Sierra Pacific Power Company

Mason and Smith Valleys Transmission Project - Amended Plan of Development

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Glossary

Access Road	An existing paved or unpaved road generally considered accessible to the general public.
Angle Structures	Utility poles used for orienting the line towards a different direction through an "angle." Angle poles may also have one or more guy wires and anchors depending upon the degree of the angle.
Buss Work	Rigid aluminum conductors mounted to support structures with a substation
Conductor	An electrical cable tied between pole structures along a transmission or distribution line.
Distribution Line	Lower voltage power lines often sited near the final stage in the delivery of electricity from the transmission system to end users.
Distribution Structure	Power equipment along a transmission or distribution line that includes the pole structure, and other equipment needed to deliver electrical power to an area.
Guy Wire	A tensioned cable on pole structures used to support unbalanced lateral loads.
Kilovolt	Abbreviated as kV, a unit of electrical potential equal to 1,000 volts.
Non-Specular	Mechanically or chemically treated aluminum surfaces applied to conductors to reduce reflectivity.
Pull Site	The area at each end of a section of the power line used to string together the conductor between the pole structures using stringing pulleys.
Riser Pole	The pole used to transition between overhead construction and underground construction.
Sock Line	A small and light cable used to pull a conductor through pole structures to the next pulling site. Also the line used to pull the conductor between junction enclosures through the buried conduit in the underground portion.
Spur Road	A temporary and typically short road constructed as a result of the project from an existing access road to a structure location.
Staging Area	Location where vehicles, equipment, and construction materials and supplies are stored and assembled before use.
Substation	An electrical facility that converts or transforms high transmission voltage to lower distribution voltage.
Tangent Structures	Also known as "line" towers, these structures are the most common poles along a distribution line.
Transmission Line	High voltage lines that carry electricity over long distances, such as from a power station to a city, or from a grid to a city.
Traveler	A pulley used during installation of the conductors. It functions by pulling the conductor through the pole structure to the pull site.
Underbuild (t)	A distribution line or circuit attached to a transmission line.

1 INTRODUCTION

1.1 OVERVIEW

Sierra Pacific Power Company d/b/a NV Energy (NV Energy) has prepared this Amended Plan of Development (APOD) to guide the construction and operation of the Mason and Smith Valleys Transmission Project (Project), which is located the Mason and Smith Valleys entirely within Lyon County, Nevada. This amended Plan of Development incorporates minor changes to the project based on project development, scoping, and agency discussions. Significant changes include:

- Clarification of proposed right-of-way grant lengths and widths;
- Landowner preferred route re-alignments on three private land areas;
- Access road improvement and project width requirements;
- Project telecommunications revision / updates;
- Expanded discussion of electrical infrastructure decommissioning; and,
- Updates to the Project Maps.

NV Energy supplies electricity to the Mason and Smith valleys by way of three (3) 60 kilovolt (kV) transmission lines which terminate at the Anaconda substation located adjacent to the Anaconda Mine, near Weed Heights, Nevada. A single 60 kV transmission line continues from the Anaconda substation to the Bridge Street substation located near the intersection of Bridge Street and State Highway 339 near Yerington, Nevada. Several 25 kV distribution lines originate from the Anaconda and Bridge Street substations to serve the electrical needs of the communities in and around Yerington, Wabuska, Mason, Wellington, Smith Valley, and Topaz Ranch Estates.

Much of the electrical infrastructure within this geographical area is more than 50 years old. The Bridge Street substation was constructed around 1956 and many of the substation's components are original and do not meet current standards as established in the National Electric Safety Code. The Anaconda substation was rebuilt in the 1980's on the site of an older electrical switching station and cannot be expanded due to its proximity to the Anaconda Mine. The mine is listed as a Superfund site and relocation away from this potential liability is desirable.

The communities within the Smith Valley area are served by two 25 kV distribution lines; the Anaconda 204 and the Bridge Street 206. The existing substation facilities are unable to support customer load requirements during the summer months resulting in outages and low voltage load shedding. Outages and low voltages in the Smith Valley area have resulted in numerous formal complaints from our customers to the Public Utilities Commission of Nevada (PUCN).

The Project has been designed to improve the electrical infrastructure within Mason and Smith valleys utilizing existing transmission and distribution infrastructure and existing disturbed areas, where possible.

1.2 REQUESTED OF THE BLM

NV Energy maintains several right-of-way grants within the project area. Several of these grants have been amended over time to allow for modification of the electrical infrastructure. As a result, an individual electrical component may have several right-of-way grants associated with it. Rather than

amend each grant individually, NV Energy is requesting new BLM right-of-way grants for the proposed facilities on BLM property including:

- **Mason 60 kV Transmission Corridor** – NV Energy is requesting an approximately 12,295 feet long, 90-foot wide right-of-way grant from triple 60 kV intersection in Section 7 of T13N, R25E, through Sections 17 and 20 to the edge of the new Mason substation right-of-way in Section 29 of T13N, R25E. The transmission corridor will contain three 60 kV circuits on two transmission lines. One transmission line will be double circuit. The transmission lines will be built at 120 kV to accommodate future load capacity, but will be operated at 60 kV for the near term. See Attachment A – Project Maps.
- **Mason Substation** – NV Energy is requesting a new 800 foot by 800 foot right-of-way grant in the NE ¼ of Section 29 of T13N, R25E for the new Mason substation. The grant will also include the incorporation and modification of an existing dirt access road. The substation will be constructed at 120 kV, but will be operated at 60 kV for the near term. See Attachment A – Project Maps.
- **Mason 205 Distribution Feeder** – NV Energy will require a new 1,145 foot long, 25 foot wide right-of-way from the edge of the Mason substation right-of-way to connect to the existing 205 circuit. The remaining distribution feeders will be within the new substation right-of-way, underbuilt on the Smith Valley transmission line, or construction will be within an existing right-of-way NEV-012366. See Attachment A – Project Maps.
- **Smith Valley 60 kV Transmission Line** – NV Energy is requesting a new approximately 35,044 feet long by 50-foot right-of-way grant from the new Mason substation to private parcels located in the SW ¼ of Section 13 of T12N, R23E. From the new Mason substation, the line will run west, over the Singatse Range to Smith Valley. The BLM right-of-way is not continuous as the line passes in and out of patented mining claim areas as it travels westward over the Singatse Range. Additionally, the requested grant covering the 60 kV transmission line will exclude approximately 4,006 feet of the line, which is authorized in perpetuity as a 100 foot wide ROW under NVCC-01586. The transmission line will be set within the Bridge Street 206 right-of-way and the existing 25 kV distribution line will be underbuilt on the new structures. The transmission line continues from the end of BLM lands in Section 13 of T12N R23E to the Smith Valley Switching station, which is located on private land and will be expanded to accommodate the new Smith Valley substation. The Smith Valley substation will be built at 120 kV, but will be operated at 60 kV for the near term. See Attachment A – Project Maps.

In accordance with BLM permit submittal requirements, this APOD provides the following project details:

- Purpose and Need – Justification for the project
- Project Description – Information on the project components, construction, permitting, and operations, including:
    - Location
    - Facilities
    - Land/ROW Requirements
    - Construction Activities

  - Operations and Maintenance Activities
  - Required Authorizations

- Environmental Compliance – Identification of the Environmental Compliance Team, an overview of the plan for managing environmental compliance, and environmental protection measures to avoid and/or minimize potential adverse environmental effects.

2 PURPOSE AND NEED

The purpose of this project is to consolidate two aging substations into a single substation energized by an extension of the existing 60 kV transmission lines and construct a new 60 kV transmission line and substation to the underserved communities in the Smith Valley and Topaz Ranch Estates areas. Existing infrastructure and right-of-ways will be utilized as much as possible to minimize the impact of the Project within the project area.

The need for the Project arises from the age of the existing substation infrastructure, which no longer meets National Electrical Safety Code standards. Additionally, NV Energy has a Certificate of Public Convenience and Necessity from the Public Utilities Commission of Nevada (PUCN) to provide adequate and reliable electrical service for consumers within its service territory. Residents within the Smith Valley and Topaz Ranch Estates area are experiencing numerous outages and low voltage "brown outs" prompting numerous complaints to the PUCN, requiring NV Energy to address the voltage issue.

3 PROJECT DESCRIPTION

3.1 LOCATION

The project area is confined to a small area on the western edge of Mason Valley, predominately behind the Anaconda Mine near Weed Heights and the existing Bridge Street 206 distribution line which travels from Yerington to Smith Valley via a dirt road to the abandoned town of Ludwig then on to the northern reach of Lower Colony Road and then proceeds south on Lower Colony Road to the Smith Valley Regulator Yard. See legal descriptions within Attachment A – Project Maps.

3.2 EXISTING ELECTRICAL INFRASTRUCTURE

Electricity is delivered to the Yerington area by three 60 kV transmission lines: the 601 Line from the Silver Springs substation to the Anaconda substation, the 636 Line from the Brunswick substation to the Anaconda substation, and the 638 Line from the Ft. Churchill power plant and substation to the Anaconda substation. The Anaconda substation supplies the Bridge Street substation by way of the 60 kV transmission line known as the 637 Line. Distribution lines from the two substations, Anaconda and Bridge Street, supply electricity to the town of Yerington and the surround communities of Mason, Wellington, Smith Valley, and the Topaz Ranch Estates primarily by four feeders. These 25 kV feeders are known as the Anaconda 204, the Anaconda 205, the Bridge Street 206, and the Bridge Street 208.

The Smith Valley area communities are served by the Anaconda 204 and the Bridge Street 206. The electrical load in this area is served by distribution lines that are over 20 miles in length, which is unusual within NV Energy's northern service territory. Please refer to Figure 1: Mason and Smith Valley Existing Electrical Infrastructure.

As mentioned previously, the Bridge Street substation was originally constructed in the mid-1950s and many of the components in the substation can be dated to that era. The substation does not meet current safety standards as required in the National Electric Safety Code. The substation is located on a small parcel, which cannot be expanded to allow for the addition of new switchgear and modern protection and telecommunication equipment. The Anaconda substation is similarly geographically constrained and does not have sufficient area available for expansion to allow for the addition of new switchgear and modern protection and telecommunication equipment.

3.3 PROPOSED ELECTRICAL INFRASTRUCTURE

The Project is comprised of five major components. Please refer to Figure 2: Proposed Electrical Infrastructure. The five major components are:

- The Mason 60 kV Transmission Corridor;
- The Mason Substation;
- The Mason Substation Distribution Feeders;
- The Smith Valley 60 kV Transmission Line, and;
- The Smith Valley Substation

