indirect through Sonoma Ranch Blvd from the east	Provides direct access to major destinations within study area plus areas further east	Access to key destinations in or near the study area is somewhat improved, but less direct due to the more northern alignment.			Improved access for pedestrian and bicycle travel only. Potential to create trail connecting to Farm & Ranch Museum
Network Connectivity	Link Missouri Ave neighborhood to destinations to the east and improve network connections.	Does not provide improved connectivity.	Provides east-west connectivity and new multi-modal links.	Limited connectivity benefits for neighborhoods west of the study area. Bicycle network is extended but connections are not improved.	Provides east-west connectivity and new multi-modal links.	Provides east-west connectivity and new multi-modal links from neighborhoods west of the study area.	Limited connectivity benefits for neighborhoods west of the study area.	Provides east-west connectivity and new multi-modal links from neighborhood	Creates new bicycle and pedestrian network connectivity. Does not improve roadway network.
Engineering Feasibility	Presence of arroyos, natural land uses, or other topography that create engineering challenges.	No engineering required.	The alignment must cross a total of four arroyos, including three minor arroyo crossings (including an arroyo to the east of the terminal point for the existing Missouri Ave roadway). A large arroyo crossing along the northern edge of the Centennial HS campus would require a large set of box culverts.	Roadrunner section: There are a total of six arroyo crossings. The largest of which is to the south of Lohman Ave. Missouri section: There are three arroyo crossings along the Missouri Ave southern alignment, including the large crossing on the northern edge of the Centennial HS campus.	Roadrunner section: Six crossings. Missouri section (southern alignment): Three crossings, including large system north of Centennial HS. Missouri extension: One crossing.	The Missouri Ave northern alignment crosses a total of five arroyos, including one crossing to the east of the existing roadway terminal point. The upstream location of the corridor reduces the potential flows considerably compared to the southern alignment.	The Roadrunner Pkwy northern alignment crosses a total of ten arroyos, the largest of which is to the south of Lohman Ave. The upstream location of the corridor reduces the potential flows considerably compared to the southern alignment.	The MTP scenario northern alignment crosses a total of 11 arroyos, the largest of which is to the south of Lohman Ave. The upstream location of the corridor reduces the potential flows considerably compared to the southern alignment.	Must cross a total of four arroyos, including the large system on the north side of the Centennial HS campus. Low water crossings may be appropriate for other arroyos.
Environmental Issues	Based on land area for potential biological, cultural, or natural resource impacts and impacts of motor vehicle travel.	No impacts to surrounding natural environment.	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Possible environmental impacts resulting from land required for right-of-way, as well as air quality and arroyo crossings. <i>Further environmental analysis required.</i>	Modest impacts since little right-of-way is required, no CO ₂ emissions are generated, and arroyo crossings may be minimized.
Community Impacts	Project may produce adverse impacts to residential neighborhoods or may provide benefits such as improved access to key destinations.	No additional impacts or benefits.	Potential to generate additional through traffic in existing Missouri Ave neighborhoods. No construction adjacent to existing homes along Missouri Ave, or impacts to residences near Roadrunner Pkwy. <i>Access to east Las Cruces area and Centennial HS is improved. Traffic impacts should be evaluated.</i>	Potential impacts to residents along proposed Roadrunner Pkwy, including construction of a new road adjacent to existing homes. Access to east Las Cruces is improved. No impacts to Missouri Ave neighborhoods. <i>Traffic impacts should be evaluated.</i>	Potential impacts to residents along proposed Roadrunner Pkwy, including construction of a new road adjacent to existing homes. Access to east Las Cruces is improved. No impacts to Missouri Ave neighborhoods. <i>Traffic impacts should be evaluated.</i>	Potential to generate additional through traffic in existing Missouri Ave neighborhoods. No construction adjacent to existing homes along Missouri Ave, or impacts to residences near Roadrunner Pkwy. <i>Access to east Las Cruces area and Centennial HS is improved. Traffic impacts should be evaluated.</i>	Potential impacts to residents along proposed Roadrunner Pkwy, including construction of a new road adjacent to existing homes. Access to east Las Cruces is improved. No impacts to Missouri Ave neighborhoods. <i>Traffic impacts should be evaluated.</i>	Potential impacts to residents along proposed Roadrunner Pkwy, including construction of a new road adjacent to existing homes. Access to east Las Cruces is improved. No impacts to Missouri Ave neighborhoods. <i>Traffic impacts should be evaluated.</i>	There is a positive impact to the community through increased pedestrian and bicycle access without additional vehicle capacity.
Consistency with Existing Planning Documents	Alternative is identified in the Mesilla Valley MPO's Transport 2040 Plan. The project is consistent with the goals and objectives of the MTP, or is named in the Future Thoroughfare Map or the Bicycle System Priorities Plan.	Projects remain listed in MTP and on Future Thoroughfare Map, but implementation is postponed.	Missouri Ave extension is identified as a funded project in the 2021-2030 years of the MTP and is listed as a Tier 2 priority corridor on the Bicycle System Priorities Plan.	Roadrunner Pkwy is a proposed Minor Arterial in the MVMPO Future Thoroughfare Map and is listed as a Tier 1 priority corridor on the Bicycle System Priorities Plan.	Both projects are identified in the MTP as part of the long-term roadway network and Bicycle System Priorities Plan.	The northern route itself is not an alignment identified in the 2040 MTP or the MVMPO Future Thoroughfare Map, although it could be considered as an alternative to routes identified in those documents.			Missouri Ave and Roadrunner Pkwy are both identified in the Bicycle System Priorities Plan by the Mesilla Valley MPO.
Right-of-Way	Length of roadway to be constructed. All routes are along land currently owned by BLM and would require leases. The City of Las Cruces owns the northernmost portion of the proposed Roadrunner Pkwy.	None required at this time.	≈ 6,690' or 1.27 miles	≈ 9,190' or 1.74 miles	≈ 10,730' or 2.03 miles (Missouri Ave collector extension is 0.29 miles)	≈ 5,240' or 0.99 miles	≈ 7,740' or 1.47 miles	≈ 9,280' or 1.76 miles	≈ 6,690' or 1.27 miles (These numbers reflect the distance if the shared-use path follows the Missouri alignment. The exact alignment for a shared-use path has not yet been identified.)
Magnitude of Costs	Magnitude of cost based on length and type of roadway, plus the presence of topographical features such as arroyos and the related drainage infrastructure needs.	No costs at this time.	Moderate	Moderate-High	Highest among MTP scenario alternatives, though Missouri Ave collector segment is not overly costly.	Moderate	Moderate	Moderate-High	Low-Moderate

