APPENDIX Y
PROJECT DESIGN AND IMPLEMENTATION PLAN OF DEVELOPMENT REFINEMENT PROCESS

TRANSWEST EXPRESS TRANSMISSION PROJECT

Project Design and Implementation

Plan of Development Refinement Process

Project Background

TransWest Express LLC (TransWest) proposes to construct, operate and maintain the TransWest Express Transmission Project (TWE Project or Project). The TWE Project is an extra-high voltage (EHV) direct current (DC) transmission system extending from south-central Wyoming to southern Nevada. The TWE Project begins at a northern terminal near Sinclair, Wyoming and terminates at a southern terminal at the Marketplace Hub in the Eldorado Valley near Boulder City, Nevada. At each of the terminals, there will be an alternating current/direct current (AC/DC) converter station designed to convert the DC current carried by the TWE Project to AC current to be carried on the western United States AC electrical grid (the northern and southern terminals). The TWE Project is planned to interconnect into the Eldorado Substation, the McCullough Switching Station, the Marketplace Substation and the Mead Substation. Western Area Power Administration, a Federal power marketing administration within the United States Department of Energy, has partnered with TransWest in the development of the TWE Project.

Because it is necessary for the TWE Project to cross federal lands, a ROW application was filed with BLM in 2007. The application was amended by TransWest in 2008 and again in 2009 and 2010. To comply with the National Environmental Policy Act (NEPA), BLM and Western are preparing an Environmental Impact Statement (EIS). Public scoping was conducted in 2011 and in July 2013 BLM and Western published the Draft Environmental Impact Statement for the TWE Project (DEIS). The Proposed Action is approximately 726 miles in length. In addition, approximately 2,263 miles of Alternatives were analyzed in the DEIS.

Plan of Development

A Plan of Development (POD) documents a federal right-of-way applicant's construction, operation, rehabilitation and environmental protection plan. *See 43 CFR 2804.25* The POD is a dynamic document updated as a project progresses through the NEPA review and analysis process. A POD may require different information from the applicant depending upon the environmental resources that may be impacted, the location of the proposed project, and the timing of the project. There may be information required from one applicant that is not required by another applicant because of the issues or resources involved. Additional supplementary information may be required from the applicant in order to prepare the NEPA analysis and complete the review process but is not required to be submitted with the initial POD. This

information is developed as further data is gathered and as detailed designs and mitigation measures are incorporated into a final POD. *See BLM Instruction Memorandum No. 2009-043*[1]

TWE Project Plan(s) of Development

The POD for the TWE Project serves many purposes. For the Project, the POD will:

- Provide the project description and technical information necessary for the federal agencies to conduct required environmental reviews of the Project, including compliance with the NEPA.
- Identify TransWest's construction plans and specifications, including federal agency stipulations, conditions of approval, environmental requirements and best management practices (BMPs).
- Support the federal agencies Record of Decision (ROD) for the Project.
- Meet all federal land management agency requirements for issuance of right-of-way (ROW) grants or special use permits.
- Provide the basis for the federal land management agencies to issue Notices to Proceed (NTP) for construction, operation and maintenance of the Project.
- Balance project design development with the extent of available siting opportunities and constraints data throughout the federal approval process.

For the TWE Project, the working assumptions for preparing the POD at each stage of the Project are:

1. PODs are submitted at corresponding major Project milestones with a level of detail appropriate to the federal agencies' analysis and decision timeline. POD versions are as follows:
    a. November 2007 Preliminary SF 299 POD (prepared by National Grid)
    b. January 2009 Preliminary Scoping POD
    c. July 2010 Preliminary DEIS POD, supplemented and amended by Project Description Technical Report (PDTR) dated October 2012
    d. February 2014 (estimate) Preliminary Final EIS (FEIS) POD
    e. September 2014 (estimate) Preliminary ROD POD
    f. 2015-2016 (estimate) Final NTP PODs
2. Each involved federal agency (BLM, USFS, USBOR and NPS) will issue its own Record of Decision, all to be issued concurrently.
3. ROW Grants and Special Use Permits are to be issued concurrently with the RODs
4. Multiple NTPs are anticipated, each to be issued on a construction segment basis as appropriate to address agency jurisdiction, seasonal constraints, preconstruction surveys, acquisition of private ROW, agency review of the NTP POD, work planning and scheduling, etc.
5. ROW Grants/Special Use Permits will authorize the following facilities on federal lands:

[1] IM 2009-43 is specific to wind energy projects on public lands administered by BLM; however, the general discussion on plans of development is applicable to any Federal Land Policy and Management Act (FLPMA) right-of-way application.

a. BLM – Permanent 250 ft. wide ROW for the transmission line and permanent access roads within the transmission ROW defined in the ROD POD plus permanent ROW for non-linear facilities (Terminals, Ground Electrode Facilities, Series Compensation Stations for Design Alternatives).
b. BLM – Permanent 50 ft. wide ROW for access roads outside of the transmission line ROW.
c. BLM – Temporary work areas and access roads outside of and in addition to the ROW Grant for the permanent ROWs.
d. USFS – Permanent 250 ft. ROW for the transmission line and permanent access roads within the corridors defined in the FEIS.
e. USFS – Permanent 50 ft. wide ROW for access roads outside of the transmission line ROW.

Definitions, Abbreviations and Acronyms

Definitions, abbreviations and acronyms used in this document are contained in Exhibit A attached.

TWE Project Progression

Proper siting of a transmission project involves an initial evaluation at a regional level, followed by more focused studies that inform refinement of siting options leading to the eventual selection of a ROW location. Corridor studies serve to focus attention on relevant siting issues at each stage of the process. Narrowing Transmission Line Corridors at key milestones based on best available information is a logical progression as a project procedes through the siting process. For instance, for the TWE Project six-mile wide Transmission Line Corridors focused attention primarily on land jurisdiction and landscape level issues. The generally two-mile wide Transmission Line Corridors resulted in more focused attention on biological habitats, visual impacts, and local land uses. As the Transmission Line Corridors are narrowed for the FEIS, resources at the micro-scale will be examined and relative values and trade-offs considered such that the resulting project will be sited to avoid and minimize impacts to the extent practicable preventing undue and unnecessary degradation of public lands.

The discussion below first focuses on PODs for each Project milestone, describing the purpose and contents of each. With that backgound and context, a discussion of corridor narrowing follows with a descripton of the process and procedures employed by TransWest to identify the final ROW location.

Milestone Plans of Development

TransWest's POD development approach is consistent with federal agency policy to provide a dynamic project development plan containing information relevant to the agencies' analysis of the ROW application and the federal decision to be made. The following outlines the PODs to be submitted at each Project milestone and the available data utilized in preparing each POD. For each POD, a set of graphics are provided at the end of this document (Figures 1 through 8).

The graphics focus on two hypothetical public lands settings in rolling terrain to highlight the differences between typical siting in co-located settings versus greenfield settings.

1. SF 299 POD (November 2007, submitted by National Grid)

   The SF 299 POD was filed along with an initial ROW application (SF 299) for construction, operation and maintenance of a proposed high-voltage transmission line(s) extending between eastern Wyoming and the desert Southwest. The application and SF 299 POD was submitted by National Grid, the initial Project developer.

   The SF 299 POD contained a very preliminary description of the Project and identified a regional study area and preliminary corridors. The Project facilities description was based upon industry 'typicals' and the POD did not provide information on routes or detailed engineering.

   Data utilized consisted of publically available regional environmental data and transmission and utility infrastructure.

2. Scoping POD (January 2009)

   The Scoping POD was filed along with an amended ROW application to reflect a revised purpose and need for the Project after TransWest became the developer. The Scoping POD facilitated internal and cooperating agency scoping meetings and defined the initial scope of the NEPA analysis.

   The Scoping POD identified proposed and alternative routes within six-mile wide Transmission Line Corridors based upon regional studies. The Project facilities description was revised for a 600 kV DC transmission line and two AC/DC convertor stations. Information on construction, operation and maintenance of a DC transmission system was provided based upon a very preliminary level of engineering.

   Data utilized consisted of publically available regional environmental data and transmission and utility infrastructure and mitigation and environmental protection measures from the West-Wide Energy Corridors Final Programmatic EIS.

3. DEIS POD (July 2010) as amended and supplemented by the PDTR (October 2012), Attachment D to the DEIS (July 2013)

   The DEIS POD provided a description of the TWE Project Proposed Action, project description, including construction, operation and maintenance practices, and preliminary environmental mitigation measures and BMPs. These Practices were provided in preliminary format as frameworks and descriptions of specific plans that will be developed and included within subsequent versions of the POD with all plans completed and included in the NTP POD. The DEIS POD also provided a description of the TWE Project Design Alternatives.

Transmission Line Corridors (generally two-miles wide) and Reference Lines within those Transmission Line Corridors for all alternatives identified by BLM were included in the DEIS POD. Transmission Line Corridors were sized such that potential new access roads would be located within the Transmission Line Corridors.

The DEIS POD/PDTR included indicative disturbance data tables for all DEIS Alternatives based on a methodology to model potential disturbance (PDTR Section 3.5.2.1 and Appendix A including March 1, 2011 Memorandum, TransWest Express Transmission Project – Access Road Methodology).

The DEIS POD/PDTR was utilized by the BLM to provide the project description for the DEIS upon which impacts analysis was conducted.

The generally two-mile wide Transmission Line Corridors in the DEIS POD provided the public an opportunity to comment on Transmission Line Corridors at a regional level (e.g., should the line be sited in the West-Wide Energy Corridor along U.S. Highway 40 or through a greenfield route in the southern Uinta Basin?) and at a local level (e.g., opportunity for siting through a pasture next to previously disturbed pipeline ROW or avoid siting through irrigated agricultural field).

Data utilized consisted of available BLM field office and USFS district office environmental data, State environmental data, National Wetlands Inventory data, Natural Heritage Program data, commercially available satellite imagery supplemented by TransWest aerial imagery.

Engineering design was based upon selection of suitable structure types, preliminary engineering of terminals and ground electrode facilities and experience with other transmission projects in similar terrains.

Figures 1 and 2 below depict a typical, conceptual section of the generally two-mile wide Transmission Line Corridor with a Reference Line and the level of engineering information available for the DEIS POD.

4. <u>FEIS POD (data to be provided November 2013, document to be provided February 2014)</u>

The FEIS POD will provide a description of the TWE Project Proposed Action, Preliminary Agency Preferred Alternative from the DEIS and other Alternatives carried forward into the FEIS. The FEIS POD will contain an updated project description, including construction, operation and maintenance practices, environmental mitigation measures, and BMPs. The construction, operation and maintenance practices provided in the DEIS POD/PDTR will be updated to provide more current detailed information.

The FEIS POD will provide Preliminary Engineered Alignments based upon additional engineering, aerial terrain surveys, field engineering surveys, and siting opportunity and

constraint data from the DEIS. The FEIS POD may also consider public comments on the DEIS based upon BLM's direction. The Transmission Line Corridors (generally two-miles wide) will be refined and narrowed based on currently available siting constraints information and potential for further siting refinements. In refining and narrowing the Transmission Line Corridors, consideration will be given to terrain, access restrictions, existing access, designated utility corridors, environmental constraints, jurisdictional constraints, co-location, landowner requests and the potential for changes between the FEIS POD and the ROD POD. The variables that principally impact the certainty of the Final Engineered Alignment of the TWE Project are terrain, jurisdiction (federal, state or private) and the proximity of the alignment to existing transmission lines and other infrastructure. The FEIS POD will provide revised indicative disturbance data tables using the methodology described in the PDTR Appendix A to determine potential acreages of temporary and permanent disturbance for all Alternatives as was used in the DEIS analysis. The modeled data will include revisions to capture the relatively smaller disturbance footprint associated with new access roads tied into the existing access road network of co-located transmission lines.

Figures 3 and 4 below depict a typical, conceptual section of the refined Transmission Line Corridor with Preliminary Engineered Alignments and the level of engineering information that will be available for the FEIS POD.

5. Record of Decision POD

The ROD POD will provide revised Preliminary Engineered Alignments for the FEIS Agency Preferred Alternative (or the selected alternative if different) in consideration of any new or additional data provided by agencies or from field surveys (i.e., biological or other resource surveys), additional LIDAR data and field engineering data.

Based on detailed design, the ROD POD will provide initial layout of all temporary work areas including wire-pulling, tensioning (stringing sites) and splicing sites, staging areas/fly yards, terminals, ground electrodes, and regeneration sites and all existing and new access roads to each structure location for the Agency Preferred Alternative.

The ROD POD will contain the Framework Traffic and Transportation Management Plan along with detailed mapping of all proposed structure locations, backbone access network, existing access, existing access with improvements, overland access and proposed new access.

Figures 5 and 6 below depict a typical section of the refined Transmission Line Corridor and the Preliminary Engineered Alignment and the level of engineering information that will be available for the ROD POD. Additional corridor refinements in select areas may be made at the direction of the federal agencies for special management areas or areas with extreme environmental constraints.

6. Notice To Proceed POD

The NTP POD will be the final POD and will incorporate the Construction, Operation and Maintenance Plan (COMP). The NTP POD will detail TransWest's construction plans and specifications, and construction practices and procedures for the selected alternative. The NTP POD will also describe the processes and procedures TransWest will employ to comply with the requirements of the RODs for the Project and include the Environmental Compliance Management Plan. The NTP POD is intended to be appended to the BLM ROW Grant and the USFS Special Use Permit.

Due to the length and complexity of the TWE Project, multiple NTPs are anticipated; therefore, TransWest envisions preparing a Project NTP POD and POD Appendices. Proceeding in this manner is anticipated to minimize the number of variance requests for the Project as each NTP POD Appendix will be based upon field verified segment-specific construction plans incorporating all known resource data including field survey results.

Project NTP POD. The Project NTP POD will address overall TWE Project guidelines, compliance with agency mitigation requirements, and stipulations and conditions of approval common to the entire Project. It will also include construction practices and compliance plans common to the entire Project.

NTP POD Appendices. The NTP POD Appendices will consist of construction segment-specific project descriptions; final detailed engineering; mapping describing structure locations, access road layouts, temporary work areas, etc.; segment-specific COMP practices and compliance plans, and stipulations and conditions of approval for the Project segment covered by the request for a NTP. Any changes to the Preliminary Engineered Alignment necessitated by results of preconstruction surveys will be incorporated into the NTP POD Appendices, resulting in a Final Engineered Alignment.

In accordance with the overall objectives outlined above, the following activities will be performed after the issuance of the RODs and ROW Grants/Special Use Permits:

a. Acquisition of ROW on state and private lands
b. Completion of final engineering to include final structure locations, final access road layout including field verification of structure locations and proposed access roads for the selected alternative
c. Layout and field verification of all temporary work areas to include material storage yards, fly yards/laydown areas and portable concrete batch plants
d. Class III cultural resource and biological preconstruction surveys, completion of analysis and preparation of summary reports
e. Jurisdictional Waters of the U.S. delineation and any other resource surveys required to support permitting
f. Acquisition of remaining federal permits and acquisition of required state and local permits

g. Preparation of the main body of the Project NTP POD to address all mitigation measures, stipulations and conditions of approval set forth in the RODs, including fully developed management plans for the following:[2]
    i. General Construction, Operation and Maintenance Practices
    ii. Avian Protection Plan
    iii. Cultural Resources/Historic Properties Treatment Plan
    iv. Fire Protection Plan
    v. Greater Sage Grouse Habitat Equivalency Analysis, Mitigation and Monitoring Plan
    vi. Vegetation Management Plan
    vii. Noxious Weed Management Plan
    viii. ROW Preparation, Rehabilitation, Restoration and Monitoring Plan
    ix. Wetlands and Waters of the US Mitigation Plan
    x. Wildlife Species Conservation Measures Plan
    xi. Paleontological Resources Treatment Plan
    xii. Traffic and Transportation Management Plan
    xiii. Storm Water Pollution Prevention Plan
    xiv. Spill Prevention, Containment and Countermeasures Plan
    xv. Dust Control and Air Quality Plan
    xvi. Blasting Plan
    xvii. Hazardous Material Management Plan
    xviii. Emergency Preparedness and Response Plan

Figures 7 and 8 below depict the typical process involved in progressing from the Preliminary Engineered Alignment to the Final Engineered Alignment based on preconstruction field surveys (Cultural Class III surveys in these examples). Once the Final Engineered Alignment is complete, mapping will be prepared and presented as an Appendix to the NTP POD for agency review and approval.

Corridor Refinement Process

Siting and evaluation of transmission facilities is a dynamic process. Experience has proven that starting with a broad evaluation area, and then refining that area as more information is obtained and public input gathered leads to informed and defensible decision making. Analyzing a representative reference line within a wider Transmission Line Corridor is appropriate for the DEIS level of impact analysis. This approach allows the federal agencies to be responsive to cooperating agency concerns as well as public feedback obtained through the DEIS public comment period. Indeed, one of the purposes of the DEIS public comment period is to ensure that all relevant information and public views are considered prior to the federal agencies making a final decision. Analyzing impacts on a broader scale than the 250-foot transmission line ROW in the DEIS provides greater disclosure of potential impacts - the fundamental purpose of NEPA. This DEIS corridor can then be narrowed as the environmental analysis progresses through the

[2] Note: This is a preliminary list subject to revision.

FEIS, ROD and issuance of a Notice to Proceed, allowing adjustments to the final ROW to be made as information continues to be gathered, resulting in avoiding and minimizing impacts to resources to the greatest extent practicable. "Decide and Defend" where a proponent and agency decide on an exact ROW location prior to all the facts being known and then defends the decision is an outdated mode of transmission line permitting that neither allows for public involvement nor permits consideration of new information to avoid and minimize impacts.

The TWE Project was initially evaluated on a regional basis (SF 299 POD). Transmission Line Corridors were then refined to approximately six miles wide based upon a non-engineered reference line (Scoping POD). As further information was gathered and reviewed, Transmission Line Corridors were reduced to generally two-miles wide (DEIS POD/PDTR). TransWest proposes to further refine the DEIS Transmission Line Corridors (FEIS POD) for analysis in the FEIS based on new information and DEIS public comments. TransWest anticipates that these refined Transmission Line Corridors will be carried through to the RODs and ROW Grants/Special Use Permits but that the POD will continue to be refined with a focus on the selected alternative (ROD POD). The NTP POD and Appendices will define the final ROW for TWE Project facilities. Outlined below is the process under which the Transmission Line Corridors will be refined for the FEIS POD and the NTP POD and Appendices.

Terrain is one of the fundamental design parameters used in the design and siting of transmission lines, structures and access roads. In the early stages of a project, available terrain data is usually limited to USGS topographic data (±30 feet). As a project progresses, satellite imagery, aerial photography and LIDAR (± 3 feet) are usually obtained. Transmission line design and siting to develop specific structure locations and heights utilizes tools, such as PLS CADD, that optimize (e.g. minimize the number of towers and access roads while avoiding and minimizing environmental impacts) the alignment of the transmission line based on the design criteria and terrain. An Engineered Alignment developed using these tools but with poor quality terrain data cannot be optimized and likely will require redesign with significant differences in structure locations either when high quality terrain data, such as LIDAR, is obtained later in the design/permitting process or during construction. To augment the quality of the design and siting, field verification of preliminary structure sites and in particular the angle or 'PI' (point of intersection) structure sites are often conducted to ensure the viability of these sites. Data from these field surveys are then used to refine the design and siting.

Rugged terrain presents unique challenges to siting transmission lines and introduces more uncertainty with respect to the final location of structures and access roads absent the full complement of technical and environmental data. As a consequence, greater differences between the Preliminary Engineered Alignments and Final Engineered Alignments in rugged terrain are more likely than in flat terrain. For example, a siting constraint located in mountainous terrain may require relocation of the transmission line to a farther ridge or hollow as opposed to a nearby cliff face or other highly undesirable location. Therefore, TransWest has developed criteria as described in the PDTR for various terrain types and categorized each Alternative segment by these terrain types ranging from flat, rolling, steep, to mountainous.

In order to assist in the design and siting optimization of the Project, TransWest has contracted to obtain LIDAR data based upon a 'best guess' as to the viable alternatives that may comprise the alternative route selected in the ROD. Where available, LIDAR data, along with additional field verification data, will be used to refine corridors throughout development of the FEIS POD and the ROD POD. The NTP POD and Appendices will be based upon digital terrain models generated using high-quality LIDAR data for the selected alternative.

TransWest has also developed different criteria for federal lands and private lands (for purposes of corridor refinement, TransWest is treating state lands as private lands). This is because additional flexibility is required on private lands to address any unique landowner concerns or circumstances that may arise during the ROW acquisition process.

Another important parameter in the design and siting of a transmission line within a given segment is the proximity of other transmission lines. In locations where there is an existing transmission line, the design of the new line is somewhat advanced and at the same time complicated by the existing lines. Overall, co-locating a line adjacent to an existing transmission line results in more certainty of the final design as the existing line has already established the general alignment and an access road network that can potentially be used by the new line. In instances where the existing transmission line does not run parallel to field lines or development has sprung up adjacent to the existing transmission line, co-location may actually be difficult to accomplish without creating greater impacts. However, most often co-location presents more opportunities than constraints as the siting of the existing transmission line likely selected an alignment of least resistance. Therefore for a given terrain type and land ownership type, the certainty of the transmission line location is higher in co-located settings versus greenfield settings.

As shown in Table 1. TransWest has developed a recommended Transmission Line Corridor width for each of these settings as defined by these fundamental design parameters, and has categorized each segment by these parameters and designated each segment for a particular Transmission Line Corridor width. The three typical refined Transmission Line Corridor widths are 500 feet, 1,800 feet and 3,600 feet.

In addition to the typical Transmission Line Corridor widths outlined above and in Table 1, TransWest is also refining Transmission Line Corridors based on review of environmental constraints information. These constraints are identified in the DEIS and provided by the agencies as shapefiles for GIS analysis. The BLM identified areas and issues to consider for Transmission Line Corridor refinement including:

1. Special Management Areas (SMAs) that are managed as no surface use (NSU) by the agencies.

2. Special Status Species (SSS) known occurrence and modeled habitat to minimize and more accurately define the geographic extent of survey requirements. Sage-grouse leks and NSU buffers, and Preliminary Priority Habitat exclusion areas are included.

3. National Historic and Scenic Trails (NHT, NST, respectively) crossings (contributing segments) and related Special Recreation Management Areas (SRMAs).

4. Landslide-prone Areas where flexibility for routing should be maintained.

5. USFS Inventoried Roadless Areas (IRAs) and Unroaded/Undeveloped (URUD) areas that can be completely avoided and removed from corridor.

6. Designated utility corridors should be utilized in desert tortoise crucial habitat and supporting Areas of Critical Environmental Concern (ACEC).

Table 1 – General Refined Corridor Widths in Accordance with Setting and Approximate Miles of Each Width

Setting Variables				Comparison of Alternatives			
Terrain Type	**Land Ownership**	**Proximity to Other Transmission Lines**		**Applicant Proposed Alternative**		**Agency Preferred Alternative**	
		Co-located	Greenfield				
		Corridor Widths (feet)		Miles	%	Miles	%
Flat	Federal	500		336	46%	319	42%
Rolling		500	1,800				
Flat	Private	1,800		256	35%	268	36%
Rolling							
Steep	Federal	1,800	3,600				
	Private	3,600		134	18%	165	22%
Mountainous	Federal or Private						
			Total	726	100%	752	100%

Table 1 Notes:

A. Federal Land type also included Federal/Private checkerboard in Wyoming.
B. Exceptions to these corridor widths will be made to accommodate micro-siting options and exclusion areas where possible.

Figure 1 – DEIS Transmission Line Project Description – Greenfield

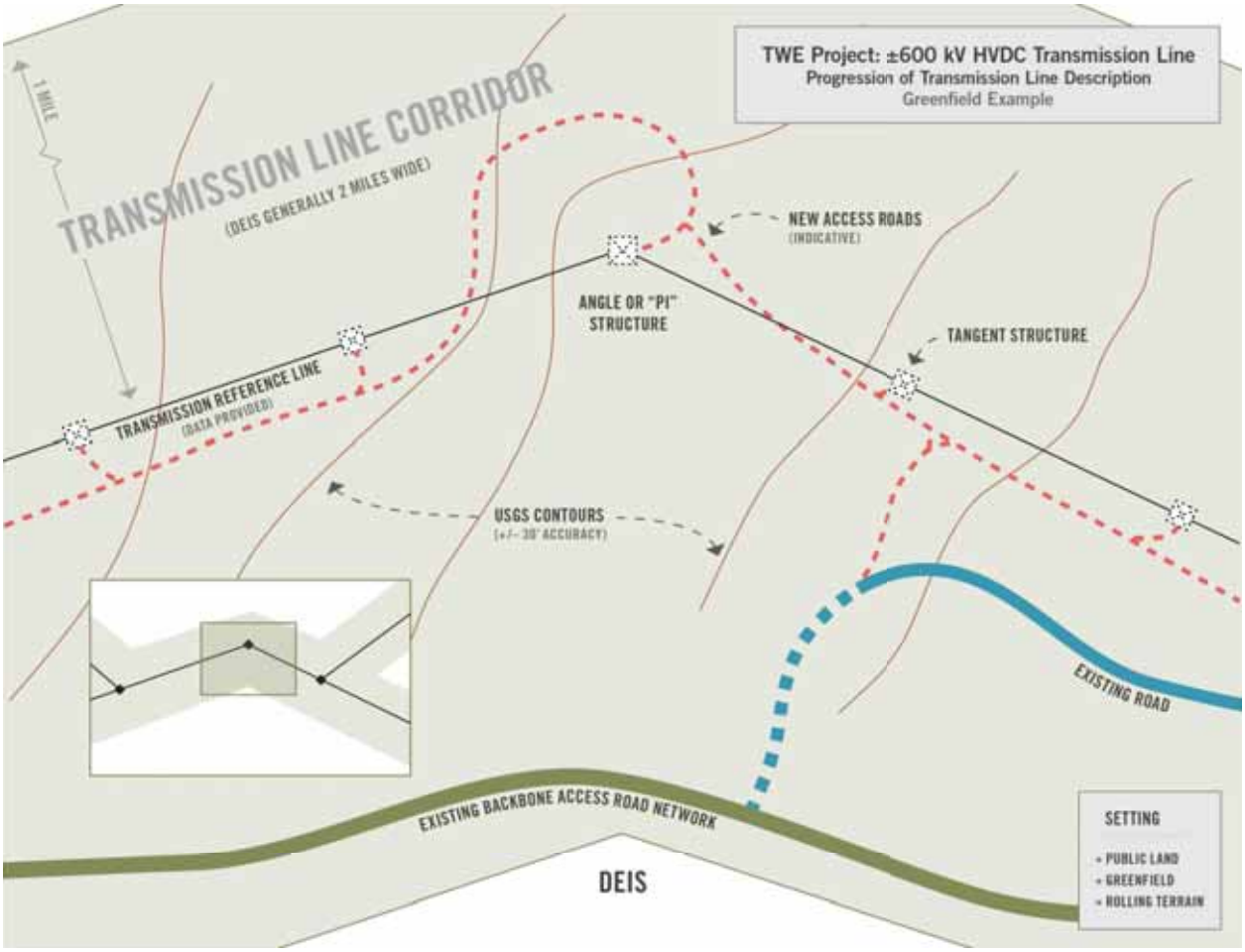

Figure 1 Notes:

A. Structure and Access road disturbance information, including improvements to existing roads provided as modeled data for analysis in the DEIS. The dashed structure and access road locations shown in dashed format are indicative of the modeled data provided.

Figure 2 – DEIS Transmission Line Project Description – Co-location

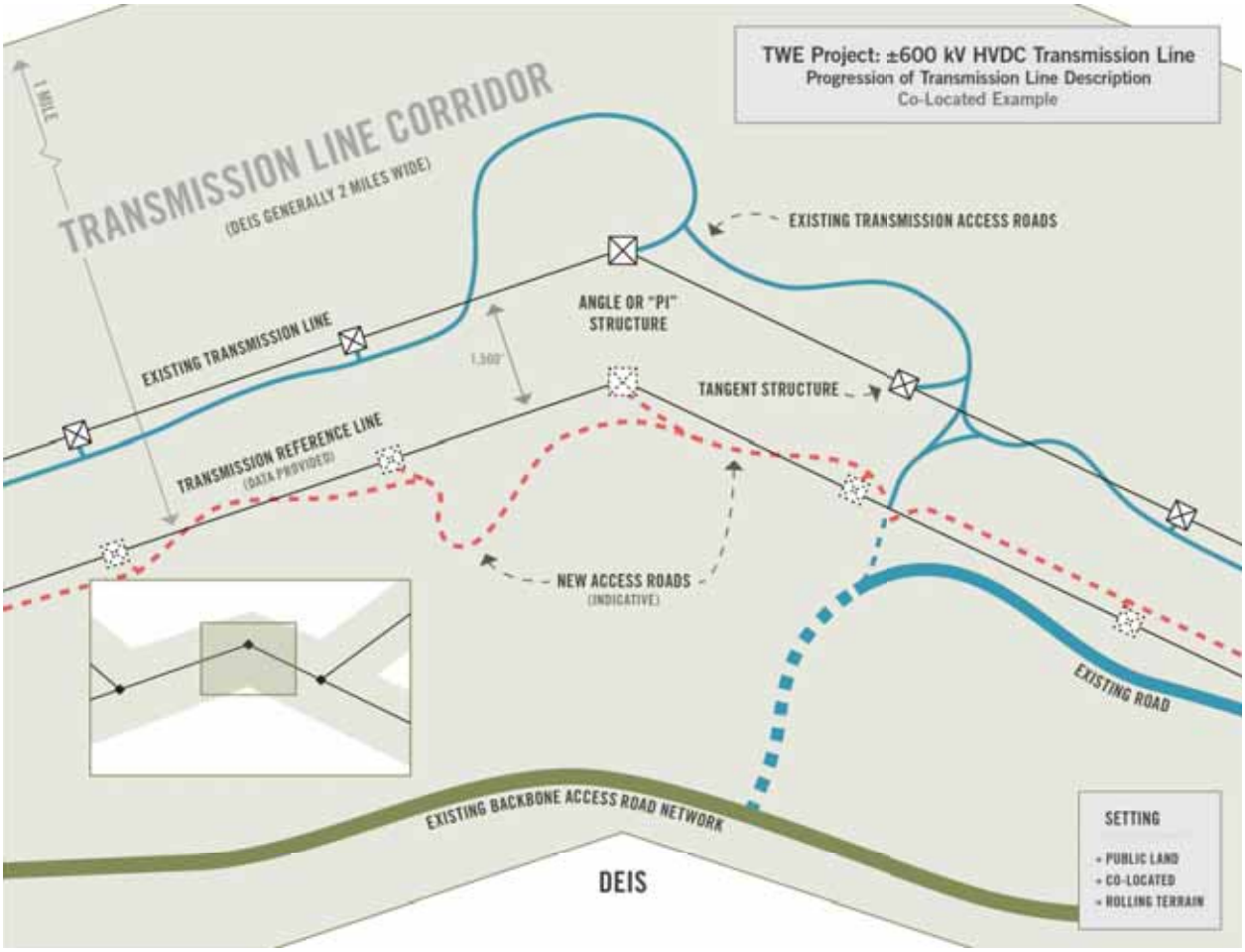

Figure 2 Notes:

A. Structure and Access road disturbance information, including improvements to existing roads provided as modeled data for analysis in the DEIS. The dashed structure and access road locations shown in dashed format are indicative of the modeled data provided.
B. Transmission Reference Line for the TWE Project used a 1,500' separation from existing high voltage transmission lines. Modeled access road disturbance data based on assumption that a separate access road network would be required.