Figure 1: Existing Electrical Infrastructure

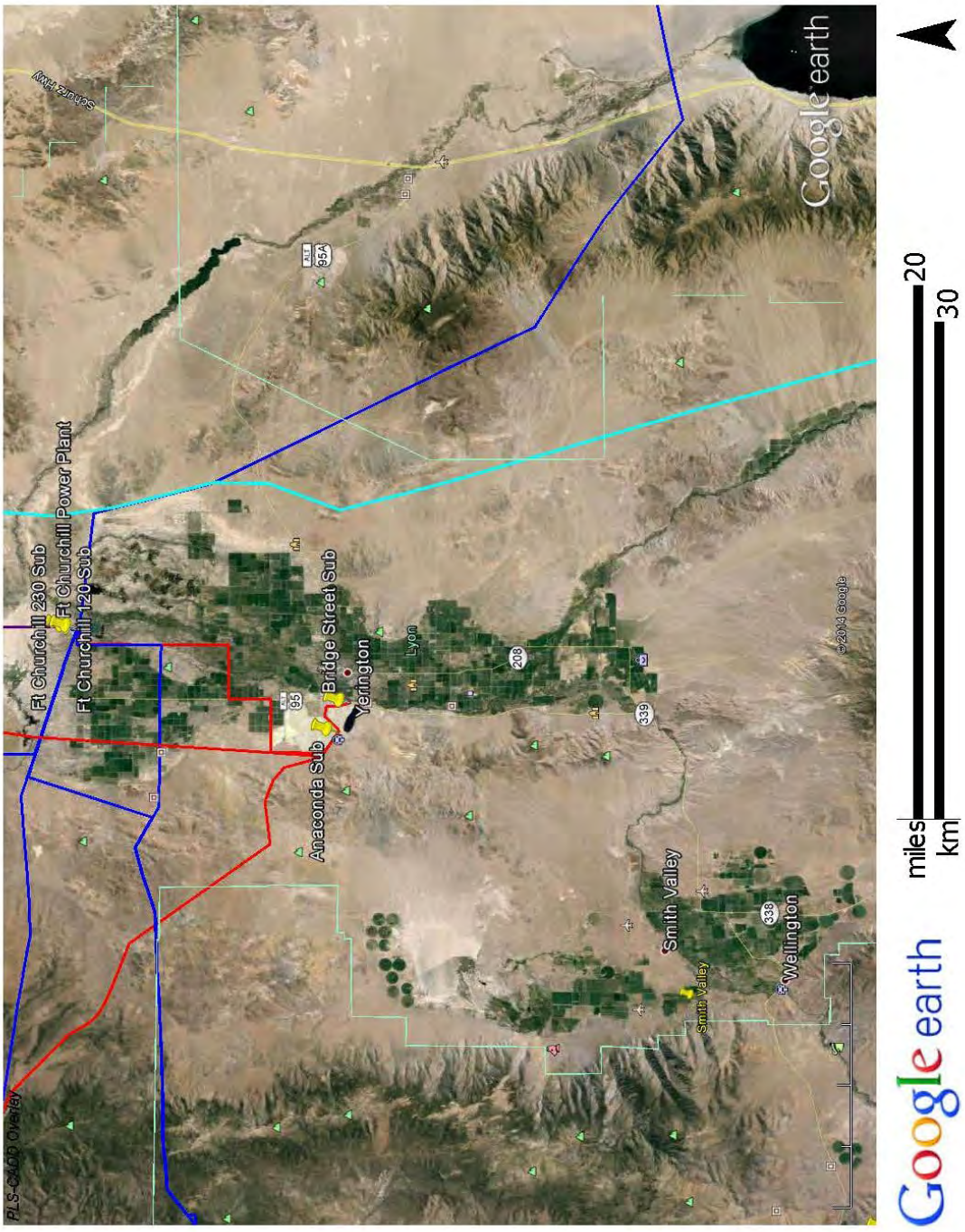
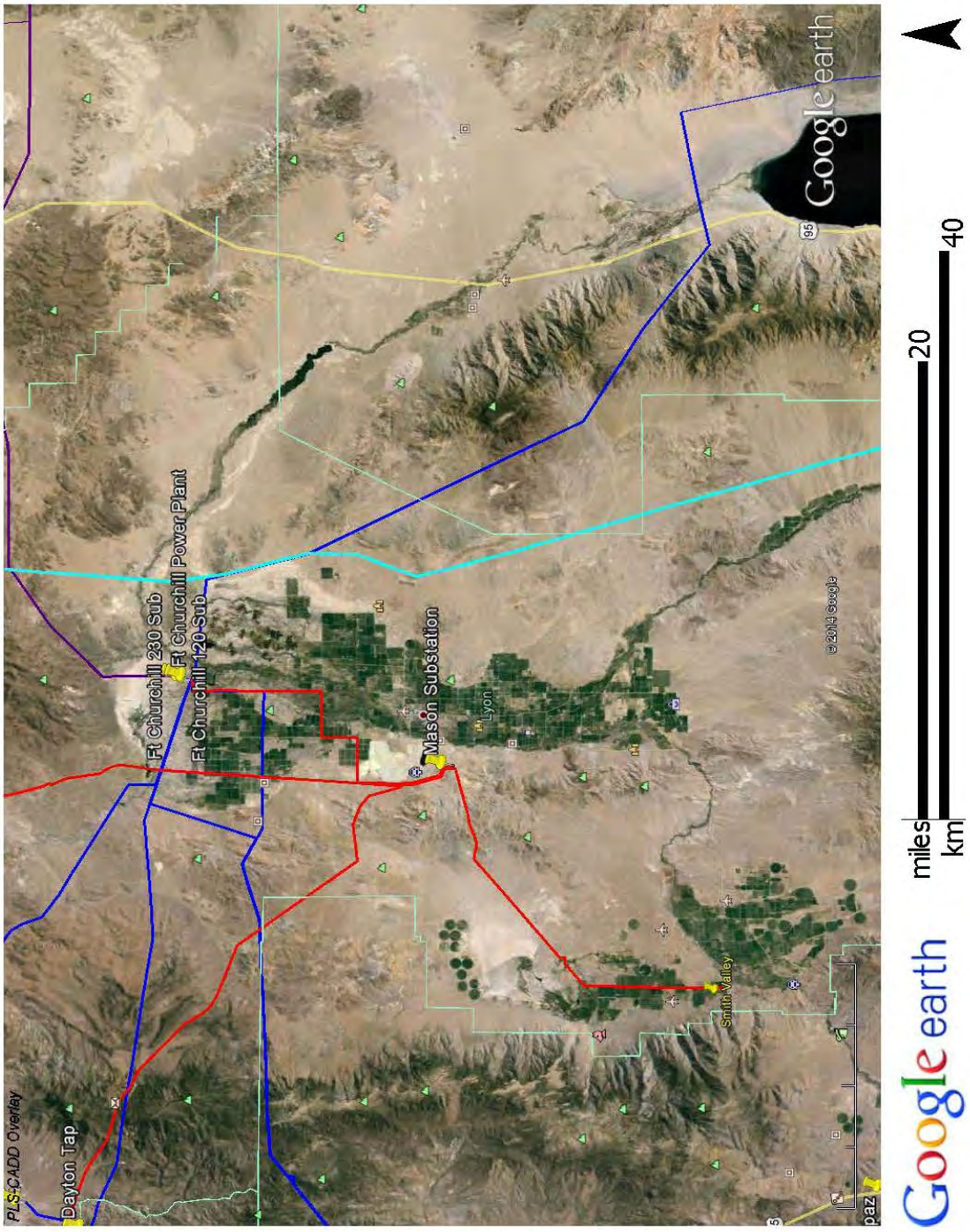


Figure 2: Proposed Electrical Infrastructure



3.3.1 Mason 60 kV Transmission Corridor

In order to energize the proposed Mason substation, the three 60 kV transmission lines serving the Anaconda substation, which condense into a single corridor approximately 0.95 miles northwest of the substation, will be extended towards the Mason substation in a single 90 foot wide right-of-way / corridor. The corridor will begin at the above mentioned intersection (BLM ROW Grants N-91536, NVCC-6186, and the 60 kV transmission line from Ft. Churchill to Anaconda crossing both state, private, a small part of federal land in Section 7 of T13N, R25E) and travels in a southern direction west of Weed Heights following existing dirt access roads. The corridor is approximately 2.4 miles long. Within the right-of-way, NV Energy will construct two transmission lines, one with a double circuit and a second with a single circuit. Approximately 1,400 feet of a new 20 foot wide access road will constructed along the transmission lines from the start of the project to the nearest existing access road. The transmission lines will be constructed at 120 kV standards; however, given that there are presently no 120 kV sources, the transmission lines will be operated at 60 kV.

The new transmission lines will require approximately 76 single pole tangent structures and 15 single pole angle structures. The new wood transmission line structures will be between 60 feet and 90 feet tall above grade surface. Angle structures will have between four to eight guy wires and anchors, depending upon the angle of the transmission line. The conductors will be 954 MCM All Aluminum (AA) conductor and both transmission lines will have a 3/8 inch EHS steel shield wire. For a diagram of the proposed structures, please see Figure 3: Mason 60 kV Corridor Tangent Typical Structures and Figure 4: Angle Typical Structure.

Communications to the new Mason substation will be accomplished by means of an addition of an All-Dielectric Self Supporting (ADSS) fiber added to one of the Mason transmission line structures from the start of the project to the Mason substation. The fiber will also be attached to the remainder of the 638 transmission line from the start of the project to the Ft. Churchill Power Plant. Neither pole replacement nor soil disturbance on public land is required for the addition of the fiber. The fiber installation is part of a larger NV Energy telecommunications project planned for the Yerington area.

3.3.2 Smith Valley 60 kV Transmission Line

NV Energy has determined that constructing a new 60 kV transmission line from the Yerington area to the Smith Valley area as being the most effective solution to the low voltages problems experienced in the area. As mentioned previously, the Bridge Street 206 distribution line is one of two electrical distribution circuits supplying the Smith Valley and surrounding area. The Project proposes to replace the Bridge Street 206 line, in a pole for pole manner, with a 60 kV transmission line with the current Bridge Street (Mason) 206 distribution line transfer directly on the new poles as an underbuild. At the request of the landowner, the transmission line will be relocated adjacent to the property lines on three parcels where the current distribution line bisects and limits development of those parcels. The transmission line will be built to 120 kV standards to accommodate future load requirements; however, the line will be operated at 60 kV for the near term. The transmission line will originate at the Mason substation and will replace the Bridge Street 206 all the way to the Smith Valley substation.

The new transmission lines will require approximately 335 single pole tangent structures and 20 single pole angle structures. The new wood transmission line structures will be between 60 feet and 90 feet tall above grade surface. Angle structures will have between two to eight guy wires and anchors, depending upon the angle of the transmission line. The conductors will be 795 MCM All Aluminum (AA) conductors. Optical Ground Wire (OPGW) will serve as both shield wire and a communications link from the new Mason substation to the Smith Valley substation. For a diagram of the proposed structures,

please see Figure 5: Single Circuit Tangent Structure with Underbuild Typical Structure, and Figure 4: Angle Typical Structure.

3.3.3 Mason Substation

The proposed Mason substation will be located in the NE ¼ of Section 29 of T13N, R25E. The location for the substation site was chosen due to its proximity to the 60 kV transmission lines, location of the distribution feeders, size of the substation and the local topography. The substation is designed to support the electrical loads of both the Anaconda and Bridge Street substations. The substation will be constructed to meet 120 kV standards in preparation for future load growth; however it will be operated at 60 kV utilizing a pair of 120 x 60 / 25 kV transformers. The Tower Gateway Base (TGB) and antenna mast may be relocated from the Anaconda substation to the Mason substation. The temporary construction right-of-way will be limited to 1000 feet by 1000 feet. This will allow for a suitable working area to provide a level graded foot print of 500 feet by 500 feet. The final fenced perimeter of the substation will be 500 feet by 500 feet. NV Energy is requesting an 800 foot by 800 foot permanent right of way. Please refer to Figure 6: Mason Substation Plan View.

3.3.4 Mason Substation Distribution Feeders

The four existing distribution feeders from the Bridge Street substation and Anaconda substation are immediately available to the Mason substation site requiring the addition of a small number of new poles or the reconfiguration of existing circuits. The Anaconda 204 is located approximately 0.21 miles to the northeast. The Bridge Street 206 is located approximately 0.05 miles to the south. The following additions/reconfiguration will be required to tie in the existing distribution system.

- Mason 206 Circuit – The feeder will exit the Mason substation to the south and tie into the existing circuit and travel west underbuilt on the Smith Valley 60 kV transmission line.
- Mason 208 and Mason 204 Circuits – The two feeders will exit the substation to the south. A portion of existing Bridge Street 206 circuit will be rebuilt as a double circuit and travel east toward State Highway 339. At the highway, the Mason 208 will head north on the old Bridge Street 206 circuit and the Mason 204 will tie into the existing Anaconda 204 circuit and head south.
- Mason 205 Circuit – The feeder will exit the substation to the east and tie into the Anaconda 204 circuit and ultimately tie into the Anaconda 205 circuit near the old Bridge Street substation. The portion of the Anaconda 204 being repurposed for the Mason 205 will need to be re-conductored to 397.5 AA conductors; however, most of the structures can be reused. Three existing poles will be replaced and ten new poles will be constructed within the existing alignment. The three replacement poles and seven new poles are located on public land.

3.3.5 Smith Valley Substation

The current Bridge Street 206 and Anaconda 204 distribution circuits presently meet at the Smith Valley Switching Station on Lower Colony Road in Smith Valley. The Project proposes to expand this facility to approximately 320 feet by 250 feet. A new 120/60 to 25 kV transformer, regulators, switchgear, and associated buss work will be installed and will connect with the existing distribution circuits to provide electrical service to Smith Valley and the surrounding communities. The Smith Valley substation will be located on private lands. Please see Figure 7: Smith Valley Substation Plan View.

3.3.6 Infrastructure Removal

At the conclusion of the Project, NV Energy will decommission and dismantle the Anaconda and Bridge Street substations. Both of these substations are located on private land and will be restored according to the landowner's preferences. Additionally, portions of the 601, 636, and 638 transmission lines that are no longer in service, from the start of the Mason 60 kV corridor to the Anaconda substation where the three lines share a common corridor, will be dismantled and the right-of-way will be restored and re-vegetated in conjunction with other disturbed areas associated with the Project using a BLM-approve seed mixture. The right-of-way grants associated with these structures will be relinquished. Section 3.6.3 *Electrical Equipment Decommissioning* details the decommissioning procedure.