A. Existing Bicycle Infrastructure

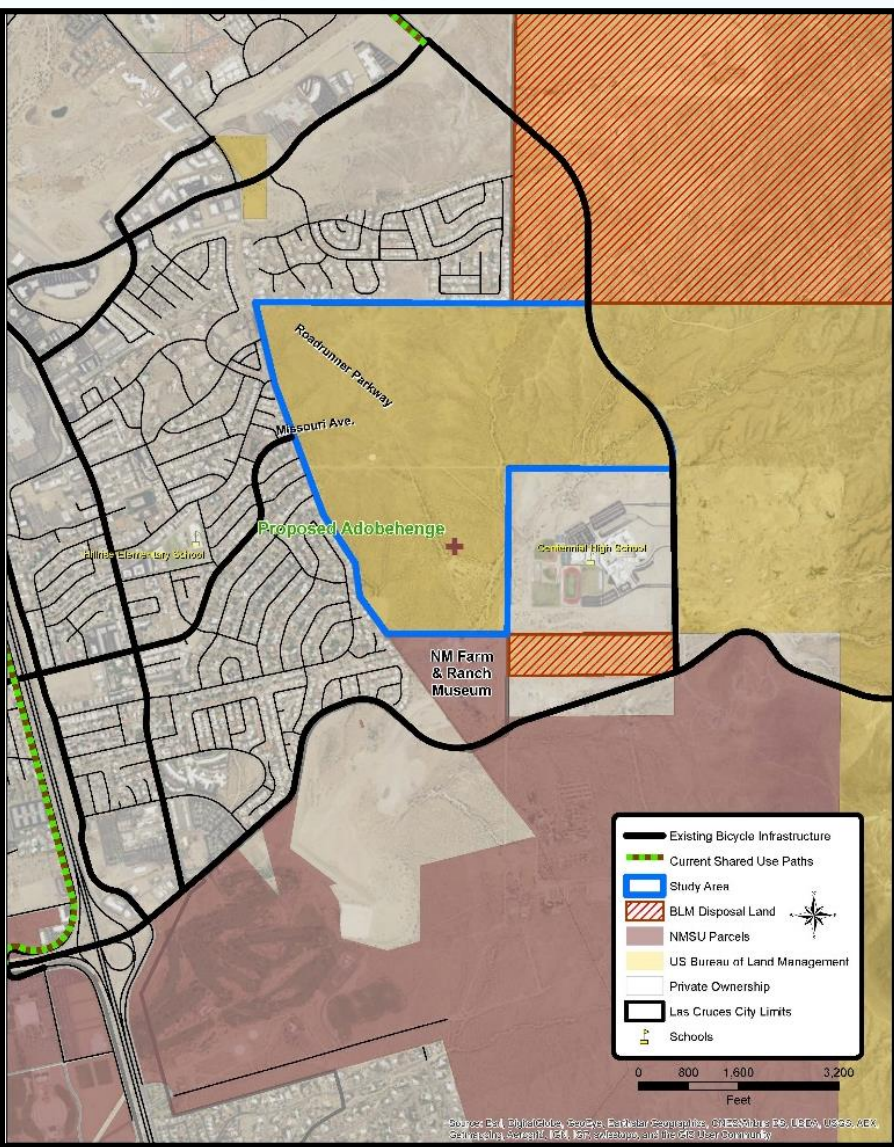


Figure A indicates the roads in or near the study area with some form