Figure 3 – FEIS Transmission Line Project Description – Greenfield

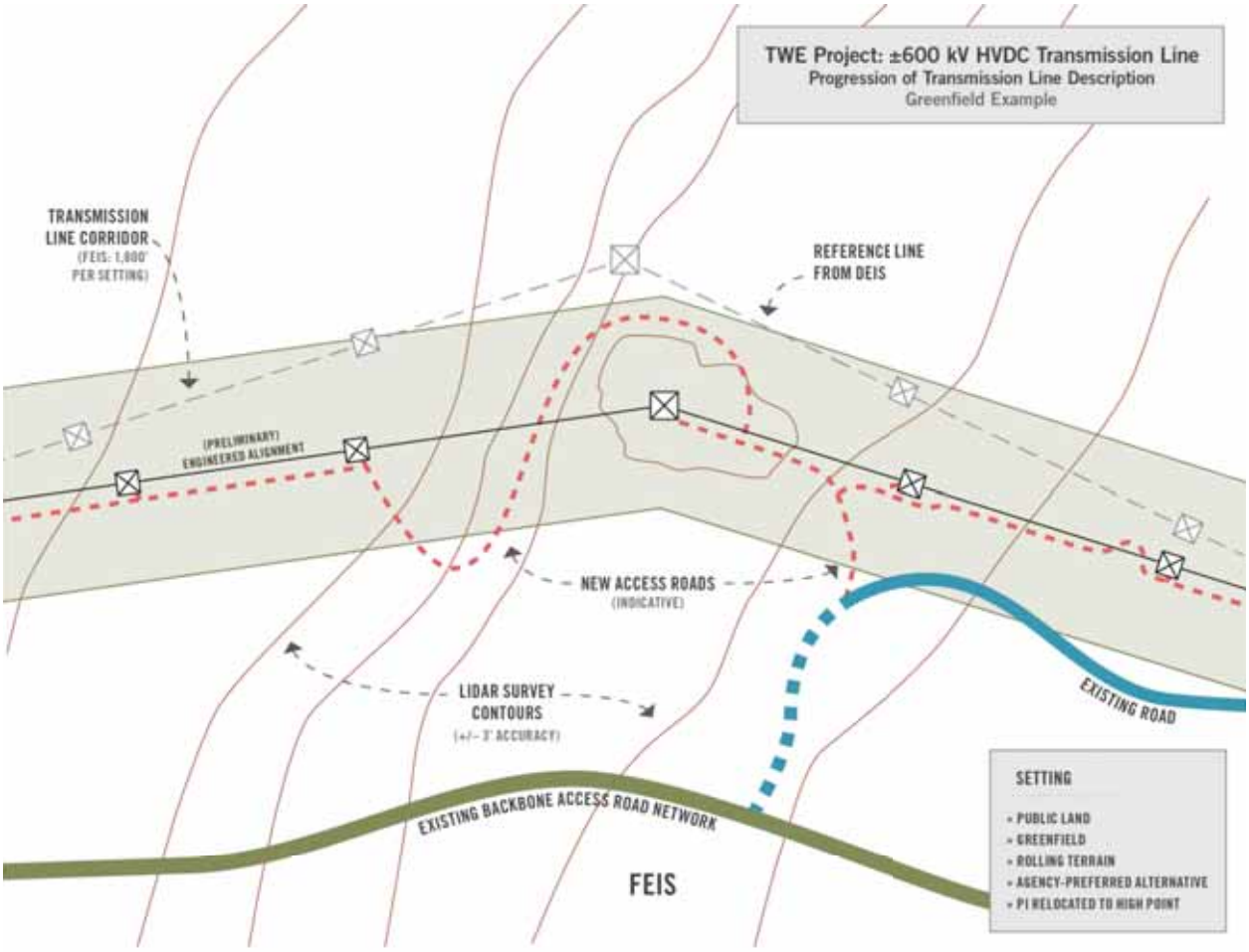

Figure 3 Notes:

A. This example shows how the more accurate survey data leads to a relocation of the Angle (PI) structure and the centerline to a high spot instead of a cliff face.
B. The Transmission Line Corridor for this setting has been narrowed to 1,800'.
C. Structure and Access road disturbance information, including improvements to existing roads provided as indicative data.

Figure 4 – FEIS Transmission Line Project Description – Co-location

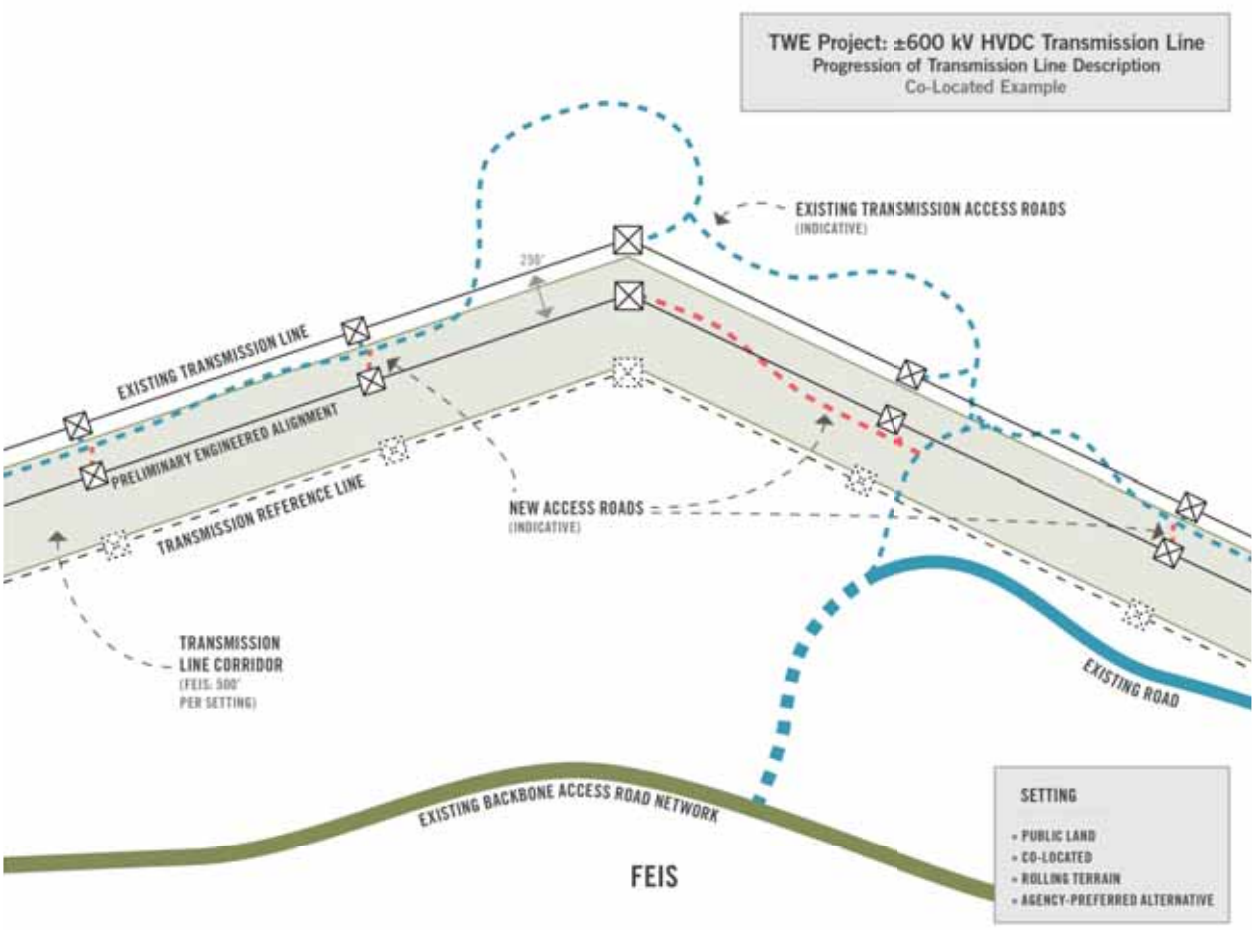

Figure 4 Notes:

A. This example shows how the revised co-location criteria allow the TWE Project to be sited 250' from the existing transmission line and how the existing access road network can be utilized for the TWE Project.
B. The Transmission Line Corridor for this setting has been narrowed to 500'.
C. Structure and Access road disturbance information, including improvements to existing roads provided as indicative data.

Figure 5 – ROD/ROW Grant Transmission Line Project Description – Greenfield

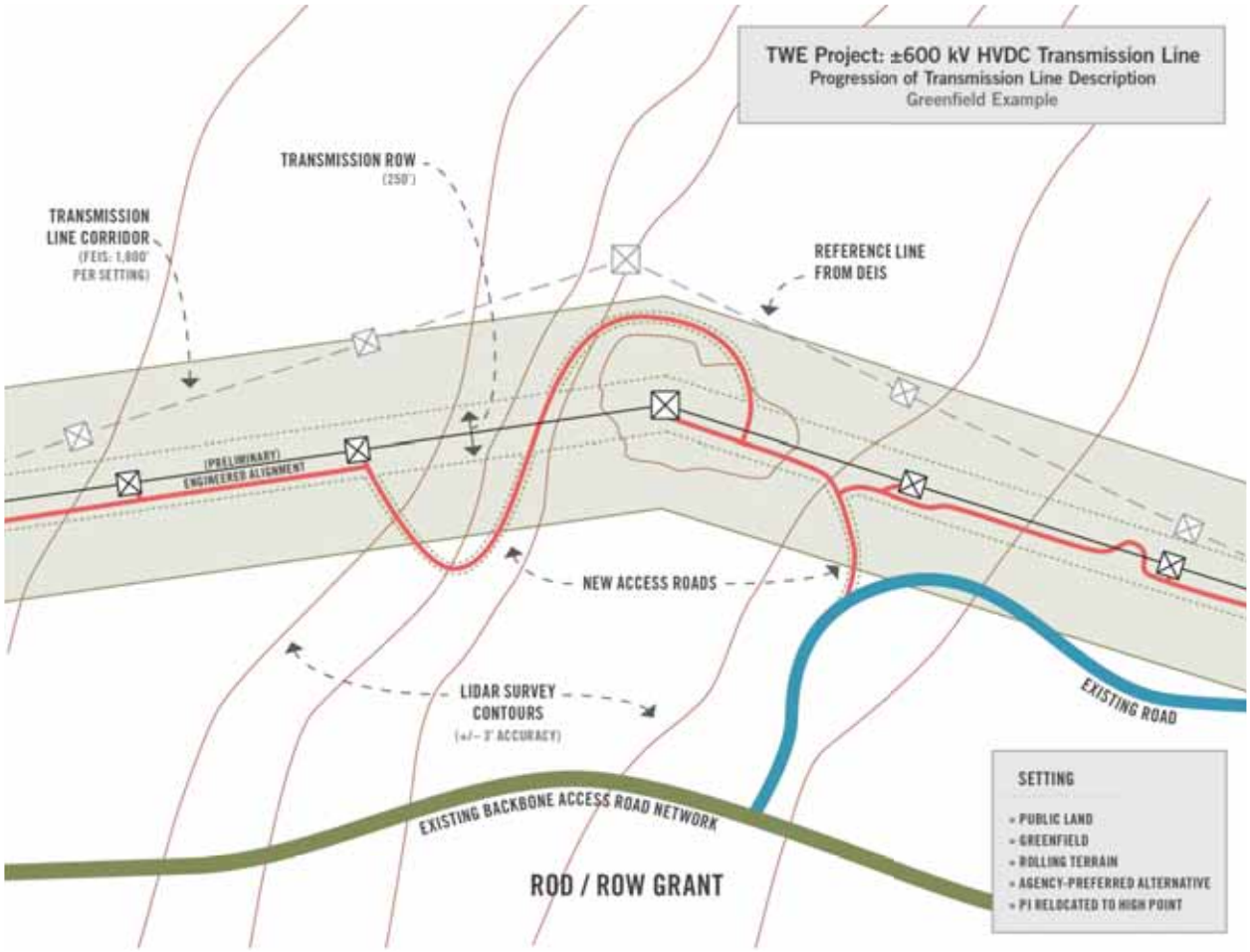

Figure 5 Notes:

A. This example shows how the more accurate survey data leads to a relocation of the Angle (PI) structure and the centerline to a high spot instead of a cliff face.
B. The Transmission Line Corridor for this setting has been narrowed to 1,800'.
C. Structure and Access road disturbance information, including improvements to existing roads provided as GIS data.

Figure 6 – ROD/ROW Grant Transmission Line Project Description – Co-location

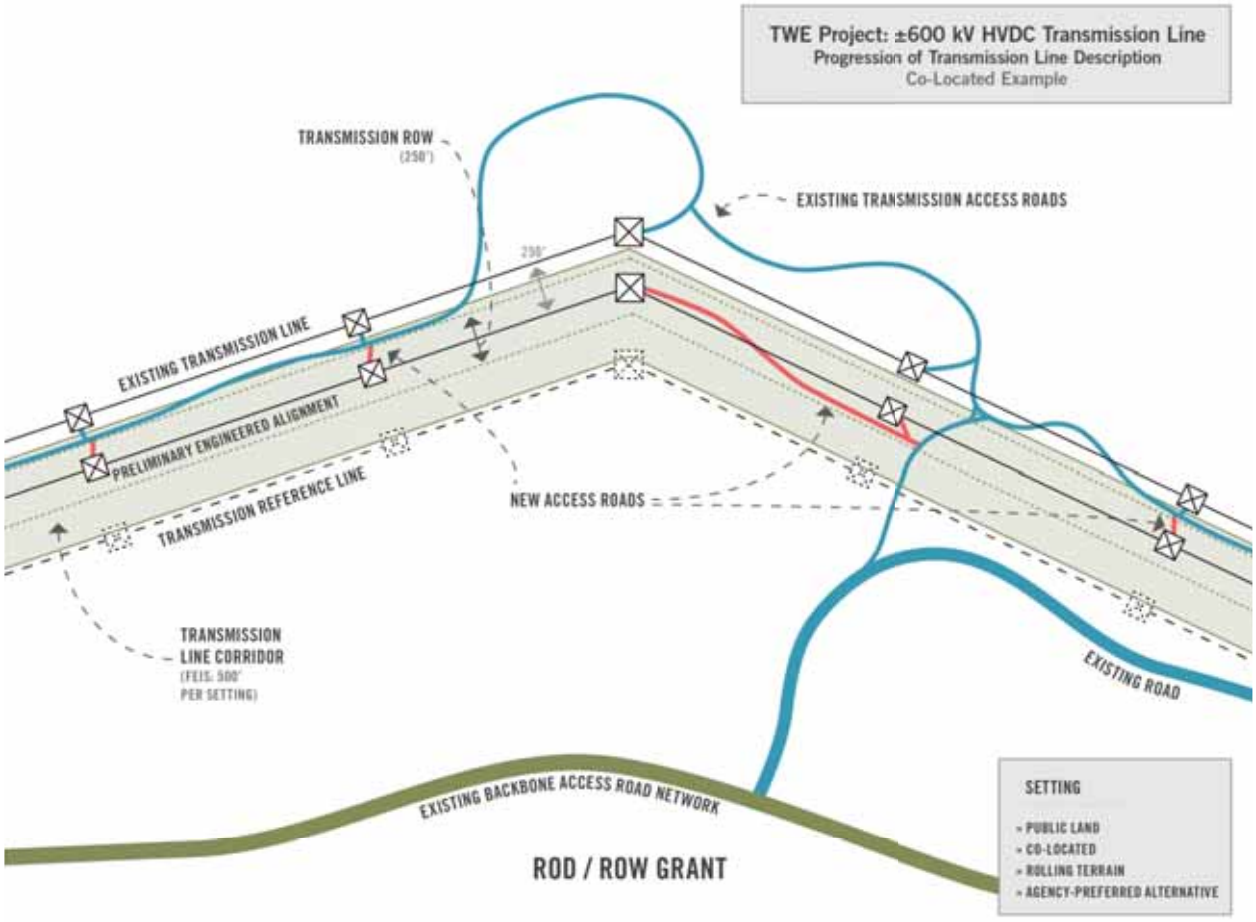

Figure 6 Notes:

A. This example shows how the revised co-location criteria allow the TWE Project to be sited 250' from the existing transmission line and how the existing access road network can be utilized for the TWE Project.
B. The Transmission Line Corridor for this setting has been narrowed to 500'.
C. Structure and Access road disturbance information, including improvements to existing roads provided as GIS data.

Figure 7 – NTP Transmission Line Project Description – Greenfield

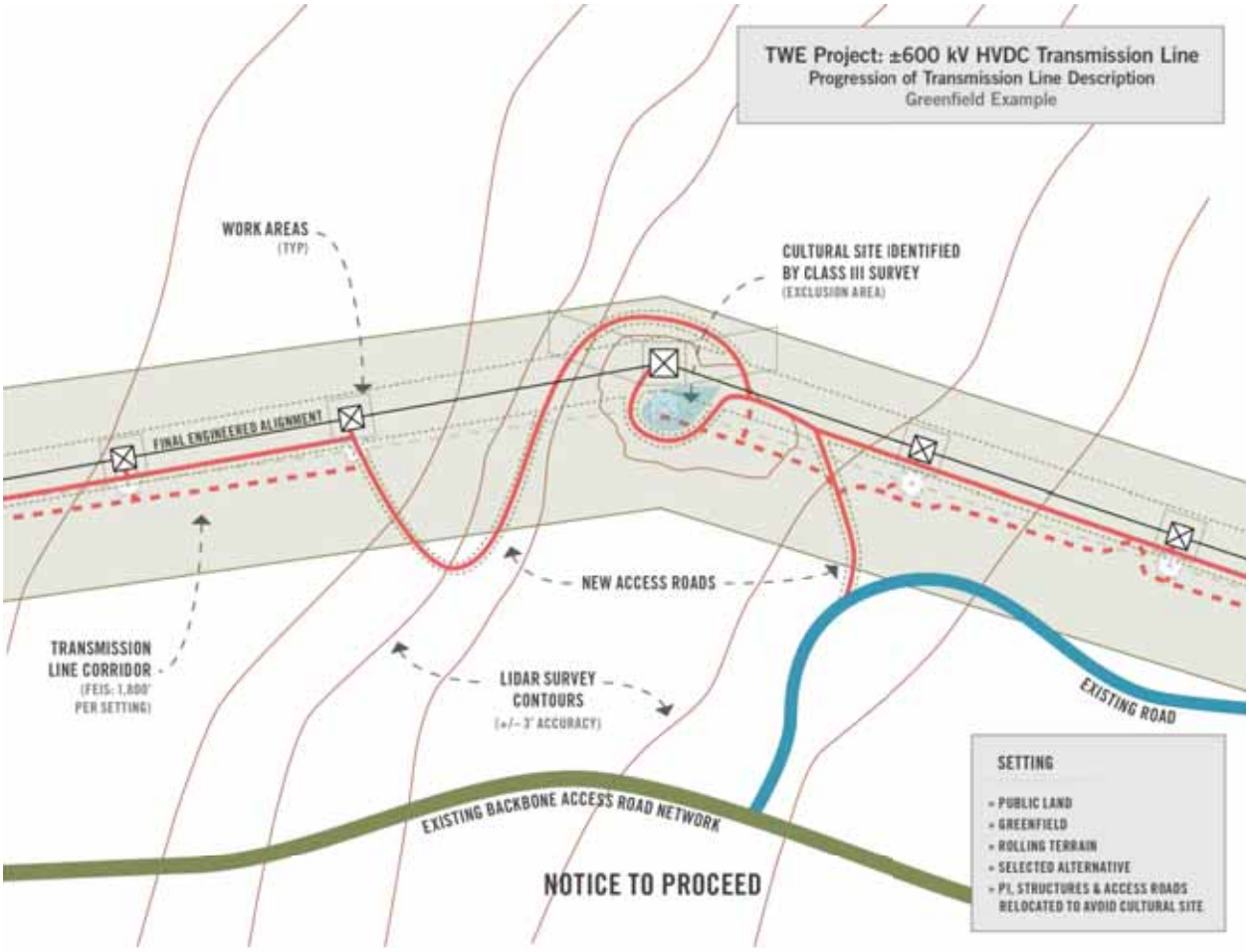

Figure 7 Notes:

A. This example shows how field surveys detected a resource that required the relocation of the Angle (PI) structure and the centerline.
B. The Transmission Line Corridor for this setting of 1,800' is sufficient to accommodate this change.
C. The Final Engineered Alignment, final structure locations, ROW extents, temporary work areas and access road locations shown will be provided in the NTP POD and Appendices.

Figure 8 – NTP Transmission Line Project Description – Co-location

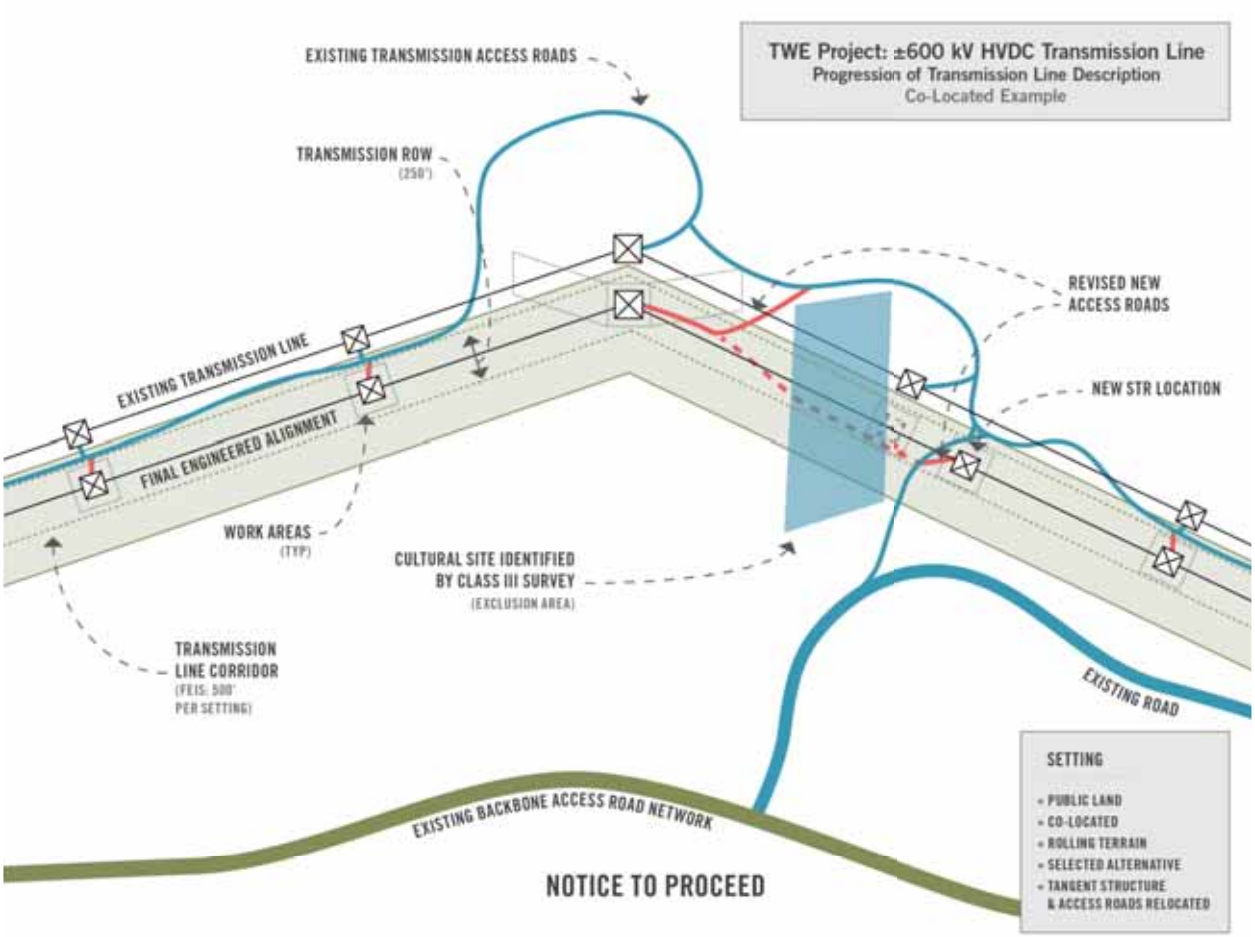

Figure 8 Notes:

A. This example shows how field surveys detected a resource that required the relocation of the Access Road.
B. The Transmission Line Corridor for this setting of 500' is sufficient to accommodate this change.
C. The Final Engineered Alignment, final structure locations, ROW extents, temporary work areas and access road locations shown will be provided in the NTP POD and Appendices.

EXHIBIT A – DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Acronyms

AC	Alternating Current
BLM	Bureau of Land Management
BMP	Best Management Practice
COMP	Construction, Operation and Maintenance Plan
DC	Direct Current
DEIS	Draft Environmental Impact Statement for the TransWest Express Transmission Project (BLM July 2013)
EHV	Extra High Voltage
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement for the TransWest Express Transmission Project
NEPA	National Environmental Policy Act
NPS	National Park Service
NTP	Notice to Proceed
PDTR	Project Description Technical Report (TransWest July 2011)
POD	Plan of Development
ROD	Record of Decision
ROW	Right-of-way
TWE	TransWest Express
USBOR	U.S. Bureau of Reclamation
USFS	United States Forest Service

Definitions

Final Engineered Alignment – An engineered transmission line alignment reflecting the final location of the transmission line and right-of-way based upon completion of all required field surveys (Class III surveys, Threatened and Endangered Species surveys, etc.), terrain conditions determined from high-quality LIDAR data (typically at three foot elevation intervals), and final engineering review and design. The transmission line alignment and right-of-way has been field inspected and surveyed and construction procedures and practices are in compliance with the record of decision and right-of-way grant/special use permit, or exceptions noted and documented and the variance process initiated.

Greenfield – a Reference Line that is not co-located near or parallel to an existing transmission line or other linear utility infrastructure.

LIDAR – A remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light and is popularly used as a technology used to make high resolution maps.

Plan of Development – documentation of a federal right-of-way applicant's construction, operation, rehabilitation and environmental protection plan. *See 43 CFR 2804.25*

Preliminary Engineered Alignment – An engineered transmission line alignment reflecting a possible final location of the transmission line and right-of-way based upon known environmental and land use opportunities and constraints, terrain conditions ascertainable from public and commercially available information (USGS maps, satellite imagery, commercially available purchased imagery, etc.), and initial engineering review and design. The alignment has been field inspected and no major issues concerning construction, operation and maintenance of the line have been identified.

Reference Line – Reference Lines are preliminary, non-engineered routes within Transmission Line Corridors that were determined based on environmental and engineering constraints and constructability review. The reference line is generally bounded on each side by one mile of corridor. For purposes of the DEIS analysis, Reference Lines serve as preliminary centerlines for the location of the ±600 kV DC transmission line ROW. Reference line locations will be refined within the Transmission Line Corridors throughout the NEPA process.

Transmission Line Corridors – Corridors are defined as geographic areas generally varying in width within which the proposed 250 foot-wide TWE Project transmission line right-of-way (ROW) would be located. Corridor widths have varied among the various studies completed for TWE Project planning. For purposes of the DEIS analysis, the Proposed and Alternative Transmission Line Corridors have been refined to generally two miles wide. In limited areas, the corridor widths may be greater or lesser due to routing constraints, as requested by the joint lead agencies. These Transmission Line Corridors will be evaluated in the DEIS to document the range of resource impacts which could result from transmission line construction, operation, and maintenance within the Transmission Line Corridors. Corridor locations and widths have been, and will continue to be, refined throughout the National Environmental Policy Act (NEPA) process.

Design Alternatives – Design alternatives are alternative transmission configurations, which may have the potential to meet the TWE Project purpose and need, depending on future energy market conditions and permitting decisions for other regional transmission systems. Two design alternatives are described in the PDTR.

APPENDIX Z
REVISED ACCESS ROAD METHODOLOGY FOR FEIS (MEMORANDUM)

MEMORANDUM

DATE:	February 13, 2014
TO:	David Smith Garry Miller
C:	Ron Carrington Andy Bartos Pushkar Gokhale Dan Cacioppo DMS 115841/ PER 01
FROM:	Linda Erdmann
SUBJECT:	115841 Trans West Express Transmission Project – Revised Access Road Methodology for FEIS

MESSAGE

This memo provides a description of the base data and methodology that will be used to estimate miles of access roads and percentages of these access roads inside and outside the transmission line right-of-way (ROW) by route segment. This data will ultimately be used to approximate the area of ground disturbance associated with new access roads within the Agency Preferred, Applicant Proposed and Alternative Route corridors by route segment in four different types of terrain:

- Terrain Type 1 - Flat
- Terrain Type 2 - Rolling
- Terrain Type 3 - Steep
- Terrain Type 4 - Mountainous

Backbone Access Road Network Methodology

The first step in this process is to identify existing roads in the project area that can be used to access the Agency Preferred, Applicant Proposed and Alternative Route corridors for transmission line construction and maintenance. These public and private roads make up the backbone access road network that includes paved, gravel, and dirt roads.

Google Earth was used to determine the location of existing access roads. Existing paved roads are assumed to require no improvements and therefore no ground disturbance. These roads are categorized as Category 1 Existing Improved Roads. Existing gravel and dirt roads that appear to have wide, well graded or graveled surfaces are assumed to require no improvements and therefore no ground disturbance. These roads are also categorized as Category 1 Existing Improved Roads.

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Existing dirt roads that appear to have narrow, poorly graded surfaces or that appear as two-track paths are assumed to require some level of improvement and therefore ground disturbance. Typical improvements may include widening, realignment, culvert installation, and other necessary improvements to support construction vehicles and equipment. These roads are categorized as either Category 2A Existing Roads *Outside the FEIS Corridor* that Require Improvement or Category 2B Existing Roads *Inside the FEIS Corridor* that Require Improvement. The DEIS corridors were narrowed for the FEIS based on terrain, proximity of other transmission lines, environmental constraints, and land ownership. The net effect on the backbone access road network of narrowing the DEIS corridors to create the FEIS corridors was to slightly increase the length of Category 2A roads (changes captured in the current backbone access road GIS shapefile) and to slightly decrease the amount of Category 2 B roads (did not reduce the average road ratios by terrain type shown in Table 2).

Category 1 Existing Improved Roads and Category 2A Existing Roads Outside the FEIS Corridor that Require Improvement make up the backbone access road network. A GIS shapefile was created for the backbone access road network. The purpose of the backbone access road GIS shapefile is twofold:

1. Identify lengths of Category 1 and Category 2A roads that can be used to access the Agency Preferred, Applicant Proposed and Alternative Route corridors for transmission line construction and maintenance.
2. Identify the starting point for the layout and location of new access roads (Categories 2B, 3, 4, 5, & 6).

New Access Road Methodology for Greenfield Alternatives

A new access road refers to implementing all activities required to establish a travel-way that allows vehicular access from an existing road to the required work location and does not imply construction of a new road with a ditch and a raised shoulder.

A percentage of the length of Category 2B roads described above are considered new access roads and are included in the indicative access road summary by terrain type (Table 2). Due to the nature of improvement requirements, the level of disturbance associated with Category 2B roads is much less than that for a new road. Field verification is required to determine if improvements are needed and if so, what level of improvement. Typically, the type of terrain determines the required level of road improvement (Table 1). Table 1 estimates the percentage of Category 2B roads requiring improvement based on terrain and past experience on other transmission line projects.

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TABLE 1. PERCENTAGE OF CATEGORY 2B ROADS REQUIRING IMPROVEMENT	
Terrain Type	% Road Length Requiring Improvement
Flat	50%
Rolling	60%
Steep	70%
Mountainous	80%

New access roads were identified and mapped along sample segments of the Applicant Proposed Route (June 2010) in order to determine the indicative length of new access roads required for the Agency Preferred, Applicant Proposed and Alternative Routes. This approach provides the information necessary to analyze and compare impacts from construction of the access roads for the alternative routes in the FEIS. The new access roads and backbone access roads described previously will provide the complete road network necessary to construct the TWE Project transmission line.

POWER's construction managers reviewed hard copy USGS 7.5-minute quadrangle topographic maps with the entire length of the Proposed Route shown. Segments along the Proposed Route that represented the different terrain types that would require new access road construction were identified. A total of 18 sample segments were identified which represented flat, rolling, steep and mountainous terrain. Four of the 18 sample segments, 1, 7, 13, and 15, have more than one type of terrain as shown in Table 2.

Once these sample segments were selected, indicative structure spotting based on topographic constraints and spans ranging from 1,200 to 1,400 feet were completed and access roads were hand drawn on the hard copy USGS quad maps using the contours. These maps were then scanned, geo-referenced and the roads digitized into the GIS.

Once in the GIS, the location of the digitized access roads were re-examined by the construction managers to identify any potential digitizing scale errors. For example, if a new access road was located just outside the 250 foot ROW in flat terrain, the location of the road was corrected to be within the ROW as intended. The corrected access roads were labeled by terrain category (Categories 3, 4, 5 & 6) and sample segment number.

The 18 sample segments were analyzed for slope in tenth mile increments, using 6 meter DEMs derived from the TWE Project Towill elevation data. Tenth mile increments were used to obtain 10 data points or values per one mile of sample segment length. This provides a more accurate terrain measurement compared to one data point or value per one mile increment over the total length of the sample segment. This slope analysis provided the minimum, maximum, and average slope and cumulative change in slope for each tenth mile increment, which was then compared to topographic maps for accuracy. In steeper terrain areas, the average slopes were often less than the actual terrain where the flatter sample segments in the mountainous areas had distorted the greater slope values. For example, in Sample Segment 10, all of the average slope values ranked as "steep" or "rolling", although both the topographic map and Google Earth show the areas to be clearly mountainous. In

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addition, the minimum and maximum slopes did not always represent actual terrain. Therefore, it was determined that the cumulative change in slope best represented all terrain types and was used for each tenth mile increment.