Figure 3: Mason 60 kV Corridor Tangent Typical Structure

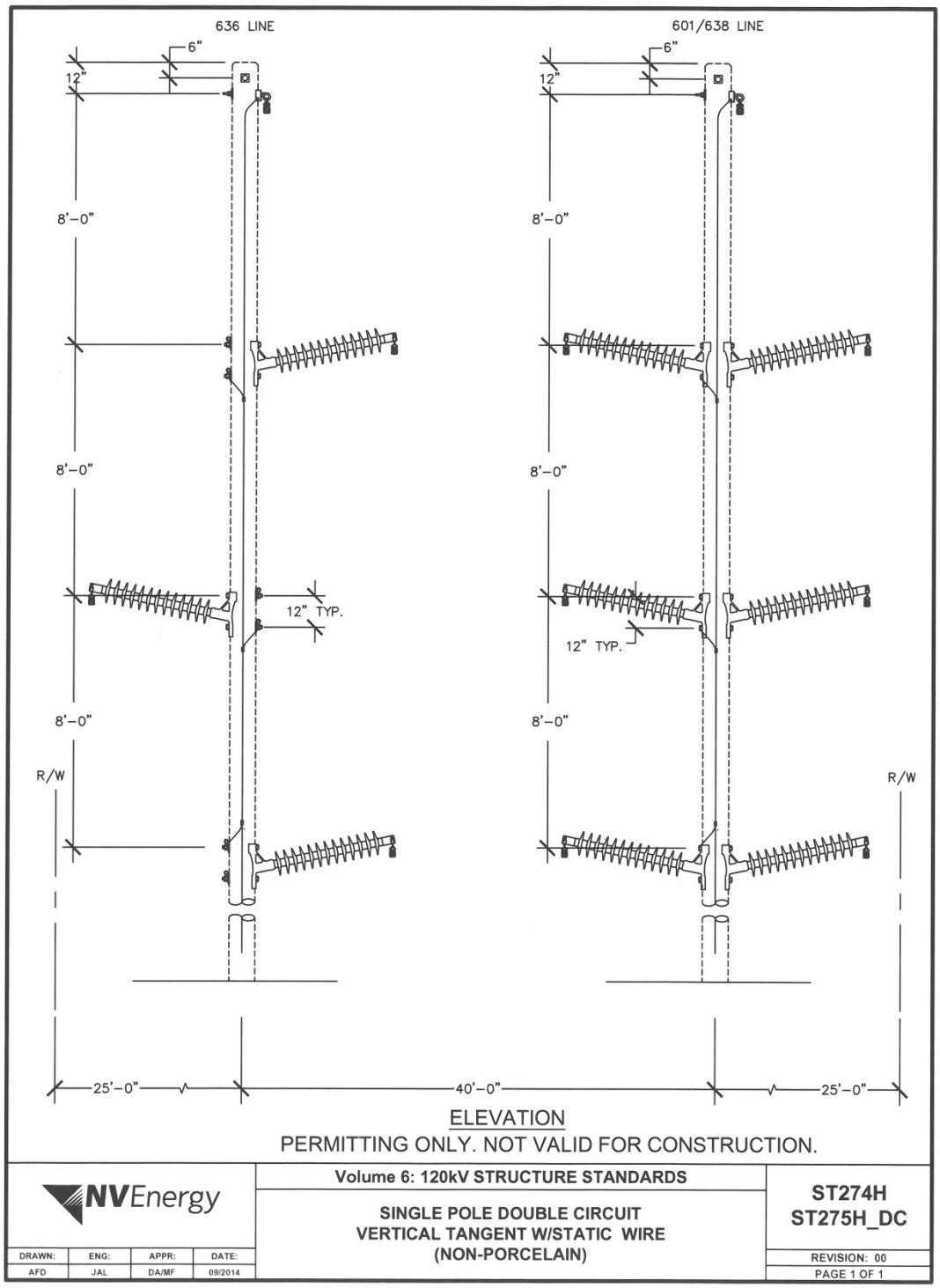


Figure 4: 120kV Angle Typical Structure

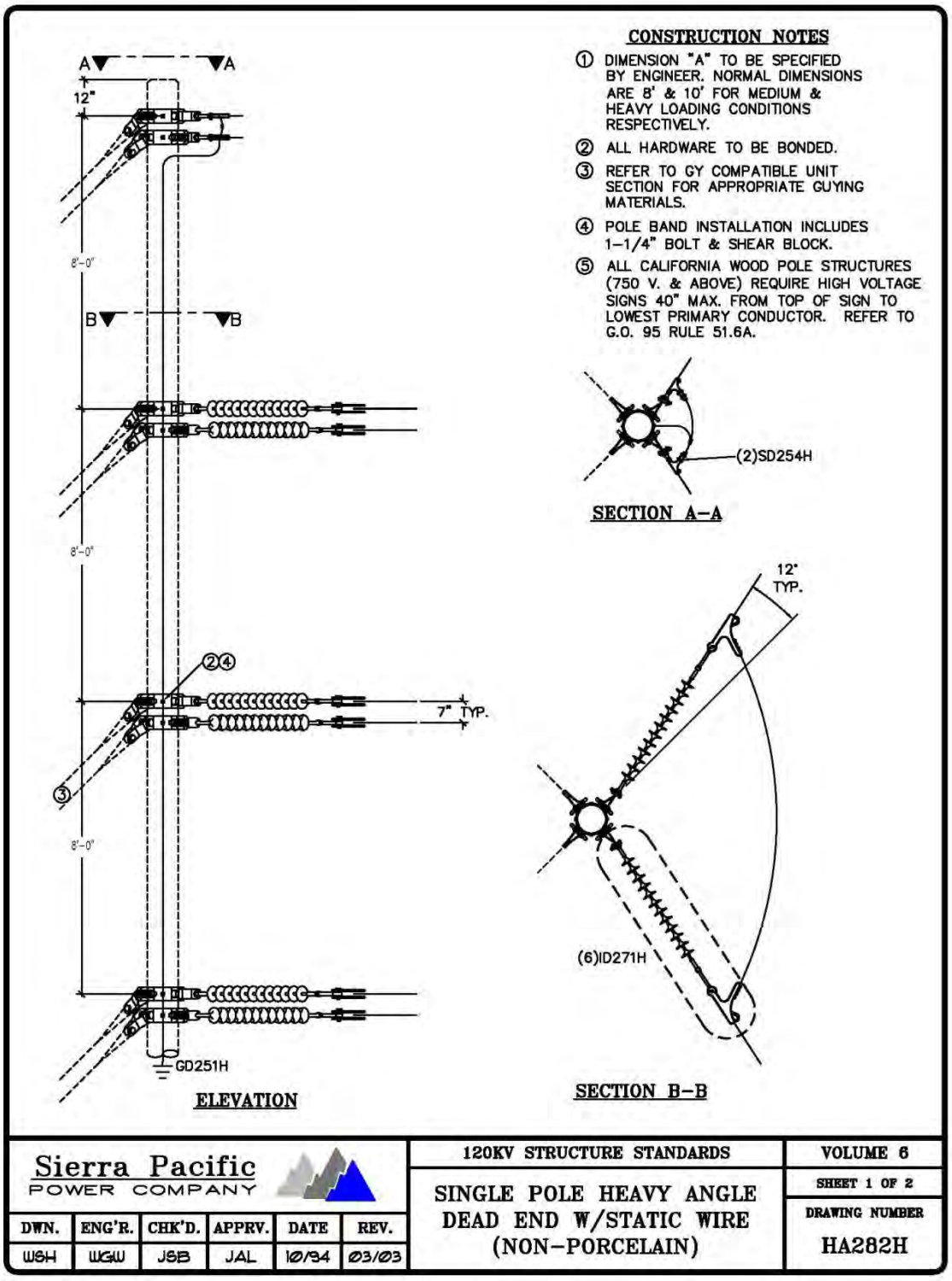


Figure 5: Single Circuit Tangent w/ Underbuild Typical Structure

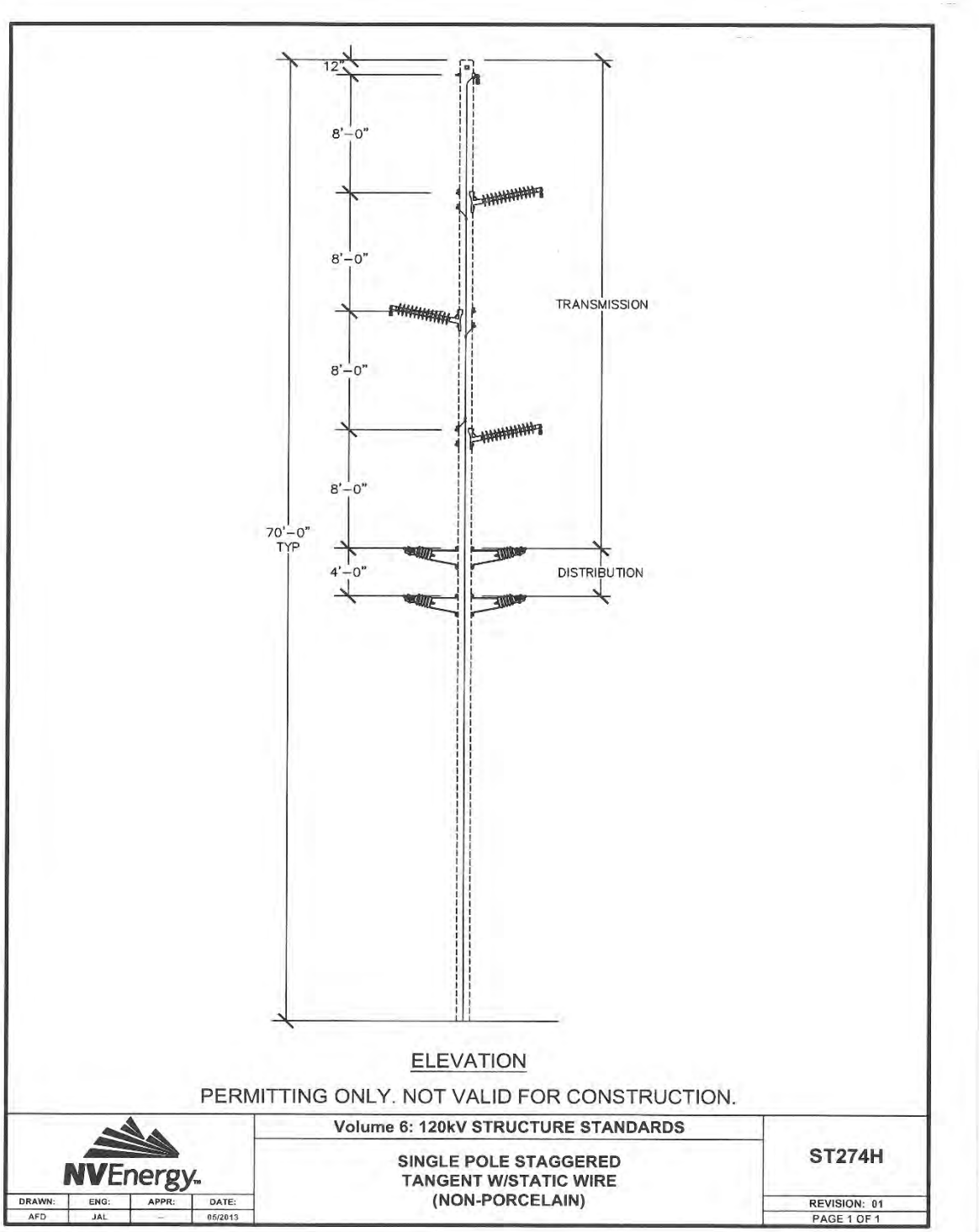


Figure 6: Mason Substation Plan View

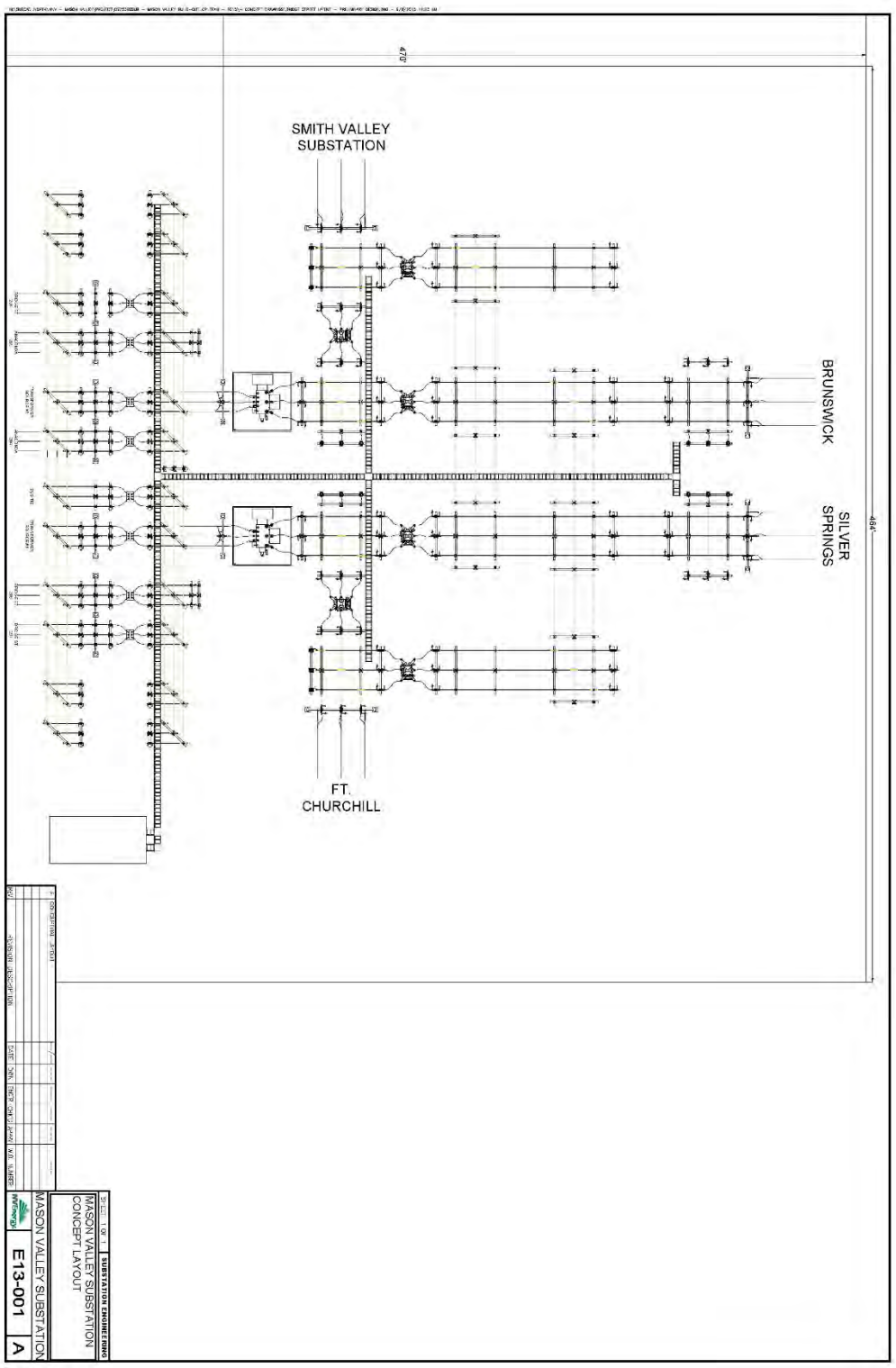
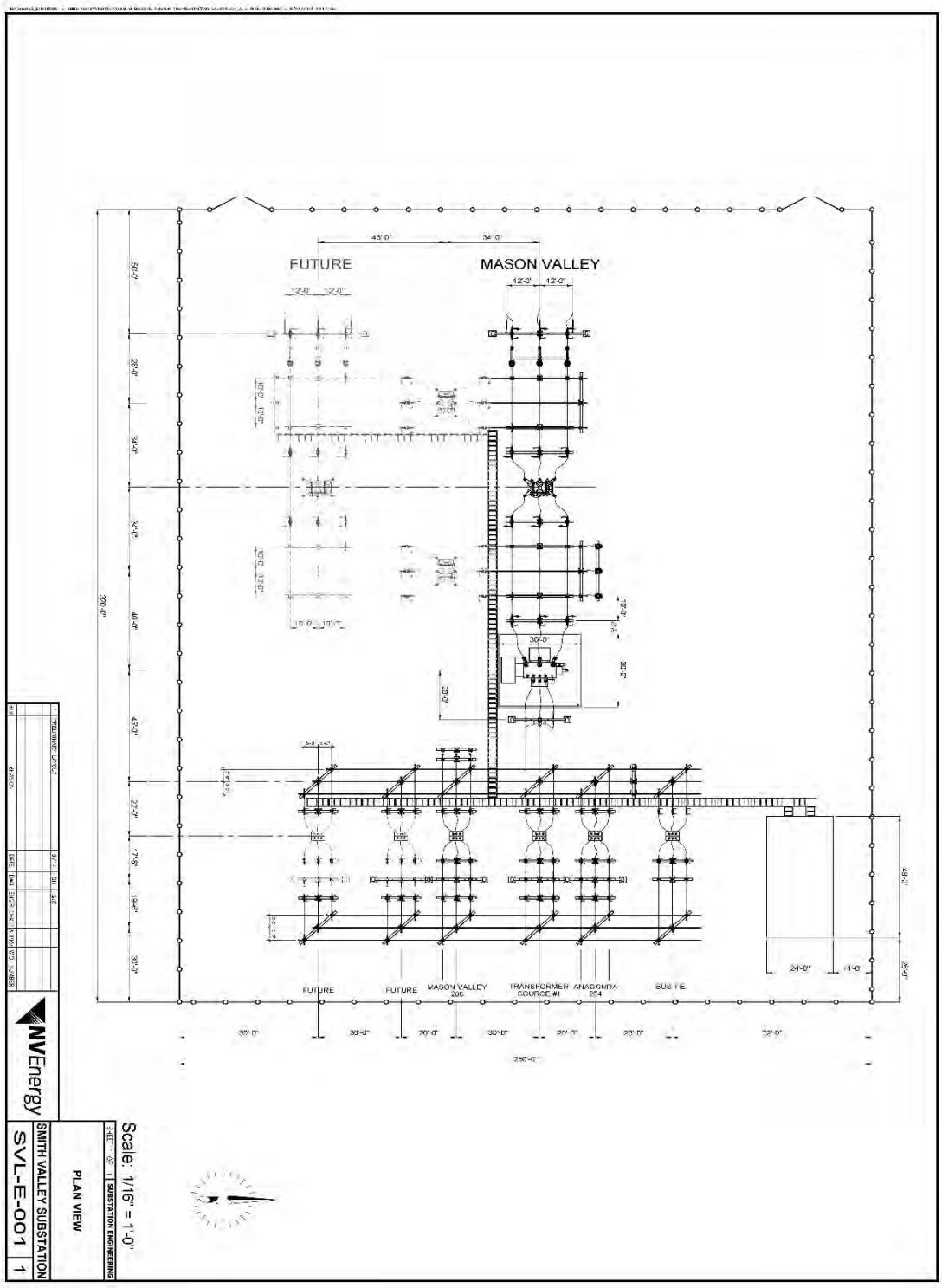