of existing bicycle infrastructure.

B. Bicycle Priorities (MVMPO)

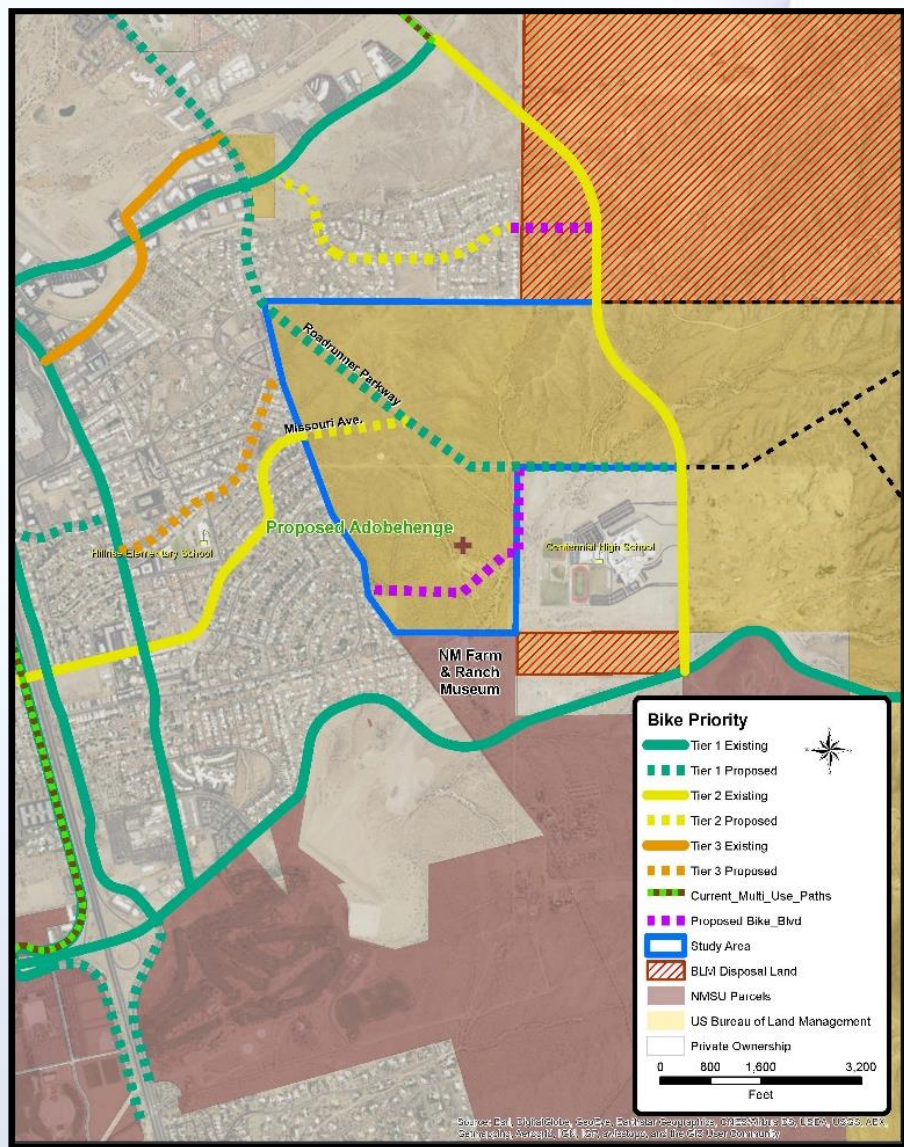
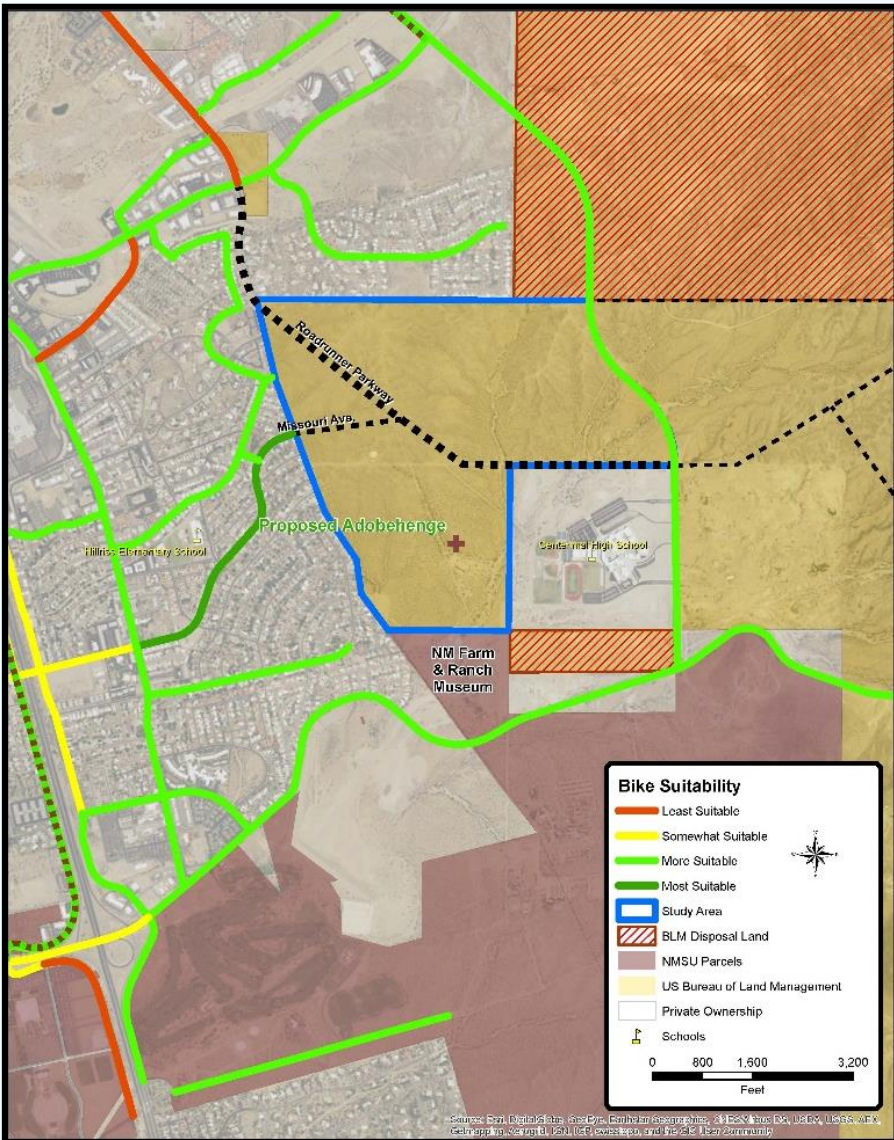