The cumulative change in slope for each tenth mile increment over a length of a mile (10 tenth mile increments) is then averaged to calculate the slope value and terrain type per mile of sample segment. This data is then entered into an Excel spreadsheet to compare the percentage change in slope value and terrain type for successive one mile sections of the sample segment. These sections are then grouped by average slope value and dominant terrain type. Therefore, each sample segment can have more than one dominant terrain type.

Miles of sample segments with dominant slopes between 0 to 8 percent are categorized as Flat Terrain; 8 to 15 percent as Rolling Terrain; 15 to 25 percent as Steep Terrain; and over 25 percent as Mountainous Terrain. Roads within these four terrain types are categorized as follows:

- Category 3 Construct Road in Flat Terrain (0 to 8 percent slope)
- Category 4 Construct Road in Rolling Terrain (8 to 15 percent slope)
- Category 5 Construct Road in Steep Terrain (15 to 25 percent slope)
- Category 6 Construct Road in Mountainous Terrain (greater than 25 percent slope)

The miles of transmission line, new access roads, new road within the ROW, and new road outside the ROW were calculated for each sample segment and totaled by terrain type (Table 2). The ratio of line miles to road miles by terrain type were applied to the Agency Preferred, Applicant Proposed and Alternative Routes to estimate the miles of new access roads required by route segment. For example, if Alternative Route segment X from mile 10 to mile 20 is predominantly flat, then using the ratio shown in Table 1 for Category 3 Flat Terrain, which is 1.2, the 10 miles of transmission line for Alternative Route segment X would require approximately 12 miles of new access roads.

Determination of the dominant terrain type along the route segments requires the same GIS slope analysis in tenth mile increments as described above for the sample segments. The cumulative change in slope percentages for each tenth mile increment was mapped according to terrain type: Flat (0 to 8 percent slope), Rolling (8 to 15 percent slope), Steep (15 to 25 percent slope), and Mountainous (greater than 25 percent slope). Demarcation of the dominant terrain along the extent of the route segment required analysis of the slope data as described above. Terrain Sample Maps for the greenfield Sample Segments 1 to 18 were provided in the previous version of this memo (dated March 1, 2011). These sample segments show the cumulative change in slope percentages for each tenth mile increment, miles of terrain type, backbone access network, and indicative structures and access roads.

The ROW data by terrain category was applied to the Agency Preferred, Applicant Proposed and Alternative Routes to estimate the percentage of new roads that would be within the ROW and outside the ROW. In general, roads in flat terrain are most likely to be located within the ROW as compared to those in steep terrain due to topography constraints. So for

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the example given above, approximately 8.76 miles or 73 percent of the new access roads required would be within the ROW and approximately 3.24 miles or 27 percent would be outside the ROW (Table 2).

New Access Road Methodology for Co-Located Alternatives

For route alternatives with existing transmission lines, the TWE Project will be co-located with these existing transmission lines at a 250 foot separation to the maximum extent practicable. This allows for the use of existing access roads along the co-located transmission lines for construction of the TWE Project, decreasing the need for new access roads. Due to the unknown condition of these existing roads for supporting construction traffic, they are considered Category 2B roads as described above.

New access roads in co-located corridors are typically short spur roads that provide access to the work site from the existing access road. The methodology for determining the length of new roads is similar to that described above for the greenfield alternatives. To develop new access road metrics in a co-location setting, 21 new sample segments for different terrain types were selected and new access roads were identified and mapped along these segments of the Applicant Proposed and Agency Preferred Routes (October 2013) in order to determine the indicative length of new access roads required for the routes (Table 3).

As expected, the analysis of the TWE Project in co-location settings resulted in the average access road ratios by terrain type being less than that for greenfield alternatives particularly in flat terrain. Another noticeable difference between the greenfield and co-location settings is that the vast majority of the new access roads in the co-location setting are outside of the 250 ft. right-of-way due to the existing access road being primarily located on the adjacent (existing) transmission line's right-of-way. The new access roads within the new right-of-way are primarily spur roads off of the existing access road network. Maps and GIS files for these sample segments are provided.

Approach

The approach described in the previous memorandum dated March 1, 2011 was used for the DEIS and the modified approach in this memorandum will be used for the FEIS to determine indicative existing access and new access road metrics. These metrics are then used to calculate the disturbance area resulting from improvement of existing access roads and construction of new access roads on a route segment by segment basis.

This approach substantially reduces the time and effort needed to conduct the impact analysis from new access road construction in the FEIS (same approach used in the DEIS) since the detailed process of indicative spotting, locating, and mapping new access roads as done for the sample segments along the Applicant Proposed Route will not be required for the entire length of the Agency Preferred, Applicant Proposed and Alternative Routes.

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Tables 2 and 3 provide the information necessary to analyze and compare impacts from construction of the access roads for the alternative routes in the FEIS. The new access roads and backbone access roads described previously provide the complete road network necessary to construct the TWE Project transmission line.

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TABLE 2. INDICATIVE ACCESS ROAD SUMMARY BY TERRAIN TYPE FOR GREENFIELD ALTERNATIVES

SAMPLE SEGMENT	PROPOSED ROUTE SEGMENT	MILEPOST		LINE LENGTH (MILES)	NEW ACCESS ROAD LENGTH (MILES)*	ROAD IN ROW (MILES)	ROAD OUTSIDE ROW (MILES)	AVERAGE CUMULATIVE CHANGE IN SLOPE (%)	TERRAIN TYPE	RATIOS BY TERRAIN TYPE		ROW BY TERRAIN TYPE			
		BEGIN	END							ACCESS ROAD RATIO	AVERAGE RATIO	TOTAL ACCESS ROADS IN ROW (%)**	AVERAGE ACCESS ROAD IN ROW (%)	TOTAL ACCESS ROADS OUTSIDE ROW (%)**	AVERAGE ACCESS ROAD OUTSIDE ROW (%)
11	U165	10	20	10	10.54	10.0	0.5	2%	Terrain Type 1 Flat	1.05	1.2	95%	73%	5%	27%
12	U255	15	25	10	9.22	9.4	4.4	1%		0.92		68%		32%	
14	N45	0	11	11	12.99	9.7	3.9	3.2%		1.18		71%		29%	
15	N70	3	11	8	10.76	7.7	4.3	2.7%		1.34		64%		36%	
1	W10	9	15	6	6.47	6.2	2.0	5.5%		1.08		76%		24%	
18	N165	4.5	6	1.5	1.58	1.1	0.5	6.5%		1.05		69%		31%	
2	W10	20	31	11	17.33	10.3	8.1	5%		1.58		56%		44%	
3	W25	0	10	10	8.91	8.6	0.3	2%		0.89		97%		3%	
4	W25	20	30	10	11.79	9.2	1.8	7%		1.18		84%		16%	
7	U55	53	60	7	8.75	5.3	5.4	6%		1.25		50%		50%	
5	C60	5	15	10	13.81	9.3	6.1	9%	Terrain Type 2 Rolling	1.38	1.3	60%	64%	40%	36%
6	C85	15	25.2	10.2	12.26	5.8	8.7	10.5%		1.20		40%		60%	
16	N100	0	7.3	7.3	8.63	7.7	0.8	9.5%		1.18		91%		9%	
1	W10	5	9	4	7.76	3.1	5.4	18%	Terrain Type 3 Steep	1.94	1.8	36%	38%	64%	62%
7	U55	50	53	3	7.14	2.3	5.4	16.3%		2.38		30%		70%	
15	N50_S2	30	34.2	4.2	6.23	3.23	3.4	22.5%		1.48		49%		51%	
15	N70	0	3	3	4.67	2.24	2.8	18.2%		1.56		44%		56%	
13	U255	49	56	7	8.91	3.5	7.9	21.1%		1.52		31%		69%	
8	U55	80	90	10	27.12	4.4	24.6	38%	Terrain Type 4 Mountainous	2.74	2.7	15%	18%	85%	82%
9	U70	0	10	10	25.94	3.8	24.8	40.5%		2.59		13%		87%	
10	U70	25	37	12	25.41	6.2	22.7	28%		2.12		21%		79%	
13	U255	45	49	4	15.51	1.5	14.7	28%		3.88		9%		91%	
17	N135	1	3.8	2.8	4.67	1.5	3.2	28.1%		1.67		32%		68%	
18	N165	1	4.5	3.5	10.68	2.1	10.8	27.2%		3.05		16%		84%	

Notes:
*Miles of New Access Road Length includes a percentage of Category 2B Existing Roads Inside Corridor that Require Improvement
**Since the actual section of Category 2B road that would require improvement is not known, the entire length of this road along with the length of new road (Category 3, 4, 5 or 6) is considered.
Terrain Type 1 Flat (0 to 8 percent slope)
Terrain Type 2 Rolling (8 to 15 percent slope)
Terrain Type 3 Steep (15 to 25 percent slope)
Terrain Type 4 Mountainous (greater than 25 percent slope)

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TABLE 3. INDICATIVE ACCESS ROAD SUMMARY BY TERRAIN TYPE FOR CO-LOCATED ALTERNATIVES

SAMPLE SEGMENT	LINE LENGTH (MILES)	NEW ACCESS ROAD LENGTH (MILES)*	ROAD IN ROW (MILES)	ROAD OUTSIDE ROW (MILES)	AVERAGE CUMULATIVE CHANGE IN SLOPE (%)	TERRAIN TYPE	RATIOS BY TERRAIN TYPE		ROW BY TERRAIN TYPE			
							ACCESS ROAD RATIO	AVERAGE RATIO	TOTAL ACCESS ROADS IN ROW (%)**	AVERAGE ACCESS ROAD IN ROW (%)	TOTAL ACCESS ROADS OUTSIDE ROW (%)**	AVERAGE ACCESS ROAD OUTSIDE ROW (%)
2	5	4.78	0.56	7.83	4.8%	Terrain Type 1 Flat	0.96	0.8	7%	10%	93%	90%
4	5	4.42	0.58	7.08	5.8%		0.88		8%		92%	
6	5	4.72	0.57	7.84	7.9%		0.94		7%		93%	
13	5	3.44	0.44	5.69	2.9%		0.69		8%		92%	
14	5	4.00	0.76	5.92	1.1%		0.80		13%		87%	
15	5	3.62	0.92	5.26	3.8%		0.72		18%		82%	
1	5	6.56	1.29	3.92	10.2%	Terrain Type 2 Rolling	1.31	1.1	13%	13%	87%	87%
3	4	5.54	0.59	8.01	11.8%		1.39		7%		93%	
5	5	6.30	0.71	7.60	14.9%		1.26		7%		93%	
7	5	5.98	1.21	7.54	14.6%		1.20		13%		87%	
12	5	2.79	1.02	3.96	10.2%		0.56		25%		75%	
16	5	3.31	0.94	3.18	16.3%	Terrain Type 3 Steep	0.66	1.6	23%	14%	77%	86%
18	5	10.49	2.22	11.94	24.9%		2.10		16%		84%	
19	5	6.87	0.75	8.21	15.6%		1.37		8%		92%	
20	5	8.19	1.10	9.40	16.3%		1.64		11%		89%	
21	5	9.98	1.65	11.77	24.8%		2.00		12%		88%	
8	5	8.84	2.23	7.43	40.9%	Terrain Type 4 Mountainous	2.21	2.4	23%	16%	77%	84%
9	5	8.45	1.96	8.04	33.0%		1.69		20%		80%	
10	5	11.12	1.71	10.21	45.3%		2.22		14%		86%	
11	5	16.38	1.48	18.39	31.4%		3.28		7%		93%	
17	5	12.26	1.97	12.30	25.2%		2.45		14%		86%	

Notes:

*Miles of New Access Road Length includes a percentage of Category 2B Existing Roads Inside Corridor that Require Improvement
**Since the actual section of Category 2B road that would require improvement is not known, the entire length of this road along with the length of new road (Category 3, 4, 5 or 6) is considered.
Terrain Type 1 Flat (0 to 8 percent slope)
Terrain Type 2 Rolling (8 to 15 percent slope)
Terrain Type 3 Steep (15 to 25 percent slope)
Terrain Type 4 Mountainous (greater than 25 percent slope)

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APPENDIX AA
REVISED PROJECT COMPONENTS DISTURBANCE DATA TABLES FOR FEIS

Table A-1 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
SEGMENTS COMMON TO APPLICANT PROPOSED AND AGENCY PREFERRED ROUTES																										
W10	32.24	977.0	121	1	7	138.9	1.1	8.0	2.5	0.0	0.3	32.9	94.5	9.5	10.9	1.1	21.5	2.1	10.7	6.4	45.1	0.6	0.1	330.8	2.9	75.4
W20_S1	1.64	49.7	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	15.3	0.2	3.8
W20_S3	1.56	47.3	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	0.9	2.6	0.5	0.5	0.1	1.0	0.1	0.5	0.3	2.2	0.0	0.0	14.9	0.2	3.6
W20_S4	7.54	228.5	29	0	2	33.3	0.0	2.3	0.6	0.0	0.1	8.4	24.2	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	80.4	0.7	17.5
W819_S1	5.40	163.6	19	1	2	21.8	1.1	2.3	0.4	0.0	0.1	7.2	20.6	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	60.6	0.5	12.6
A-W20_S1	7.67	232.42	28	0	3	32.1	0.0	3.4	0.6	0.0	0.1	10.5	30.1	2.2	2.6	0.3	5.1	0.5	2.6	1.5	10.7	0.2	0.0	86.7	0.7	17.9
W819_S5	1.28	38.8	5	1	0	5.7	1.1	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.5	0.1	3.0
W819_S6	3.72	112.7	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.3	8.7
W819_S7	0.60	18.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	1.4
W819_S8	20.40	618.2	79	2	1	90.7	2.3	1.1	1.6	0.1	0.0	14.0	40.1	6.0	6.9	0.7	13.6	1.4	6.8	4.1	28.6	0.4	0.1	190.0	1.8	57.9
A-W26_S3	1.67	50.6	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.4	0.2	4.7
A-C26_S1	6.22	188.48	25	0	0	28.7	0.0	0.0	0.5	0.0	0.0	3.6	10.5	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.7	0.1	0.0	56.2	0.5	16.1
A-C52_S1	1.38	41.82	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.7	0.1	5.8
A-C52_S2	3.45	104.55	14	0	0	16.1	0.0	0.0	0.3	0.0	0.0	2.0	5.8	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.8	0.1	0.0	31.3	0.3	9.6
A-C52_S3	1.41	42.73	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.4	0.4	0.5	0.0	0.9	0.1	0.5	0.3	2.0	0.0	0.0	13.1	0.1	9.8
A-C52_S4	7.55	228.79	29	1	1	33.3	1.1	1.1	0.6	0.0	0.0	6.4	18.4	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	74.7	0.7	36.2
C186.03	0.36	10.91	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	3.9	0.0	1.0
C186.04	3.72	112.7	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.3	8.7
A-C53_S1	10.41	315.45	39	0	3	44.8	0.0	3.4	0.8	0.0	0.1	12.1	34.7	3.1	3.5	0.3	6.9	0.7	3.5	2.1	14.6	0.2	0.0	111.4	1.0	44.0
A-C54_S1	4.10	124.24	15	0	2	17.2	0.0	2.3	0.3	0.0	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	49.1	0.4	12.5
A-C54_S2	1.97	59.70	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.2	9.1	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	23.6	0.2	5.1
A-C54_S3	1.32	40.00	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.1	3.7
A-C54_S4	1.81	54.85	8	0	0	9.2	0.0	0.0	0.2	0.0	0.0	1.1	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.2	0.2	5.1
A-C54_S5	0.80	24.24	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.5	7.1	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	13.9	0.1	2.3
TE-A2	0.53	16.06	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.7	0.0	0.0	5.8	0.1	2.3
C111_S1	1.10	33.3	4	0	1	4.6	0.0	1.1	0.1	0.0	0.0	2.6	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.5	0.0	0.0	16.3	0.1	2.6
C111_S2	0.93	28.2	3	1	0	3.4	1.1	0.0	0.1	0.0	0.0	0.5	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	2.2
C115_S1	2.60	78.8	9	1	1	10.3	1.1	1.1	0.2	0.0	0.0	3.5	10.1	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	29.9	0.3	11.1
C115_S2	0.51	15.5	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.7	0.0	0.0	5.7	0.1	2.2
C115_S3	14.64	443.6	56	1	2	64.3	1.1	2.3	1.2	0.0	0.1	12.6	36.1	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.5	0.3	0.1	143.9	1.3	39.5
C120_S1	1.39	42.1	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.8	0.1	3.3
C120_S2	23.34	707.3	86	4	4	98.7	4.6	4.6	1.8	0.1	0.1	21.7	62.2	6.8	7.9	0.8	15.6	1.6	7.8	4.7	32.7	0.5	0.1	234.0	2.1	56.0
U70_S1	7.30	221.2	23	2	5	26.4	2.3	5.7	0.5	0.1	0.2	14.3	41.0	2.1	2.5	0.2	4.9	0.5	2.4	1.5	10.2	0.1	0.0	95.4	0.7	51.0
U70_S2	5.52	167.3	21	1	1	24.1	1.1	1.1	0.4	0.0	0.0	5.2	15.0	1.6	1.9	0.2	3.7	0.4	1.8	1.1	7.7	0.1	0.0	56.5	0.5	38.5
U70_S4	15.17	459.70	53	5	3	60.8	5.7	3.4	1.1	0.1	0.1	14.9	42.8	4.4	5.1	0.5	10.1	1.0	5.1	3.0	21.2	0.3	0.1	154.3	1.4	105.9
U70_S5	6.34	192.12	22	1	3	25.3	1.1	3.4	0.5	0.0	0.1	9.7	27.9	1.9	2.1	0.2	4.2	0.4	2.1	1.3	8.9	0.1	0.0	75.1	0.6	45.1
U70_S6	0.27	8.18	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	2.1
Nephi-NB_S2	0.70	21.21	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.7
U130_S1	17.03	516.06	67	0	2	76.9	0.0	2.3	1.4	0.0	0.1	14.0	40.1	5.0	5.7	0.6	11.4	1.1	5.7	3.4	23.8	0.3	0.1	166.0	1.5	61.1
A-U131_S1	3.52	106.67	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.4	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.9	0.1	0.0	44.3	0.4	8.2
A-U131_S2	0.26	7.88	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.2	0.1	0.6
A-U131_S3	1.21	36.67	5	0	0	5.7	0.0	0.0	0.1	0.0	0.0	0.7	2.0	0.4	0.4	0.0	0.8	0.1	0.4	0.2	1.7	0.0	0.0	11.1	0.1	2.8
A-U131_S4	0.68	20.61	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.4	1.1	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	6.4	0.1	1.6
A-U131_S5	3.70	112.12	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.2	17.7	1.1	1.2	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	45.1	0.4	8.6
U150_S1	8.63	261.52	34	0	1	39.0	0.0	1.1	0.7	0.0	0.0	7.1	20.3	2.5	2.9	0.3	5.8	0.6	2.9	1.7	12.1	0.2	0.0	84.1	0.8	20.1
U150_S2	9.82	297.6	39	0	1	44.8	0.0	1.1	0.8	0.0	0.0	7.8	22.3	2.9	3.3	0.3	6.5	0.7	3.3	2.0	13.7	0.2	0.0	95.1	0.9	22.9
U155	7.01	212.4	25	1	3	28.7	1.1	3.4	0.5	0.0	0.1	10.1	29.0	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	81.5	0.7	10.9
U168	20.28	614.5	80	0	2	91.8	0.0	2.3	1.7	0.0	0.1	15.9	45.6	5.9	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	195.2	1.8	47.2
U180	4.28	129.7	18	0	0	20.7	0.0	0.0	0.4	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.6	0.4	10.0
U215	14.14	428.5	53	2	2	60.8	2.3	2.3	1.1	0.1	0.1	12.3	35.3	4.1	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	139.4	1.3	38.1
U220	44.14	1337.58	167	2	8	191.7	2.3	9.2	3.5	0.1	0.3	41.9	120.2	12.9	14.9	1.5	29.4	2.9	14.7	8.8	61.8	0.9	0.2	444.2	4.0	84.2
U250	20.33	616.06	79	1	2	90.7	1.1	2.3	1.6	0.0	0.1	15.9	45.7	6.0	6.8	0.7	13.6	1.4	6.8	4.1	28.5	0.4	0.1	195.5	1.8	39.3
N50_S1	7.00	212.1	27	0	1	31.0	0.0	1.1	0.6	0.0	0.0	6.1	17.5	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	68.8	0.6	17.8
N95_S1	0.67	20.3	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.6
N95_S2	4.82	146.1	16	2	2	18.4	2.3	2.3	0.3	0.1	0.1	6.8	19.6	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.7	0.5	18.7
N100	6.17	187.0	24	1	0	27.5	1.1	0.0	0.5	0.0	0.0	3.6	10.4	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.6	0.1	0.0	56.0	0.6	14.8

Table A-1 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
N120	4.10	124.2	17	0	0	19.5	0.0	0.0	0.4	0.0	0.0	2.4	6.9	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	37.6	0.4	9.8
N121_S1	1.35	40.9	4	0	2	4.6	0.0	2.3	0.1	0.0	0.1	4.8	13.8	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	24.3	0.2	5.8
N121_S2	1.78	53.9	6	0	2	6.9	0.0	2.3	0.1	0.0	0.1	5.0	14.5	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	28.5	0.2	7.6
N121_S3	4.06	123.0	13	3	1	14.9	3.4	1.1	0.3	0.1	0.0	4.4	12.6	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	43.2	0.4	17.3
N121_S4	1.27	38.5	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.7	7.9	0.4	0.4	0.0	0.8	0.1	0.4	0.3	1.8	0.0	0.0	18.2	0.1	3.0
N135_S1	0.44	13.3	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	10.0	0.1	1.9
N135_S2	2.00	60.6	7	1	0	8.0	1.1	0.0	0.1	0.0	0.0	1.2	3.4	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	18.0	0.2	8.5
N145	2.84	86.1	10	1	1	11.5	1.1	1.1	0.2	0.0	0.0	3.7	10.5	0.8	1.0	0.1	1.9	0.2	0.9	0.6	4.0	0.1	0.0	32.1	0.3	19.8
N165	12.68	384.2	43	2	6	49.4	2.3	6.9	0.9	0.1	0.2	19.4	55.8	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	149.0	1.2	30.4
N175_S3	0.46	13.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.1	0.1	0.7
APPLICANT PROPOSED ROUTE SEGMENTS																										
W819_S10	0.96	29.1	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.6	7.4	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.6	0.1	2.7
A-W26_S1	2.08	63.03	8	0	1	9.2	0.0	1.1	0.2	0.0	0.0	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.3	0.2	4.8
A-W26_S2	4.43	134.24	16	0	2	18.4	0.0	2.3	0.3	0.0	0.1	6.6	18.9	1.3	1.5	0.1	3.0	0.3	1.5	0.9	6.2	0.1	0.0	51.7	0.4	12.6
U40	8.17	247.6	32	0	1	36.7	0.0	1.1	0.7	0.0	0.0	6.8	19.5	2.4	2.8	0.3	5.4	0.5	2.7	1.6	11.4	0.2	0.0	79.7	0.7	23.2
U41	10.75	325.8	42	0	1	48.2	0.0	1.1	0.9	0.0	0.0	8.3	23.8	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	102.6	1.0	84.4
U45	3.00	90.9	11	0	1	12.6	0.0	1.1	0.2	0.0	0.0	3.8	10.8	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.2	0.1	0.0	32.8	0.3	7.2
U50	12.70	384.8	47	0	4	53.9	0.0	4.6	1.0	0.0	0.1	15.5	44.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	137.6	1.2	23.3
U55_S1	1.80	54.5	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.1	8.8	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	22.9	0.2	4.3
U55_S3	10.21	309.39	39	1	1	44.8	1.1	1.1	0.8	0.0	0.0	8.0	22.9	3.0	3.4	0.3	6.8	0.7	3.4	2.0	14.3	0.2	0.0	97.9	0.9	23.8
U55_S4	12.70	384.8	42	1	8	48.2	1.1	9.2	0.9	0.0	0.3	23.5	67.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	160.6	1.2	29.0
U55_S5	24.34	737.58	82	6	10	94.1	6.9	11.5	1.7	0.2	0.4	34.3	98.4	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.1	0.5	0.1	277.5	2.3	52.5
U55_S7	1.30	39.4	4	2	0	4.6	2.3	0.0	0.1	0.1	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.6	0.1	3.1
U55_S8	1.65	50.00	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.3	0.2	7.0
U55_S9	4.27	129.4	17	0	1	19.5	0.0	1.1	0.4	0.0	0.0	4.5	12.9	1.3	1.4	0.1	2.8	0.3	1.4	0.9	6.0	0.1	0.0	45.3	0.4	10.2
U55_S10	7.00	212.1	27	1	0	31.0	1.1	0.0	0.6	0.0	0.0	4.1	11.8	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	63.1	0.6	14.7
U55_S11	21.65	656.1	76	5	6	87.2	5.7	6.9	1.6	0.1	0.2	24.7	70.9	6.4	7.3	0.7	14.4	1.4	7.2	4.3	30.3	0.4	0.1	230.0	2.0	122.6
U55_S12	4.65	140.9	18	0	1	20.7	0.0	1.1	0.4	0.0	0.0	4.7	13.6	1.4	1.6	0.2	3.1	0.3	1.6	0.9	6.5	0.1	0.0	48.1	0.4	32.5
U55_S17	7.35	222.7	26	3	1	29.8	3.4	1.1	0.5	0.1	0.0	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.7	0.7	51.3
U55_S18	1.31	39.7	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.1	9.1
U55_S19	0.43	13.0	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.9	0.1	3.0
Nephi-SA	0.67	20.3	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	4.7
Nephi-NA	2.10	63.6	7	1	1	8.0	1.1	1.1	0.1	0.0	0.0	3.2	9.3	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.4	0.2	14.7
Nephi-NB_S1	17.23	522.1	60	1	8	68.9	1.1	9.2	1.2	0.0	0.3	26.1	74.9	5.1	5.8	0.6	11.5	1.1	5.7	3.4	24.1	0.3	0.1	201.3	1.6	36.6
U255_S1	19.32	585.5	75	0	3	86.1	0.0	3.4	1.5	0.0	0.1	17.3	49.7	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.0	0.4	0.1	192.1	1.7	30.0
U255_S2	18.42	558.18	67	4	3	76.9	4.6	3.4	1.4	0.1	0.1	16.8	48.2	5.4	6.2	0.6	12.3	1.2	6.1	3.7	25.8	0.4	0.1	183.6	1.7	28.9
U255_S3	0.20	6.06	1	0	0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.0	2.0	0.0	0.5
U255_S4	1.72	52.1	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	3.0	8.6	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.4	0.0	0.0	21.4	0.2	4.9
U255_S5	3.41	103.33	10	1	3	11.5	1.1	3.4	0.2	0.0	0.1	8.0	23.0	1.0	1.1	0.1	2.3	0.2	1.1	0.7	4.8	0.1	0.0	48.4	0.4	24.7
U255_S5.1	4.12	124.85	15	1	1	17.2	1.1	1.1	0.3	0.0	0.0	4.4	12.7	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	43.5	0.4	10.1
U255_S6	5.76	174.55	18	2	4	20.7	2.3	4.6	0.4	0.1	0.1	11.4	32.7	1.7	1.9	0.2	3.8	0.4	1.9	1.2	8.1	0.1	0.0	76.0	0.6	24.6
U255_S7	2.67	80.91	10	1	0	11.5	1.1	0.0	0.2	0.0	0.0	1.6	4.5	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	24.4	0.2	21.0
U255_S8	2.86	86.67	10	1	1	11.5	1.1	1.1	0.2	0.0	0.0	3.7	10.6	0.8	1.0	0.1	1.9	0.2	1.0	0.6	4.0	0.1	0.0	32.2	0.3	13.7
A-U255_S9	0.26	7.88	0	0	2	0.0	0.0	2.3	0.0	0.0	0.1	4.2	11.9	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	14.9	0.1	1.2
A-U255_S10	0.74	22.42	0	2	1	0.0	2.3	1.1	0.0	0.1	0.0	2.4	7.0	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.5	0.1	3.6
A-U255_S10.1	0.25	7.58	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	8.0	0.0	2.0
U255_S9	1.60	48.48	5	1	1	5.7	1.1	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	6.8
U255_S10	0.71	21.52	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	3.0
U255_S11	0.32	9.70	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.7	0.0	1.4
U255_S12	0.85	25.76	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.4	0.2	0.3	0.0	0.6	0.1	0.3	0.2	1.2	0.0	0.0	8.3	0.1	5.9
U255_S13	30.13	913.03	111	5	5	127.4	5.7	5.7	2.3	0.1	0.2	27.7	79.4	8.8	10.1	1.0	20.1	2.0	10.0	6.0	42.2	0.6	0.1	300.8	2.8	128.2
N45	11.93	361.52	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.8	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.7	0.2	0.1	113.6	1.1	18.5
N50_S2	24.98	756.97	94	3	3	107.9	3.4	3.4	1.9	0.1	0.1	20.7	59.3	7.3	8.4	0.8	16.7	1.7	8.3	5.0	35.0	0.5	0.1	242.4	2.3	109.0
N50_S3	11.98	363.03	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.1	31.3
N70	11.48	347.88	44	0	2	50.5	0.0	2.3	0.9	0.0	0.1	10.7	30.8	3.4	3.9	0.4	7.7	0.8	3.8	2.3	16.1	0.2	0.1	115.0	1.0	28.2
AGENCY PREFERRED ROUTE SEGMENTS																										
W819_S9	2.05	62.12	7	1	1	8.0	1.1	1.1	0.1	0.0	0.0	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.1	0.2	9.8