Figure 7: Smith Valley Substation Plan View



3.4 LAND/ROW REQUIREMENTS

NV Energy will require a combination of temporary construction rights-of-way in addition to the permanent rights-of-way associated with the Project from the BLM. Existing easements crossing private parcels will be standardized at 50 feet for the Smith Valley transmission line

3.4.1 Temporary (Construction)

Ground disturbing activities will be conducted with a temporary construction right-of-way. The width of temporary right-of-way will vary depending upon the portion of the project to be completed as follows:

- **Distribution facilities:** 100 feet wide;
- **Mason Transmission Corridor:** 300 feet wide;
- **Mason Substation:** 1000 feet by 1000 feet;
- **Smith Valley Transmission Line:** 300 feet wide, on average, but will extend from the existing access road to 150 feet on the opposite side of the transmission line and will include all of the area between the two features. See Attachment A: Project Maps for additional details.
- **Angle Pulling Sites:** All angular pulling sites will be located within a circular pulling site area with a 600 foot radius, although not all of the circular area will be used.

All access roads used for construction, with the exception of new access roads installed for the project of public land, would be included within the temporary construction right-of-way. New access roads created for the project would be incorporated within the permanent right-of-way for which they serve.

3.4.1.1 Mason 60kV Transmission Corridor

In order to accommodate construction equipment and activities, 76 temporary work pads measuring 20 feet by 70 feet in size will be needed for each proposed structure. Work pads will be located adjacent to the structure location within the temporary construction right-of-way. As summarized in Table 1: Temporary Disturbance Areas, the transmission structure work areas will disturb a total area of approximately 2.4 acres on BLM land.

Pull Sites

A total of four pull sites will be necessary for conductoring of the line. Pull sites will be approximately 600 feet in radius; however disturbance is only necessary within a portion of the proposed pull site area depending upon the angle of the transmission line. Attachment A: Project Maps shows the locations of the pull sites. As summarized in Table 1: Temporary Disturbance Areas, pull sites will temporarily disturb a total area of approximately 26 acres. The temporary work pad for angle and dead end structures will fit within the pulling sites or the Mason substation temporary disturbance area.

Staging Area

In order to stage construction equipment and materials, NV Energy crews will use one staging area located east of the existing water tanks near the Mason substation. It is understood that the previously disturbed five acre site serves as a pit stop area for a local off road race. NV Energy will coordinate with the race organizers to prevent overlap of the two activities. Attachment A: Project

Maps displays the specific location of the staging area. As summarized in Table 3: Temporary Disturbance Areas, the total area of disturbance associated with this staging area is approximately 5.75 acres, which is located on public land.

Access Roads

NV Energy will use existing roads to access the new transmission line corridor as much as possible. The existing dirt access roads have a variable width, but have an average width of approximately 15 feet. Access roads will be widened to a maximum width of 20 feet. Biological and cultural surveys included a 25-foot buffer on either side of the access road to account for road widening. Overland travel will be necessary to access some structure site. As detailed in Table 1: Temporary Disturbance Areas, road widening of existing access roads will result in a temporary disturbance of 1.5 acres. At the conclusion of the project, access roads will be restored to their pre-construction width.

The Project will install a new access road approximately 1,400 feet long and 20 feet wide from the start of the new corridor traveling due south to the nearest existing access road. As detailed in Table 1: Temporary Disturbance Areas, this activity will result in a permanent disturbance of 0.48 acres. See Attachment A: Project Maps for location.

3.4.1.2 Mason Substation

The Mason Substation will be constructed upon a small butte overlooking the water tanks to the east and the community of Weed Heights to the north. The completed substation will have fenced area measuring approximately 500 feet by 500 feet. The substation has been sized and designed to accommodate a breaker and a half layout allowing for improved reliability. The substation will be constructed to 120 kV standards and will include room for future expansion; however, there is presently no 120 kV source and the substation will be operated at 60 kV in the near term. See Figure 6: Mason Substation Plan View.

The substation site has a minor uphill slope towards the west. Some minor grading will be required to develop a level building pad for substation construction. Providing the native soils are appropriate for compaction and construction, NV Energy will borrow from the high side and incorporate the soil into the low side, resulting in a level pad. As detailed in Table 1: Temporary Disturbance Areas, this activity will result in a temporary disturbance area approximately 23 acres (1000 feet by 1000 feet). Upon the conclusion of the project, NV Energy will re-contour and restore the disturbed area outside the Mason substation right-of-way to its pre-construction appearance.

NV Energy will utilize, for the most part, an existing access road to access the Mason substation. This road (See Appendix Attachment A: Project Maps) will be widened to approximately 30 feet and current right angle turns will be appropriately curved to allow the passage of large vehicles. The proposed access road will be extended with a swiping curve to meet the Weed Heights Road. As detailed in Table 1: Temporary Disturbance Areas, this activity will result in a temporary disturbance of approximately 0.73 acres.

3.4.1.3 Mason Substation Distribution Feeders

The Mason substation will have four distribution feeders to provide electrical service for the Yerington service area. These will be named: the Mason 206, Mason 208, Mason 204, and Mason 205. To connect the Mason substation to the existing distribution system, NV Energy will install one new distribution line existing to the east along an existing access road (Mason 205), and will replace a portion

of the existing Bridge Street 206 with a double circuit distribution pole line from the Mason substation to Highway 339 (Mason 208 and Mason 204). The Mason 206 will exit the substation to the south and be underbuilt on the Smith Valley transmission line.

The Mason 205 will require four poles outside of the Mason substation temporary disturbance area. Each pole will require an approximate 20 foot by 50 foot temporary work pad. Work pads will be located adjacent to the structure location within the temporary construction right-of-way. As detailed in Table 1: Temporary Disturbance Areas, this activity will result in a temporary disturbance of 0.10 acres on public land. Existing access roads will be used to access this distribution line. Additionally, NV Energy will replace the conductors on approximately 1.3 miles of the old Bridge Street 204 from the Weed Heights Road to the old Bridge Street substation. The additional weight of the new conductor will require the replacement of three existing poles and the installation of ten new poles within the existing right-of-way. Three existing poles will be replaced and ten new poles will be constructed within the existing alignment. The three replacement poles and seven new poles are located on public land. Existing access roads and road shoulders can be used for construction therefore temporary disturbance areas will not be required for this work is not included in Table 1.

The Mason 208/204 double circuit will require the replacement of approximately thirteen poles outside of the Mason substation temporary disturbance area. Each pole will required an approximate 20 by 50 foot temporary work pad. As detailed in Table 1: Temporary Disturbance Areas, this activity will result in a temporary disturbance of approximately 0.3 acres on public land. The alignment follows and existing dirt access road from the Mason substation to Highway 339. Pulling of the conductors will be done within the Mason substation temporary disturbance area or within the access road or road shoulders.

3.4.1.4 Smith Valley 60 kV Transmission Line

In order to accommodate construction equipment and activities, 335 (124 on public land) temporary work pads measuring 20 feet by 70 feet in size will be needed for each proposed structure. Work pads will be located adjacent to the structure location within the temporary construction right-of-way. As summarized in Table 1: Temporary Disturbance Areas, the transmission structure work areas will disturb a total area of approximately four acres on BLM land.

Pull Sites

A total of eighteen pull sites will be necessary for conductoring of the line. Angle pull sites will be approximately 600 feet in radius and in-line pull site will be a rectangular area measuring approximately 600 feet long by 300 feet wide. Disturbance is only necessary within a portion of the proposed angle pull site area depending upon the angle of the transmission line. Eight angle pull sites and two in-line pull sites are proposed for public land. The in-line pull sites will be entirely located within the temporary construction right-of-way. Conductor lengths can vary from manufacturer to manufacturer and can range between 10,000 and 15,000 feet. The actual length of conductor per reel received may not be known until receipt of the conductor. Given this unknown, it is not possible to determine the exact location of in-line pulling sites; however they will be situated within the Smith Valley portion of the transmission line and will be between 10,000 to 15,000 feet away from the nearest angle pulling site and then 10,000 to 15,000 feet from the first in-line pulling site. Attachment A: Project Maps shows the locations of the angle pull sites. As summarized in Table 1: Temporary Disturbance Areas, pull sites will temporarily disturb a total area of approximately 45.5 acres on public land. The pull sites include temporary work pads for structures located within the area.

Staging Area

In order to stage construction equipment and materials, NV Energy crews will use two staging areas adjacent to the transmission line. One staging area will be located where the transmission line crosses Delphi Road and will be approximately 300 feet by 300 feet. The second staging area will be located on private land adjacent to the Smith Valley substation. Attachment A: Project Maps displays the specific location of the staging areas. As summarized in Table 1: Temporary Disturbance Areas, the total area of disturbance associated with the staging area located on public land is approximately 2.1 acres.

Access Roads

NV Energy will use existing roads to access the new transmission line corridor as much as possible. The existing dirt access roads have a variable width, but have an average width of approximately 15 feet. Access roads will be widened to a maximum width of 20 feet. Biological and cultural surveys included a 25-foot buffer on either side of the access road to account for road widening. Overland travel will be necessary to access some structure site. As detailed in Table 1: Temporary Disturbance areas, road widening of existing access roads will result in a temporary disturbance of 2.4 acres. At the conclusion of the project, access roads will be restored to their pre-construction width.

The Project will add approximately 1,856 feet of new access road along a portion of the transmission line near the Bluestone Mine area. The road will be approximately 20 feet in width and will be located entirely on private land. As summarized in Table 1: Temporary Disturbance Areas, the new access roads will disturb approximately 0.85 acres on private land. No new access roads are proposed on public land. See Attachment A: Project Maps for the location of new access roads.

Table 1: Temporary Disturbance Areas

Project Component	**Workspace**	**Area Required**	**Approximate Total Acreage of Temporary Disturbance[1]**	
			Private	Public
Mason Valley Transmission Corridor	Structure Work Areas	76 @ 20’ by 70’	0	2.4
	Pull Sites (angles)	4 @ 600’ radius	0	26
	Staging Areas	500’ x 500’	0	5.75
	Access Road (new)	1,400’ x 20 ‘	0	0.64
	Access Roads (existing)	12, 898[2] x 5’	0	1.5
Smith Valley Transmission	Structure Work Areas	124 @ 20’ x 70’ BLM 211@ 20’ x 70’	6.8	4.0

[1] The temporary ROW is inclusive of the permanent ROW.