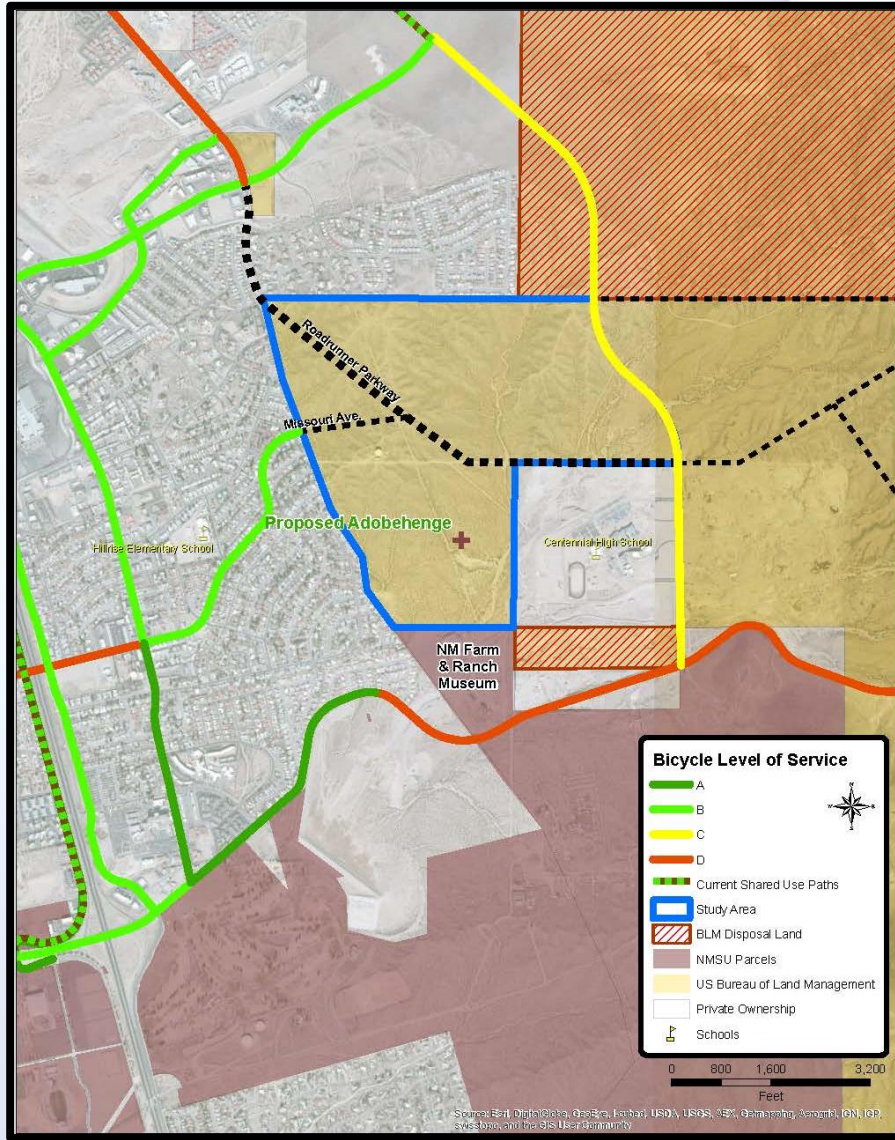
Figure B depicts existing and proposed bicycle facilities by tier, according to the MVMPO Bicycle System Priorities Plan.