Table A-1 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
W115.07.1	2.47	74.85	9	0	1	10.3	0.0	1.1	0.2	0.0	0.0	3.4	9.9	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.5	0.0	0.0	28.1	0.2	5.7
A-W28_S2	3.79	114.85	15	0	1	17.2	0.0	1.1	0.3	0.0	0.0	4.2	12.1	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	40.9	0.4	10.7
A-W28_S3	1.12	33.94	4	0	1	4.6	0.0	1.1	0.1	0.0	0.0	2.7	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.6	0.0	0.0	16.4	0.1	3.2
U35_S1	2.70	81.82	9	0	2	10.3	0.0	2.3	0.2	0.0	0.1	5.6	16.0	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.8	0.1	0.0	36.0	0.3	6.5
U35_S2	7.21	218.48	26	1	2	29.8	1.1	2.3	0.5	0.0	0.1	8.2	23.6	2.1	2.4	0.2	4.8	0.5	2.4	1.4	10.1	0.1	0.0	76.6	0.7	26.2
U36_S1	7.37	223.33	27	2	1	31.0	2.3	1.1	0.6	0.1	0.0	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.8	0.7	19.7
U217.01	76.80	2327.27	269	10	29	308.8	11.5	33.3	5.6	0.3	1.1	103.1	295.7	22.5	25.9	2.6	51.2	5.1	25.6	15.4	107.5	1.5	0.4	859.4	7.3	290.1
U218	11.97	362.73	38	3	7	43.6	3.4	8.0	0.8	0.1	0.3	21.0	60.3	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	148.2	1.2	94.0
U219.1	0.60	18.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	2.9
U219.3	1.47	44.5	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.9	2.5	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.4	0.1	3.4
U219.5	16.83	510.00	52	2	14	59.7	2.3	16.1	1.1	0.1	0.5	37.9	108.7	4.9	5.7	0.6	11.2	1.1	5.6	3.4	23.6	0.3	0.1	232.8	1.7	118.9
U219.6	4.56	138.18	14	0	5	16.1	0.0	5.7	0.3	0.0	0.2	12.7	36.4	1.3	1.5	0.2	3.0	0.3	1.5	0.9	6.4	0.1	0.0	70.7	0.5	21.9
U217.052	15.82	479.39	53	4	7	60.8	4.6	8.0	1.1	0.1	0.3	23.3	66.8	4.6	5.3	0.5	10.5	1.1	5.3	3.2	22.1	0.3	0.1	183.6	1.5	101.3
Nephi-SA-S	0.65	19.70	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	5.1
Nephi-SB	4.16	126.06	13	2	2	14.9	2.3	2.3	0.3	0.1	0.1	6.4	18.5	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.8	0.1	0.0	49.4	0.4	32.7
U115b	5.60	169.7	22	0	1	25.3	0.0	1.1	0.5	0.0	0.0	5.3	15.2	1.6	1.9	0.2	3.7	0.4	1.9	1.1	7.8	0.1	0.0	56.9	0.5	14.6
U120	4.30	130.3	18	0	0	20.7	0.0	0.0	0.4	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.7	0.4	33.8
U260_S1	14.10	427.3	56	0	1	64.3	0.0	1.1	1.2	0.0	0.0	10.3	29.5	4.1	4.7	0.5	9.4	0.9	4.7	2.8	19.7	0.3	0.1	133.5	1.3	32.8
U260_S2	40.77	1235.5	154	3	7	176.8	3.4	8.0	3.2	0.1	0.3	37.9	108.8	12.0	13.7	1.4	27.2	2.7	13.6	8.2	57.1	0.8	0.2	408.6	3.7	94.9
N10	1.60	48.5	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	3.7
N805	15.22	461.2	57	1	3	65.4	1.1	3.4	1.2	0.0	0.1	14.9	42.8	4.5	5.1	0.5	10.1	1.0	5.1	3.0	21.3	0.3	0.1	154.5	1.4	51.0
N808	41.29	1251.2	146	7	13	167.6	8.0	14.9	3.0	0.2	0.5	50.2	144.1	12.1	13.9	1.4	27.5	2.8	13.8	8.3	57.8	0.8	0.2	447.7	3.9	146.1
N35A	22.47	680.9	84	3	3	96.4	3.4	3.4	1.7	0.1	0.1	19.2	55.0	6.6	7.6	0.7	15.0	1.5	7.5	4.5	31.5	0.4	0.1	219.8	2.0	34.9
N40A	16.14	489.1	60	1	4	68.9	1.1	4.6	1.2	0.0	0.1	17.5	50.1	4.7	5.4	0.5	10.8	1.1	5.4	3.2	22.6	0.3	0.1	168.9	1.5	25.0
N90A	2.66	80.6	10	0	1	11.5	0.0	1.1	0.2	0.0	0.0	3.6	10.2	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	30.1	0.3	4.1
N75	7.02	212.7	26	2	1	29.8	2.3	1.1	0.5	0.1	0.0	6.1	17.6	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	70.1	0.7	10.9
ALTERNATIVE ROUTE SEGMENTS																										
W15_S1	22.02	667.3	75	7	7	86.1	8.0	8.0	1.5	0.2	0.3	26.9	77.2	6.5	7.4	0.7	14.7	1.5	7.3	4.4	30.8	0.4	0.1	239.7	2.1	51.2
W15_S2	16.42	497.6	59	3	4	67.7	3.4	4.6	1.2	0.1	0.1	17.6	50.6	4.8	5.5	0.5	10.9	1.1	5.5	3.3	23.0	0.3	0.1	171.3	1.5	38.2
W15_S3	2.32	70.3	9	1	0	10.3	1.1	0.0	0.2	0.0	0.0	1.4	3.9	0.7	0.8	0.1	1.5	0.2	0.8	0.5	3.2	0.0	0.0	21.7	0.2	5.4
W65	8.27	250.6	32	1	1	36.7	1.1	1.1	0.7	0.0	0.0	6.9	19.7	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	81.3	0.8	23.5
W115.01	0.45	13.6	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.0	0.0	1.0
W115.02	1.50	45.5	6	0	0	6.9	0.0	0.0	0.0	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.0	3.5
W115.03	0.36	10.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.3	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	9.6	0.0	0.9
W115.04	12.14	367.9	45	3	1	51.7	3.4	1.1	0.0	0.0	0.0	9.1	26.2	3.6	4.1	0.4	8.1	0.8	4.0	2.4	17.0	0.2	0.1	115.6	0.1	28.3
W115.07	1.77	53.6	7	1	0	8.0	1.1	0.0	0.0	0.0	0.0	1.0	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.0	0.0	4.1
W819_S2	1.50	45.5	5	1	0	5.7	1.1	0.0	0.1	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.1	3.7
W819_S3	1.43	43.3	4	1	1	4.6	1.1	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.0	0.0	0.0	18.9	0.2	3.3
A-W19_S1	11.17	338.5	37	7	1	42.5	8.0	1.1	0.8	0.2	0.0	8.6	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.8	1.0	26.0
A-W19_S2	15.54	470.9	58	1	4	66.6	1.1	4.6	1.2	0.0	0.1	17.1	49.1	4.6	5.2	0.5	10.4	1.0	5.2	3.1	21.8	0.3	0.1	164.0	1.4	36.2
C10	11.14	337.58	43	1	1	49.4	1.1	1.1	0.9	0.0	0.0	8.5	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.6	1.0	31.6
C65	11.44	346.67	41	1	4	47.1	1.1	4.6	0.8	0.0	0.1	14.7	42.2	3.4	3.9	0.4	7.6	0.8	3.8	2.3	16.0	0.2	0.1	126.3	1.1	54.9
C100	24.25	734.85	89	2	6	102.2	2.3	6.9	1.8	0.1	0.2	26.2	75.3	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.0	0.5	0.1	253.0	2.2	60.4
C110	11.98	363.03	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.1	21.1
C802	21.41	648.79	80	3	3	91.8	3.4	3.4	1.7	0.1	0.1	18.6	53.3	6.3	7.2	0.7	14.3	1.4	7.1	4.3	30.0	0.4	0.1	210.6	1.9	102.8
C804	4.02	121.82	10	1	6	11.5	1.1	6.9	0.2	0.0	0.2	14.4	41.2	1.2	1.4	0.1	2.7	0.3	1.3	0.8	5.6	0.1	0.0	71.7	0.5	11.4
A-C56_S1	0.56	16.97	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.3	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.7	0.1	1.6
A-C56_S2	0.76	23.03	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.4	1.3	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	8.0	0.1	2.2
A-C56_S3	1.29	39.09	4	1	1	4.6	1.1	1.1	0.1	0.0	0.0	2.8	7.9	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	18.3	0.2	3.0
A-C56_S4	0.27	8.18	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	0.8
A-C56_S5	4.79	145.15	18	0	2	20.7	0.0	2.3	0.4	0.0	0.1	6.8	19.5	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.6	0.5	13.6
A-C57	2.33	70.61	9	0	1	10.3	0.0	1.1	0.2	0.0	0.0	3.4	9.7	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.3	0.0	0.0	27.5	0.2	6.6
TE-A1	0.30	9.09	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.4	0.1	0.7
TE-B_S7	1.62	49.09	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	3.0	8.5	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	20.9	0.2	7.8
C195	5.19	157.27	19	0	2	21.8	0.0	2.3	0.4	0.0	0.1	7.0	20.2	1.5	1.7	0.2	3.5	0.3	1.7	1.0	7.3	0.1	0.0	58.5	0.5	13.2
C800_S1	7.69	233.03	28	2	1	32.1	2.3	1.1	0.6	0.1	0.0	6.5	18.7	2.3	2.6	0.3	5.1	0.5	2.6	1.5	10.8	0.2	0.0	75.3	0.7	54.9
C800_S2	19.26	583.64	72	3	3	82.6	3.4	3.4	1.5	0.1	0.1	17.3	49.6	5.6	6.5	0.6	12.8	1.3	6.4	3.9	27.0	0.4	0.1	191.9	1.8	54.6

Table A-1 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
C800_S3	46.87	1420.30	156	9	23	179.1	10.3	26.4	3.2	0.3	0.8	73.5	210.9	13.7	15.8	1.6	31.2	3.1	15.6	9.4	65.6	0.9	0.2	555.0	4.5	182.0
TE-A_S1	8.38	253.94	32	1	1	36.7	1.1	1.1	0.7	0.0	0.0	6.9	19.8	2.5	2.8	0.3	5.6	0.6	2.8	1.7	11.7	0.2	0.0	81.8	0.8	36.3
U36	9.58	290.30	35	2	2	40.2	2.3	2.3	0.7	0.1	0.1	9.6	27.6	2.8	3.2	0.3	6.4	0.6	3.2	1.9	13.4	0.2	0.0	98.6	0.9	42.1
A-U56_S5	7.41	224.55	28	0	2	32.1	0.0	2.3	0.6	0.0	0.1	8.3	24.0	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.4	0.1	0.0	78.7	0.7	21.0
U55_S13	1.93	58.48	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.1	9.0	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	23.5	0.2	13.5
U55_S14	2.54	76.97	11	0	0	12.6	0.0	0.0	0.2	0.0	0.0	1.5	4.3	0.7	0.9	0.1	1.7	0.2	0.8	0.5	3.6	0.1	0.0	23.9	0.2	17.7
U55_S15	2.59	78.48	8	0	3	9.2	0.0	3.4	0.2	0.0	0.1	7.5	21.6	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	41.3	0.3	18.1
U55_S16	0.23	6.97	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.0	7.9	0.0	1.6
U60	77.84	2358.79	290	11	11	332.9	12.6	12.6	6.0	0.3	0.4	67.7	194.2	22.8	26.2	2.6	51.9	5.2	25.9	15.6	109.0	1.6	0.4	765.3	7.1	190.7
U75	1.93	58.48	8	0	0	9.2	0.0	0.0	0.2	0.0	0.0	1.1	3.2	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	17.7	0.2	5.5
U75A	13.20	400.00	50	1	2	57.4	1.1	2.3	1.0	0.0	0.1	11.7	33.7	3.9	4.4	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	1.2	22.8
U85A	98.93	2997.88	352	18	26	404.0	20.7	29.8	7.3	0.5	1.0	110.0	315.8	29.0	33.3	3.3	66.0	6.6	33.0	19.8	138.5	2.0	0.5	1041.1	9.2	350.1
U90_S1	10.78	326.67	39	1	4	44.8	1.1	4.6	0.8	0.0	0.1	14.3	41.1	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	121.1	1.0	28.5
U90_S2	50.26	1523.03	154	18	30	176.8	20.7	34.4	3.2	0.5	1.1	89.5	256.8	14.7	16.9	1.7	33.5	3.4	16.8	10.1	70.4	1.0	0.2	626.2	5.0	298.8
U135_S1	14.69	445.2	53	3	3	60.8	3.4	3.4	1.1	0.1	0.1	14.6	41.9	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.6	0.3	0.1	149.9	1.4	43.7
U135_S2	13.22	400.6	48	3	2	55.1	3.4	2.3	1.0	0.1	0.1	11.8	33.7	3.9	4.5	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	1.2	24.8
U140	3.63	110.00	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.4	8.4
U145_S1	7.94	240.6	31	0	1	35.6	0.0	1.1	0.6	0.0	0.0	6.7	19.1	2.3	2.7	0.3	5.3	0.5	2.6	1.6	11.1	0.2	0.0	77.6	0.7	12.3
U200	38.16	1156.36	141	3	9	161.8	3.4	10.3	2.9	0.1	0.3	40.4	115.9	11.2	12.8	1.3	25.4	2.5	12.7	7.6	53.4	0.8	0.2	395.9	3.5	97.2
U217.02	16.03	485.76	49	5	11	56.2	5.7	12.6	1.0	0.1	0.4	31.4	90.1	4.7	5.4	0.5	10.7	1.1	5.3	3.2	22.4	0.3	0.1	208.6	1.6	89.2
U217.03	0.94	28.48	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.6	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	7.4
U217.051	20.30	615.15	76	3	3	87.2	3.4	3.4	1.6	0.1	0.1	17.9	51.4	6.0	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	201.1	1.9	67.4
U217.10	20.87	632.42	61	9	14	70.0	10.3	16.1	1.3	0.3	0.5	40.2	115.5	6.1	7.0	0.7	13.9	1.4	7.0	4.2	29.2	0.4	0.1	269.0	2.1	98.9
U217.15	36.37	1102.12	118	12	16	135.4	13.8	18.4	2.4	0.3	0.6	53.3	153.1	10.7	12.2	1.2	24.2	2.4	12.1	7.3	50.9	0.7	0.2	420.2	3.5	213.4
U219.2	19.79	599.7	51	11	18	58.5	12.6	20.7	1.1	0.3	0.7	47.6	136.6	5.8	6.7	0.7	13.2	1.3	6.6	4.0	27.7	0.4	0.1	282.6	2.1	140.2
U219.4	1.60	48.48	5	1	1	5.7	1.1	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	12.6
U222.05	41.20	1248.48	150	9	6	172.2	10.3	6.9	3.1	0.3	0.2	36.2	103.8	12.1	13.9	1.4	27.5	2.7	13.7	8.2	57.7	0.8	0.2	405.9	3.8	81.9
U222.10	14.16	429.09	48	3	6	55.1	3.4	6.9	1.0	0.1	0.2	20.3	58.3	4.2	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	162.5	1.4	53.3
U223.00	18.16	550.30	60	7	6	68.9	8.0	6.9	1.2	0.2	0.2	22.7	65.0	5.3	6.1	0.6	12.1	1.2	6.1	3.6	25.4	0.4	0.1	198.5	1.7	64.4
U225	38.41	1163.94	136	3	15	156.1	3.4	17.2	2.8	0.1	0.6	52.5	150.8	11.3	12.9	1.3	25.6	2.6	12.8	7.7	53.8	0.8	0.2	432.6	3.6	106.8
U325.1	43.28	1311.52	136	14	24	156.1	16.1	27.5	2.8	0.4	0.9	73.4	210.6	12.7	14.6	1.4	28.9	2.9	14.4	8.7	60.6	0.9	0.2	528.8	4.3	136.6
U325.2	4.12	124.85	12	3	2	13.8	3.4	2.3	0.2	0.1	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	49.2	0.4	28.8
U821	24.04	728.48	92	1	4	105.6	1.1	4.6	1.9	0.0	0.1	22.1	63.4	7.1	8.1	0.8	16.0	1.6	8.0	4.8	33.7	0.5	0.1	240.6	2.2	65.5
U145_S2	9.51	288.2	34	2	3	39.0	2.3	3.4	0.7	0.1	0.1	11.6	33.2	2.8	3.2	0.3	6.3	0.6	3.2	1.9	13.3	0.2	0.0	104.0	0.9	14.8
U155-165	35.93	1088.79	140	0	4	160.7	0.0	4.6	2.9	0.0	0.1	29.1	83.4	10.5	12.1	1.2	24.0	2.4	12.0	7.2	50.3	0.7	0.2	347.1	3.2	62.5
Ox_Vly_Conn	0.65	19.70	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.8
U256_S1	7.00	212.12	25	1	2	28.7	1.1	2.3	0.5	0.0	0.1	8.1	23.3	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	74.6	0.7	33.6
U256_S2	6.60	200.00	22	1	4	25.3	1.1	4.6	0.5	0.0	0.1	11.9	34.1	1.9	2.2	0.2	4.4	0.4	2.2	1.3	9.2	0.1	0.0	83.1	0.7	31.7
U256_S3	9.25	280.30	30	1	6	34.4	1.1	6.9	0.6	0.0	0.2	17.4	50.0	2.7	3.1	0.3	6.2	0.6	3.1	1.9	13.0	0.2	0.0	117.8	0.9	72.7
U495	7.64	231.52	29	0	2	33.3	0.0	2.3	0.6	0.0	0.1	8.5	24.3	2.2	2.6	0.3	5.1	0.5	2.5	1.5	10.7	0.2	0.0	80.8	0.7	17.8
U506.01	28.56	865.45	97	2	16	111.3	2.3	18.4	2.0	0.1	0.6	48.8	139.9	8.4	9.6	1.0	19.0	1.9	9.5	5.7	40.0	0.6	0.1	350.1	2.8	111.1
N35B	3.05	92.42	10	0	3	11.5	0.0	3.4	0.2	0.0	0.1	7.8	22.4	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.3	0.1	0.0	45.6	0.3	8.7
N65	9.72	294.55	37	0	2	42.5	0.0	2.3	0.8	0.0	0.1	9.7	27.8	2.9	3.3	0.3	6.5	0.6	3.2	1.9	13.6	0.2	0.0	99.2	0.9	23.1
N80	3.62	109.70	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.4	8.4
N85	19.34	586.06	70	0	8	80.3	0.0	9.2	1.4	0.0	0.3	27.3	78.5	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.1	0.4	0.1	220.9	1.8	49.8
N806	124.76	3780.61	477	6	17	547.5	6.9	19.5	9.9	0.2	0.6	107.2	307.6	36.6	42.0	4.2	83.2	8.3	41.6	25.0	174.7	2.5	0.6	1223.0	11.2	342.9
N115	0.92	27.88	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.5	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	2.1
N117	3.87	117.27	16	0	0	18.4	0.0	0.0	0.3	0.0	0.0	2.3	6.5	1.1	1.3	0.1	2.6	0.3	1.3	0.8	5.4	0.1	0.0	35.5	0.3	14.6
N118	5.42	164.24	17	1	4	19.5	1.1	4.6	0.4	0.0	0.1	11.2	32.1	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	72.2	0.6	26.0
N125_S1	8.31	251.82	29	2	3	33.3	2.3	3.4	0.6	0.1	0.1	10.9	31.2	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	93.0	0.8	37.3
N125_S2	0.42	12.73	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	4.2	0.0	1.0
N130	4.18	126.67	14	0	3	16.1	0.0	3.4	0.3	0.0	0.1	8.5	24.3	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.9	0.1	0.0	55.2	0.4	20.1
N140	8.06	244.24	24	3	6	27.5	3.4	6.9	0.5	0.1	0.2	16.7	48.0	2.4	2.7	0.3	5.4	0.5	2.7	1.6	11.3	0.2	0.0	107.9	0.8	57.2
N150	20.59	623.94	72	2	9	82.6	2.3	10.3	1.5	0.1	0.3	30.1	86.3	6.0	6.9	0.7	13.7	1.4	6.9	4.1	28.8	0.4	0.1	237.9	2.0	44.1
N155	8.31	251.82	27	3	4	31.0	3.4	4.6	0.6	0.1	0.1	12.9	36.9	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	98.7	0.8	27.1
N160	3.79	114.85	12	1	3	13.8	1.1	3.4	0.2	0.0	0.1	8.2	23.6	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	52.3	0.4	16.2
N170	0.93	28.18	2	1	1	2.3	1.1	1.1	0.0	0.0	0.0	2.5	7.3	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.4	0.1	1.4

Table A-1 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
N170A	8.00	242.42	29	0	3	33.3	0.0	3.4	0.6	0.0	0.1	10.7	30.7	2.3	2.7	0.3	5.3	0.5	2.7	1.6	11.2	0.2	0.0	89.3	0.7	18.6
N175_S1	7.10	215.15	26	2	1	29.8	2.3	1.1	0.5	0.1	0.0	6.2	17.7	2.1	2.4	0.2	4.7	0.5	2.4	1.4	9.9	0.1	0.0	70.4	0.7	11.0
N175_S2	0.27	8.18	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	0.4
N175_S4	0.70	21.21	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.1
Gyp_opn_Conn	0.17	5.15	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0	7.6	0.0	0.4
Gyp_opn	0.41	12.42	0	1	1	0.0	1.1	1.1	0.0	0.0	0.0	2.2	6.4	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.8	0.1	1.0
NRA-rt_S1	2.42	73.33	7	1	2	8.0	1.1	2.3	0.1	0.0	0.1	5.4	15.6	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.4	0.0	0.0	33.7	0.3	7.2
NRA-rt_S2	2.77	83.94	9	0	3	10.3	0.0	3.4	0.2	0.0	0.1	7.6	21.9	0.8	0.9	0.1	1.8	0.2	0.9	0.6	3.9	0.1	0.0	43.2	0.3	7.9

Notes: TUA - Temporary Use Areas (structure work sites, pulling/tensioning sites, material storage yards, batch plants, fly yards and staging areas)

* All structures are self-supporting lattice.
* Splicing areas are included with the Pulling/Tensioning Sites per common construction practices.
* Material Storage Yards have a disturbance area of 20 acres.
* Batch Plants have a disturbance area of 5 acres.
* Fly Yards/Staging Areas have a disturbance area of 7 acres.
* Temporary disturbance areas for Structure Work Areas and Pulling/Tensioning/Splicing Sites are within the 250 feet wide ROW.
* Depending on the spacing of the facilities (i.e., storage yards) along the length of the proposed and alternative route segments, the same facility may serve more than one route segment. Therefore, the number of facilities associated with each route segment are fractions. This avoids overestimating the total disturbance area for these facilities when individual route segments are combined to form an end-to-end route

Structures per mile -	Approximately		4				
Right-of-Way Width (ROW) -			250	feet			
Structure Work Area -	ROW	x	200	feet			
Wire-Pulling, Tensioning, Splicing Site							
Dead-End (DE) Structure -	ROW	x	500	feet	2 @ every DE Structure		
Mid-Span Conductor and Shield Wire -	ROW	x	500	feet	Every	9,000	feet
Fiber Optic Cable Set-Up Sites -	100	x	500	feet	Every	18,000	feet
Material Storage Yards -	Approximately		20	Acres	Every	30	miles
Batch Plant Sites - Stand-alone, Temporary -	Approximately		5	Acres	Every	15	miles
Fly Yards / Staging Areas -	Approximately		7	Acres	Every	5	miles
Structure Base (600 kV HVDC towers)							
Lattice Tower (Tangent) -	30	x	30	feet			
Lattice Tower (Angle) -	35	x	35	feet			
Lattice Tower (Dead End) -	40	x	40	feet			
Regeneration Sites (most located on ROW) -	100	x	100	feet	Every	50	miles

Table A-2 Summary of Permanent Access Road Disturbances within the TWE Corridors by Transmission Line Route Segment

Route Segment ID	Total Route Segment Line Length (miles)	Terrain Type 1 - Flat								Terrain Type 2 - Rolling								Terrain Type 3 - Steep								Terrain Type 4 - Mountainous								Route Segment Disturbance Totals					
		Route Segment Line Length in Terrain Type 1 - Flat (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 2 - Rolling (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 3 - Steep (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 4 - Mountainous (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW	
		Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres
SEGMENTS COMMON TO APPLICANT PROPOSED AND AGENCY PREFERRED ROUTES																																							
W10	32.24	0.00	5.00	4.0	7.8	0.4	0.8	0.5	7.0	5.24	22.00	31.0	67.7	7.5	16.4	23.5	51.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	35.0	75.4	7.9	17.2	24.0	58.3
W20_S1	1.64	1.64	0.00	2.0	3.8	1.4	2.8	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.8	1.4	2.8	0.5	1.0
W20_S3	1.56	1.56	0.00	1.9	3.6	1.4	2.7	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.6	1.4	2.7	0.5	1.0
W20_S4	7.54	7.54	0.00	9.0	17.5	6.6	12.8	2.4	4.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.0	17.5	6.6	12.8	2.4	4.7
W819_S1	5.40	5.40	0.00	6.5	12.6	4.7	9.2	1.7	3.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.5	12.6	4.7	9.2	1.7	3.4
A-W20_S1	7.67	7.67	0.00	9.2	17.9	6.7	13.0	2.5	4.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.2	17.9	6.7	13.0	2.5	4.8
W819_S5	1.28	1.28	0.00	1.5	3.0	1.1	2.2	0.4	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	1.1	2.2	0.4	0.8
W819_S6	3.72	3.72	0.00	4.5	8.7	3.3	6.3	1.2	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.5	8.7	3.3	6.3	1.2	2.3
W819_S7	0.60	0.60	0.00	0.7	1.4	0.5	1.0	0.2	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	0.5	1.0	0.2	0.4
W819_S8	20.40	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	20.40	0.00	26.5	57.9	17.0	37.0	9.5	20.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	26.5	57.9	17.0	37.0	9.5	20.8
A-W26_S3	1.67	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.67	0.00	2.2	4.7	1.4	3.0	0.8	1.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.7	1.4	3.0	0.8	1.7
A-C26_S1	6.22	3.00	0.00	3.6	7.0	2.6	5.1	1.0	1.9	3.22	0.00	4.2	9.1	2.7	5.8	1.5	3.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.8	16.1	5.3	10.9	2.5	5.2
A-C52_S1	1.38	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.00	1.3	2.8	0.8	1.8	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.38	0.00	1.0	3.0	0.2	0.5	0.8	2.4	2.3	5.8	1.0	2.4	1.3	3.5
A-C52_S2	3.45	0.45	0.00	0.5	1.0	0.4	0.8	0.1	0.3	3.00	0.00	3.9	8.5	2.5	5.4	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.4	9.6	2.9	6.2	1.5	3.3
A-C52_S3	1.41	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.41	0.00	0.7	2.0	0.3	0.7	0.5	1.2	1.00	0.00	2.7	7.9	0.5	1.4	2.2	6.4	3.4	9.8	0.8	2.2	2.7	7.7
A-C52_S4	7.55	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.55	0.00	13.6	36.2	5.2	13.8	8.4	22.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	13.6	36.2	5.2	13.8	8.4	22.5
C186.03	0.36	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.36	0.00	0.5	1.0	0.3	0.7	0.2	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.3	0.7	0.2	0.4
C186.04	3.72	3.72	0.00	4.5	8.7	3.3	6.3	1.2	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.5	8.7	3.3	6.3	1.2	2.3
A-C53_S1	10.41	2.41	0.00	2.9	5.6	2.1	4.1	0.8	1.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	8.00	0.00	14.4	38.4	5.5	14.6	8.9	23.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	17.3	44.0	7.6	18.7	9.7	25.3
A-C54_S1	4.10	2.10	0.00	2.5	4.9	1.8	3.6	0.7	1.3	1.00	0.00	1.3	2.8	0.8	1.8	0.5	1.0	1.00	0.00	1.8	4.8	0.7	1.8	1.1	3.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.6	12.5	3.4	7.2	2.3	5.3
A-C54_S2	1.97	1.00	0.00	1.2	2.3	0.9	1.7	0.3	0.6	0.97	0.00	1.3	2.8	0.8	1.8	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	1.7	3.5	0.8	1.6
A-C54_S3	1.32	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.32	0.00	1.7	3.7	1.1	2.4	0.6	1.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.7	1.1	2.4	0.6	1.3
A-C54_S4	1.81	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.81	0.00	2.4	5.1	1.5	3.3	0.8	1.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.1	1.5	3.3	0.8	1.8
A-C54_S5	0.80	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.80	0.00	1.0	2.3	0.7	1.5	0.4	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.3	0.7	1.5	0.4	0.8
TE-A2	0.53	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.53	0.8	2.3	0.1	0.3	0.7	1.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.3	0.1	0.3	0.7	1.9
C111_S1	1.10	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.10	1.2	2.6	0.2	0.3	1.1	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.6	0.2	0.3	1.1	2.3
C111_S2	0.93	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.93	1.0	2.2	0.1	0.3	0.9	1.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.2	0.1	0.3	0.9	1.9
C115_S1	2.60	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.60	4.2	11.1	0.6	1.6	3.6	9.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.2	11.1	0.6	1.6	3.6	9.5
C115_S2	0.51	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.51	0.8	2.2	0.1	0.3	0.7	1.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.2	0.1	0.3	0.7	1.9
C115_S3	14.64	0.00	3.64	2.9	5.6	0.3	0.6	0.3	5.1	0.00	7.00	7.7	16.8	1.0	2.2	6.7	14.6	0.00	4.00	6.4	17.1	0.9	2.4	5.5	14.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	17.0	39.5	2.2	5.1	12.5	34.4
C120_S1	1.39	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.39	1.5	3.3	0.2	0.4	1.3	2.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.3	0.2	0.4	1.3	2.9
C120_S2	23.34	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	23.34	25.7	56.0	3.3	7.3	22.3	48.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	25.7	56.0	3.3	7.3	22.3	48.7
U70_S1	7.30	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	7.30	17.5	51.0	2.8	8.2	14.7	42.8	17.5	51.0	2.8	8.2	14.7	42.8
U70_S2	5.52	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	5.52	13.2	38.5	2.1	6.2	11.1	32.4	13.2	38.5	2.1	6.2	11.1	32.4
U70_S4	15.17	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	15.17	36.4	105.9	5.8	16.9	30.6	89.0	36.4	105.9	5.8	16.9	30.6	89.0
U70_S5	6.34	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	5.34	15.5	45.1	2.5	7.4	13.0	37.8	15.5	45.1	2.5	7.4	13.0	37.8
U70_S6	0.27	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.27	0.00	0.7	2.1	0.1	0.4	0.6	1.7	0.7	2.1	0.1	0.4	0.6	1.7
Nephi-NB_S2	0.70	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.70	0.8	1.7	0.1	0.2	0.7	1.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7	0.1	0.2	0.7	1.5
U130_S1	17.03	2.00	0.00	2.4	4.7	1.8	3.4	0.6	1.3	8.00	0.00	10.4	22.7	6.7	14.5	3.7	8.2	7.03	0.00	12.7	33.7	4.8	12.8	7.8	20.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	25.5	61.1	13.2	30.7	12.2	30.3
A-U131_S1	3.52	3.52	0.00	4.2	8.2	3.1	6.0	1.1	2.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.2	3.1	6.0	1.1	2.2
A-U131_S2	0.26	0.26	0.00	0.3	0.6	0.2	0.4	0.1	0.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.2	0.4	0.1	0.2
A-U131_S3	1.21	1.21	0.00	1.5	2.8	1.1	2.1	0.4	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.8	1.1	2.1	0.4	0.8
A-U131_S4	0.68	0.68	0.00	0.8	1.6	0.6	1.2	0.2	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	0.6	1.2	0.2	0.4
A-U131_S5	3.70	3.70	0.00	4.4	8.6	3.2	6.3	1.2	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.4	8.6	3.2	6.3	1.2	2.3
U150_S1	8.63	8.63	0.00	10.4	20.1	7.6	14.7	2.8	5.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.4	20.1	7.6	14.7	2.8	5.4
U150_S2	9.82	9.82	0.00	11.8	22.9	8.6	16.7	3.2	6.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.8	22.9	8.6	16.7	3.2	6.2
U155	7.01	0.00	7.01	5.6	10.9	0.6	1.1	0.6	9.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.6	10.9	0.6	1.1	0.6	9.8
U168	20.28	20.28	0.00	24.3	47.2	17.8	34.5	6.6	12.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	24.3	47.2	17.8	34.5	6.6	12.7
U180	4.28	4.28	0.00	5.1	10.0	3.7	7.3	1.4	2.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.0	3.7	7.3	1.4	2.7
U215	14.14	4.00	0.00	4.8	9.3	3.5	6.8	1.3	2.5	10.14	0.00	13.2	28.8	8.4	18.4	4.7	10.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	18.0	38.1	11.9	25.2	6.0	12.9
U220	44.14	1.00	33.14	27.7	53.7	3.5	6.8	3.3	46.9	0.00	8.00	8.8	19.2	1.1	2.5	7.7	16.7	0.00	1.00	1.6	4.3	0.2	0.6	1.4	3.7	0.00	1.00	2.4	7.0	0.4	1.1	2.0	5.9	40.5	84.2	5.3	11.1	14.4	73.1
U250	20.33	10.00	10.33	20.3	39.3	9.6	18.6	4.2	20.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	20.3	39.3	9.6	18.6	4.2	20.7
N50_S1	7.00	0.00	1.00	0.8	1.6	0.1	0.2	0.1	1.4	0.00	5.00	5.5	12.0	0.7	1.6	4.8	10.4	0.00	1.00	1.6	4.3	0.2	0.6	1.4	3.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.9	17.8	1.0	2.3	6.3	15.5
N95_S1	0.67	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.67	0.7	1.6	0.1	0.2	0.6	1.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.6	0.1	0.2	0.6	1.4
N95_S2	4.82	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.00	1.1	2.4	0.1	0.3	1.0	2.1	0.00	3.82	6.1	16.3	0.9	2.3	5.3	14.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.2	18.7	1.0	2.6	6.2	16.1
N100	6.17	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	6.17	6.8	14.8	0.9	1.9	5.9	12.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.8	14.8	0.9	1.9	5.9	12.9
N120	4.10	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.10	4.5	9.8	0.6	1.3	3.9	8.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.5	9.8	0.6	1.3	3.9	8.6
N121_S1	1.35	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.35	2.2	5.8	0.3	0.8	1.9	5.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.8	0.3	0.8	1.9	5.0
N121_S2	1.78	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.78	2.8	7.6	0.4	1.1	2.4	6.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.6	0.4	1.1	2.4	6.5
N121_S3	4.06	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.06	6.5	17.3	0.9	2.4	5.6	14.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.5	17.3	0.9	2.4	5.6	14.9
N121_S4	1.27	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.27	1.4	3.0	0.2	0.4	1.2	2.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.0	0.2	0.4	1.2	2.7
N135_S1	0.44	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.44	0.7	1.9	0.1	0.3	0.6	1.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.9	0.1	0.3	0.6	1.6
N135_S2	2.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.00	3.2	8.5	0.4	1.2	2.8	7.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.2	8.5	0.4	1.2	2.8	7.3
N145	2.84	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.84	6.8	19.8	1.1	3.2	5.7	16.7	6.8	19.8	1.1	3.2	5.7	16.7
N165	12.68	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	12.68	13.9	30.4	1.8	4.0	12.1	26.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	13.9	30.4	1.8	4.0	12.1	26.5
N175_S3	0.46	0.00	0.46	0.4	0.7	0.0	0.1	0.0	0.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.1	0.0	0.6
APPLICANT PROPOSED ROUTE SEGMENTS																																							
W819_S10	0.96	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.96	0.00	1.2	2.7	0.8	1.7	0.4	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.7	0.8	1.7	0.4	1.0
A-W26_S1	2.08	2.08	0.00	2.5	4.8	1.8	3.5	0.7	1.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.8	1.8	3.5	0.7	1.3
A-W26_S2	4.43	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.43	0.00	5.8	12.6	3.7	8.0	2.1	4.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.8	12.6	3.7	8.0	2.1	4.5
U40	8.17	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	8.17	0.00	10.6	23.2	6.8	14.8	3.8	8.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.6	23.2	6.8	14.8	3.8	8.3
U41	10.75	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.75	0.00	29.0	84.4	5.2	15.2	23.8	69.2	29.0	84.4	5.2	15.2	23.8	69.2
U45	3.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	3.00	3.3	7.2	0.4	0.9	2.9	6.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.3	7.2	0.4	0.9	2.9	6.3
U50	12.70	0.00	10.70	8.6	16.6	0.9	1.7	1.0	14.9	0.00	1.00	1.1	2.4	0.1	0.3	1.0	2.1	0.00	1.00	1.6	4.3	0.2	0.6	1.4	3.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.3	23.3	1.2	2.6	3.3	20.7
U55_S1	1.80	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.80	2.0	4.3	0.3	0.6	1.7	3.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.3	0.3	0.6	1.7	3.8
U55_S3	10.21	10.21	0.00	12.3	23.8	8.9	17.3	3.3	6.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	12.3	23.8	8.9	17.3	3.3	6.4