Corridor		(Private)		
	Pull Sites (angle)	18 @ 600' radius	58.5	45.5
	Pull Site (in-line)	4 @ 600' x 300'	8.3	8.3
	Staging Areas	2 @ 300' x 300'	2.1	2.1
	Access Road (new)	1,856' x 20'	0.85	0
	Access Roads (existing)	51,400[2] x 5'	3.5	2.4
Mason Substation	Work Area	1000' x 1000'	0	23
	Access Road	1,600' x 30'	0	0.73
Mason Substation Distribution	Structure Work Pad Mason 205	4 @ 20' x 50'	0	0.1
	Structure Work Pad Mason 208/204	13 @ 20' x 50'	0	0.3
Smith Valley Substation	Work Area	300' x 370'	2.55	0
Totals			82.6	122.72

3.4.2 Permanent (Operation)

NV Energy will require a permanent 90 foot wide right-of-way along the length of the proposed transmission lines within the Mason Valley. The two transmission lines will be located twenty-five feet from the edge of the right-of-way on both sides with approximately 40 feet separating the two lines. Existing and newly created dirt roads will be utilized for travel between the right-of-way and major roadways.

NV Energy will require a permanent 50 foot wide right-of-way along the length of the Smith Valley transmission line from the Mason substation to private parcels within Smith Valley. Existing roads along the transmission line will be used for construction. Some overland travel will be required where the transmission line deviates from the primary access road.

NV Energy will require a permanent 800 foot by 800 foot right-of-way for the area encompassing the Mason substation as well as a 20 foot by 1,600 foot long right-of-way for the substation access road.

NV Energy will require a permanent 25 foot wide right-of-way for all distribution circuits within the project area.

[2] Lengths of existing access road are estimated by aerial photography and subject to error both in length and property boundary location. The figures provided are only a good faith estimate and are not exact.

3.5 REQUIRED AUTHORIZATIONS

Table 2: Required Permits and Authorizations provide a list of the permits that must be obtained prior to construction and operation of the project.

Table 2: Required Permits and Authorizations

Agency	Permit/Authorization	Action Requiring Permit Approval or Review
BLM	ROW Grant	Obtaining temporary ROW on public land
	National Environmental Policy Act compliance	Issuance of a ROW Grant
	Section 106 of the National Historic Preservation Act compliance (if required)	Any activity that may affect prehistoric or historic resources eligible for the National Register of Historic Places and issuance of a Special Use Authorization
Nevada Division of Environmental Protection, Bureau of Water Pollution Control	National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit	Stormwater discharge associated with construction activities disturbing 1 or more acres
Nevada Division of Environmental Protection, Bureau of Air Quality	Surface Area Disturbance Permit	Fugitive dust control for project creating greater than 5 acres of disturbance

3.6 CONSTRUCTION METHODS

3.6.1 Transmission and Distribution Lines

Construction of the transmission and distribution structures and conductoring of the line will occur as follows:

Step 1 – Mobilization and Staging

The crew will mobilize to the site approximately one week prior to the start of work. During this time, the crews will move equipment and construction materials to the staging areas.

Step 2 – Preconstruction Surveying and Staking

The boundaries of the temporary ROW, structure locations, pull sites, access roads and identified sensitive resources will be staked and flagged. Depending on the timing of construction and as required by the BLM, preconstruction surveys for sensitive species will be conducted within the temporary disturbance areas. Newly identified areas for sensitive species will be appropriately mitigated prior to construction.

Step 3 – Access Road Construction

In order to access the proposed structure locations, existing dirt access roads will be improved and widened to a maximum with of 20 feet, as needed. Road improvements will include grading to level the traveling surface and gravel may be incorporated into areas where the road has drainage issues or has been reduced to a powdery consistency. Any new proposed access road will be installed at this time. Structure locations without existing access roads will be accessed overland travel, as needed. The locations of the existing access roads and proposed overland travel routes are delineated on Attachment A: Project Maps.

Step 4 – ROW Preparation

In order to establish sufficiently sized work areas, pull sites, staging areas and access roads, some vegetation clearing and grading will be conducted. In all locations, with the exception of access roads, vegetation removal will be minimized to the extent possible. Because the structure sites and the structure stringing sites require a fairly flat surface, work areas may be graded, and soil may be imported to achieve the necessary elevation. Work areas of approximately 20 feet by 70 feet in size for transmission structures will be necessary. A work area approximately 600 feet in diameter for the Mason corridor will be cleared of vegetation and graded (as necessary) for use at the pull sites which also include the work areas for the angle structures. The Smith Valley transmission line will require pulling sites measuring 600 feet in diameter for angle structures and 600 feet long by 300 feet wide for in-line pulling sites. Distribution poles will require work areas measuring 20 feet by 50 feet. Pulling sites will be located within available access roads or other temporary work areas.

Step 5 – Structure Installation

In order to install transmission and distribution structures, one hole will be excavated for each structure. Holes will be excavated using augers or other back-hoe type equipment and will be approximately 3 feet in diameter and approximately six to ten feet deep, depending upon the height of

the structure. Additionally, holes for guy wire anchors[3] will be excavated at angle structures. These holes will be excavated to depths of approximately six to ten feet. Blasting may be required in rocky areas where normal excavation methods are unable to meet project excavation specifications.

Materials, including structure components, insulators, hardware, and guy wire anchors, will be delivered to the project site via flatbed truck, and will be assembled on site using a crane or other heavy construction equipment. Crews will attach insulators, travelers, and hardware to the structure or cross arm to form a complete unit. After this step has been completed, the assembled structures will be placed into the excavated holes using a large mobile crane. The structure pole bases will be buried in the ground, and native soil will be used to fill the holes (imported soil will be used if native material is unsuitable for compaction). At angle structures, guy wires to support the structures will be used to plumb the structures.

With the exception of the new structures installed for the Mason 60kV corridor, all of the structures proposed for the Smith Valley transmission line and the distribution work around the proposed Mason substation are replacing existing structures. Given that the system will need remain energized during construction, NV Energy will replace these structures using "Hot Construction" techniques. This requires the addition of fiberglass extension arms to the existing cross-arm so that the distribution conductors can be spread apart. The new structure hole is advanced adjacent to the existing structure and the new structure is installed between the existing conductors. Once the structure is in place, the spreading arms are removed and the conductors are disconnected from the old structure and attached to new structure. The old structure will be cut off at ground level and removed from the right-of-way for proper disposal. New transmission or additional distribution conductors will be added using the methods explained in Step 6.

Step 6 – Conductor Installation

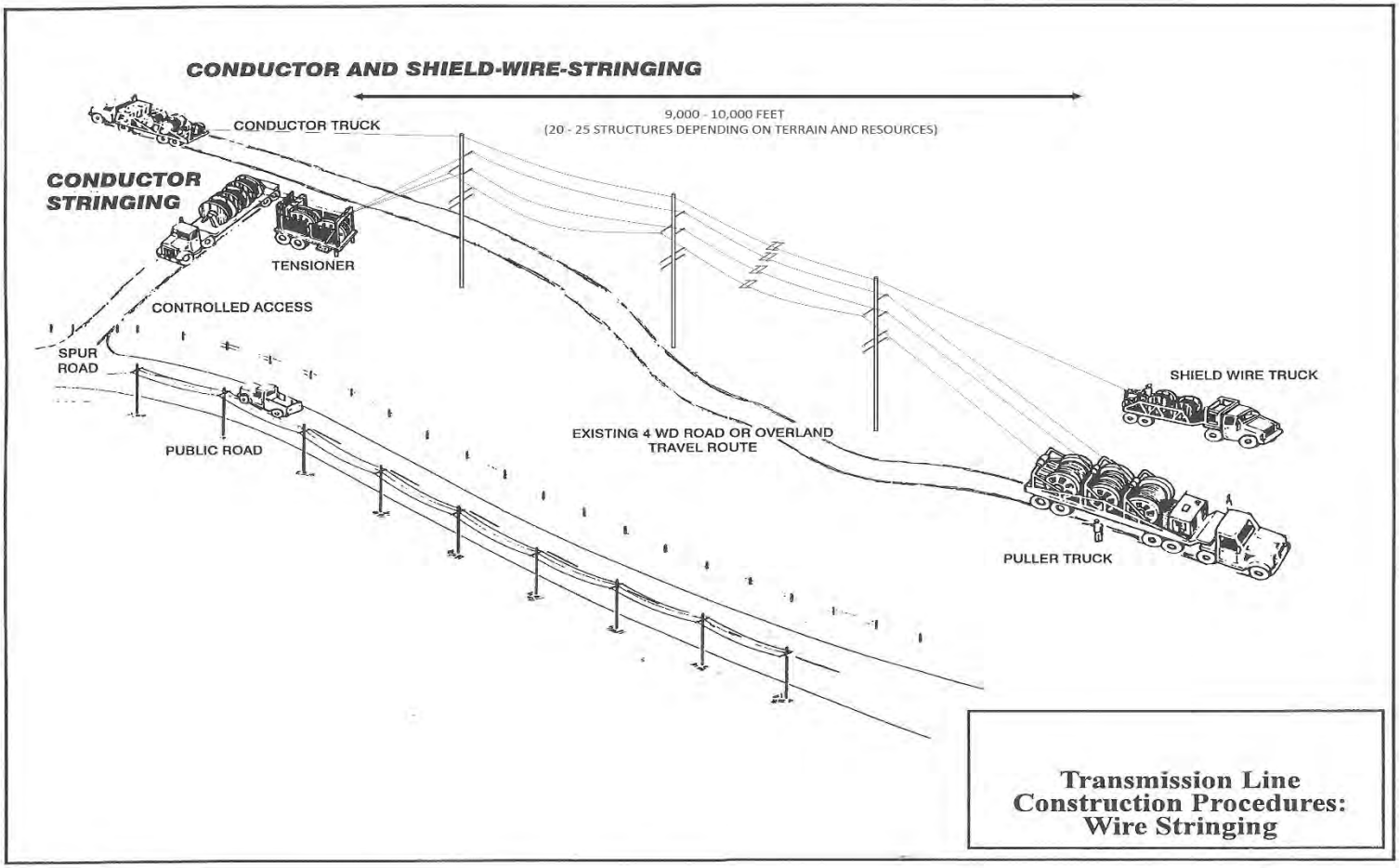
As depicted in Attachment A: Project Maps, multiple pull sites will be required to install new conductors. Transmission and distribution conductors are typically delivered to the project site in 10,000 to 15,000 foot segments on large reels. Pull sites are located approximately every 10,000 to 15,000 feet along linear sections or at major angle points along the alignment. This sub portion of the line is defined as a line segment. To install the conductor, equipment is positioned at pulling sites on both ends of the line segment; a Cable Reel truck and Tensioner trailer on the near end and a Puller/Take-up trailer on the far end of the line segment. A light cord/cable called a sock line is pulled from a reel on Cable Reel truck, through the travelers, to another motorized reel on the Take-up trailer at the far pull site. Next, the sock line is attached to the conductor on the Cable Reel truck at the near pull site and the motorized reel on the Take-up trailer is used to pull the sock line and the heavier conductor through the Tensioner trailer, then through the travelers to the pull site on the far end. Once the conductor reaches the far pull site, the conductor is sagged and tensioned to design specifications, attached to the utility pole's insulators and the travelers are removed.

This process is repeated for each conductor and shield wire within the line segment before moving on to the next line segment. Once the conductor is pulled into place, sags between the structures will be adjusted to a pre-calculated level. The lowest conductor on the structure will be installed with a minimum ground clearance of 25 feet. Additional clearance is required over highway

[3] Guy wire anchors fasten a high-tensioned cable to the ground to give the transmission structure increased stability.

crossings. Guard Structures, a temporary structure consisting of two poles with a horizontal cross-arm, will be installed at either side of major road crossings to maintain conductor clearance over the highway prior to completing the conductor installation. See Figure 8 for a sample depiction of conductor installation.

Figure 8: Typical Conductor Installation Diagram



Step 7 – Site Cleanup and Demobilization

Surplus materials, equipment, and construction debris will be removed at the completion of construction activities. Man-made construction debris will be removed and disposed of at permitted landfill sites. Cleared vegetation will either be shredded and spread over the ROW as mulch and erosion control or disposed of off-site, depending on agency agreements. Rocks removed during access road grading and foundation excavation will be redistributed over the ROW to match adjacent site conditions.

Step 8 – Restoration and Reclamation

Once construction has been completed, existing and new access roads will remain improved and any overland travel routes created by the project will be reclaimed to preconstruction conditions. Areas within the ROW disturbed by construction activities will be recontoured, decompacted, and seeded. BLM-approved seed mixes will be applied to these disturbed areas. NV Energy will attempt to close or restrict vehicle access to areas that have been seeded until the reclamation success criteria have been satisfied. Reclamation of the ROW will be scheduled in the early fall following construction so that seeds can over-winter and take advantage of the winter and spring precipitation.

3.6.2 Substation Construction

NV Energy is requesting a 1000 foot by 1000 foot temporary construction right-of-way for the Mason substation.

Step 1 – Mobilization and Staging

The crew will mobilize to the site approximately one week prior to the start of work. During this time, the crews will move equipment and construction materials to the staging areas.

Step 2 – Preconstruction Surveying and Staking

The boundaries of the temporary ROW, access roads and identified sensitive resources will be staked and flagged. Depending on the timing of construction and as required by the BLM, preconstruction surveys for sensitive species will be conducted within the temporary disturbance areas. Newly identified areas for sensitive species will be appropriately mitigated prior to construction.

Step 3 – Access Road Construction

In order to access the proposed substation location, an existing dirt access road will be widened and improved. The access road will be extended to intersect directly with the Weed Height Road. Access road turns will be curved to allow passage of large vehicles. The locations of the proposed and existing access roads are delineated on Attachment A: Project Maps.