C. Bicycling Suitability (MVMPO)



The suitability of roads for bicycle travel is based on traffic counts, posted speed, functional class, and facility type.

D. Bicycle Level of Service



LOS considers the **quality** of the bicycle infrastructure by including lane widths, pavement conditions, and other factors.



Missouri Ave Corridor Study – Bicycle Infrastructure Analysis Figures

A. Existing Bicycle Infrastructure

Figure A indicates the roads in or near the study area with some form of existing bicycle infrastructure. The map *does not* indicate the quality of the infrastructure. The existing bicycle infrastructure found immediately near the study area is located on Sonoma Ranch Blvd, Dripping Springs Rd, Missouri Ave, and Lohman Ave. Additionally, a shared use path exists west of the study area along Triviz Dr and along Sonoma Ranch Blvd north of Lohman Ave.

B. Bicycle Priorities

Figure B depicts existing and proposed bicycle facilities by tier, according to the MVMPO Bicycle System Priorities Plan. The tiers do not indicate the availability of funding or necessarily reflect the sequence with which improvements will be made. Rather, the tiers reflect which roadways have been identified as key parts of multi-modal connectivity in the Las Cruces area. The priorities are defined as follows:

Tier 1 Facilities are of the highest priority and would provide a basic well-connected network throughout the region. Key existing facilities include Roadrunner Pkwy, Lohman Ave, N Telshor Blvd, Dripping Springs, Rd, and University Ave. An important proposed Tier 1 bicycle facility is the Roadrunner Pkwy extension, which is creates bicycle network connectivity in the study area.

Tier 2 and 3 Facilities provide secondary connections for an extended network, and Tier 3 facilities include the remainder of the bicycle network. Key existing roadways include Missouri Ave and Sonoma Ranch Blvd. Bicycle facilities on Missouri Ave are also proposed to be extended within the study area.

C. Bicycling Suitability

Figure C indicates how suitable bicycle travel is on roadways to help guide riders in choosing the best path of travel. These designations range from “least” to “most suitable” and are taken from the Mesilla Valley Bicycling Suitability Map. The suitability level is based on traffic counts, posted speed, functional class, and facility type.

D. Bicycle Level of Service

Figure D depicts the existing Bicycle Level of Service (LOS) near the study area. LOS adds a layer of nuance to the Suitability Map by evaluating the quality of the infrastructure and the level of comfort experienced by the bicyclist. LOS considerations include vehicle and bicycle lane widths, pavement conditions, and other factors, and provides a ranking from A to F. Roads near the study area that received a high ranking are Missouri Ave, Lohman Ave, and University Blvd/Drippings Springs Rd west of Las Cruces city limits. While there is bicycle infrastructure that access to the study area, the quality of bicycle infrastructure in the study area is uneven.