Table A-2 Summary of Permanent Access Road Disturbances within the TWE Corridors by Transmission Line Route Segment

Route Segment ID	Total Route Segment Line Length (miles)	Terrain Type 1 - Flat								Terrain Type 2 - Rolling								Terrain Type 3 - Steep								Terrain Type 4 - Mountainous								Route Segment Disturbance Totals					
		Route Segment Line Length in Terrain Type 1 - Flat (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 2 - Rolling (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 3 - Steep (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 4 - Mountainous (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW	
		Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres
U55_S4	12.70	7.00	2.70	10.6	20.5	6.3	12.3	2.5	8.2	3.00	0.00	3.9	8.5	2.5	5.4	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.5	29.0	8.8	17.8	3.9	11.2
U55_S5	24.34	0.00	7.00	5.6	10.9	0.6	1.1	0.6	9.8	0.00	17.34	19.1	41.6	2.5	5.4	16.6	36.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	24.7	52.5	3.0	6.5	17.2	46.0
U55_S7	1.30	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.30	1.4	3.1	0.2	0.4	1.2	2.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.1	0.2	0.4	1.2	2.7
U55_S8	1.65	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.65	2.6	7.0	0.4	1.0	2.3	6.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.6	7.0	0.4	1.0	2.3	6.1
U55_S9	4.27	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.27	4.7	10.2	0.6	1.3	4.1	8.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.7	10.2	0.6	1.3	4.1	8.9
U55_S10	7.00	5.00	2.00	7.6	14.7	4.5	8.8	1.8	5.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.6	14.7	4.5	8.8	1.8	5.9
U55_S11	21.65	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.00	0.00	5.2	11.3	3.3	7.3	1.9	4.1	3.00	2.00	8.6	22.9	2.5	6.7	6.1	16.3	0.00	12.65	30.4	88.3	4.9	14.1	25.5	74.2	44.2	122.6	10.7	28.1	33.5	94.5
U55_S12	4.65	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.65	11.2	32.5	1.8	5.2	9.4	27.3	11.2	32.5	1.8	5.2	9.4	27.3
U55_S17	7.35	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	7.35	17.6	51.3	2.8	8.2	14.8	43.1	17.6	51.3	2.8	8.2	14.8	43.1
U55_S18	1.31	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.31	3.1	9.1	0.5	1.5	2.6	7.7	3.1	9.1	0.5	1.5	2.6	7.7
U55_S19	0.43	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.43	1.0	3.0	0.2	0.5	0.9	2.5	1.0	3.0	0.2	0.5	0.9	2.5
Nephi-SA	0.67	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.67	1.6	4.7	0.3	0.7	1.4	3.9	1.6	4.7	0.3	0.7	1.4	3.9
Nephi-NA	2.10	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.10	5.0	14.7	0.8	2.3	4.2	12.3	5.0	14.7	0.8	2.3	4.2	12.3
Nephi-NB_S1	17.23	2.00	12.00	12.0	23.3	2.7	5.3	1.7	18.0	0.00	0.23	0.3	0.6	0.0	0.1	0.2	0.5	0.00	3.00	4.8	12.8	0.7	1.8	4.1	11.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	17.1	36.6	3.4	7.1	6.1	29.5
U255_S1	19.32	0.00	19.32	15.5	30.0	1.5	3.0	1.7	27.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	15.5	30.0	1.5	3.0	1.7	27.0
U255_S2	18.42	0.42	18.00	14.9	28.9	1.8	3.5	1.8	25.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.9	28.9	1.8	3.5	1.8	25.4
U255_S3	0.20	0.20	0.00	0.2	0.5	0.2	0.3	0.1	0.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.2	0.3	0.1	0.1
U255_S4	1.72	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.72	0.00	2.2	4.9	1.4	3.1	0.8	1.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.9	1.4	3.1	0.8	1.8
U255_S5	3.41	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.41	0.00	0.5	1.2	0.3	0.7	0.2	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.00	0.00	8.1	23.6	1.5	4.2	6.6	19.3	8.6	24.7	1.8	5.0	6.8	19.7
U255_S5.1	4.12	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.00	4.4	9.6	0.6	1.2	3.8	8.4	0.00	0.12	0.2	0.5	0.0	0.1	0.2	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.6	10.1	0.6	1.3	4.0	8.8
U255_S6	5.76	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	5.76	9.2	24.6	1.3	3.4	7.9	21.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.2	24.6	1.3	3.4	7.9	21.1
U255_S7	2.67	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.67	0.00	7.2	21.0	1.3	3.8	5.9	17.2	7.2	21.0	1.3	3.8	5.9	17.2
U255_S8	2.86	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.86	0.00	5.1	13.7	2.0	5.2	3.2	8.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.1	13.7	2.0	5.2	3.2	8.5
A-U255_S9	0.26	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.26	0.00	0.5	1.2	0.2	0.5	0.3	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	0.2	0.5	0.3	0.8
A-U255_S10	0.74	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.74	0.00	1.3	3.6	0.5	1.3	0.8	2.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.6	0.5	1.3	0.8	2.2
A-U255_S10.1	0.25	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.25	0.00	0.7	2.0	0.1	0.4	0.6	1.6	0.7	2.0	0.1	0.4	0.6	1.6
U255_S9	1.60	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.60	2.6	6.8	0.4	1.0	2.2	5.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.8	0.4	1.0	2.2	5.9
U255_S10	0.71	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.71	1.1	3.0	0.2	0.4	1.0	2.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.0	0.2	0.4	1.0	2.6
U255_S11	0.32	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.32	0.5	1.4	0.1	0.2	0.4	1.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	0.1	0.2	0.4	1.2
U255_S12	0.85	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.85	2.0	5.9	0.3	0.9	1.7	5.0	2.0	5.9	0.3	0.9	1.7	5.0
U255_S13	30.13	0.00	0.13	0.1	0.2	0.0	0.0	0.0	0.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	30.00	48.0	128.0	6.7	17.9	41.3	110.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	48.1	128.2	6.7	17.9	41.3	110.3
N45	11.93	0.00	11.93	9.5	18.5	1.0	1.9	1.1	16.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.5	18.5	1.0	1.9	1.1	16.7
N50_S2	24.98	4.40	0.00	5.3	10.2	3.9	7.5	1.4	2.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	20.58	0.00	37.0	98.8	14.1	37.5	23.0	61.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	42.3	109.0	17.9	45.0	24.4	64.0
N50_S3	11.98	10.60	0.00	12.7	24.7	9.3	18.0	3.4	6.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.38	0.00	2.5	6.6	0.9	2.5	1.5	4.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	15.2	31.3	10.2	20.5	5.0	10.8
N70	11.48	8.48	0.00	10.2	19.7	7.4	14.4	2.7	5.3	3.00	0.00	3.9	8.5	2.5	5.4	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.1	28.2	9.9	19.9	4.2	8.4
AGENCY PREFERRED ROUTE SEGMENTS																																							
W819_S9	2.05	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.05	0.00	3.7	9.8	1.4	3.7	2.3	6.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.7	9.8	1.4	3.7	2.3	6.1
W115.07.1	2.47	2.47	0.00	3.0	5.7	2.2	4.2	0.8	1.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.7	2.2	4.2	0.8	1.6
A-W28_S2	3.79	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.79	0.00	4.9	10.7	3.2	6.9	1.8	3.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.9	10.7	3.2	6.9	1.8	3.9
A-W28_S3	1.12	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.12	0.00	1.5	3.2	0.9	2.0	0.5	1.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.2	0.9	2.0	0.5	1.1
U35_S1	2.70	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.70	3.0	6.5	0.4	0.8	2.6	5.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.5	0.4	0.8	2.6	5.6
U35_S2	7.21	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.21	0.00	4.2	9.1	2.7	5.8	1.5	3.3	0.00	4.00	6.4	17.1	0.9	2.4	5.5	14.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.6	26.2	3.6	8.2	7.0	18.0
U36_S1	7.37	2.37	0.00	2.8	5.5	2.1	4.0	0.8	1.5	5.00	0.00	6.5	14.2	4.2	9.1	2.3	5.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.3	19.7	6.2	13.1	3.1	6.6
U217.01	76.80	17.00	7.00	26.0	50.4	15.5	30.0	6.1	20.5	7.00	0.00	9.1	19.9	5.8	12.7	3.3	7.1	45.80	0.00	82.4	219.8	31.3	83.5	51.1	136.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	117.5	290.1	52.6	126.2	60.5	163.9
U218	11.97	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.97	0.00	32.3	94.0	5.8	16.9	26.5	77.1	32.3	94.0	5.8	16.9	26.5	77.1
U219.1	0.60	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.00	1.1	2.9	0.4	1.1	0.7	1.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.9	0.4	1.1	0.7	1.8
U219.3	1.47	1.47	0.00	1.8	3.4	1.3	2.5	0.5	0.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.4	1.3	2.5	0.5	0.9
U219.5	16.83	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.83	0.00	1.1	2.4	0.7	1.5	0.4	0.8	3.00	0.00	5.4	14.4	2.1	5.5	3.3	8.9	13.00	0.00	35.1	102.1	6.3	18.4	28.8	83.7	41.6	118.9	9.1	25.4	32.5	93.5
U219.6	4.56	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.56	0.00	8.2	21.9	3.1	8.3	5.1	13.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	8.2	21.9	3.1	8.3	5.1	13.6
U217.052	15.82	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.00	2.2	4.8	0.3	0.6	1.9	4.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	13.82	33.2	96.5	5.3	15.4	27.9	81.1	35.4	101.3	5.6	16.1	29.8	85.2
Nephi-SA-S	0.65	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.65	0.00	1.8	5.1	0.3	0.9	1.4	4.2	1.8	5.1	0.3	0.9	1.4	4.2
Nephi-SB	4.16	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.16	0.00	11.2	32.7	2.0	5.9	9.2	26.8	11.2	32.7	2.0	5.9	9.2	26.8
U115b	5.60	2.60	0.00	3.1	6.1	2.3	4.4	0.8	1.6	3.00	0.00	3.9	8.5	2.5	5.4	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.0	14.6	4.8	9.9	2.2	4.7
U120	4.30	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.30	0.00	11.6	33.8	2.1	6.1	9.5	27.7	11.6	33.8	2.1	6.1	9.5	27.7
U260_S1	14.10	14.10	0.00	16.9	32.8	12.4	24.0	4.6	8.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	16.9	32.8	12.4	24.0	4.6	8.9
U260_S2	40.77	40.77	0.00	48.9	94.9	35.7	69.3	13.2	25.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	48.9	94.9	35.7	69.3	13.2	25.6
N10	1.60	1.60	0.00	1.9	3.7	1.4	2.7	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.7	1.4	2.7	0.5	1.0
N805	15.22	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.22	0.00	14.6	31.8	9.3	20.4	5.3	11.5	4.00	0.00	7.2	19.2	2.7	7.3	4.5	11.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	21.8	51.0	12.1	27.7	9.7	23.4
N808	41.29	2.29	0.00	2.7	5.3	2.0	3.9	0.7	1.4	33.00	0.00	42.9	93.6	27.5	59.9	15.4	33.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.00	0.00	16.2	47.1	2.9	8.5	13.3	38.6	61.8	146.1	32.4	72.3	29.5	73.8
N35A	22.47	0.00	22.47	18.0	34.9	1.8	3.5	2.0	31.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	18.0	34.9	1.8	3.5	2.0	31.4
N40A	16.14	0.00	16.14	12.9	25.0	1.3	2.5	1.5	22.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	12.9	25.0	1.3	2.5	1.5	22.5
N90A	2.66	0.00	2.66	2.1	4.1	0.2	0.4	0.2	3.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.1	0.2	0.4	0.2	3.7
N75	7.02	0.00	7.02	5.6	10.9	0.6	1.1	0.6	9.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.6	10.9	0.6	1.1	0.6	9.8
ALTERNATIVE ROUTE SEGMENTS																																							
W15_S1	22.02	22.02	0.00	26.4	51.2	19.3	37.4	7.1	13.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	26.4	51.2	19.3	37.4	7.1	13.8
W15_S2	16.42	16.42	0.00	19.7	38.2	14.4	27.9	5.3	10.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	19.7	38.2	14.4	27.9	5.3	10.3
W15_S3	2.32	2.32	0.00	2.8	5.4	2.0	3.9	0.8	1.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.8	5.4	2.0	3.9	0.8	1.5
W65	8.27	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	8.27	0.00	10.8	23.5	6.9	15.0	3.9	8.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.8	23.5	6.9	15.0	3.9	8.4
W115.01	0.45	0.45	0.00	0.5	1.0	0.4	0.8	0.1	0.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.4	0.8	0.1	0.3
W115.02	1.50	1.50	0.00	1.8	3.5	1.3	2.5	0.5	0.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.5	1.3	2.5	0.5	0.9
W115.03	0.36	0.39	0.00	0.5	0.9	0.3	0.7	0.1	0.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.3	0.7	0.1	0.2
W115.04	12.14	12.14	0.00	14.6	28.3	10.6	20.6	3.9	7.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.6	28.3	10.6	20.6	3.9	7.6
W115.07	1.77	1.77	0.00	2.1	4.1	1.6	3.0	0.6	1.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.1	1.6	3.0	0.6	1.1
W819_S2	1.50	1.00	0.00	1.2	2.3	0.9	1.7	0.3	0.6	0.50	0.00	0.7	1.4	0.4	0.9	0.2	0.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.7	1.3	2.6	0.6	1.1

Table A-2 Summary of Permanent Access Road Disturbances within the TWE Corridors by Transmission Line Route Segment

Route Segment ID	Total Route Segment Line Length (miles)	Terrain Type 1 - Flat: Route Segment Line Length in Terrain Type 1 - Flat (miles)		Terrain Type 1 - Flat: New Access Roads and Disturbance		Terrain Type 1 - Flat: New Access Roads and Disturbance Within ROW		Terrain Type 1 - Flat: New Access Roads and Disturbance Outside ROW		Terrain Type 2 - Rolling: Route Segment Line Length in Terrain Type 2 - Rolling (miles)		Terrain Type 2 - Rolling: New Access Roads and Disturbance		Terrain Type 2 - Rolling: New Access Roads and Disturbance Within ROW		Terrain Type 2 - Rolling: New Access Roads and Disturbance Outside ROW		Terrain Type 3 - Steep: Route Segment Line Length in Terrain Type 3 - Steep (miles)		Terrain Type 3 - Steep: New Access Roads and Disturbance		Terrain Type 3 - Steep: New Access Roads and Disturbance Within ROW		Terrain Type 3 - Steep: New Access Roads and Disturbance Outside ROW		Terrain Type 4 - Mountainous: Route Segment Line Length in Terrain Type 4 - Mountainous (miles)		Terrain Type 4 - Mountainous: New Access Roads and Disturbance		Terrain Type 4 - Mountainous: New Access Roads and Disturbance Within ROW		Terrain Type 4 - Mountainous: New Access Roads and Disturbance Outside ROW		Route Segment Disturbance Totals: New Access Roads and Disturbance		Route Segment Disturbance Totals: New Access Roads and Disturbance Within ROW		Route Segment Disturbance Totals: New Access Roads and Disturbance Outside ROW	
		Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres
W819_S3	1.43	1.43	0.00	1.7	3.3	1.3	2.4	0.5	0.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.3	1.3	2.4	0.5	0.9
A-W19_S1	11.17	11.17	0.00	13.4	26.0	9.8	19.0	3.6	7.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	13.4	26.0	9.8	19.0	3.6	7.0
A-W19_S2	15.54	15.54	0.00	18.6	36.2	13.6	26.4	5.0	9.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	18.6	36.2	13.6	26.4	5.0	9.8
C10	11.14	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.14	0.00	14.5	31.6	9.3	20.2	5.2	11.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.5	31.6	9.3	20.2	5.2	11.4
C65	11.44	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.44	0.00	20.6	54.9	7.8	20.9	12.8	34.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	20.6	54.9	7.8	20.9	12.8	34.0
C100	24.25	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.00	19.25	27.7	60.4	6.9	15.1	20.8	45.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	27.7	60.4	6.9	15.1	20.8	45.3
C110	11.98	0.00	9.00	7.2	14.0	0.7	1.4	0.8	12.6	0.00	2.98	3.3	7.2	0.4	0.9	2.9	6.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	10.5	21.1	1.1	2.3	3.7	18.8
C802	21.41	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	21.41	0.00	38.5	102.8	14.6	39.1	23.9	63.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	38.5	102.8	14.6	39.1	23.9	63.7
C804	4.02	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.02	0.00	5.2	11.4	3.3	7.3	1.9	4.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.2	11.4	3.3	7.3	1.9	4.1
A-C56_S1	0.56	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.56	0.00	0.7	1.6	0.5	1.0	0.3	0.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.6	0.5	1.0	0.3	0.6
A-C56_S2	0.76	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.76	0.00	1.0	2.2	0.6	1.4	0.4	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.2	0.6	1.4	0.4	0.8
A-C56_S3	1.29	1.29	0.00	1.5	3.0	1.1	2.2	0.4	0.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	1.1	2.2	0.4	0.8
A-C56_S4	0.27	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.27	0.00	0.4	0.8	0.2	0.5	0.1	0.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.2	0.5	0.1	0.3
A-C56_S5	4.79	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.79	0.00	6.2	13.6	4.0	8.7	2.2	4.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.6	4.0	8.7	2.2	4.9
A-C57	2.33	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.33	0.00	3.0	6.6	1.9	4.2	1.1	2.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.6	1.9	4.2	1.1	2.4
TE-A1	0.30	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.30	0.3	0.7	0.0	0.1	0.3	0.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.0	0.1	0.3	0.6
TE-B_S7	1.62	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.62	0.00	2.9	7.8	1.1	3.0	1.8	4.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.9	7.8	1.1	3.0	1.8	4.8
C195	5.19	3.00	0.00	3.6	7.0	2.6	5.1	1.0	1.9	2.19	0.00	2.8	6.2	1.8	4.0	1.0	2.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.4	13.2	4.5	9.1	2.0	4.1
C800_S1	7.69	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.69	0.8	1.7	0.1	0.2	0.7	1.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.00	2.00	18.3	53.2	3.2	9.3	15.1	43.9	19.1	54.9	3.3	9.5	15.8	45.4
C800_S2	19.26	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	19.26	0.00	25.0	54.6	16.0	35.0	9.0	19.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	25.0	54.6	16.0	35.0	9.0	19.7
C800_S3	46.87	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	21.87	0.00	28.4	62.0	18.2	39.7	10.2	22.3	25.00	0.00	45.0	120.0	17.1	45.6	27.9	74.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	73.4	182.0	35.3	85.3	38.1	96.7
TE-A_S1	8.38	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.00	0.00	2.6	5.7	1.7	3.6	0.9	2.0	6.38	0.00	11.5	30.6	4.4	11.6	7.1	19.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.1	36.3	6.0	15.3	8.1	21.0
U36	9.58	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.00	0.00	2.6	5.7	1.7	3.6	0.9	2.0	7.58	0.00	13.6	36.4	5.2	13.8	8.5	22.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	16.2	42.1	6.8	17.5	9.4	24.6
A-U56_S5	7.41	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.41	0.00	9.6	21.0	6.2	13.5	3.5	7.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.6	21.0	6.2	13.5	3.5	7.6
U55_S13	1.93	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.93	4.6	13.5	0.7	2.2	3.9	11.3	4.6	13.5	0.7	2.2	3.9	11.3
U55_S14	2.54	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.54	6.1	17.7	1.0	2.8	5.1	14.9	6.1	17.7	1.0	2.8	5.1	14.9
U55_S15	2.59	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	2.59	6.2	18.1	1.0	2.9	5.2	15.2	6.2	18.1	1.0	2.9	5.2	15.2
U55_S16	0.23	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.23	0.6	1.6	0.1	0.3	0.5	1.3	0.6	1.6	0.1	0.3	0.5	1.3
U60	77.84	51.00	0.00	61.2	118.7	44.7	86.6	16.5	32.0	12.00	13.84	30.8	67.3	12.0	26.1	18.9	41.2	1.00	0.00	1.8	4.8	0.7	1.8	1.1	3.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	93.8	190.7	57.3	114.6	36.5	76.2
U75	1.93	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.93	0.00	2.5	5.5	1.6	3.5	0.9	2.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.5	1.6	3.5	0.9	2.0
U75A	13.20	3.00	10.20	11.8	22.8	3.4	6.7	1.9	16.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.8	22.8	3.4	6.7	1.9	16.1
U85A	98.93	0.00	14.00	11.2	21.7	1.1	2.2	1.3	19.5	5.00	44.93	55.9	122.0	10.6	23.1	45.3	98.9	0.00	14.00	22.4	59.7	3.1	8.4	19.3	51.4	0.00	21.00	50.4	146.6	8.1	23.5	42.3	123.2	139.9	350.1	22.9	57.1	108.2	293.0
U90_S1	10.78	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.00	4.78	13.1	28.5	5.7	12.4	7.4	16.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	13.1	28.5	5.7	12.4	7.4	16.1
U90_S2	50.26	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.26	9.00	40.1	106.8	11.8	31.4	28.3	75.5	4.00	23.00	66.0	192.0	10.8	31.3	55.2	160.7	106.1	298.8	22.5	62.7	83.5	236.1
U135_S1	14.69	0.00	7.00	5.6	10.9	0.6	1.1	0.6	9.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	7.69	12.3	32.8	1.7	4.6	10.6	28.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	17.9	43.7	2.3	5.7	11.2	38.0
U135_S2	13.22	0.00	8.22	6.6	12.8	0.7	1.3	0.7	11.5	0.00	5.00	5.5	12.0	0.7	1.6	4.8	10.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	12.1	24.8	1.4	2.8	5.5	21.9
U140	3.63	3.63	0.00	4.4	8.4	3.2	6.2	1.2	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.4	8.4	3.2	6.2	1.2	2.3
U145_S1	7.94	0.00	7.94	6.4	12.3	0.6	1.2	0.7	11.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.4	12.3	0.6	1.2	0.7	11.1
U200	38.16	21.00	13.16	35.7	69.3	19.4	37.7	8.0	31.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.00	9.6	27.9	1.5	4.5	8.1	23.5	45.3	97.2	21.0	42.2	16.1	55.0
U217.02	16.03	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	12.03	0.00	21.7	57.7	8.2	21.9	13.4	35.8	4.00	0.00	10.8	31.4	1.9	5.7	8.9	25.8	32.5	89.2	10.2	27.6	22.3	61.6
U217.03	0.94	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.94	0.00	2.5	7.4	0.5	1.3	2.1	6.1	2.5	7.4	0.5	1.3	2.1	6.1
U217.051	20.30	0.00	1.30	1.0	2.0	0.1	0.2	0.1	1.8	8.00	4.00	14.8	32.3	7.2	15.8	7.6	16.5	6.00	1.00	12.4	33.1	4.3	11.5	8.1	21.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	28.2	67.4	11.7	27.5	15.8	39.9
U217.10	20.87	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.87	4.00	13.3	29.1	6.3	13.7	7.0	15.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.00	24.0	69.8	3.8	11.2	20.2	58.6	37.3	98.9	10.1	24.9	27.2	74.0
U217.15	36.37	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.00	0.00	2.6	5.7	1.7	3.6	0.9	2.0	20.37	0.00	36.7	97.8	13.9	37.2	22.7	60.6	14.00	0.00	37.8	110.0	6.8	19.8	31.0	90.2	77.1	213.4	22.4	60.6	54.7	152.8
U219.2	19.79	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.00	0.00	9.0	24.0	3.4	9.1	5.6	14.9	14.79	0.00	39.9	116.2	7.2	20.9	32.7	95.3	48.9	140.2	10.6	30.0	38.3	110.1
U219.4	1.60	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.60	0.00	4.3	12.6	0.8	2.3	3.5	10.3	4.3	12.6	0.8	2.3	3.5	10.3
U222.05	41.20	18.20	20.00	37.8	73.4	17.5	34.0	7.7	39.4	3.00	0.00	3.9	8.5	2.5	5.4	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	41.7	81.9	20.0	39.5	9.1	42.4
U222.10	14.16	4.00	0.00	4.8	9.3	3.5	6.8	1.3	2.5	0.00	2.00	2.2	4.8	0.3	0.6	1.9	4.2	8.16	0.00	14.7	39.2	5.6	14.9	9.1	24.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	21.7	53.3	9.4	22.3	12.3	31.0
U223.00	18.16	7.00	0.00	8.4	16.3	6.1	11.9	2.3	4.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00	10.16	18.1	48.1	3.0	7.9	15.1	40.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	26.5	64.4	9.1	19.8	17.4	44.7
U225	38.41	13.00	3.00	18.0	34.9	11.6	22.6	4.5	12.4	13.00	4.00	21.3	46.5	11.4	24.8	9.9	21.6	4.41	1.00	9.5	25.4	3.2	8.6	6.3	16.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	48.8	106.8	26.3	56.0	20.7	50.8
U325.1	43.28	0.00	23.00	18.4	35.7	1.8	3.6	2.1	32.1	0.00	1.00	1.1	2.4	0.1	0.3	1.0	2.1	0.00	13.28	21.2	56.7	3.0	7.9	18.3	48.7	0.00	6.00	14.4	41.9	2.3	6.7	12.1	35.2	55.1	136.6	7.3	18.5	33.4	118.1
U325.2	4.12	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	4.12	9.9	28.8	1.6	4.6	8.3	24.2	9.9	28.8	1.6	4.6	8.3	24.2
U821	24.04	13.00	0.00	15.6	30.3	11.4	22.1	4.2	8.2	9.04	0.00	11.8	25.6	7.5	16.4	4.2	9.2	2.00	0.00	3.6	9.6	1.4	3.6	2.2	6.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	31.0	65.5	20.3	42.1	10.7	23.4
U145_S2	9.51	0.00	9.51	7.6	14.8	0.8	1.5	0.9	13.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.6	14.8	0.8	1.5	0.9	13.3
U155-165	35.93	0.00	27.93	22.3	43.3	2.2	4.3	2.5	39.0	0.00	8.00	8.8	19.2	1.1	2.5	7.7	16.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	31.1	62.5	3.4	6.8	10.2	55.7
Ox_Vly_Conn	0.65	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.65	0.00	0.8	1.8	0.5	1.2	0.3	0.7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.8	0.5	1.2	0.3	0.7
U256_S1	7.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.00	0.00	12.6	33.6	4.8	12.8	7.8	20.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	12.6	33.6	4.8	12.8	7.8	20.8
U256_S2	6.60	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.60	0.00	11.9	31.7	4.5	12.0	7.4	19.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.9	31.7	4.5	12.0	7.4	19.6
U256_S3	9.25	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.25	0.00	25.0	72.7	4.5	13.1	20.5	59.6	25.0	72.7	4.5	13.1	20.5	59.6
U495	7.64	7.64	0.00	9.2	17.8	6.7	13.0	2.5	4.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.2	17.8	6.7	13.0	2.5	4.8
U506.01	28.56	1.00	0.00	1.2	2.3	0.9	1.7	0.3	0.6	12.00	0.00	15.6	34.0	10.0	21.8	5.6	12.3	15.56	0.00	28.0	74.7	10.6	28.4	17.4	46.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	44.8	111.1	21.5	51.9	23.3	59.2
N35B	3.05	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.05	0.00	4.0	8.7	2.5	5.5	1.4	3.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.0	8.7	2.5	5.5	1.4	3.1
N65	9.72	8.72	0.00	10.5	20.3	7.6	14.8	2.8	5.5	1.00	0.00	1.3	2.8	0.8	1.8	0.5	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	11.8	23.1	8.5	16.6	3.3	6.5
N80	3.62	3.62	0.00	4.3	8.4	3.2	6.2	1.2	2.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.4	3.2	6.2	1.2	2.3
N85	19.34	10.00	0.00	12.0	23.3	8.8	17.0	3.2	6.3	9.34	0.00	12.1	26.5	7.8	17.0	4.4	9.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	24.1	49.8	16.5	33.9	7.6	15.8
N806	124.76	4.00	53.76	47.8	92.7	7.8	15.1	6.1	77.6	8.00	23.00	35.7	77.9	9.9	21.7	25.8	56.2	35.00	1.00	64.6	172.3	24.2	64.4	40.4	107.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	148.1	342.9	41.9	101.3	72.3	241.6
N115	0.92	0.92	0.00	1.1	2.1	0.8	1.6	0.3	0.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.1	0.8	1.6	0.3	0.6
N117	3.87	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.00	0.00	2.6	5.7	1.7	3.6	0.9	2.0	1.87	0.00	3.4	9.0	1.3	3.4	2.1	5.6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.0	14.6	2.9	7.0	3.0	7.6
N118	5.42	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.42	0.00	9.8	26.0	3.7	9.9	6.0	16.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.8	26.0	3.7	9.9	6.0	16.1
N125_S1	8.31	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.31	0.00	1.7	3.7	1.1	2.4	0.6	1.3	7.00	0.00	12.6	33.6	4.8	12.8	7.8	20.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	14.3	37.3	5.9	15.1	8.4	22.2
N125_S2	0.42	0.42	0.00	0.5	1.0	0.4	0.7	0.1	0.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.4	0.7	0.1	0.3
N130	4.18	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	4.18	0.00	7.5	20.1	2.9	7.6	4.7	12.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	7.5	20.1	2.9	7.6	4.7	12.4
N140	8.06	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.06	7.00	19.7	57.2	3.2	9.3	16.5	47.9	19.7	57.2	3.2	9.3	16.5	47.9
N150	20.59	0.00	16.59	13.3	25.7	1.3	2.6	1.5	23.2	2.00	0.00	2.6	5.7	1.7	3.6	0.9	2.0	1.00	0.00	1.8	4.8	0.7	1.8	1.1	3.0	1.00	0.00	2.7	7.9	0.5	1.4	2.2	6.4	20.4	44.1	4.2	9.4	5.8	34.6
N155	8.31	1.00	4.31	4.6	9.0	1.2	2.4	0.7	6.6	0.00	1.00	1.1	2.4	0.1	0.3	1.0	2.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.00	0.00	5.4	15.7	1.0	2.8	4.4	12.9	11.1	27.1	2.3	5.5	6.1	21.6
N160	3.79	0.79	0.00	0.9	1.8	0.7	1.3	0.3	0.5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.00	0.00	5.4	14.4	2.1	5.5	3.3	8.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	6.3	16.2	2.7	6.8	3.6	9.4
N170	0.93	0.00	0.93	0.7	1.4	0.1	0.1	0.1	1.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	0.1	0.1	0.1	1.3

Table A-2 Summary of Permanent Access Road Disturbances within the TWE Corridors by Transmission Line Route Segment

Route Segment ID	Total Route Segment Line Length (miles)	Terrain Type 1 - Flat								Terrain Type 2 - Rolling								Terrain Type 3 - Steep								Terrain Type 4 - Mountainous								Route Segment Disturbance Totals					
		Route Segment Line Length in Terrain Type 1 - Flat (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 2 - Rolling (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 3 - Steep (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Route Segment Line Length in Terrain Type 4 - Mountainous (miles)		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW	
		Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	Grnfld	Co-loc	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres	miles	acres
N170A	8.00	8.00	0.00	9.6	18.6	7.0	13.6	2.6	5.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	9.6	18.6	7.0	13.6	2.6	5.0
N175_S1	7.10	0.00	7.10	5.7	11.0	0.6	1.1	0.6	9.9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	5.7	11.0	0.6	1.1	0.6	9.9
N175_S2	0.27	0.00	0.27	0.2	0.4	0.0	0.0	0.0	0.4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.4
N175_S4	0.70	0.00	0.70	0.6	1.1	0.1	0.1	0.1	1.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	0.1	0.1	0.1	1.0
Gyp_opn_Conn	0.17	0.17	0.00	0.2	0.4	0.1	0.3	0.1	0.1	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.3	0.1	0.1
Gyp_opn	0.41	0.41	0.00	0.5	1.0	0.4	0.7	0.1	0.3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	0.4	0.7	0.1	0.3
NRA-rt_S1	2.42	1.00	0.00	1.2	2.3	0.9	1.7	0.3	0.6	1.00	0.00	1.3	2.8	0.8	1.8	0.5	1.0	0.42	0.00	0.8	2.0	0.3	0.8	0.5	1.2	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.3	7.2	2.0	4.3	1.3	2.9
NRA-rt_S2	2.77	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.77	0.00	3.6	7.9	2.3	5.0	1.3	2.8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.9	2.3	5.0	1.3	2.8

Notes:

Terrain Types	Greenfield: Ratio of Access Road Miles to One Mile of Transmission Line	Greenfield: Percentage of Access Road Miles Estimated Within and Outside ROW		Co-Located: Ratio of Access Road Miles to One Mile of Transmission Line	Co-Located: Percentage of Access Road Miles Estimated Within and Outside ROW	
Terrain Type 1 - Flat Terrain (0 to 8 percent slope)	1.2	73%	27%	0.8	10%	90%
Terrain Type 2 - Rolling Terrain (8 to 15 percent slope)	1.3	64%	36%	1.1	13%	87%
Terrain Type 3 - Steep Terrain (15 to 25 percent slope)	1.8	38%	62%	1.6	14%	86%
Terrain Type 4 - Mountainous Terrain (greater than 25 percent slope)	2.7	18%	82%	2.4	16%	84%

Example: 10 miles of Terrain Type 2 line route results in 14 miles of estimated access road disturbance (10 x 1.3 = 13)
59% (.59 x 13 = 8.3 miles) of this access road disturbance is estimated to be within the 250 feet ROW
Terrain Type 2 contains both Category 2(B) and Category 4 access roads.