Step 4 – Substation Pad Construction

A 500 foot by 500 foot substation pad will be constructed within the temporary disturbance area. To achieve a level pad, soil will be relocated from higher elevations to lower elevations. Soil within the proposed substation area will be compacted to approximately 90% to provide a firm and unyielding surface. Storm water drainages may be installed to properly divert storm water around the substation perimeter. The substation pad will be sloped approximately 1% to facility storm water management within the substation.

Step 5 – Perimeter Fencing

A 500 foot by 500 foot eight-foot tall chain-link fence will be installed within the substation pad. The substation fence line will have a three strand barbed wire and multiple 20 foot wide gates. The remaining area outside the substation fence perimeter will remain compacted to facilitate vehicular travel around the fence line and later as a weed control measure.

Step 6 – Substation Construction

Substation construction begins with the installation of below grade and at grade infrastructure including the grounding grid, communication and electrical conduits, secondary containment basins, equipment pads and footings, and other equipment. Once the below grade and at grade installations are complete, above grade electrical equipment, support frames, buss work and equipment enclosures are installed.

Step 7 – Substation Surface Stabilization

After the installation of the substation equipment, the substation pad will be stabilized by the application of ¾± inch drain rock over the substation pad. The drain rock provides a safe working area as well as an erosion control BMP.

Step 8 – Site Cleanup and Demobilization

Surplus materials, equipment, and construction debris will be removed at the completion of construction activities. Man-made construction debris will be removed and disposed of at permitted landfill sites. Cleared vegetation will either be shredded and spread over the ROW as mulch and erosion control or disposed of off-site, depending on agency agreements. Rocks removed during access road grading and substation construction will be redistributed adjacent to the access road or substation right-of-way to match adjacent site conditions.

Step 9 – Restoration and Reclamation

Once construction has been completed, existing and new access roads will remain improved and any overland travel routes created by the project will be reclaimed to preconstruction conditions. Areas outside the substation right-of-way disturbed by construction activities will be recontoured, decompacted, and seeded. BLM-approved seed mixes will be applied to these disturbed areas. NV Energy will attempt to close or restrict vehicle access to areas that have been seeded until the reclamation success criteria have been satisfied. Reclamation of the ROW will be scheduled in the early fall following construction so that seeds can over-winter and take advantage of the winter and spring precipitation.

3.6.3 Electrical Equipment Decommissioning

Once construction of the Project's components have been completed and the system is energized and functional, the Anaconda and Bridge Street substation as well as a portion of the old three line 60 kV transmission system will no longer be needed and will be decommissioned. The steps to transmission lines are as follows:

Step 1 – Transmission Structure Removal

NV Energy will access the old alignment using existing roads and minor overland travel. Using a bucket truck, the crews will remove the electrical conductor from the transmission structures using a

hydraulic wire cutter. The conductor will be relocated to the edge of the access road, cut further into smaller sections, loaded into a bid and sent to a metal recycling firm.

The transmission poles will be cut off at ground level and relocated to the edge of the access road where they will be loaded onto trucks and sent for disposal at an approved landfill. The cleared right-of-way will be decompacted and revegetated with a BLM approved seed mixture along with the remaining disturbed areas associated with the project.

3.7 PERSONNEL

The construction workforce will include up to 20 personnel. Project construction will also require additional support personnel, including construction inspectors, surveyors, project managers, and environmental inspectors.

3.8 EQUIPMENT

Table 3: Typical Construction Equipment presents a list of the typical equipment and their uses for construction of this type of project.

Table 3: Typical Construction Equipment

Equipment	Use
¾-ton and 1-ton pickup trucks	Transport construction personnel
2-ton flatbed trucks; flatbed boom truck	Haul and unload materials
Rigging truck	Haul tools and equipment
Mechanic truck	Service and repair equipment
Aerial bucket trucks	Access poles, string conductor, and other uses
Shop vans	Store tools
Bulldozer	Grade access roads and pole sites and reclamation
Road grader	Construct, maintain, and upgrade roads
Compactor	Construct access roads
Truck mounted digger or backhoe	Excavate
Small mobile cranes (12 tons)	Load and unload materials
Large mobile cranes (75 tons)	Erect structures
Transport	Haul poles and equipment
Drill rig with augers	Excavate and install fences
Puller and tensioner	Pull conductor and wire
Cable reel trainers	Transport cable reels and feed cables into conduit
Semi tractor-trailers	Haul structures and equipment
Splice trailer	Store splicing supplies and air condition manholes

Take-up trailers	Install conductor
Air compressors	Operate air tools
Air tampers	Compact soil around structure foundations
Dump truck	Haul excavated materials and import backfill
Fuel and equipment fluid truck	Refuel and maintain vehicles
Water truck	Suppress dust and fire
Winch truck	Install and pull sock line and conductors into position
Helicopter	Install poles and conductors

3.9 SCHEDULE

NV Energy has a planned in-service date of February, 2017 for the project and will take approximately 7 months to complete.

3.10 OPERATIONS AND MAINTENANCE ACTIVITIES

3.10.1 Methods

Once the transmission lines are operational, NV Energy operations and maintenance personnel will conduct annual inspections of the line. Annual inspections will be conducted by helicopter, all-terrain vehicles, or line trucks. The inspections will include visual review of the line along the existing access roads shown on Attachment A: Project Maps. Substations are inspected on a quarterly basis.

Approximately every 10 years, NV Energy personnel will conduct structure-climbing inspections. These inspections consist of accessing the structure using four-wheel drive vehicles on the access roads and the ROW. NV Energy personnel will then climb structures to inspect the hardware, condition of the structures, and insulators.

Aside from annual inspections, NV Energy personnel will also need to access the line in the event maintenance of a structure is required or under emergency conditions. Under these circumstances, the line would be accessed by line trucks using existing access roads or by helicopter.

4 ENVIRONMENTAL COMPLIANCE

4.1 ENVIRONMENTAL COMPLIANCE MANAGEMENT

As the applicant and owner of the Mason and Smith Valleys Transmission Line Project, NV Energy has the responsibility to construct, operate, and maintain the substation, distribution and transmission lines and associated facilities in compliance with all federal, state, and local regulations and permits, and in accordance with stipulations and conditions included in the BLM ROW Grant. In addition to the permit requirements, NV Energy has committed to several environmental protection measures that are designed to avoid and/or minimize potential adverse effects to the environment.

NV Energy has designated an Environmental Compliance Team to monitor construction activities and track compliance with the measures listed in this document, the BLM ROW Grant, and other

permits. The Environmental Compliance Team for the project and their respective responsibilities are identified in Table 4: Environmental Compliance Team. NV Energy will also rely on the expertise of an on-site Environmental Inspector during construction to ensure compliance with all project requirements on an as-needed basis.

Table 4: Environmental Compliance Team

Name	Position	Responsibilities
Shauna Adams & Jim Roulias	Project Managers	Project Management
Eric Weldon	Environmental Manager	Permit Coordination
		Compliance Reporting
Dave Snelgrove	ROW Agent	Agency Coordination
		Property Owner Notification
Terry Saunders	Construction Manger	Construction Oversight

NV Energy will maintain a compliance documentation system describing the compliance levels to track, document, and enforce successful implementation of environmental protection measures, permit requirements, and other conditions. The compliance levels and their descriptors are identified in Table 5: Compliance Levels.

Table 5: Compliance Levels

Level	Description
Compliance	Identifies an action in conformance with project requirements
Notification	Identifies an action preceding a noncompliance; similar to a “fix-it” notice
Noncompliance	Identifies an action that does not comply with one or more project requirements, and includes formal documentation of the action and efforts to correct the noncompliance
Stop Task Order	Identifies a noncompliance action in writing that resulted in an adverse effect(s) to a sensitive resource or a third repeated noncompliance; issued only by the Project Manager, Construction Foreman, or BLM Compliance Manager

The BLM’s compliance team will be notified of Noncompliance and Stop Task Order reports issued during construction of the project.

4.2 ENVIRONMENTAL PROTECTION MEASURES

NV Energy has committed to implementing the environmental protection measures listed in this section, which are divided into 12 categories: General, Soil Disturbance, Blasting, Storm Water Management, Noxious Weeds, Vegetation, Water Features, Wildlife and Sensitive Species, Cultural and

Paleontological Resources, Hazardous Materials and Waste, Air Quality, and Fire Prevention and Response.

4.2.1 General Measures

1. The limits of the temporary construction ROW will be marked with staking and/or flagging. Environmentally sensitive areas, if any, will be fenced or flagged for avoidance.
2. Prior to construction, construction personnel will be instructed on the protection of sensitive biological, cultural, and paleontological resources that have the potential to occur on site.
3. NV Energy will limit construction in residential areas to between daylight and dusk, seven days a week.
4. Construction vehicle movement will be restricted to the ROW, pre-designated access roads, and public roads.
5. Smoking will only be permitted in paved or cleared areas. Cigarettes will be thoroughly extinguished and disposed of in a trash receptacle.
6. Non-specular conductors will be installed to reduce visual impacts.
7. Existing roads will be left in a condition equal to or better than their preconstruction condition.

4.2.2 Soil Disturbance

8. In areas where significant grading will be required, topsoil (where present) will be stockpiled and segregated for later reapplication.
9. Construction will be prohibited when the soil is too wet to adequately support construction equipment resulting in the creation of ruts greater than three inches.

4.2.3 Blasting

10. At a minimum, explosive storage facilities will be weather-resistant, fire-resistant, bullet-resistant, and theft-resistant.
11. Potential rockslide/landslide areas will be avoided to the maximum possible and a blasting geologist will be consulted prior to blasting in these areas.
12. Blasts will be designed to minimize ground vibrations that can cause slope instability and impacts to wells and/or springs.
13. Blasting within 500 feet of wells and/or springs will be avoided to the maximum extent possible.
14. Prior to blasting activities, underground utilities will be located and marked to determine their location in relation to the ROW.
15. NV Energy and/or its contractor will perform pre- and post-blast inspections of existing structures that may sustain damage due to blasting operations.
16. NV Energy and/or its contractor will take proper precautions to minimize or avoid damaging structures or utilities located within 150 feet of blasting operations. Precautions may include rippling the charge detonations further apart or reducing the amount of charge material that detonates simultaneously.
17. To prevent or minimize the amount of rock particles cast into the air following detonation, blasting mats will be used.
18. A signaling system will be used to alert individuals of an impending blast. The signaling system will include the following components:
    - A warning signal: 5 minutes prior to the blasting signal, a 1-minute series of long audible signals will be sounded at the blast site

- A blasting signal: 1 minute prior to the blast, a series of short, audible signals will be sounded at the blast site
- An all-clear signal: a prolonged, audible signal will be sounded at the blast site following the post-blast inspection of the blast area

To inform construction personnel of the signaling protocol, signs explaining the protocol will be posted at the staging areas and other appropriate locations.

19. If any damage to structures occurs due to blasting operations, NV Energy and/or its contractor will repair the damage as quickly as possible after becoming aware of the damage. In the event of damage to any water supply systems, NV Energy and/or its contractor will provide an alternative water source until the original water supply system is restored.

4.2.4 Storm Water Management

20. NV Energy will apply for a General Construction Stormwater Permit and develop a Stormwater Pollution Prevention Plan (SWPPP) for the project. NV Energy will incorporate Best Management Practices (BMPs), typically in the form of straw waddles, down gradient from disturbed project areas and around spoil and stock piles as well as other storm water and erosion control techniques as detailed in the plan.

4.2.5 Noxious Weeds

21. Prior to preconstruction activities, NV Energy personnel will identify noxious weeds present on the land to be included in the ROW Grant and temporary disturbance areas and provide this information to the BLM. A determination will be made by the BLM of any noxious weeds that require flagging for treatment. NV Energy will treat the noxious weeds as required by the BLM. Noxious weed populations not treated will be flagged for avoidance. Equipment and vehicles will not be allowed to operate within flagged noxious weed areas.
22. Gravel and/or fill material will be certified as weed-free.
23. Off-road equipment will be cleaned (power or high-pressure cleaning) of mud, dirt, and plant parts prior to initially moving equipment onto public land. Equipment will be cleaned again if it leaves the project site prior to reentry.
24. Disturbances to areas infested with noxious weeds will be avoided to the extent possible.
25. During the fall immediately following construction, disturbed areas will be seeded with an appropriate seed mix approved by the BLM to establish ground cover by native species.
26. The project area will be monitored annually for 3 years to identify new infestations of noxious weeds within the Right-of-Way. Any new infestations will be treated using methods approved by the BLM.

4.2.6 Vegetation

27. Wherever possible, vegetation will be left in place. Where vegetation must be removed, it will be cut at ground level to preserve the root structure and allow for potential resprouting.
28. Temporary construction areas, including stringing sites and structure pads that have been disturbed, will be recontoured and restored as required by the landowner or land management agency. The method of restoration typically will consist of seeding or revegetating with native plants (if required), installing cross drains for erosion control, and placing water bars in the road. Seed will be certified as weed-free.

4.2.7 Water Features

29. Construction vehicles and equipment staging or storage and construction activities will be located at least 100 feet away from any streams, wetlands, and other water features.

4.2.8 Wildlife and Sensitive Species

30. If required by the BLM, prior to construction (inclusive of ROW clearing and access road construction), biological surveys of the ROW and the access roads will be conducted. Potential habitat for listed species identified during the preconstruction survey will be fenced for avoidance. If avoidance is infeasible, consultation with appropriate jurisdictional agencies will be conducted prior to work in the area(s).
31. Excavations left open overnight will be covered or fenced to prevent livestock or wildlife from falling in. Covers will be secured in place and strong enough to prevent livestock or wildlife from falling in.
32. If a sensitive plant or animal species is identified during construction, work near the sensitive species will be halted, and a qualified biologist familiar with the biology and species likely to be encountered in the project area will be consulted to determine an appropriate buffer and other protective measures. The appropriate resource agencies will be notified of the discovery within 24 hours. If avoidance is infeasible, consultation with the jurisdictional resource agency will be conducted prior to continuing work in the immediate area of the species. Any federal- or state-listed species discovered on public land will also be reported to the BLM.
33. Structures will be constructed to conform to those practices described in the Suggested Practices for Raptor Protection on Power Lines Manual developed by the Edison Electric Institute.

4.2.9 Cultural and Paleontological Resources

34. Prior to construction, sensitive cultural resources within the project corridor will be flagged by a professional archeologist and construction crews will avoid these areas.
35. Prior to construction, NV Energy and/or its contractors will train workers and individuals involved with the project regarding the potential to encounter historic or prehistoric sites and objects, proper procedures in the event that cultural items or human remains are encountered, prohibitions on artifact collection, and respect for Native American religious concerns. As part of this training, construction personnel will be instructed to inspect for paleontological and cultural objects when excavating or conducting other ground-disturbing activities.
36. If potential resources are found, work will be halted immediately within a minimum distance of 300 feet from the discovery, and a professional archaeologist (holding a valid Cultural Resources Permit from Nevada BLM) will be mobilized to the site to evaluate the find. Any potential resources will not be handled or moved. The professional archaeologist will then determine whether the find needs to be evaluated by a paleontologist or Native American representative. The appropriate specialist(s) will then make a determination of the significance of the find and the steps to be followed before proceeding with the activity. Any cultural and/or paleontological resource discovered during construction on public or federal land will be reported immediately to the BLM. Work will not commence until the BLM issues a notice to proceed. The BLM will notify and consult with SHPO and appropriate Tribes on eligibility and suitable treatment options. If significant resources are discovered, they will be recovered, transported, and stored at an approved curation facility that meets the standards specified in Title 36 of the Code of Federal Regulations (CFR) Part 79.
37. If human remains are encountered during project construction, work within 300 feet of the remains will cease, and the remains will be protected. If the remains are on land managed by the BLM, BLM representatives will be immediately notified. If the remains are Native American, the BLM will follow the

procedures set forth in 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations. If the remains are located on state or private lands, the Nevada SHPO and the BLM will be notified immediately. Native American human remains discovered on state or private lands will be treated under the provisions of the Protection of Indian Burial Sites section of the Nevada Revised Statutes (NRS) in Chapter 383. The Nevada SHPO will consult with the Nevada Indian Commission and notify the appropriate Native American tribe. Procedures for inadvertent discovery are listed under NRS 383.170.

4.2.10 Hazardous Materials and Waste

38. Construction vehicles will be maintained in accordance with the manufacturers' recommendations. Vehicles will be inspected for leaks prior to entering the jobsite. Newly discovered leaks will be contained with a bucket or absorbent materials until repairs can be made.
39. Hazardous waste materials will be properly labeled in accordance with Title 40 of the CFR Part 262. A list of hazardous materials expected to be used during construction of the project is presented in Table 6: Hazardous Materials Proposed for Project Use.

Table 6: Hazardous Materials Proposed for Project Use

Hazardous Material	
2-Cycle Oil	Lubricating Grease
ABC Fire Extinguisher	Mastic Coating
Acetylene Gas	Methyl Alcohol
Air Tool Oil	North Wasp and Hornet Spray (1,1,1-Trichloro-ethane)
Antifreeze	Oxygen
Automatic Transmission Fluid	Paint
Battery Acid	Paint Thinner
Bee Bop Insect Killer	Petroleum Products
Canned Spray Paint	Prestone II Antifreeze
Chain Lubricant (Methylene Chloride)	Puncture Seal Tire Inflator
Connector Grease	Safety Fuses
Contact Cleaner 2000	Safety Solvent
Eye Glass Cleaner (Isopropyl Alcohol)	Starter Fluid
Gas Treatment	Wagner Brake Fluid
Gasoline	WD-40
Insulating Oil	Diesel Fuel

41. Hazardous material storage, equipment refueling, and equipment repair will be conducted at least 100 feet away from streams or other water features.
42. Spilled material of any type will be cleaned up immediately. A shovel and spill kit will be maintained on site at all times to respond to spills.
43. Sanitary wastes will be collected in portable, self-contained toilets at construction staging areas and other construction operation areas and managed in accordance with local requirements.

4.2.11 Air Quality

44. Driving speeds will be limited to 25 miles per hour on unpaved roads and on the ROW.
45. Areas subject to ground disturbance will be watered as needed to control dust.
46. Public streets will be swept if visible soil material is tracked onto them by construction vehicles.
47. Excavation and grading activities will be suspended when winds (instantaneous gusts) exceed 50 miles per hour and visible dust that creates a health hazard to neighboring property owners and visibility impacts to vehicular traffic persists.

4.2.12 Fire Prevention and Response

48. NV Energy will designate a Fire Marshal (NV Energy Fire Marshal), who will coordinate with a Fire Marshal to be designated by the prime contractor (Contractor Fire Marshal) and the BLM's fire management representative, as necessary.
49. The Contractor Fire Marshal will be responsible for the following tasks:

- Conducting regular inspections of tools, equipment, and first aid kits for completeness.
- Conducting regular inspections of storage areas and practices for handling flammable fuels to confirm compliance with applicable laws and regulations.
- Posting smoking and fire rules at centrally visible locations on site.
- Coordinating initial response to contractor-caused fires within the ROW.
- Conducting fire inspections along the ROW.
- Ensuring that construction workers and subcontractors are aware of fire protection measures.
- Remaining on duty and on site when construction activities are in progress and during any additional periods when fire safety is an issue, or designating another individual to serve in this capacity when absent.
- Reporting wildfires in accordance with the notification procedures described below.
- Initiating and implementing fire suppression activities until relieved by agency or local firefighting services in the event of a project-related fire. Project fire suppression personnel and equipment, including water tenders, will be dispatched within 15 minutes from the time that a fire is reported.
- Coordinating with the NV Energy Project Manager regarding current fire conditions potential and fire safety warnings from the BLM and communicating these to the contractor's crews.

50. The NV Energy Construction Foreman or Contractor Fire Marshal will immediately notify firefighting services of any fires on site. A list of emergency fire contacts for the project area is presented in Table 7: Emergency Fire Contacts.

Table 7: Emergency Fire Contacts

CALL 911 FIRST		
Department		**Phone Number**
BLM	**Sierra Front Interagency Dispatch Center**	(775) 882-9187
	(Fire Management Office)	(775) 885-6103

51. Contractors will be notified to stop or reduce construction activities that pose a significant fire hazard until appropriate safeguards are taken.
52. If an accidental fire occurs during construction, immediate steps to extinguish the fire (if it is manageable and safe to do so) will be taken using available fire suppression equipment and techniques. Fire suppression activities will be initiated by NV Energy and/or its contractor until relieved by agency or local firefighting services.
53. Smoking will only be permitted in designated cleared areas and will be prohibited while walking or working in areas with vegetation or while operating equipment. In areas where smoking is permitted, burning tobacco and matches will be completely extinguished and discarded in ash trays, not on the ground.
54. "NO SMOKING" signage and fire rules will be posted at construction staging areas, helicopter fly yards, and key construction sites during the fire season.
55. Fire suppression equipment will be present in areas where construction tools or equipment have the potential to spark a fire.
56. Extra precautions will be taken when fire danger is considered to be high.
57. Field personnel will be instructed regarding emergency fire response. The contractors will receive training on the following:

- Initial fire suppression techniques
- Fire event reporting requirements
- Methods to determine if a fire is manageable
- Fire control measures to be implemented by field crews on site
- When the worksite should be evacuated
- How to respond to wildfires in the vicinity
- How to maintain knowledge of and plans for evacuation routes

-

58. Flammable material, including dead vegetation, dry grasses, and snags (fallen or standing dead trees), will be cleared a minimum of 10 feet from areas of equipment operation that may generate sparks or flames.
59. No open burning, campfires, or barbeques will be allowed along the ROW; at construction staging areas, helicopter fly yards, and substations; on access roads; or in any other project-related construction areas.
60. Welding or cutting of power line structures or their component parts will be approved by the NV Energy Construction Foreman. Approved welding or cutting activities will only be performed in areas cleared of vegetation a minimum of 10 feet around the area. Welding or cutting activities will cease one hour before fire response personnel leave a construction area to reduce the possibility of welding activities smoldering and starting a fire. Welder vehicles will be equipped with fire suppression equipment.
61. Internal combustion engines, both stationary and mobile, will be equipped with approved spark arresters that have been maintained in good working condition. Light trucks and cars with factory-installed (type) mufflers in good condition may be used on roads cleared of vegetation with no additional equipment required. Vehicles equipped with catalytic converters are potential fire hazards and will be parked on cleared areas only.
62. The use of torches, fuses, highway flares, or other warning devices with open flames will be prohibited. NV Energy and its contractors will only use electric or battery-operated warning devices on site.
63. Equipment parking areas, small stationary engine sites, and gas and oil storage areas will be cleared of extraneous flammable materials. “NO SMOKING” signs will be posted in these areas at all times.
64. Fuel tanks will be grounded.
65. NV Energy and the contractors will provide continuous access to roads for emergency vehicles during construction.
66. Motorized vehicles and equipment will be equipped with the following fire protection items:

- One long handled round point shovel
- One ax or Pulaski fire tool
- One 5-pound ABC Dry Chemical Fire Extinguisher
- One 5-gallon water backpack (or other approved container) full of water or other extinguishing solution
- Hard hat, work gloves, and eye protection

-

67. Project construction worksites will include the following equipment:

- Power saws, if required for construction, equipped with an approved spark arrester and accompanied by one 5-pound ABC Dry Chemical Fire Extinguisher and a long-handled, round-point shovel when used away from a vehicle.
- Fuel service trucks with one 35-pound capacity fire extinguisher charged with the necessary chemicals to control electrical and fuel fires.

- At least two long-handled, round-point shovels and two 5-pound ABC Dry Chemical Fire Extinguishers at wood cutting, welding, or other construction work sites that have a high risk of starting fires.
- At least one radio and/or cellular telephone to contact fire suppression agencies or the project management team.
- Backpumps filled with water (two at each wood-cutting site, one at each welding site, and two at each tower installation or construction site, or any activity site at risk of igniting fires).

-

68. During periods of increased fire danger, a fire suppression vehicle will be available in the construction area or stationed near high-risk construction work sites and will be equipped with the following items:

- One water tank with a minimum capacity of 500 gallons
- 250 feet of 0.75-inch heavy-duty rubber hosing
- One pump with a discharge capacity of at least 20 gallons per minute. (The pump will have fuel capacity to operate for at least a 2-hour period.)
- One tool cache (for fire use only) containing at a minimum:
  - Two long handled round point shovels
  - Two axes or Pulaski fire tools
  - One chainsaw of 3.5 (or more) horsepower with a cutting bar of at least 20 inches in length

-

69. If a fire is unmanageable, field crews will evacuate and call “911” or the district dispatch for the area (see Table 7: Emergency Fire Contacts). Fires will be reported to the jurisdictional fire agency, regardless of size and actions taken.

Attachment A: Project Maps

N

1" = 2000'

- STUDY AREA
- PRIVATE
- BLM
- STAGING AREA
- STATE OF NEVADA

- EXISTING / PROPOSED POLE
- 600' WIRE PULLING SITE
- EXISTING DISTRIBUTION
- MASON DISTRIBUTION TO BE REBUILT
- PROPOSED 60KV / 25kV (MASON 206)
- EXISTING 60kV
- (2) PROPOSED 60KVs (3 CIRCUITS)
- ACCESS ROADS
- NEW ACCESS ROADS

EX. BLM PERMIT NVCC-06186 50' WIDE

EX. BLM PERMIT N-91563 100' WIDE

636 LINE

601 LINE

638 LINE

60kV LINES TO BE REMOVED-PORTIONS OF EX. NEV-012366 AND EX. NEV-91563

NEW PROPOSED ACCESS ROAD

ANACONDA SUB

PROPOSED TRANSMISSION CORRIDOR
2 60kV POLE LINES
WITH 3 CIRCUITS

EXISTING BRIDGE STREET SUBSTATION

WEED HEIGHTS ROAD

MASON 205

PROPOSED STAGING AREA

205/208

208

204/208

204

PROPOSED MASON SUBSTATION+/-

NEW ACCESS ROAD 1293' 556'

MATCH LINE 1/2

EX. BLM PERMIT NEV-012366 50' WIDE

NEW 25kV DIST. LINE TO EX. BLM PERMIT N-75748

EX. BLM PERMIT NEV-012366 TO REMAIN AND BE RECONSTRUCTED WITH PROJECT AS NEEDED

Yerington

Weed Heights

May Queen Mine

Yerington Mine

Mickey Pass

012 007 013 018 017 016 015 014 024 019 020 021 022 023 025 029

SURVEYOR: LDL
PHONE NUMBER: 775-834-5391
PROJECT NUMBER:
PROJECTION: NSPW 83 USFT

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N

1" = 2000'

NVEnergy
6100 NEIL RD.
RENO, NV 89511
775-834-4011

ATTACHMENT A
PROJECT MAP

LYON COUNTY NEVADA

1 OF 5

N

1"=2000'

EXISTING / PROPOSED POLE

600' WIRE PULLING SITE

STUDY AREA

PRIVATE

BLM

STAGING AREA

STATE OF NEVADA

EXISTING DISTRIBUTION

MASON DISTRIBUTION TO BE REBUILT

PROPOSED 60KV / 25kV (MASON 206)

EXISTING 60kV

(2) PROPOSED 60KVs (3 CIRCUITS)

ACCESS ROADS

NEW ACCESS ROADS

PROPOSED MASON SUBSTATION+/-

NEW ACCESS ROAD 1293' 556'