Backbone Access Road Network (GIS Shapefiles)
Category 1 - Existing Improved Roads
Category 2(A) - Existing Road Outside Corridor that Requires Improvement

New Access Roads Inside Corridor (Table 2)
Category 2(B) - Existing Roads Inside Corridor that Require Improvement
Category 3 - Construct New Access Road in Flat Terrain (0 to 8 percent slope)
Category 4 - Construct New Access Road in Rolling Terrain (8 to 15 percent slope)
Category 5 - Construct New Access Road in Steep Terrain (15 to 25 percent slope)
Category 6 - Construct New Access Road in Mountainous Terrain (greater than 25 percent slope)

Access Road Disturbance Widths by Terrain Type

Flat	16 feet
Rolling	18 feet
Steep	22 feet
Mountainous	24 feet

These disturbance estimates are based on POWER's professional judgment and experience on past projects of similar scale and terrain conditions. These roads generally have a 14 foot wide bladed surface with 2-3 foot berms or ditches on either side, but can be wider in steep and mountainous terrain because of cut and fill requirements according to ground slope. Roads would be designed for one-way traffic; however, pullouts would be constructed to allow for oncoming vehicles to pass.

Table A-3 Summary of Northern and Southern Terminal Temporary and Permanent Disturbance

Terminals	Terminal Disturbance			Interconnection Line Voltage	Total Line Length	Interconnection Line Disturbance																Access Road Disturbance for Interconnection Line								Total Terminal Disturbance	
	Storage & Concrete Batch Plant	Converter Station & Switchyards	Terminal Access Road			Length of each line	Total ROW per line	Structures per line (number)			Structure Work Area per line (acres)			Structure Base per line (acres)			Pulling / Tensioning / Splicing Sites per line				Line Temporary Disturbance	Line Permanent Disturbance	Lines	Line Length in Terrain Type 1 - Flat	New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Total Temporary Disturbance	Total Permanent Disturbance
																	Wire		Fiber													
	acres	acres	acres		miles	miles	acres	Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	acres	acres	No.	miles	miles	acres	miles	acres	miles	acres	acres	acres
Northern	7.5	205	10	EGW 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9	270	249
				EGS 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV Platte-Point of Rocks	4.0	4.0	48.5	18.0	3.0	3.0	16.5	2.8	2.8	0.0	0.0	0.0	8.3	19.2	1.2	1.3	42.5	0.0	1	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV	1.0	1.0	12.1	3.0	1.0	2.0	2.8	0.9	1.8	0.0	0.0	0.0	4.6	10.5	0.3	0.3	98.3	0.0	6	1.0	1.4	2.7	1.1	2.1	0.3	0.6		
Southern Site 1 (Conceptual - 2012)	7.5	140	15	500 kV	10.0	2.5	303.0	30.0	5.0	5.0	34.4	5.7	5.7	0.8	0.2	0.2	11.5	32.9	1.8	2.1	323.7	5.0	4	10.0	34.0	66.0	24.5	47.5	9.5	18.5	331	226
Southern Site 2 (Alt Conceptual 2012)	7.5	140	20	500 kV	18.0	4.5	545.5	62.0	5.0	5.0	71.2	5.7	5.7	1.7	0.2	0.2	12.6	36.3	2.6	3.0	487.8	8.6	4	18.0	47.0	91.0	33.5	65.0	13.5	26.2	495	260

Table A-8 Summary of Northern Terminal & Series Compensation Station Temporary and Permanent Disturbance - System Alternative 2

Locations	Terminal / Substation / Series Compensation Station Disturbance			Interconnection Line Voltage	Total Line Length	Interconnection Line Disturbance																Access Road Disturbance for Interconnection Line								Total Terminal Disturbance	
	Storage & Concrete Batch Plant	Converter Station & Switchyards	Location Access Road			Length of each line	Total ROW per line	Structures per line (number)			Structure Work Area per line (acres)			Structure Base per line (acres)			Pulling / Tensioning / Splicing Sites per line				Line Temporary Disturbance	Line Permanent Disturbance	Lines	Line Length in Terrain Type 1 - Flat	New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Total Temporary Disturbance	Total Permanent Disturbance
																	Wire		Fiber													
	acres	acres	acres		miles	miles	acres	Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	acres	acres	No.	miles	miles	acres	miles	acres	miles	acres	acres	acres
Northern	7.5	190	10	EGW 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9	270	234
				EGS 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV Platte-Point of Rocks	4.0	4.0	48.5	18.0	3.0	3.0	16.5	2.8	2.8	0.0	0.0	0.0	8.3	19.2	1.2	1.3	42.5	0.0	1	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV	1.0	1.0	12.1	3.0	1.0	2.0	2.8	0.9	1.8	0.0	0.0	0.0	4.6	10.5	0.3	0.3	98.3	0.0	6	1.0	1.4	2.7	1.1	2.1	0.3	0.6		
AC/DC Converter & 500/345 kV Substation (near IPP)	7.5	70	10	345 kV	5.0	5.0	90.9	19.0	2.0	4.0	17.4	1.8	3.7	0.0	0.0	0.0	10.9	31.4	1.5	1.7	56.0	0.0	1	5.0	6.5	12.6	4.6	9.0	1.9	3.7	64	93
Modification to IPP Substation	----	20	5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	25
Series Compensation Station	7.5	10	5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	8	15

Table A-9 Summary of Northern Terminal & Series Compensation Station Temporary and Permanent Disturbance - System Alternative 3 - Phases 1 & 2

Locations	Terminal / Substation / Series Compensation Station Disturbance			Interconnection Line Voltage	Total Line Length	Interconnection Line Disturbance																Access Road Disturbance for Interconnection Line								Total Terminal Disturbance	
	Storage & Concrete Batch Plant	Converter Station & Switchyards	Location Access Road			Length of each line	Total ROW per line	Structures per line (number)			Structure Work Area per line (acres)			Structure Base per line (acres)			Pulling / Tensioning / Splicing Sites per line				Line Temporary Disturbance	Line Permanent Disturbance	Lines	Line Length in Terrain Type 1 - Flat	New Access Roads and Disturbance		New Access Roads and Disturbance Within ROW		New Access Roads and Disturbance Outside ROW		Total Temporary Disturbance	Total Permanent Disturbance
																	Wire		Fiber													
	acres	acres	acres		miles	miles	acres	Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	acres	acres	No.	miles	miles	acres	miles	acres	miles	acres	acres	acres
Northern	7.5	190	10	EGW 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9	270	234
				EGS 500 kV Loop in/out	4.0	2.0	60.6	2.0	3.0	3.0	2.3	3.4	3.4	0.1	0.1	0.1	7.2	20.6	0.6	0.7	60.9	0.6	2	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV Platte-Point of Rocks	4.0	4.0	48.5	18.0	3.0	3.0	16.5	2.8	2.8	0.0	0.0	0.0	8.3	19.2	1.2	1.3	42.5	0.0	1	4.0	5.2	10.1	3.7	7.2	1.5	2.9		
				230 kV	1.0	1.0	12.1	3.0	1.0	2.0	2.8	0.9	1.8	0.0	0.0	0.0	4.6	10.5	0.3	0.3	98.3	0.0	6	1.0	1.4	2.7	1.1	2.1	0.3	0.6		
500/345 kV Substation (near IPP)	7.5	55	7	345 kV	5.0	5.0	90.9	19.0	2.0	4.0	17.4	1.8	3.7	0.0	0.0	0.0	10.9	31.4	1.5	1.7	56.0	0.0	1	5.0	6.5	12.6	4.6	9.0	1.9	3.7	64	75
Modification to IPP Substation	----	20	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	23
Series Compensation Station	7.5	10	5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	8	15
Southern Site 2 (Conceptual - 2012)	7.5	140	15	500 kV	10.0	2.5	303.0	30.0	5.0	5.0	34.4	5.7	5.7	0.8	0.2	0.2	11.5	32.9	1.8	2.1	323.7	5.0	4	10.0	34.0	66.0	24.5	47.5	9.5	18.5	331	226
Southern Site 3 (Alt Conceptual 2012)	7.5	140	20	500 kV	18.0	4.5	545.5	62.0	5.0	5.0	71.2	5.7	5.7	1.7	0.2	0.2	12.6	36.3	2.6	3.0	487.8	8.6	4	18.0	47.0	91.0	33.5	65.0	13.5	26.2	495	260

	230 kV - Double Circuit					345 kV					500 kV				
Structures per mile - Approximately	6					5					4				
Right-of-Way Width (ROW) -	100	feet				150	feet				250	feet			
Structure Work Area -	200	x	200	feet		200	x	200	feet		ROW	x	200	feet	
Wire-Pulling, Tensionning, Splicing Site															
Dead-End Structure -			250	x		500	feet				2 @ every DE Structure				
Mid-Span Conductor and Shield Wire -			250	x		500	feet				Every	9,000	feet		
Fiber Optic Cable Set-Up Sites -			100	x		500	feet				Every	18,000	feet		
Structure Base															
Lattice Tower (Tangent) -											35	x	35	feet	
Lattice Tower (Angle) -											40	x	40	feet	
Lattice Tower (Dead End) -											45	x	45	feet	
Single Pole Tubular (Tangent) -	40	sq feet	(~7 ft dia fdn)			50	sq feet	(~8 ft dia fdn)							
Single Pole Tubular (Angle) -	45	sq feet	(~7.5 ft dia fdn)			60	sq feet	(~8.5 ft dia fdn)							
Single Pole Tubular (Dead-End) -	50	sq feet	(~8 ft dia fdn)			65	sq feet	(~9 ft dia fdn)							

Table A-4 Summary of Temporary and Permanent Disturbance by Ground Electrode Siting Options

Ground Electrode Location	Ground Electrode Disturbance			Low Voltage (34.5 kV) Line Construction													Access Road Construction						Total Temporary Disturbance (acres)	Total Permanent Disturbance (acres)
	Temp (acres)	Perm (acres)	Well Access (acres)	Total Low Voltage Line Length (miles)	Total ROW (acres)	Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites		Line Length (miles)			Terrain Category	Access Road			
						Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	From	To	Length		Length (miles)	Area (acres)		
NORTHERN GROUND ELECTRODE																								
Bolten Ranch	65	0.5	5.0	15.0	91	249	6	15	28.6	0.7	1.7	0.1	0.0	0.1	39	8.7	0.0	2.5	2.5	Rolling	3.3	7.1	105	52
																	2.5	3.0	0.5	Steep	0.9	2.4		
																	3.0	6.5	3.5	Rolling	4.6	9.9		
																	6.5	7.5	1.0	Steep	1.8	4.8		
																	7.5	13.5	6.0	Rolling	7.8	17.0		
																	13.5	14.0	0.5	Steep	0.9	2.4		
																	14.0	15.0	1.0	Rolling	1.3	2.8		
Eight Mile Basin	65	0.5	5.0	5.0	30	86	1	3	9.9	0.1	0.3	0.0	0.0	0.0	9	1.5	0.0	1.0	1.0	Flat	1.2	2.3	77	18
																	1.0	2.5	1.5	Rolling	2.0	4.3		
																	2.5	5.0	2.5	Flat	3.0	5.8		
Separation Flat	65	0.5	5.0	12.0	73	213	0	3	24.4	0.0	0.3	0.1	0.0	0.0	13	2.2	0.0	4.0	4.0	Rolling	5.2	11.3	92	36
																	4.0	12.0	8.0	Flat	9.6	18.6		
Separation Creek	65	0.5	5.0	2.0	12	32	1	3	3.7	0.1	0.3	0.0	0.0	0.0	7	1.2	0.0	2.0	2.0	Rolling	2.6	5.7	70	11
SOUTHERN GROUND ELECTRODE																								
Mormon Mesa-Carp Elgin Rd (Applicant Proposed Route)	65	0.5	5.0	5.5	33	97	0	2	11.1	0.0	0.2	0.0	0.0	0.0	7	1.1	0.0	5.5	5.5	Flat	6.6	12.8	77	18
Mormon Mesa-Carp Elgin Rd (Agency Preferred Route)	65	0.5	5.0	8.0	49	142	0	3	16.3	0.0	0.3	0.1	0.0	0.0	11	1.8	0.0	8.0	8.0	Flat	9.6	18.7	83	24
Halfway Wash - Virgin River (Applicant Proposed Route)	65	0.5	5.0	4.0	24	70	0	2	8.0	0.0	0.2	0.0	0.0	0.0	6	0.9	0.0	4.0	4.0	Flat	4.8	9.3	74	15
Halfway Wash - Virgin River (Agency Preferred Route)	65	0.5	5.0	5.8	35	103	0	2	11.8	0.0	0.2	0.0	0.0	0.0	7	1.1	0.0	5.8	5.8	Flat	7.0	13.5	78	19
Halfway Wash East (Applicant Proposed Route)	65	0.5	5.0	7.8	47	136	2	3	15.6	0.2	0.3	0.0	0.0	0.0	11	1.8	0.0	7.8	7.8	Flat	9.4	18.2	83	24
Halfway Wash East (Agency Preferred Route)	65	0.5	5.0	10.0	61	174	2	4	20.0	0.2	0.5	0.1	0.0	0.0	14	2.6	0.0	10.0	10.0	Flat	12.0	23.3	88	29
Meadow Valley 2	65	0.5	5.0	21.5	130	375	6	6	43.0	0.7	0.7	0.1	0.0	0.0	25	4.8	0.0	3.5	3.5	Flat	4.2	8.1	114	61
																	3.5	13.0	9.5	Rolling	12.4	26.9		
																	13.0	20.0	7.0	Flat	8.4	16.3		
																	20.0	21.5	1.5	Rolling	2.0	4.3		
SYSTEM ALTERNATIVE 2																								
Near IPP	65	0.5	5.0	13.5	82	237	2	4	27.2	0.2	0.5	0.1	0.0	0.0	16	2.9	0.0	13.5	13.5	Flat	16.2	31.4	96	37

Notes:
Temporary disturbance for ground electrodes includes trenching, well heads, equipment storage, batch plant, and material storage yard.
All structures are assumed to be wood poles
Splicing areas have been assumed to be included in the Pulling/Tensioning sites per common construction practices.
Ground Electrode temporary disturbance includes material storage yard for the LV line
Temporary disturbance areas for Structure Work Areas and Pulling/Tensioning/Splicing Sites are outside 50 feet wide ROW

Structures per mile -	Approximately		18					
Right-of-Way Width (ROW) -			50	feet				
Structure Work Area -	ROW	x	100	feet				
Wire-Pulling, Tensioning, Splicing Site								
Dead-End Structure -	75	x	150	feet	2 @ every DE (except terminal strs)			
Mid-Span Conductor -	75	x	100	feet	Every	9,000	feet	
Structure Base								
Tangent -	4	x	4	feet				
Angle -	5	x	5	feet	per pole -	2	per str location	
	5	x	5	feet	per anchor -	1	per str location	
Dead End -	6	x	6	feet	per pole -	2	per str location	
	5	x	5	feet	per anchor -	4	per str location	
Access Road								
Terrain Type	Access Road Ratio				Width			
Flat -	1.2	x	length of the line		16	feet		
Rolling -	1.3	x	length of the line		18	feet		
Steep -	1.8	x	length of the line		22	feet		
Mountainous -	2.7	x	length of the line		24	feet		

Table A-5 Summary of TWE Temporary and Permanent Disturbance by Applicant Proposed Route Segment and DEIS Identified Regions

Proposed Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Transmission Line Access Roads		**Transmission Line** Temporary Disturbance (acres)	**Transmission Line** Permanent Disturbance (acres)	Terminal Temporary Disturbance (acres)	Terminal Permanent Disturbance (acres)	Ground Electrode Temporary Disturbance (acres)	Ground Electrode Permanent Disturbance (acres)
												Wire		Fiber																	
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	Miles	Acres						
DEIS Region 1																															
W10	32.2	977.0	121	1	7	138.9	1.1	8.0	2.5	0.0	0.3	32.9	94.5	9.5	10.9	1.1	21.5	2.1	10.7	6.4	45.1	0.6	0.1	35.0	75.4	330.8	78.4	270	249	105	52
W20_S1	1.6	49.7	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	2.0	3.8	15.3	4.0				
W20_S3	1.6	47.3	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	0.9	2.6	0.5	0.5	0.1	1.0	0.1	0.5	0.3	2.2	0.0	0.0	1.9	3.6	14.9	3.8				
W20_S4	7.5	228.5	29	0	2	33.3	0.0	2.3	0.6	0.0	0.1	8.4	24.2	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	9.0	17.5	80.4	18.3				
W819_S1	5.4	163.6	19	1	2	21.8	1.1	2.3	0.4	0.0	0.1	7.2	20.6	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	6.5	12.6	60.6	13.1				
A-W20_S1	7.7	232.4	28	0	3	32.1	0.0	3.4	0.6	0.0	0.1	10.5	30.1	2.2	2.6	0.3	5.1	0.5	2.6	1.5	10.7	0.2	0.0	9.2	17.9	86.7	18.6				
W819_S5	1.3	38.8	5	1	0	5.7	1.1	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	1.5	3.0	12.5	3.1				
W819_S6	3.7	112.7	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	4.5	8.7	39.4	9.0				
W819_S7	0.6	18.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	0.7	1.4	11.8	1.5				
W819_S8	20.4	618.2	79	2	1	90.7	2.3	1.1	1.6	0.1	0.0	14.0	40.1	6.0	6.9	0.7	13.6	1.4	6.8	4.1	28.6	0.4	0.1	26.5	57.9	190.0	59.7				
W819_S10	1.0	29.1	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.6	7.4	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	1.2	2.7	14.6	2.8				
A-W26_S1	2.1	63.0	8	0	1	9.2	0.0	1.1	0.2	0.0	0.0	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	2.5	4.8	25.3	5.1				
A-W26_S2	4.4	134.2	16	0	2	18.4	0.0	2.3	0.3	0.0	0.1	6.6	18.9	1.3	1.5	0.1	3.0	0.3	1.5	0.9	6.2	0.1	0.0	5.8	12.6	51.7	13.0				
A-W26_S3	1.7	50.6	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	2.2	4.7	15.4	4.9				
A-C26_S1	6.2	188.5	25	0	0	28.7	0.0	0.0	0.5	0.0	0.0	3.6	10.5	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.7	0.1	0.0	7.8	16.1	56.2	16.7				
A-C52_S1	1.4	41.8	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	2.3	5.8	18.7	6.0				
A-C52_S2	3.5	104.5	14	0	0	16.1	0.0	0.0	0.3	0.0	0.0	2.0	5.8	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.8	0.1	0.0	4.4	9.6	31.3	9.9				
A-C52_S3	1.4	42.7	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.4	0.4	0.5	0.0	0.9	0.1	0.5	0.3	2.0	0.0	0.0	3.4	9.8	13.1	10.0				
A-C52_S4	7.6	228.8	29	1	1	33.3	1.1	1.1	0.6	0.0	0.0	6.4	18.4	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	13.6	36.2	74.7	36.9				
C186.03	0.4	10.9	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	0.5	1.0	3.9	1.1				
C186.04	3.7	112.7	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	4.5	8.7	39.4	9.0				
A-C53_S1	10.4	315.5	39	0	3	44.8	0.0	3.4	0.8	0.0	0.1	12.1	34.7	3.1	3.5	0.3	6.9	0.7	3.5	2.1	14.6	0.2	0.0	17.3	44.0	111.4	45.0				
A-C54_S1	4.1	124.2	15	0	2	17.2	0.0	2.3	0.3	0.0	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	5.6	12.5	49.1	12.9				
A-C54_S2	2.0	59.7	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.2	9.1	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	2.5	5.1	23.6	5.3				
A-C54_S3	1.3	40.0	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	1.7	3.7	12.7	3.9				
A-C54_S4	1.8	54.8	8	0	0	9.2	0.0	0.0	0.2	0.0	0.0	1.1	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	2.4	5.1	17.2	5.3				
A-C54_S5	0.8	24.2	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.5	7.1	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	1.0	2.3	13.9	2.4				
TE-A2	0.5	16.1	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.7	0.0	0.0	0.8	2.3	5.8	2.3				
C111_S1	1.1	33.3	4	0	1	4.6	0.0	1.1	0.1	0.0	0.0	2.6	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.5	0.0	0.0	1.2	2.6	16.3	2.8				
C111_S2	0.9	28.2	3	1	0	3.4	1.1	0.0	0.1	0.0	0.0	0.5	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	1.0	2.2	8.7	2.3				
C115_S1	2.6	78.8	9	1	1	10.3	1.1	1.1	0.2	0.0	0.0	3.5	10.1	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	4.2	11.1	29.9	11.4				
C115_S2	0.5	15.5	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.7	0.0	0.0	0.8	2.2	5.7	2.2				
C115_S3	14.6	443.6	56	1	2	64.3	1.1	2.3	1.2	0.0	0.1	12.6	36.1	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.5	0.3	0.1	17.0	39.5	143.9	40.8				
Region 1 Subtotal:	**156**	**4,727**	**595**	**10**	**35**	**683**	**11**	**40**	**12**	**0**	**1**	**162**	**463**	**46**	**53**	**5**	**104**	**10**	**52**	**31**	**218**	**3**	**1**	**201**	**447**	**1,625**	**461**	**270**	**249**	**105**	**52**
DEIS Region 2																															
C120_S1	1.4	42.1	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	1.5	3.3	18.8	3.5				
C120_S2	23.3	707.3	86	4	4	98.7	4.6	4.6	1.8	0.1	0.1	21.7	62.2	6.8	7.9	0.8	15.6	1.6	7.8	4.7	32.7	0.5	0.1	25.7	56.0	234.0	58.2				
U40	8.2	247.6	32	0	1	36.7	0.0	1.1	0.7	0.0	0.0	6.8	19.5	2.4	2.8	0.3	5.4	0.5	2.7	1.6	11.4	0.2	0.0	10.6	23.2	79.7	23.9				
U41	10.8	325.8	42	0	1	48.2	0.0	1.1	0.9	0.0	0.0	8.3	23.8	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	29.0	84.4	102.6	85.4				
U45	3.0	90.9	11	0	1	12.6	0.0	1.1	0.2	0.0	0.0	3.8	10.8	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.2	0.1	0.0	3.3	7.2	32.8	7.5				
U50	12.7	384.8	47	0	4	53.9	0.0	4.6	1.0	0.0	0.1	15.5	44.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	11.3	23.3	137.6	24.4				
U55_S1	1.8	54.5	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.1	8.8	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	2.0	4.3	22.9	4.5				
U55_S3	10.2	309.4	39	1	1	44.8	1.1	1.1	0.8	0.0	0.0	8.0	22.9	3.0	3.4	0.3	6.8	0.7	3.4	2.0	14.3	0.2	0.0	12.3	23.8	97.9	24.7				
U55_S4	12.7	384.8	42	1	8	48.2	1.1	9.2	0.9	0.0	0.3	23.5	67.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	14.5	29.0	160.6	30.2				
U55_S5	24.3	737.6	82	6	10	94.1	6.9	11.5	1.7	0.2	0.4	34.3	98.4	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.1	0.5	0.1	24.7	52.5	277.5	54.8				
U55_S7	1.3	39.4	4	2	0	4.6	2.3	0.0	0.1	0.1	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	1.4	3.1	12.6	3.3				
U55_S8	1.7	50.0	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	2.6	7.0	15.3	7.2				
U55_S9	4.3	129.4	17	0	1	19.5	0.0	1.1	0.4	0.0	0.0	4.5	12.9	1.3	1.4	0.1	2.8	0.3	1.4	0.9	6.0	0.1	0.0	4.7	10.2	45.3	10.7				
U55_S10	7.0	212.1	27	1	0	31.0	1.1	0.0	0.6	0.0	0.0	4.1	11.8	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	7.6	14.7	63.1	15.4				
U55_S11	21.7	656.1	76	5	6	87.2	5.7	6.9	1.6	0.1	0.2	24.7	70.9	6.4	7.3	0.7	14.4	1.4	7.2	4.3	30.3	0.4	0.1	44.2	122.6	230.0	124.6				
U55_S12	4.7	140.9	18	0	1	20.7	0.0	1.1	0.4	0.0	0.0	4.7	13.6	1.4	1.6	0.2	3.1	0.3	1.6	0.9	6.5	0.1	0.0	11.2	32.5	48.1	32.9				
U55_S17	7.4	222.7	26	3	1	29.8	3.4	1.1	0.5	0.1	0.0	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	17.6	51.3	72.7	52.0				
U55_S18	1.3	39.7	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	3.1	9.1	12.7	9.3				
U55_S19	0.4	13.0	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	1.0	3.0	9.9	3.1				
U70_S1	7.3	221.2	23	2	5	26.4	2.3	5.7	0.5	0.1	0.2	14.3	41.0	2.1	2.5	0.2	4.9	0.5	2.4	1.5	10.2	0.1	0.0	17.5	51.0	95.4	51.7				
U70_S2	5.5	167.3	21	1	1	24.1	1.1	1.1	0.4	0.0	0.0	5.2	15.0	1.6	1.9	0.2	3.7	0.4	1.8	1.1	7.7	0.1	0.0	13.2	38.5	56.5	39.1				
U70_S4	15.2	459.7	53	5	3	60.8	5.7	3.4	1.1	0.1	0.1	14.9	42.8	4.4	5.1	0.5	10.1	1.0	5.1	3.0	21.2	0.3	0.1	36.4	105.9	154.3	107.3				
U70_S5	6.3	192.1	22	1	3	25.3	1.1	3.4	0.5	0.0	0.1	9.7	27.9	1.9	2.1	0.2	4.2	0.4	2.1	1.3	8.9	0.1	0.0	15.5	45.1	75.1	45.8				
U70_S6	0.3	8.2	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	0.7	2.1	3.5	2.2				
Nephi-SA	0.7	20.3	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	1.6	4.7	12.1	4.8				
Nephi-NA	2.1	63.6	7	1	1	8.0	1.1	1.1	0.1	0.0	0.0	3.2	9.3	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	5.0	14.7	25.4	14.9				

Table A-5 Summary of TWE Temporary and Permanent Disturbance by Applicant Proposed Route Segment and DEIS Identified Regions

Proposed Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Transmission Line Access Roads		**Transmission Line** Temporary Disturbance (acres)	**Transmission Line** Permanent Disturbance (acres)	Terminal Temporary Disturbance (acres)	Terminal Permanent Disturbance (acres)	Ground Electrode Temporary Disturbance (acres)	Ground Electrode Permanent Disturbance (acres)
												Wire		Fiber																	
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	Miles	Acres						
Nephi-NB_S1	17.2	522.1	60	1	8	68.9	1.1	9.2	1.2	0.0	0.3	26.1	74.9	5.1	5.8	0.6	11.5	1.1	5.7	3.4	24.1	0.3	0.1	17.1	36.6	201.3	38.3				
Nephi-NB_S2	0.7	21.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	0.8	1.7	12.3	1.8				
U130_S1	17.0	516.1	67	0	2	76.9	0.0	2.3	1.4	0.0	0.1	14.0	40.1	5.0	5.7	0.6	11.4	1.1	5.7	3.4	23.8	0.3	0.1	25.5	61.1	166.0	62.6				
A-U131_S1	3.5	106.7	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.4	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.9	0.1	0.0	4.2	8.2	44.3	8.6				
A-U131_S2	0.3	7.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	0.3	0.6	9.2	0.7				
A-U131_S3	1.2	36.7	5	0	0	5.7	0.0	0.0	0.1	0.0	0.0	0.7	2.0	0.4	0.4	0.0	0.8	0.1	0.4	0.2	1.7	0.0	0.0	1.5	2.8	11.1	2.9				
A-U131_S4	0.7	20.6	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.4	1.1	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	0.8	1.6	6.4	1.6				
A-U131_S5	3.7	112.1	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.2	17.7	1.1	1.2	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	4.4	8.6	45.1	9.0				
U150_S1	8.6	261.5	34	0	1	39.0	0.0	1.1	0.7	0.0	0.0	7.1	20.3	2.5	2.9	0.3	5.8	0.6	2.9	1.7	12.1	0.2	0.0	0.2	0.5	84.1	1.2				
U150_S2	9.8	297.6	39	0	1	44.8	0.0	1.1	0.8	0.0	0.0	7.8	22.3	2.9	3.3	0.3	6.5	0.7	3.3	2.0	13.7	0.2	0.0	11.8	22.9	95.1	23.7				
Region 2 Subtotal:	**258**	**7,823**	**941**	**35**	**74**	**1,080**	**40**	**85**	**19**	**1**	**3**	**299**	**859**	**76**	**87**	**9**	**172**	**17**	**86**	**52**	**361**	**5**	**1**	**385**	**967**	**2,771**	**992**	**0**	**0**	**0**	**0**
DEIS Region 3																															
U155	7.0	212.4	25	1	3	28.7	1.1	3.4	0.5	0.0	0.1	10.1	29.0	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	5.6	10.9	81.5	11.6				
U168	20.3	614.5	80	0	2	91.8	0.0	2.3	1.7	0.0	0.1	15.9	45.6	5.9	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	24.3	47.2	195.2	49.0				
U180	4.3	129.70	18	0	0	20.66	0.00	0.00	0.37	0.00	0.00	2.51	7.21	1.26	1.44	0.14	2.85	0.29	1.43	0.86	5.99	0.09	0.02	5.14	9.96	39.6	10.4				
U215	14.1	428.48	53	2	2	60.84	2.30	2.30	1.10	0.06	0.07	12.30	35.28	4.15	4.76	0.47	9.43	0.94	4.71	2.83	19.80	0.28	0.06	17.98	38.07	139.4	39.4				
U220	44.1	1337.58	167	2	8	191.69	2.30	9.18	3.45	0.06	0.29	41.90	120.22	12.95	14.86	1.47	29.43	2.94	14.71	8.83	61.80	0.88	0.20	40.51	84.19	444.2	88.2				
U250	20.3	616.06	79	1	2	90.68	1.15	2.30	1.63	0.03	0.07	15.93	45.70	5.96	6.85	0.68	13.55	1.36	6.78	4.07	28.46	0.41	0.09	20.26	39.30	195.5	41.1				
U255_S1	19.3	585.45	75	0	3	86.09	0.00	3.44	1.55	0.00	0.11	17.33	49.74	5.67	6.51	0.64	12.88	1.29	6.44	3.86	27.05	0.39	0.09	15.46	29.98	192.1	31.7				
U255_S2	18.4	558.18	67	4	3	76.91	4.59	3.44	1.38	0.11	0.11	16.81	48.23	5.40	6.20	0.61	12.28	1.23	6.14	3.68	25.79	0.37	0.08	14.90	28.90	183.6	30.6				
U255_S3	0.2	6.06	1	0	0	1.15	0.00	0.00	0.02	0.00	0.00	0.12	0.34	0.06	0.07	0.01	0.13	0.01	0.07	0.04	0.28	0.00	0.00	0.24	0.47	2.0	0.5				
U255_S4	1.7	52.12	6	0	1	6.89	0.00	1.15	0.12	0.00	0.04	3.01	8.63	0.50	0.58	0.06	1.15	0.11	0.57	0.34	2.41	0.03	0.01	2.24	4.88	21.4	5.0				
U255_S5	3.4	103.33	10	1	3	11.48	1.15	3.44	0.21	0.03	0.11	8.00	22.96	1.00	1.15	0.11	2.27	0.23	1.14	0.68	4.77	0.07	0.02	8.63	24.73	48.4	25.1				
U255_S5.1	4.1	124.85	15	1	1	17.22	1.15	1.15	0.31	0.03	0.04	4.42	12.68	1.21	1.39	0.14	2.75	0.27	1.37	0.82	5.77	0.08	0.02	4.59	10.11	43.5	10.5				
U255_S6	5.8	174.55	18	2	4	20.66	2.30	4.59	0.37	0.06	0.15	11.38	32.65	1.69	1.94	0.19	3.84	0.38	1.92	1.15	8.06	0.12	0.03	9.22	24.58	76.0	25.2				
U255_S7	2.7	80.91	10	1	0	11.48	1.15	0.00	0.21	0.03	0.00	1.57	4.49	0.78	0.90	0.09	1.78	0.18	0.89	0.53	3.74	0.05	0.01	7.21	20.97	24.4	21.2				
U255_S8	2.9	86.67	10	1	1	11.48	1.15	1.15	0.21	0.03	0.04	3.68	10.55	0.84	0.96	0.10	1.91	0.19	0.95	0.57	4.00	0.06	0.01	5.15	13.73	32.2	14.0				
A-U255_S9	0.3	7.88	0	0	2	0.00	0.00	2.30	0.00	0.00	0.07	4.15	11.92	0.08	0.09	0.01	0.17	0.02	0.09	0.05	0.36	0.01	0.00	0.47	1.25	14.9	1.3				
A-U255_S10	0.7	22.42	0	2	1	0.00	2.30	1.15	0.00	0.06	0.04	2.43	6.99	0.22	0.25	0.02	0.49	0.05	0.25	0.15	1.04	0.01	0.00	1.33	3.55	12.5	3.6				
A-U255_S10.1	0.3	7.58	0	0	1	0.00	0.00	1.15	0.00	0.00	0.04	2.15	6.16	0.07	0.08	0.01	0.17	0.02	0.08	0.05	0.35	0.01	0.00	0.68	1.96	8.0	2.0				
U255_S9	1.6	48.48	5	1	1	5.74	1.15	1.15	0.10	0.03	0.04	2.94	8.43	0.47	0.54	0.05	1.07	0.11	0.53	0.32	2.24	0.03	0.01	2.56	6.83	20.8	7.0				
U255_S10	0.7	21.52	2	0	1	2.30	0.00	1.15	0.04	0.00	0.04	2.42	6.93	0.21	0.24	0.02	0.47	0.05	0.24	0.14	0.99	0.01	0.00	1.14	3.03	12.3	3.1				
U255_S11	0.3	9.70	2	0	0	2.30	0.00	0.00	0.04	0.00	0.00	0.19	0.54	0.09	0.11	0.01	0.21	0.02	0.11	0.06	0.45	0.01	0.00	0.51	1.37	3.7	1.4				
U255_S12	0.9	25.76	4	0	0	4.59	0.00	0.00	0.08	0.00	0.00	0.50	1.43	0.25	0.29	0.03	0.57	0.06	0.28	0.17	1.19	0.02	0.00	2.04	5.93	8.3	6.0				
U255_S13	30.1	913.03	111	5	5	127.41	5.74	5.74	2.29	0.14	0.18	27.68	79.42	8.84	10.14	1.00	20.09	2.01	10.04	6.03	42.18	0.60	0.14	48.10	128.20	300.8	131.0				
N45	11.9	361.52	46	1	1	52.80	1.15	1.15	0.95	0.03	0.04	9.00	25.82	3.50	4.02	0.40	7.95	0.80	3.98	2.39	16.70	0.24	0.05	9.54	18.51	113.6	19.6				
N50_S1	7.0	212.12	27	0	1	30.99	0.00	1.15	0.56	0.00	0.04	6.11	17.52	2.05	2.36	0.23	4.67	0.47	2.33	1.40	9.80	0.14	0.03	7.90	17.82	68.8	18.4				
N50_S2	25.0	756.97	94	3	3	107.90	3.44	3.44	1.94	0.08	0.11	20.65	59.27	7.33	8.41	0.83	16.65	1.67	8.33	5.00	34.97	0.50	0.11	42.32	109.02	242.4	111.3			77	18
N50_S3	12.0	363.03	46	1	1	52.80	1.15	1.15	0.95	0.03	0.04	9.03	25.91	3.51	4.03	0.40	7.99	0.80	3.99	2.40	16.77	0.24	0.06	15.20	31.29	113.8	32.4				
N70	11.5	347.88	44	0	2	50.51	0.00	2.30	0.91	0.00	0.07	10.73	30.81	3.37	3.87	0.38	7.65	0.77	3.83	2.30	16.07	0.23	0.05	14.08	28.24	115.0	29.3				
N95_S1	0.7	20.30	1	1	1	1.15	1.15	1.15	0.02	0.03	0.04	2.39	6.87	0.20	0.23	0.02	0.45	0.04	0.22	0.13	0.94	0.01	0.00	0.74	1.61	12.1	1.7				
N95_S2	4.8	146.1	16	2	2	18.4	2.3	2.3	0.3	0.1	0.1	6.8	19.6	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	7.2	18.7	55.7	19.2				
Region 3 Subtotal:	**276**	**8,375**	**1,032**	**32**	**55**	**1,185**	**37**	**63**	**21**	**1**	**2**	**272**	**781**	**81**	**93**	**9**	**184**	**18**	**92**	**55**	**387**	**6**	**1**	**335**	**765**	**2,822**	**791**	**0**	**0**	**77**	**18**
DEIS Region 4																															
N100	6.2	187.0	24	1	0	27.5	1.1	0.0	0.5	0.0	0.0	3.6	10.4	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.6	0.1	0.0	6.8	14.8	56.0	15.4				
N120	4.1	124.2	17	0	0	19.5	0.0	0.0	0.4	0.0	0.0	2.4	6.9	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	4.5	9.8	37.6	10.2				
N121_S1	1.4	40.9	4	0	2	4.6	0.0	2.3	0.1	0.0	0.1	4.8	13.8	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	2.2	5.8	24.3	5.9				
N121_S2	1.8	53.9	6	0	2	6.9	0.0	2.3	0.1	0.0	0.1	5.0	14.5	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	2.8	7.6	28.5	7.8				
N121_S3	4.1	123.0	13	3	1	14.9	3.4	1.1	0.3	0.1	0.0	4.4	12.6	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	6.5	17.3	43.2	17.7				
N121_S4	1.3	38.48	5	0	1	5.74	0.00	1.15	0.10	0.00	0.04	2.75	7.88	0.37	0.43	0.04	0.85	0.08	0.42	0.25	1.78	0.03	0.01	1.40	3.05	18.2	3.2				
N135_S1	0.4	13.33	1	0	1	1.15	0.00	1.15	0.02	0.00	0.04	2.26	6.48	0.13	0.15	0.01	0.29	0.03	0.15	0.09	0.62	0.01	0.00	0.70	1.88	10.0	1.9				
N135_S2	2.0	60.61	7	1	0	8.03	1.15	0.00	0.14	0.03	0.00	1.17	3.37	0.59	0.67	0.07	1.33	0.13	0.67	0.40	2.80	0.04	0.01	3.20	8.53	18.0	8.7				
N145	2.8	86.06	10	1	1	11.48	1.15	1.15	0.21	0.03	0.04	3.67	10.52	0.83	0.96	0.09	1.89	0.19	0.95	0.57	3.98	0.06	0.01	6.82	19.83	32.1	20.1				
N165	12.68	384.24	43	2	6	49.36	2.30	6.89	0.89	0.06	0.22	19.44	55.78	3.72	4.27	0.42	8.45	0.85	4.23	2.54	17.75	0.25	0.06	13.95	30.43	149.0	31.7				
N175_S3	0.46	13.94	1	0	1	1.15	0.00	1.15	0.02	0.00	0.04	2.27	6.51	0.13	0.15	0.02	0.31	0.03	0.15	0.09	0.64	0.01	0.00	0.37	0.71	10.1	0.8	331	226		
Region 4 Subtotal:	**37**	**1126**	**131**	**8**	**15**	**150**	**9**	**17**	**3**	**0**	**1**	**52**	**149**	**11**	**13**	**1**	**25**	**2**	**12**	**7**	**52**	**1**	**0**	**49**	**120**	**427**	**123**	**331**	**226**	**0**	**0**
TOTAL - PROPOSED TWE PROJECT	**728**	**22,051**	**2,699**	**85**	**179**	**3,098**	**98**	**205**	**56**	**2**	**7**	**785**	**2,252**	**213**	**245**	**24**	**485**	**49**	**243**	**146**	**1,019**	**15**	**3**	**970**	**2,299**	**7,645**	**2,367**	**601**	**475**	**182**	**70**

Depending on the spacing of the facilities (i.e., storage yards) along the length of the proposed and alternative route segments, the same facility may serve more than one route segment. Therefore, the number of facilities associated with each route segment are fractions. This avoids overestimating the total disturbance area for these facilities when individual route segments are combined to form an end-to-end route

Table A-6 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 2

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
SEGMENTS COMMON TO APPLICANT PROPOSED AND AGENCY PREFERRED ROUTES																										
W10	32.24	977.0	121	1	7	138.9	1.1	8.0	2.5	0.0	0.3	32.9	94.5	9.5	10.9	1.1	21.5	2.1	10.7	6.4	45.1	0.6	0.1	330.8	2.9	75.4
W20_S1	1.64	49.7	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	15.3	0.2	3.8
W20_S3	1.56	47.3	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	0.9	2.6	0.5	0.5	0.1	1.0	0.1	0.5	0.3	2.2	0.0	0.0	14.9	0.2	3.6
W20_S4	7.54	228.5	29	0	2	33.3	0.0	2.3	0.6	0.0	0.1	8.4	24.2	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	80.4	0.7	17.5
W819_S1	5.40	163.6	19	1	2	21.8	1.1	2.3	0.4	0.0	0.1	7.2	20.6	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	60.6	0.5	12.6
A-W20_S1	7.67	232.4	28	0	3	32.1	0.0	3.4	0.6	0.0	0.1	10.5	30.1	2.2	2.6	0.3	5.1	0.5	2.6	1.5	10.7	0.2	0.0	86.7	0.7	17.9
W819_S5	1.28	38.8	5	1	0	5.7	1.1	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.5	0.1	3.0
W819_S6	3.72	112.7	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.3	8.7
W819_S7	0.60	18.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	1.4
W819_S8	20.40	618.2	79	2	1	90.7	2.3	1.1	1.6	0.1	0.0	14.0	40.1	6.0	6.9	0.7	13.6	1.4	6.8	4.1	28.6	0.4	0.1	190.0	1.8	57.9
A-W26_S3	1.67	50.6	7	0	0	8.0	0.0	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.4	0.2	4.7
A-C26_S1	6.22	188.5	25	0	0	28.7	0.0	0.0	0.5	0.0	0.0	3.6	10.5	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.7	0.1	0.0	56.2	0.5	16.1
A-C52_S1	1.38	41.8	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.7	0.1	5.8
A-C52_S2	3.45	104.5	14	0	0	16.1	0.0	0.0	0.3	0.0	0.0	2.0	5.8	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.8	0.1	0.0	31.3	0.3	9.6
A-C52_S3	1.41	42.7	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.4	0.4	0.5	0.0	0.9	0.1	0.5	0.3	2.0	0.0	0.0	13.1	0.1	9.8
A-C52_S4	7.55	228.8	29	1	1	33.3	1.1	1.1	0.6	0.0	0.0	6.4	18.4	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	74.7	0.7	36.2
C186.03	0.36	10.91	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	3.9	0.0	1.0
C186.04	3.72	112.73	14	0	1	16.1	0.0	1.1	0.3	0.0	0.0	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.3	8.7
A-C53_S1	10.41	315.5	39	0	3	44.8	0.0	3.4	0.8	0.0	0.1	12.1	34.7	3.1	3.5	0.3	6.9	0.7	3.5	2.1	14.6	0.2	0.0	111.4	1.0	44.0
A-C54_S1	4.10	124.2	15	0	2	17.2	0.0	2.3	0.3	0.0	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	49.1	0.4	12.5
A-C54_S2	1.97	59.7	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.2	9.1	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	23.6	0.2	5.1
A-C54_S3	1.32	40.0	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.1	3.7
A-C54_S4	1.81	54.8	8	0	0	9.2	0.0	0.0	0.2	0.0	0.0	1.1	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.2	0.2	5.1
A-C54_S5	0.80	24.2	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.5	7.1	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	13.9	0.1	2.3
TE-A2	0.53	16.1	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.7	0.0	0.0	5.8	0.1	2.3
C111_S1	1.10	33.3	4	0	1	4.6	0.0	1.1	0.1	0.0	0.0	2.6	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.5	0.0	0.0	16.3	0.1	2.6
C111_S2	0.93	28.2	3	1	0	3.4	1.1	0.0	0.1	0.0	0.0	0.5	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	2.2
C115_S1	2.60	78.8	9	1	1	10.3	1.1	1.1	0.2	0.0	0.0	3.5	10.1	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	29.9	0.3	11.1
C115_S2	0.51	15.5	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.7	0.0	0.0	5.7	0.1	2.2
C115_S3	14.64	443.6	56	1	2	64.3	1.1	2.3	1.2	0.0	0.1	12.6	36.1	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.5	0.3	0.1	143.9	1.3	39.5
C120_S1	1.39	42.1	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.8	0.1	3.3
C120_S2	23.34	707.3	86	4	4	98.7	4.6	4.6	1.8	0.1	0.1	21.7	62.2	6.8	7.9	0.8	15.6	1.6	7.8	4.7	32.7	0.5	0.1	234.0	2.1	56.0
U70_S1	7.30	221.2	23	2	5	26.4	2.3	5.7	0.5	0.1	0.2	14.3	41.0	2.1	2.5	0.2	4.9	0.5	2.4	1.5	10.2	0.1	0.0	95.4	0.7	51.0
U70_S2	5.52	167.3	21	1	1	24.1	1.1	1.1	0.4	0.0	0.0	5.2	15.0	1.6	1.9	0.2	3.7	0.4	1.8	1.1	7.7	0.1	0.0	56.5	0.5	38.5
U70_S4	15.17	459.7	53	5	3	60.8	5.7	3.4	1.1	0.1	0.1	14.9	42.8	4.4	5.1	0.5	10.1	1.0	5.1	3.0	21.2	0.3	0.1	154.3	1.4	105.9
U70_S5	6.34	192.1	22	1	3	25.3	1.1	3.4	0.5	0.0	0.1	9.7	27.9	1.9	2.1	0.2	4.2	0.4	2.1	1.3	8.9	0.1	0.0	75.1	0.6	45.1
U70_S6	0.27	8.2	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	2.1
Nephi-NB_S2	0.70	21.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.7
U130_S1	17.03	516.1	67	0	2	76.9	0.0	2.3	1.4	0.0	0.1	14.0	40.1	5.0	5.7	0.6	11.4	1.1	5.7	3.4	23.8	0.3	0.1	166.0	1.5	61.1
A-U131_S1	3.52	106.7	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.4	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.9	0.1	0.0	44.3	0.4	8.2
A-U131_S2	0.26	7.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.2	0.1	0.6
A-U131_S3	1.21	36.7	5	0	0	5.7	0.0	0.0	0.1	0.0	0.0	0.7	2.0	0.4	0.4	0.0	0.8	0.1	0.4	0.2	1.7	0.0	0.0	11.1	0.1	2.8
A-U131_S4	0.68	20.6	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.4	1.1	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	6.4	0.1	1.6
A-U131_S5	3.70	112.1	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.2	17.7	1.1	1.2	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	45.1	0.4	8.6
U150_S1	8.63	261.5	34	0	1	39.0	0.0	1.1	0.7	0.0	0.0	7.1	20.3	2.5	2.9	0.3	5.8	0.6	2.9	1.7	12.1	0.2	0.0	84.1	0.8	20.1
U150_S2	9.82	297.6	39	0	1	44.8	0.0	1.1	1.1	0.0	0.0	7.8	22.3	2.9	3.3	0.3	6.5	0.7	3.3	2.0	13.7	0.2	0.0	95.1	1.2	22.9
U155	7.01	212.4	25	1	3	28.7	1.1	3.4	0.7	0.0	0.1	10.1	29.0	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	81.5	0.9	10.9
U168	20.28	614.5	80	0	2	91.8	0.0	2.3	2.2	0.0	0.1	15.9	45.6	5.9	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	195.2	2.4	47.2
U180	4.28	129.7	18	0	0	20.7	0.0	0.0	0.5	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.6	0.5	10.0
U215	14.14	428.5	53	2	2	60.8	2.3	2.3	1.5	0.1	0.1	12.3	35.3	4.1	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	139.4	1.7	38.1
U220	44.14	1337.6	167	2	8	191.7	2.3	9.2	4.7	0.1	0.4	41.9	120.2	12.9	14.9	1.5	29.4	2.9	14.7	8.8	61.8	0.9	0.2	444.2	5.3	84.2
U250	20.33	616.1	79	1	2	90.7	1.1	2.3	2.2	0.0	0.1	15.9	45.7	6.0	6.8	0.7	13.6	1.4	6.8	4.1	28.5	0.4	0.1	195.5	2.4	39.3
N50_S1	7.00	212.1	27	0	1	31.0	0.0	1.1	0.8	0.0	0.0	6.1	17.5	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	68.8	0.8	17.8
N95_S1	0.67	20.3	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.6
N95_S2	4.82	146.1	16	2	2	18.4	2.3	2.3	0.4	0.1	0.1	6.8	19.6	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.7	0.6	18.7
N100	6.17	187.0	24	1	0	27.5	1.1	0.0	0.7	0.0	0.0	3.6	10.4	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.6	0.1	0.0	56.0	0.7	14.8
N120	4.10	124.2	17	0	0	19.5	0.0	0.0	0.5	0.0	0.0	2.4	6.9	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	37.6	0.5	9.8
N121_S1	1.35	40.9	4	0	2	4.6	0.0	2.3	0.1	0.0	0.1	4.8	13.8	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	24.3	0.2	5.8

Table A-6 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 2

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
N121_S2	1.78	53.9	6	0	2	6.9	0.0	2.3	0.2	0.0	0.1	5.0	14.5	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	28.5	0.3	7.6
N121_S3	4.06	123.0	13	3	1	14.9	3.4	1.1	0.4	0.1	0.0	4.4	12.6	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	43.2	0.5	17.3
N121_S4	1.27	38.5	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.7	7.9	0.4	0.4	0.0	0.8	0.1	0.4	0.3	1.8	0.0	0.0	18.2	0.2	3.0
N135_S1	0.44	13.3	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	10.0	0.1	1.9
N135_S2	2.00	60.6	7	1	0	8.0	1.1	0.0	0.2	0.0	0.0	1.2	3.4	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	18.0	0.2	8.5
N145	2.84	86.1	10	1	1	11.5	1.1	1.1	0.3	0.0	0.0	3.7	10.5	0.8	1.0	0.1	1.9	0.2	0.9	0.6	4.0	0.1	0.0	32.1	0.4	19.8
N165	12.68	384.2	43	2	6	49.4	2.3	6.9	1.2	0.1	0.3	19.4	55.8	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	149.0	1.6	30.4
N175_S3	0.46	13.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.1	0.1	0.7
APPLICANT PROPOSED ROUTE SEGMENTS																										
W819_S10	0.96	29.1	3	0	1	3.4	0.0	1.1	0.1	0.0	0.0	2.6	7.4	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.6	0.1	2.7
A-W26_S1	2.08	63.0	8	0	1	9.2	0.0	1.1	0.2	0.0	0.0	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.3	0.2	4.8
A-W26_S2	4.43	134.2	16	0	2	18.4	0.0	2.3	0.3	0.0	0.1	6.6	18.9	1.3	1.5	0.1	3.0	0.3	1.5	0.9	6.2	0.1	0.0	51.7	0.4	12.6
U40	8.17	247.6	32	0	1	36.7	0.0	1.1	0.7	0.0	0.0	6.8	19.5	2.4	2.8	0.3	5.4	0.5	2.7	1.6	11.4	0.2	0.0	79.7	0.7	23.2
U41	10.75	325.8	42	0	1	48.2	0.0	1.1	0.9	0.0	0.0	8.3	23.8	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	102.6	1.0	84.4
U45	3.00	90.9	11	0	1	12.6	0.0	1.1	0.2	0.0	0.0	3.8	10.8	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.2	0.1	0.0	32.8	0.3	7.2
U50	12.70	384.8	47	0	4	53.9	0.0	4.6	1.0	0.0	0.1	15.5	44.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	137.6	1.2	23.3
U55_S1	1.80	54.5	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.1	8.8	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	22.9	0.2	4.3
U55_S3	10.21	309.4	39	1	1	44.8	1.1	1.1	0.8	0.0	0.0	8.0	22.9	3.0	3.4	0.3	6.8	0.7	3.4	2.0	14.3	0.2	0.0	97.9	0.9	23.8
U55_S4	12.70	384.8	42	1	8	48.2	1.1	9.2	0.9	0.0	0.3	23.5	67.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	160.6	1.2	29.0
U55_S5	24.34	737.6	82	6	10	94.1	6.9	11.5	1.7	0.2	0.4	34.3	98.4	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.1	0.5	0.1	277.5	2.3	52.5
U55_S7	1.30	39.4	4	2	0	4.6	2.3	0.0	0.1	0.1	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.6	0.1	3.1
U55_S8	1.65	50.0	6	1	0	6.9	1.1	0.0	0.1	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.3	0.2	7.0
U55_S9	4.27	129.4	17	0	1	19.5	0.0	1.1	0.4	0.0	0.0	4.5	12.9	1.3	1.4	0.1	2.8	0.3	1.4	0.9	6.0	0.1	0.0	45.3	0.4	10.2
U55_S10	7.00	212.1	27	1	0	31.0	1.1	0.0	0.6	0.0	0.0	4.1	11.8	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	63.1	0.6	14.7
U55_S11	21.65	656.1	76	5	6	87.2	5.7	6.9	1.6	0.1	0.2	24.7	70.9	6.4	7.3	0.7	14.4	1.4	7.2	4.3	30.3	0.4	0.1	230.0	2.0	122.6
U55_S12	4.65	140.9	18	0	1	20.7	0.0	1.1	0.4	0.0	0.0	4.7	13.6	1.4	1.6	0.2	3.1	0.3	1.6	0.9	6.5	0.1	0.0	48.1	0.4	32.5
U55_S17	7.35	222.7	26	3	1	29.8	3.4	1.1	0.5	0.1	0.0	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.7	0.7	51.3
U55_S18	1.31	39.7	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.1	9.1
U55_S19	0.43	13.0	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.9	0.1	3.0
Nephi-SA	0.67	20.3	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	4.7
Nephi-NA	2.10	63.6	7	1	1	8.0	1.1	1.1	0.1	0.0	0.0	3.2	9.3	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.4	0.2	14.7
Nephi-NB_S1	17.23	522.1	60	1	8	68.9	1.1	9.2	1.2	0.0	0.3	26.1	74.9	5.1	5.8	0.6	11.5	1.1	5.7	3.4	24.1	0.3	0.1	201.3	1.6	36.6
U255_S1	19.32	585.5	75	0	3	86.1	0.0	3.4	2.1	0.0	0.1	17.3	49.7	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.0	0.4	0.1	192.1	2.3	30.0
U255_S2	18.42	558.2	67	4	3	76.9	4.6	3.4	1.9	0.1	0.1	16.8	48.2	5.4	6.2	0.6	12.3	1.2	6.1	3.7	25.8	0.4	0.1	183.6	2.3	28.9
U255_S3	0.20	6.1	1	0	0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.0	2.0	0.0	0.5
U255_S4	1.72	52.1	6	0	1	6.9	0.0	1.1	0.2	0.0	0.0	3.0	8.6	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.4	0.0	0.0	21.4	0.2	4.9
U255_S5	3.41	103.3	10	1	3	11.5	1.1	3.4	0.3	0.0	0.1	8.0	23.0	1.0	1.1	0.1	2.3	0.2	1.1	0.7	4.8	0.1	0.0	48.4	0.5	24.7
U255_S5.1	4.12	124.8	15	1	1	17.2	1.1	1.1	0.4	0.0	0.0	4.4	12.7	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	43.5	0.5	10.1
U255_S6	5.76	174.5	18	2	4	20.7	2.3	4.6	0.5	0.1	0.2	11.4	32.7	1.7	1.9	0.2	3.8	0.4	1.9	1.2	8.1	0.1	0.0	76.0	0.8	24.6
U255_S7	2.67	80.9	10	1	0	11.5	1.1	0.0	0.3	0.0	0.0	1.6	4.5	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	24.4	0.3	21.0
U255_S8	2.86	86.7	10	1	1	11.5	1.1	1.1	0.3	0.0	0.0	3.7	10.6	0.8	1.0	0.1	1.9	0.2	1.0	0.6	4.0	0.1	0.0	32.2	0.4	13.7
A-U255_S9	0.26	7.9	0	0	2	0.0	0.0	2.3	0.0	0.0	0.1	4.2	11.9	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	14.9	0.1	1.2
A-U255_S10	0.74	22.4	0	2	1	0.0	2.3	1.1	0.0	0.1	0.0	2.4	7.0	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.5	0.1	3.6
A-U255_S10.1	0.25	7.6	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	8.0	0.0	2.0
U255_S9	1.60	48.5	5	1	1	5.7	1.1	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	6.8
U255_S10	0.71	21.5	2	0	1	2.3	0.0	1.1	0.1	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	3.0
U255_S11	0.32	9.7	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.7	0.1	1.4
U255_S12	0.85	25.8	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.4	0.2	0.3	0.0	0.6	0.1	0.3	0.2	1.2	0.0	0.0	8.3	0.1	5.9
U255_S13	30.13	913.0	111	5	5	127.4	5.7	5.7	3.1	0.2	0.2	27.7	79.4	8.8	10.1	1.0	20.1	2.0	10.0	6.0	42.2	0.6	0.1	300.8	3.7	128.2
N45	11.93	361.5	46	1	1	52.8	1.1	1.1	1.3	0.0	0.0	9.0	25.8	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.7	0.2	0.1	113.6	1.4	18.5
N50_S2	24.98	757.0	94	3	3	107.9	3.4	3.4	2.6	0.1	0.1	20.7	59.3	7.3	8.4	0.8	16.7	1.7	8.3	5.0	35.0	0.5	0.1	242.4	3.0	109.0
N50_S3	11.98	363.0	46	1	1	52.8	1.1	1.1	1.3	0.0	0.0	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.4	31.3
N70	11.48	347.9	44	0	2	50.5	0.0	2.3	1.2	0.0	0.1	10.7	30.8	3.4	3.9	0.4	7.7	0.8	3.8	2.3	16.1	0.2	0.1	115.0	1.4	28.2
AGENCY PREFERRED ROUTE SEGMENTS																										
W819_S9	2.05	62.1	7	1	1	8.0	1.1	1.1	0.1	0.0	0.0	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.1	0.2	9.8
W115.07.1	2.47	74.85	9	0	1	10.3	0.0	1.1	0.2	0.0	0.0	3.4	9.9	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.5	0.0	0.0	28.1	0.2	5.7
A-W28_S2	3.79	114.8	15	0	1	17.2	0.0	1.1	0.3	0.0	0.0	4.2	12.1	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	40.9	0.4	10.7
A-W28_S3	1.12	33.9	4	0	1	4.6	0.0	1.1	0.1	0.0	0.0	2.7	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.6	0.0	0.0	16.4	0.1	3.2
U35_S1	2.70	81.8	9	0	2	10.3	0.0	2.3	0.2	0.0	0.1	5.6	16.0	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.8	0.1	0.0	36.0	0.3	6.5