MATCH LINE 1/2

EX. BLM PERMIT NV-01586 100' WIDE 3663'± LONG

EX-BLM PERMIT NEV-012366 50' WIDE

PROP. SMITH 60kV / EX. MASON 206 LINE

EX. BLM PERMIT NEV-0066335 50' IN WIDTH

DELPHI ROAD

PROPOSED STAGING AREA

MATCH LINE 2/3

019 020 028 027 026 025 029 030 033 034 035 036 031 032 004 003 002 001 006 005

Ludwig

Douglas Hill Mine

Casting Mine

Bluestone

Mason Valley Mine

Melachite Mine

Mc Connell Mine

Western Nevada Mine

Newhouse Peak

Shamrock Hill

SINGATSE RANGE

T13N T12N

SURVEYOR:	LDL
PHONE NUMBER:	775-834-5391
PROJECT NUMBER:	
PROJECTION:	NSPW 83 USFT

N

1"=2000'

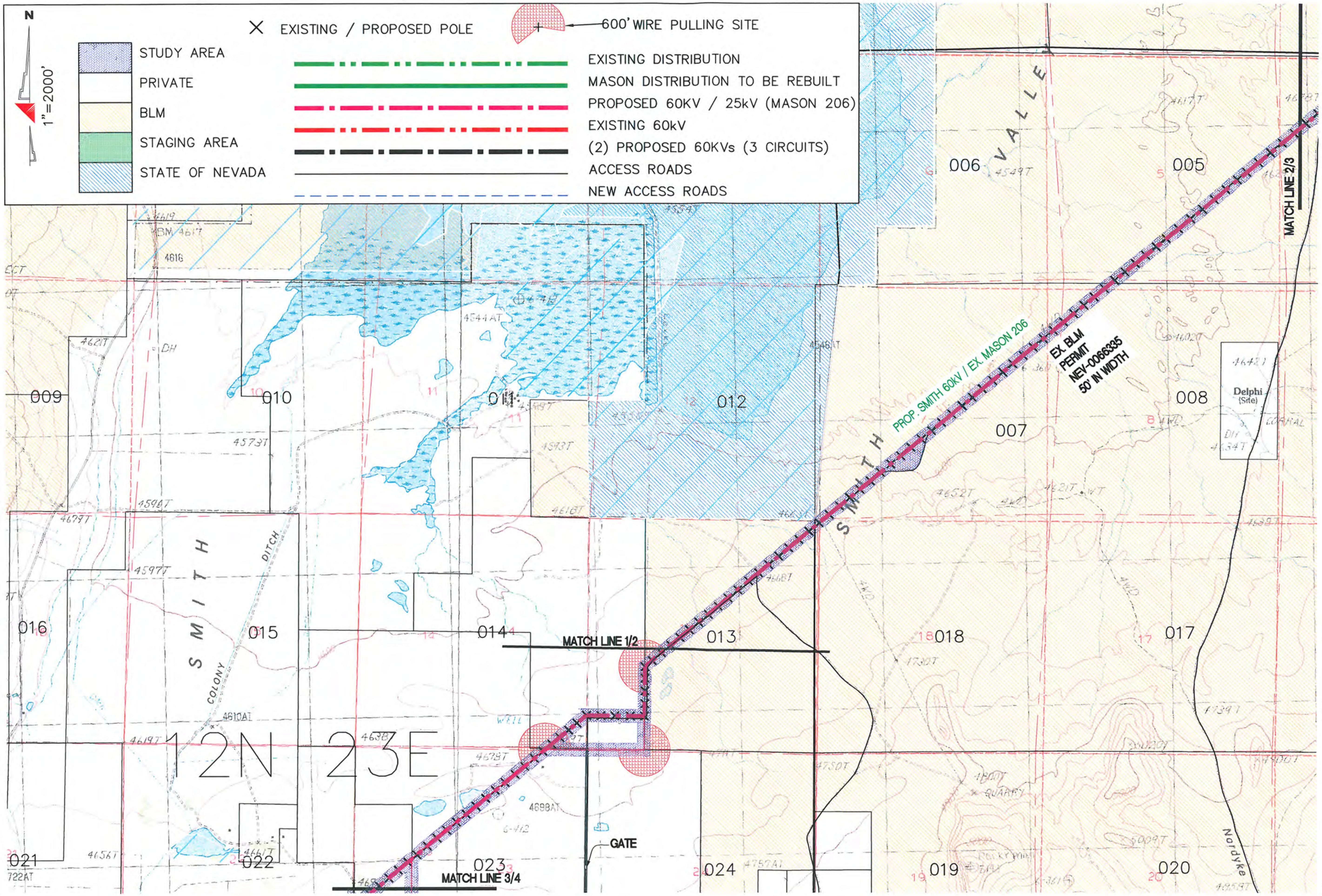
NVEnergy

6100 NEIL RD.
RENO, NV 88511
775-834-4011

ATTACHMENT A
PROJECT MAPS

LYON COUNTY NEVADA

2 OF 5



SURVEYOR: LDL
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PROJECTION: NSPW 83 USFT

N
1"=2000'

NVEnergy
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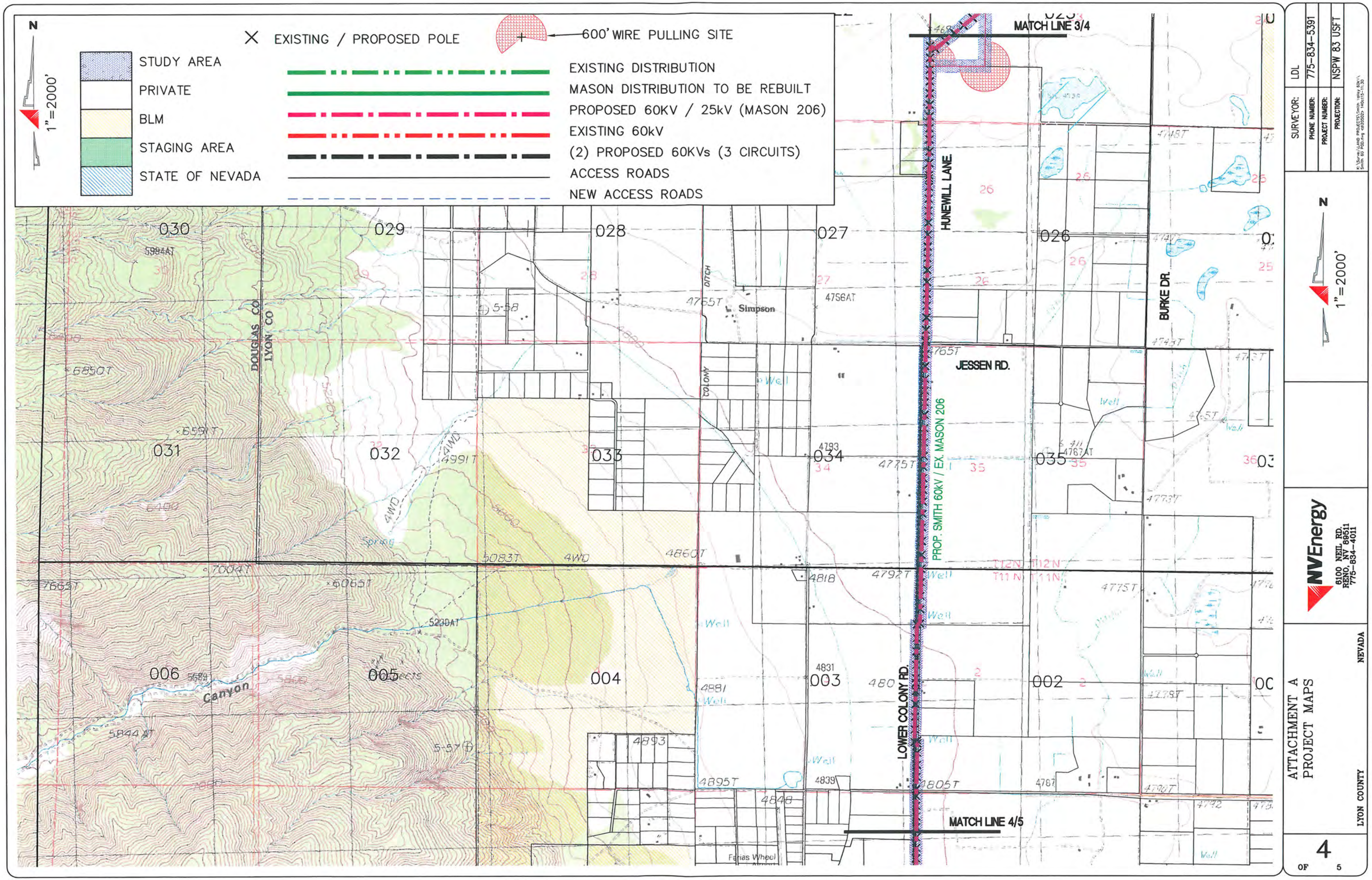
775-834-4011

ATTACHMENT A
PROJECT MAPS

NEVADA

LYON COUNTY

3 OF 5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1" = 2000'
STUDY AREA
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600' WIRE PULLING SITE
EXISTING DISTRIBUTION
MASON DISTRIBUTION TO BE REBUILT
PROPOSED 60KV / 25kV (MASON 206)
EXISTING 60kV
(2) PROPOSED 60KVs (3 CIRCUITS)
ACCESS ROADS
NEW ACCESS ROADS
MATCH LINE 3/4
MATCH LINE 4/5
HUNEWILL LANE
JESSEN RD.
BURKE DR.
LOWER COLONY RD.
PROP. SMITH 60KV / EX. MASON 206
DOUGLAS CO
LYON CO
DITCH
COLONY
Simpson
Canyon
030
029
028
027
026
031
032
033
034
035
006
005
004
003
002
SURVEYOR: LDL
PHONE NUMBER: 775-834-5391
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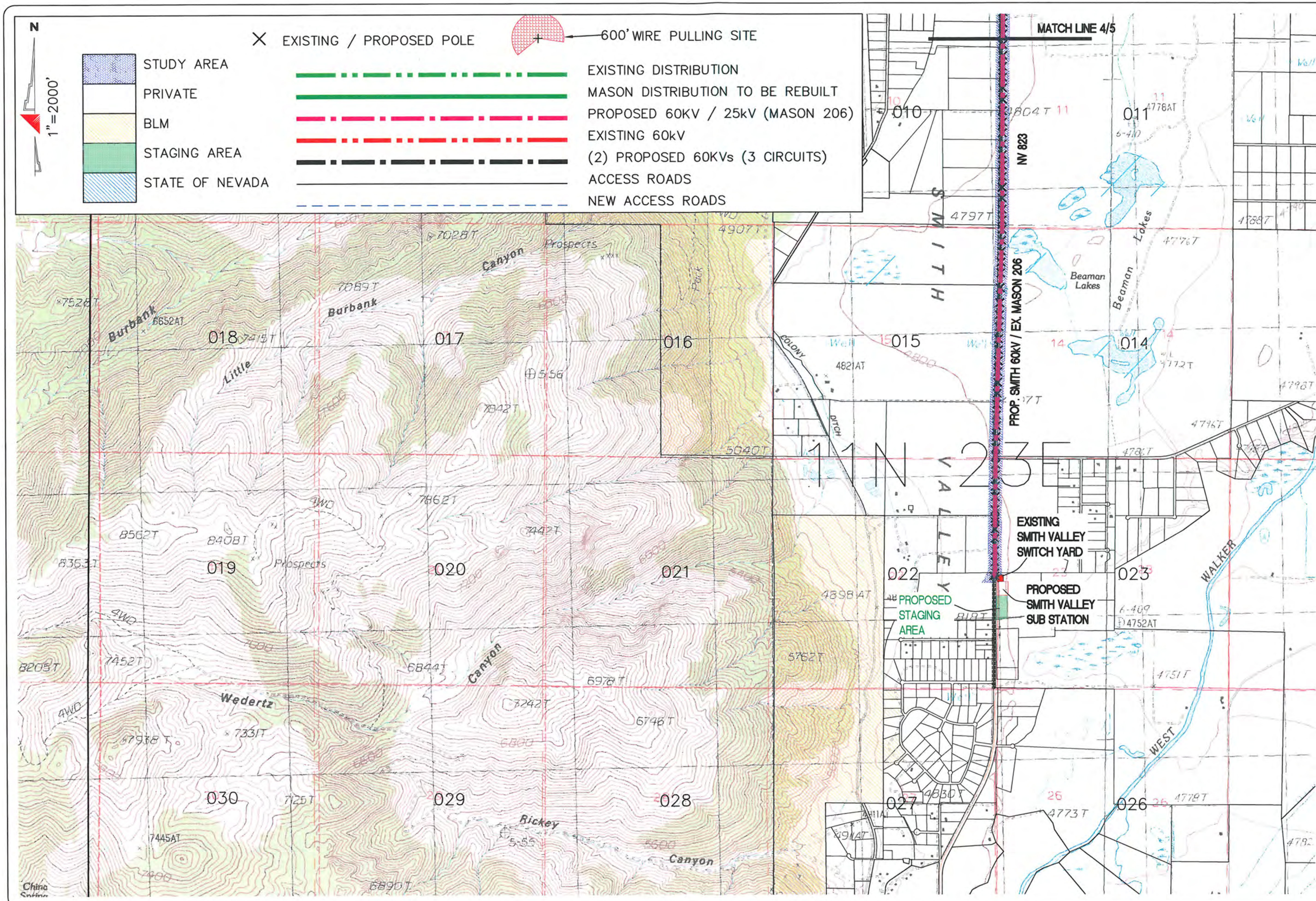
ATTACHMENT A
PROJECT MAPS
NEVADA
LYON COUNTY
4 OF 5



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ATTACHMENT A
PROJECT MAPS

LYON COUNTY
NEVADA