Table A-6 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 2

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
U35_S2	7.21	218.5	26	1	2	29.8	1.1	2.3	0.5	0.0	0.1	8.2	23.6	2.1	2.4	0.2	4.8	0.5	2.4	1.4	10.1	0.1	0.0	76.6	0.7	26.2
U36_S1	7.37	223.33	27	2	1	31.0	2.3	1.1	0.6	0.1	0.0	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.8	0.7	19.7
U217.01	76.80	2327.27	269	10	29	308.8	11.5	33.3	5.6	0.3	1.1	103.1	295.7	22.5	25.9	2.6	51.2	5.1	25.6	15.4	107.5	1.5	0.4	859.4	7.3	290.1
U218	11.97	362.73	38	3	7	43.6	3.4	8.0	0.8	0.1	0.3	21.0	60.3	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	148.2	1.2	94.0
U219.1	0.60	18.18	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	2.9
U219.3	1.47	44.55	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.9	2.5	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.4	0.1	3.4
U219.5	16.83	510.0	52	2	14	59.7	2.3	16.1	1.1	0.1	0.5	37.9	108.7	4.9	5.7	0.6	11.2	1.1	5.6	3.4	23.6	0.3	0.1	232.8	1.7	118.9
U219.6	4.56	138.2	14	0	5	16.1	0.0	5.7	0.3	0.0	0.2	12.7	36.4	1.3	1.5	0.2	3.0	0.3	1.5	0.9	6.4	0.1	0.0	70.7	0.5	21.9
U217.052	15.82	479.39	53	4	7	60.8	4.6	8.0	1.1	0.1	0.3	23.3	66.8	4.6	5.3	0.5	10.5	1.1	5.3	3.2	22.1	0.3	0.1	183.6	1.5	101.3
Nephi-SA-S	0.65	19.70	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	5.1
Nephi-SB	4.16	126.06	13	2	2	14.9	2.3	2.3	0.3	0.1	0.1	6.4	18.5	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.8	0.1	0.0	49.4	0.4	32.7
U115b	5.60	169.70	22	0	1	25.3	0.0	1.1	0.5	0.0	0.0	5.3	15.2	1.6	1.9	0.2	3.7	0.4	1.9	1.1	7.8	0.1	0.0	56.9	0.5	14.6
U120	4.30	130.30	18	0	0	20.7	0.0	0.0	0.4	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.7	0.4	33.8
U260_S1	14.10	427.27	56	0	1	64.3	0.0	1.1	1.6	0.0	0.0	10.3	29.5	4.1	4.7	0.5	9.4	0.9	4.7	2.8	19.7	0.3	0.1	133.5	1.7	32.8
U260_S2	40.77	1235.45	154	3	7	176.8	3.4	8.0	4.3	0.1	0.3	37.9	108.8	12.0	13.7	1.4	27.2	2.7	13.6	8.2	57.1	0.8	0.2	408.6	5.0	94.9
N10	1.60	48.48	6	0	1	6.9	0.0	1.1	0.2	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	3.7
N805	15.22	461.21	57	1	3	65.4	1.1	3.4	1.6	0.0	0.1	14.9	42.8	4.5	5.1	0.5	10.1	1.0	5.1	3.0	21.3	0.3	0.1	154.5	1.8	51.0
N808	41.29	1251.21	146	7	13	167.6	8.0	14.9	4.1	0.3	0.6	50.2	144.1	12.1	13.9	1.4	27.5	2.8	13.8	8.3	57.8	0.8	0.2	447.7	5.2	146.1
N35A	22.47	680.91	84	3	3	96.4	3.4	3.4	2.4	0.1	0.1	19.2	55.0	6.6	7.6	0.7	15.0	1.5	7.5	4.5	31.5	0.4	0.1	219.8	2.7	34.9
N40A	16.14	489.09	60	1	4	68.9	1.1	4.6	1.7	0.0	0.2	17.5	50.1	4.7	5.4	0.5	10.8	1.1	5.4	3.2	22.6	0.3	0.1	168.9	2.0	25.0
N90A	2.66	80.61	10	0	1	11.5	0.0	1.1	0.3	0.0	0.0	3.6	10.2	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	30.1	0.3	4.1
N75	7.02	212.73	26	2	1	29.8	2.3	1.1	0.7	0.1	0.0	6.1	17.6	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	70.1	0.9	10.9
ALTERNATIVE ROUTE SEGMENTS																										
W15_S1	22.02	667.3	75	7	7	86.1	8.0	8.0	1.5	0.2	0.3	26.9	77.2	6.5	7.4	0.7	14.7	1.5	7.3	4.4	30.8	0.4	0.1	239.7	2.1	51.2
W15_S2	16.42	497.6	59	3	4	67.7	3.4	4.6	1.2	0.1	0.1	17.6	50.6	4.8	5.5	0.5	10.9	1.1	5.5	3.3	23.0	0.3	0.1	171.3	1.5	38.2
W15_S3	2.32	70.3	9	1	0	10.3	1.1	0.0	0.2	0.0	0.0	1.4	3.9	0.7	0.8	0.1	1.5	0.2	0.8	0.5	3.2	0.0	0.0	21.7	0.2	5.4
W65	8.27	250.6	32	1	1	36.7	1.1	1.1	0.7	0.0	0.0	6.9	19.7	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	81.3	0.8	23.5
W115.01	0.45	13.6	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.0	0.1	1.0
W115.02	1.50	45.5	6	0	0	6.9	0.0	0.0	0.1	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.1	3.5
W115.03	0.36	10.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.3	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	9.6	0.1	0.9
W115.04	12.14	367.9	45	3	1	51.7	3.4	1.1	0.9	0.1	0.0	9.1	26.2	3.6	4.1	0.4	8.1	0.8	4.0	2.4	17.0	0.2	0.1	115.6	1.1	28.3
W115.07	1.77	53.6	7	1	0	8.0	1.1	0.0	0.1	0.0	0.0	1.0	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.0	0.2	4.1
W819_S2	1.50	45.5	5	1	0	5.7	1.1	0.0	0.1	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.1	3.7
W819_S3	1.43	43.3	4	1	1	4.6	1.1	1.1	0.1	0.0	0.0	2.8	8.1	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.0	0.0	0.0	18.9	0.2	3.3
A-W19_S1	11.17	338.5	37	7	1	42.5	8.0	1.1	0.8	0.2	0.0	8.6	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.8	1.0	26.0
A-W19_S2	15.54	470.9	58	1	4	66.6	1.1	4.6	1.2	0.0	0.1	17.1	49.1	4.6	5.2	0.5	10.4	1.0	5.2	3.1	21.8	0.3	0.1	164.0	1.4	36.2
C10	11.14	337.6	43	1	1	49.4	1.1	1.1	0.9	0.0	0.0	8.5	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.6	1.0	31.6
C65	11.44	346.7	41	1	4	47.1	1.1	4.6	0.8	0.0	0.1	14.7	42.2	3.4	3.9	0.4	7.6	0.8	3.8	2.3	16.0	0.2	0.1	126.3	1.1	54.9
C100	24.25	734.8	89	2	6	102.2	2.3	6.9	1.8	0.1	0.2	26.2	75.3	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.0	0.5	0.1	253.0	2.2	60.4
C110	11.98	363.0	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.1	21.1
C802	21.41	648.8	80	3	3	91.8	3.4	3.4	1.7	0.1	0.1	18.6	53.3	6.3	7.2	0.7	14.3	1.4	7.1	4.3	30.0	0.4	0.1	210.6	1.9	102.8
C804	4.02	121.8	10	1	6	11.5	1.1	6.9	0.2	0.0	0.2	14.4	41.2	1.2	1.4	0.1	2.7	0.3	1.3	0.8	5.6	0.1	0.0	71.7	0.5	11.4
A-C56_S1	0.56	17.0	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.3	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.7	0.1	1.6
A-C56_S2	0.76	23.0	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.4	1.3	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	8.0	0.1	2.2
A-C56_S3	1.29	39.1	4	1	1	4.6	1.1	1.1	0.1	0.0	0.0	2.8	7.9	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	18.3	0.2	3.0
A-C56_S4	0.27	8.2	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	0.8
A-C56_S5	4.79	145.2	18	0	2	20.7	0.0	2.3	0.4	0.0	0.1	6.8	19.5	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.6	0.5	13.6
A-C57	2.33	70.6	9	0	1	10.3	0.0	1.1	0.2	0.0	0.0	3.4	9.7	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.3	0.0	0.0	27.5	0.2	6.6
TE-A1	0.30	9.09	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.4	0.1	0.7
TE-B_S7	1.62	49.1	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	3.0	8.5	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	20.9	0.2	7.8
C195	5.19	157.3	19	0	2	21.8	0.0	2.3	0.4	0.0	0.1	7.0	20.2	1.5	1.7	0.2	3.5	0.3	1.7	1.0	7.3	0.1	0.0	58.5	0.5	13.2
C800_S1	7.69	233.0	28	2	1	32.1	2.3	1.1	0.6	0.1	0.0	6.5	18.7	2.3	2.6	0.3	5.1	0.5	2.6	1.5	10.8	0.2	0.0	75.3	0.7	54.9
C800_S2	19.26	583.6	72	3	3	82.6	3.4	3.4	1.5	0.1	0.1	17.3	49.6	5.6	6.5	0.6	12.8	1.3	6.4	3.9	27.0	0.4	0.1	191.9	1.8	54.6
C800_S3	46.87	1420.3	156	9	23	179.1	10.3	26.4	3.2	0.3	0.8	73.5	210.9	13.7	15.8	1.6	31.2	3.1	15.6	9.4	65.6	0.9	0.2	555.0	4.5	182.0
TE-A_S1	8.38	253.9	32	1	1	36.7	1.1	1.1	0.7	0.0	0.0	6.9	19.8	2.5	2.8	0.3	5.6	0.6	2.8	1.7	11.7	0.2	0.0	81.8	0.8	36.3
U36	9.58	290.3	35	2	2	40.2	2.3	2.3	0.7	0.1	0.1	9.6	27.6	2.8	3.2	0.3	6.4	0.6	3.2	1.9	13.4	0.2	0.0	98.6	0.9	42.1
A-U56_S5	7.41	224.5	28	0	2	32.1	0.0	2.3	0.6	0.0	0.1	8.3	24.0	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.4	0.1	0.0	78.7	0.7	21.0
U55_S13	1.93	58.5	7	0	1	8.0	0.0	1.1	0.1	0.0	0.0	3.1	9.0	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	23.5	0.2	13.5
U55_S14	2.54	77.0	11	0	0	12.6	0.0	0.0	0.2	0.0	0.0	1.5	4.3	0.7	0.9	0.1	1.7	0.2	0.8	0.5	3.6	0.1	0.0	23.9	0.2	17.7

Table A-6 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 2

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
U55_S15	2.59	78.5	8	0	3	9.2	0.0	3.4	0.2	0.0	0.1	7.5	21.6	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	41.3	0.3	18.1
U55_S16	0.23	7.0	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.0	7.9	0.0	1.6
U60	77.84	2358.8	290	11	11	332.9	12.6	12.6	6.0	0.3	0.4	67.7	194.2	22.8	26.2	2.6	51.9	5.2	25.9	15.6	109.0	1.6	0.4	765.3	7.1	190.7
U75	1.93	58.5	8	0	0	9.2	0.0	0.0	0.2	0.0	0.0	1.1	3.2	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	17.7	0.2	5.5
U75A	13.20	400.0	50	1	2	57.4	1.1	2.3	1.0	0.0	0.1	11.7	33.7	3.9	4.4	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	1.2	22.8
U85A	98.93	2997.9	352	18	26	404.0	20.7	29.8	7.3	0.5	1.0	110.0	315.8	29.0	33.3	3.3	66.0	6.6	33.0	19.8	138.5	2.0	0.5	1041.1	9.2	350.1
U90_S1	10.78	326.7	39	1	4	44.8	1.1	4.6	0.8	0.0	0.1	14.3	41.1	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	121.1	1.0	28.5
U90_S2	50.26	1523.0	154	18	30	176.8	20.7	34.4	3.2	0.5	1.1	89.5	256.8	14.7	16.9	1.7	33.5	3.4	16.8	10.1	70.4	1.0	0.2	626.2	5.0	298.8
U135_S1	14.69	445.15	53	3	3	60.8	3.4	3.4	1.1	0.1	0.1	14.6	41.9	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.6	0.3	0.1	149.9	1.4	43.7
U135_S2	13.22	400.61	48	3	2	55.1	3.4	2.3	1.0	0.1	0.1	11.8	33.7	3.9	4.5	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	1.2	24.8
U140	3.63	110.0	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.4	8.4
U145_S1	7.94	240.61	31	0	1	35.6	0.0	1.1	0.6	0.0	0.0	6.7	19.1	2.3	2.7	0.3	5.3	0.5	2.6	1.6	11.1	0.2	0.0	77.6	0.7	12.3
U200	38.16	1156.4	141	3	9	161.8	3.4	10.3	2.9	0.1	0.3	40.4	115.9	11.2	12.8	1.3	25.4	2.5	12.7	7.6	53.4	0.8	0.2	395.9	3.5	97.2
U217.02	16.03	485.8	49	5	11	56.2	5.7	12.6	1.0	0.1	0.4	31.4	90.1	4.7	5.4	0.5	10.7	1.1	5.3	3.2	22.4	0.3	0.1	208.6	1.6	89.2
U217.03	0.94	28.5	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.6	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	7.4
U217.051	20.30	615.2	76	3	3	87.2	3.4	3.4	1.6	0.1	0.1	17.9	51.4	6.0	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	201.1	1.9	67.4
U217.10	20.87	632.4	61	9	14	70.0	10.3	16.1	1.3	0.3	0.5	40.2	115.5	6.1	7.0	0.7	13.9	1.4	7.0	4.2	29.2	0.4	0.1	269.0	2.1	98.9
U217.15	36.37	1102.1	118	12	16	135.4	13.8	18.4	2.4	0.3	0.6	53.3	153.1	10.7	12.2	1.2	24.2	2.4	12.1	7.3	50.9	0.7	0.2	420.2	3.5	213.4
U219.2	19.79	599.70	51	11	18	58.5	12.6	20.7	1.1	0.3	0.7	47.6	136.6	5.8	6.7	0.7	13.2	1.3	6.6	4.0	27.7	0.4	0.1	282.6	2.1	140.2
U219.4	1.60	48.5	5	1	1	5.7	1.1	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	12.6
U222.05	41.20	1248.5	150	9	6	172.2	10.3	6.9	3.1	0.3	0.2	36.2	103.8	12.1	13.9	1.4	27.5	2.7	13.7	8.2	57.7	0.8	0.2	405.9	3.8	81.9
U222.10	14.16	429.1	48	3	6	55.1	3.4	6.9	1.0	0.1	0.2	20.3	58.3	4.2	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	162.5	1.4	53.3
U223.00	18.16	550.3	60	7	6	68.9	8.0	6.9	1.2	0.2	0.2	22.7	65.0	5.3	6.1	0.6	12.1	1.2	6.1	3.6	25.4	0.4	0.1	198.5	1.7	64.4
U225	38.41	1163.9	136	3	15	156.1	3.4	17.2	2.8	0.1	0.6	52.5	150.8	11.3	12.9	1.3	25.6	2.6	12.8	7.7	53.8	0.8	0.2	432.6	3.6	106.8
U325.1	43.28	1311.5	136	14	24	156.1	16.1	27.5	2.8	0.4	0.9	73.4	210.6	12.7	14.6	1.4	28.9	2.9	14.4	8.7	60.6	0.9	0.2	528.8	4.3	136.6
U325.2	4.12	124.8	12	3	2	13.8	3.4	2.3	0.2	0.1	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	49.2	0.4	28.8
U821	24.04	728.5	92	1	4	105.6	1.1	4.6	1.9	0.0	0.1	22.1	63.4	7.1	8.1	0.8	16.0	1.6	8.0	4.8	33.7	0.5	0.1	240.6	2.2	65.5
U145_S2	9.51	288.18	34	2	3	39.0	2.3	3.4	1.0	0.1	0.1	11.6	33.2	2.8	3.2	0.3	6.3	0.6	3.2	1.9	13.3	0.2	0.0	104.0	1.2	14.8
U155-165	35.93	1088.8	140	0	4	160.7	0.0	4.6	3.9	0.0	0.2	29.1	83.4	10.5	12.1	1.2	24.0	2.4	12.0	7.2	50.3	0.7	0.2	347.1	4.3	62.5
Ox_Vly_Conn	0.65	19.7	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.8
U256_S1	7.00	212.1	25	1	2	28.7	1.1	2.3	0.7	0.0	0.1	8.1	23.3	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	74.6	0.9	33.6
U256_S2	6.60	200.0	22	1	4	25.3	1.1	4.6	0.6	0.0	0.2	11.9	34.1	1.9	2.2	0.2	4.4	0.4	2.2	1.3	9.2	0.1	0.0	83.1	0.9	31.7
U256_S3	9.25	280.3	30	1	6	34.4	1.1	6.9	0.8	0.0	0.3	17.4	50.0	2.7	3.1	0.3	6.2	0.6	3.1	1.9	13.0	0.2	0.0	117.8	1.2	72.7
U495	7.64	231.5	29	0	2	33.3	0.0	2.3	0.8	0.0	0.1	8.5	24.3	2.2	2.6	0.3	5.1	0.5	2.5	1.5	10.7	0.2	0.0	80.8	0.9	17.8
U506.01	28.56	865.5	97	2	16	111.3	2.3	18.4	2.7	0.1	0.7	48.8	139.9	8.4	9.6	1.0	19.0	1.9	9.5	5.7	40.0	0.6	0.1	350.1	3.7	111.1
N35B	3.05	92.4	10	0	3	11.5	0.0	3.4	0.3	0.0	0.1	7.8	22.4	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.3	0.1	0.0	45.6	0.4	8.7
N65	9.72	294.5	37	0	2	42.5	0.0	2.3	1.0	0.0	0.1	9.7	27.8	2.9	3.3	0.3	6.5	0.6	3.2	1.9	13.6	0.2	0.0	99.2	1.2	23.1
N80	3.62	109.7	13	0	2	14.9	0.0	2.3	0.4	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.5	8.4
N85	19.34	586.1	70	0	8	80.3	0.0	9.2	2.0	0.0	0.4	27.3	78.5	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.1	0.4	0.1	220.9	2.4	49.8
N806	124.76	3780.6	477	6	17	547.5	6.9	19.5	13.4	0.2	0.8	107.2	307.6	36.6	42.0	4.2	83.2	8.3	41.6	25.0	174.7	2.5	0.6	1223.0	15.0	342.9
N115	0.92	27.9	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.5	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	2.1
N117	3.87	117.3	16	0	0	18.4	0.0	0.0	0.4	0.0	0.0	2.3	6.5	1.1	1.3	0.1	2.6	0.3	1.3	0.8	5.4	0.1	0.0	35.5	0.5	14.6
N118	5.42	164.2	17	1	4	19.5	1.1	4.6	0.5	0.0	0.2	11.2	32.1	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	72.2	0.7	26.0
N125_S1	8.31	251.8	29	2	3	33.3	2.3	3.4	0.8	0.1	0.1	10.9	31.2	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	93.0	1.1	37.3
N125_S2	0.42	12.7	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.7	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	4.2	0.1	1.0
N130	4.18	126.7	14	0	3	16.1	0.0	3.4	0.4	0.0	0.1	8.5	24.3	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.9	0.1	0.0	55.2	0.6	20.1
N140	8.06	244.2	24	3	6	27.5	3.4	6.9	0.7	0.1	0.3	16.7	48.0	2.4	2.7	0.3	5.4	0.5	2.7	1.6	11.3	0.2	0.0	107.9	1.1	57.2
N150	20.59	623.9	72	2	9	82.6	2.3	10.3	2.0	0.1	0.4	30.1	86.3	6.0	6.9	0.7	13.7	1.4	6.9	4.1	28.8	0.4	0.1	237.9	2.6	44.1
N155	8.31	251.8	27	3	4	31.0	3.4	4.6	0.8	0.1	0.2	12.9	36.9	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	98.7	1.1	27.1
N160	3.79	114.8	12	1	3	13.8	1.1	3.4	0.3	0.0	0.1	8.2	23.6	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	52.3	0.5	16.2
N170	0.93	28.2	2	1	1	2.3	1.1	1.1	0.1	0.0	0.0	2.5	7.3	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.4	0.1	1.4
N170A	8.00	242.4	29	0	3	33.3	0.0	3.4	0.8	0.0	0.1	10.7	30.7	2.3	2.7	0.3	5.3	0.5	2.7	1.6	11.2	0.2	0.0	89.3	1.0	18.6
N175_S1	7.10	215.2	26	2	1	29.8	2.3	1.1	0.7	0.1	0.0	6.2	17.7	2.1	2.4	0.2	4.7	0.5	2.4	1.4	9.9	0.1	0.0	70.4	0.9	11.0
N175_S2	0.27	8.2	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.1	0.4
N175_S4	0.70	21.2	2	0	1	2.3	0.0	1.1	0.1	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.1
Gyp_opn_Conn	0.17	5.2	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0	7.6	0.0	0.4
Gyp_opn	0.41	12.4	0	1	1	0.0	1.1	1.1	0.0	0.0	0.0	2.2	6.4	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.8	0.1	1.0

Table A-6 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 2

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
NRA-rt_S1	2.42	73.3	7	1	2	8.0	1.1	2.3	0.2	0.0	0.1	5.4	15.6	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.4	0.0	0.0	33.7	0.3	7.2
NRA-rt_S2	2.77	83.9	9	0	3	10.3	0.0	3.4	0.3	0.0	0.1	7.6	21.9	0.8	0.9	0.1	1.8	0.2	0.9	0.6	3.9	0.1	0.0	43.2	0.4	7.9

Notes: TUA - Temporary Use Areas (structure work sites, pulling/tensioning sites, material storage yards, batch plants, fly yards and staging areas)

* Rows highlighted in blue text indicate segments that are assumed to have a single circuit 500 kV AC configuration.
* All structures are assumed to be Self Supporting Lattice.
* Splicing areas are included with the Pulling/Tensioning Sites per common construction practices.
* Material Storage Yards have a disturbance area of 20 acres.
* Batch Plants have a disturbance area of 5 acres.
* Fly Yards/Staging Areas have a disturbance area of 7 acres.
* Temporary disturbance areas for Structure Work Areas and Pulling/Tensioning/Splicing Sites are within the 250 feet wide ROW

Structures per mile -	Approximately		4				
Right-of-Way Width (ROW) -			250	feet			
Structure Work Area -	ROW	x	200	feet			
Wire-Pulling, Tensioning, Splicing Site							
Dead-End (DE) Structure -	ROW	x	500	feet	2 @ every DE Structure		
Mid-Span Conductor and Shield Wire -	ROW	x	500	feet	Every	9,000	feet
Fiber Optic Cable Set-Up Sites -	100	x	500	feet	Every	18,000	feet
Material Storage Yards -	Approximately		20	Acres	Every	30	miles
Batch Plant Sites - Stand-alone, Temporary -	Approximately		5	Acres	Every	15	miles
Fly Yards / Staging Areas -	Approximately		7	Acres	Every	5	miles
Structure Base (600 kV HVDC Towers)							
Lattice Tower (Tangent) -	30	x	30	feet			
Lattice Tower (Angle) -	35	x	35	feet			
Lattice Tower (Dead End) -	40	x	40	feet			
Structure Base (Single Circuit 500 kV AC Towers)							
Lattice Tower (Tangent) -	35	x	35	feet			
Lattice Tower (Angle) -	40	x	40	feet			
Lattice Tower (Dead End) -	45	x	45	feet			
Regeneration Sites (most located on ROW) -	100	x	100	feet	Every	50	miles

Table A-7 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 3

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
SEGMENTS COMMON TO APPLICANT PROPOSED AND AGENCY PREFERRED ROUTES																										
W10	32.24	977.0	121	1	7	138.9	1.1	8.0	4.4	0.0	0.4	32.9	94.5	9.5	10.9	1.1	21.5	2.1	10.7	6.4	45.1	0.6	0.1	330.8	5.0	75.4
W20_S1	1.64	49.7	6	1	0	6.9	1.1	0.0	0.2	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	15.3	0.3	3.8
W20_S3	1.56	47.3	7	0	0	8.0	0.0	0.0	0.3	0.0	0.0	0.9	2.6	0.5	0.5	0.1	1.0	0.1	0.5	0.3	2.2	0.0	0.0	14.9	0.3	3.6
W20_S4	7.54	228.5	29	0	2	33.3	0.0	2.3	1.1	0.0	0.1	8.4	24.2	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	80.4	1.2	17.5
W819_S1	5.40	163.6	19	1	2	21.8	1.1	2.3	0.7	0.0	0.1	7.2	20.6	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	60.6	0.9	12.6
A-W20_S1	7.67	232.4	28	0	3	32.1	0.0	3.4	1.0	0.0	0.2	10.5	30.1	2.2	2.6	0.3	5.1	0.5	2.6	1.5	10.7	0.2	0.0	86.7	1.2	17.9
W819_S5	1.28	38.8	5	1	0	5.7	1.1	0.0	0.2	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.5	0.2	3.0
W819_S6	3.72	112.7	14	0	1	16.1	0.0	1.1	0.5	0.0	0.1	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.6	8.7
W819_S7	0.60	18.2	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	1.4
W819_S8	20.40	618.2	79	2	1	90.7	2.3	1.1	2.9	0.1	0.1	14.0	40.1	6.0	6.9	0.7	13.6	1.4	6.8	4.1	28.6	0.4	0.1	190.0	3.1	57.9
A-W26_S3	1.67	50.6	7	0	0	8.0	0.0	0.0	0.3	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.4	0.3	4.7
A-C26_S1	6.22	188.5	25	0	0	28.7	0.0	0.0	0.9	0.0	0.0	3.6	10.5	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.7	0.1	0.0	56.2	0.9	16.1
A-C52_S1	1.38	41.8	5	0	1	5.7	0.0	1.1	0.2	0.0	0.1	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.7	0.2	5.8
A-C52_S2	3.45	104.5	14	0	0	16.1	0.0	0.0	0.5	0.0	0.0	2.0	5.8	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.8	0.1	0.0	31.3	0.5	9.6
A-C52_S3	1.41	42.7	6	0	0	6.9	0.0	0.0	0.2	0.0	0.0	0.8	2.4	0.4	0.5	0.0	0.9	0.1	0.5	0.3	2.0	0.0	0.0	13.1	0.2	9.8
A-C52_S4	7.55	228.8	29	1	1	33.3	1.1	1.1	1.1	0.0	0.1	6.4	18.4	2.2	2.5	0.3	5.0	0.5	2.5	1.5	10.6	0.2	0.0	74.7	1.2	36.2
C186.03	0.36	10.91	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	3.9	0.1	1.0
C186.04	3.72	112.73	14	0	1	16.1	0.0	1.1	0.5	0.0	0.1	4.2	12.0	1.1	1.3	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	39.4	0.6	8.7
A-C53_S1	10.41	315.5	39	0	3	44.8	0.0	3.4	1.4	0.0	0.2	12.1	34.7	3.1	3.5	0.3	6.9	0.7	3.5	2.1	14.6	0.2	0.0	111.4	1.7	44.0
A-C54_S1	4.10	124.2	15	0	2	17.2	0.0	2.3	0.6	0.0	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	49.1	0.7	12.5
A-C54_S2	1.97	59.7	7	0	1	8.0	0.0	1.1	0.3	0.0	0.1	3.2	9.1	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	23.6	0.3	5.1
A-C54_S3	1.32	40.0	6	0	0	6.9	0.0	0.0	0.2	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.2	3.7
A-C54_S4	1.81	54.8	8	0	0	9.2	0.0	0.0	0.3	0.0	0.0	1.1	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.2	0.3	5.1
A-C54_S5	0.80	24.2	3	0	1	3.4	0.0	1.1	0.1	0.0	0.1	2.5	7.1	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	13.9	0.2	2.3
TE-A2	0.53	16.1	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.7	0.0	0.0	5.8	0.1	2.3
C111_S1	1.10	33.3	4	0	1	4.6	0.0	1.1	0.1	0.0	0.1	2.6	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.5	0.0	0.0	16.3	0.2	2.6
C111_S2	0.93	28.2	3	1	0	3.4	1.1	0.0	0.1	0.0	0.0	0.5	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.2	2.2
C115_S1	2.60	78.8	9	1	1	10.3	1.1	1.1	0.3	0.0	0.1	3.5	10.1	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	29.9	0.4	11.1
C115_S2	0.51	15.5	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.3	0.9	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.7	0.0	0.0	5.7	0.1	2.2
C115_S3	14.64	443.6	56	1	2	64.3	1.1	2.3	2.1	0.0	0.1	12.6	36.1	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.5	0.3	0.1	143.9	2.3	39.5
C120_S1	1.39	42.1	5	0	1	5.7	0.0	1.1	0.2	0.0	0.1	2.8	8.1	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	18.8	0.2	3.3
C120_S2	23.34	707.3	86	4	4	98.7	4.6	4.6	3.2	0.2	0.2	21.7	62.2	6.8	7.9	0.8	15.6	1.6	7.8	4.7	32.7	0.5	0.1	234.0	3.7	56.0
U70_S1	7.30	221.2	23	2	5	26.4	2.3	5.7	0.8	0.1	0.3	14.3	41.0	2.1	2.5	0.2	4.9	0.5	2.4	1.5	10.2	0.1	0.0	95.4	1.3	51.0
U70_S2	5.52	167.3	21	1	1	24.1	1.1	1.1	0.8	0.0	0.1	5.2	15.0	1.6	1.9	0.2	3.7	0.4	1.8	1.1	7.7	0.1	0.0	56.5	0.9	38.5
U70_S4	15.17	459.7	53	5	3	60.8	5.7	3.4	1.9	0.2	0.2	14.9	42.8	4.4	5.1	0.5	10.1	1.0	5.1	3.0	21.2	0.3	0.1	154.3	2.4	105.9
U70_S5	6.34	192.1	22	1	3	25.3	1.1	3.4	0.8	0.0	0.2	9.7	27.9	1.9	2.1	0.2	4.2	0.4	2.1	1.3	8.9	0.1	0.0	75.1	1.1	45.1
U70_S6	0.27	8.2	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.1	2.1
Nephi-NB_S2	0.70	21.2	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.7
U130_S1	17.03	516.1	67	0	2	76.9	0.0	2.3	2.5	0.0	0.1	14.0	40.1	5.0	5.7	0.6	11.4	1.1	5.7	3.4	23.8	0.3	0.1	166.0	2.7	61.1
A-U131_S1	3.52	106.7	13	0	2	14.9	0.0	2.3	0.5	0.0	0.1	6.1	17.4	1.0	1.2	0.1	2.3	0.2	1.2	0.7	4.9	0.1	0.0	44.3	0.6	8.2
A-U131_S2	0.26	7.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.1	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.2	0.1	0.6
A-U131_S3	1.21	36.7	5	0	0	5.7	0.0	0.0	0.2	0.0	0.0	0.7	2.0	0.4	0.4	0.0	0.8	0.1	0.4	0.2	1.7	0.0	0.0	11.1	0.2	2.8
A-U131_S4	0.68	20.6	3	0	0	3.4	0.0	0.0	0.1	0.0	0.0	0.4	1.1	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	6.4	0.1	1.6
A-U131_S5	3.70	112.1	13	0	2	14.9	0.0	2.3	0.5	0.0	0.1	6.2	17.7	1.1	1.2	0.1	2.5	0.2	1.2	0.7	5.2	0.1	0.0	45.1	0.6	8.6
U150_S1	8.63	261.5	34	0	1	39.0	0.0	1.1	1.2	0.0	0.1	7.1	20.3	2.5	2.9	0.3	5.8	0.6	2.9	1.7	12.1	0.2	0.0	84.1	1.3	20.1
U150_S2	9.82	297.6	39	0	1	44.8	0.0	1.1	0.8	0.0	0.0	7.8	22.3	2.9	3.3	0.3	6.5	0.7	3.3	2.0	13.7	0.2	0.0	95.1	0.9	22.9
U155	7.01	212.4	25	1	3	28.7	1.1	3.4	0.5	0.0	0.1	10.1	29.0	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	81.5	0.7	10.9
U168	20.28	614.5	80	0	2	91.8	0.0	2.3	1.7	0.0	0.1	15.9	45.6	5.9	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	195.2	1.8	47.2
U180	4.28	129.7	18	0	0	20.7	0.0	0.0	0.4	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.6	0.4	10.0
U215	14.14	428.5	53	2	2	60.8	2.3	2.3	1.1	0.1	0.1	12.3	35.3	4.1	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	139.4	1.3	38.1
U220	44.14	1337.6	167	2	8	191.7	2.3	9.2	3.5	0.1	0.3	41.9	120.2	12.9	14.9	1.5	29.4	2.9	14.7	8.8	61.8	0.9	0.2	444.2	4.0	84.2
U250	20.33	616.1	79	1	2	90.7	1.1	2.3	1.6	0.0	0.1	15.9	45.7	6.0	6.8	0.7	13.6	1.4	6.8	4.1	28.5	0.4	0.1	195.5	1.8	39.3
N50_S1	7.00	212.1	27	0	1	31.0	0.0	1.1	0.6	0.0	0.0	6.1	17.5	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	68.8	0.6	17.8
N95_S1	0.67	20.3	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.6
N95_S2	4.82	146.1	16	2	2	18.4	2.3	2.3	0.3	0.1	0.1	6.8	19.6	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.7	0.5	18.7

Table A-7 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 3

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
N100	6.17	187.0	24	1	0	27.5	1.1	0.0	0.5	0.0	0.0	3.6	10.4	1.8	2.1	0.2	4.1	0.4	2.1	1.2	8.6	0.1	0.0	56.0	0.6	14.8
N120	4.10	124.2	17	0	0	19.5	0.0	0.0	0.4	0.0	0.0	2.4	6.9	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	37.6	0.4	9.8
N121_S1	1.35	40.9	4	0	2	4.6	0.0	2.3	0.1	0.0	0.1	4.8	13.8	0.4	0.5	0.0	0.9	0.1	0.5	0.3	1.9	0.0	0.0	24.3	0.2	5.8
N121_S2	1.78	53.9	6	0	2	6.9	0.0	2.3	0.1	0.0	0.1	5.0	14.5	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	28.5	0.2	7.6
N121_S3	4.06	123.0	13	3	1	14.9	3.4	1.1	0.3	0.1	0.0	4.4	12.6	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.7	0.1	0.0	43.2	0.4	17.3
N121_S4	1.27	38.5	5	0	1	5.7	0.0	1.1	0.1	0.0	0.0	2.7	7.9	0.4	0.4	0.0	0.8	0.1	0.4	0.3	1.8	0.0	0.0	18.2	0.1	3.0
N135_S1	0.44	13.3	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	10.0	0.1	1.9
N135_S2	2.00	60.6	7	1	0	8.0	1.1	0.0	0.1	0.0	0.0	1.2	3.4	0.6	0.7	0.1	1.3	0.1	0.7	0.4	2.8	0.0	0.0	18.0	0.2	8.5
N145	2.84	86.1	10	1	1	11.5	1.1	1.1	0.2	0.0	0.0	3.7	10.5	0.8	1.0	0.1	1.9	0.2	0.9	0.6	4.0	0.1	0.0	32.1	0.3	19.8
N165	12.68	384.2	43	2	6	49.4	2.3	6.9	0.9	0.1	0.2	19.4	55.8	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	149.0	1.2	30.4
N175_S3	0.46	13.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.0	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.1	0.1	0.7
APPLICANT PROPOSED ROUTE SEGMENTS																										
W819_S10	0.96	29.1	3	0	1	3.4	0.0	1.1	0.1	0.0	0.1	2.6	7.4	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.6	0.2	2.7
A-W26_S1	2.08	63.0	8	0	1	9.2	0.0	1.1	0.3	0.0	0.1	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.3	0.4	4.8
A-W26_S2	4.43	134.2	16	0	2	18.4	0.0	2.3	0.6	0.0	0.1	6.6	18.9	1.3	1.5	0.1	3.0	0.3	1.5	0.9	6.2	0.1	0.0	51.7	0.7	12.6
U40	8.17	247.6	32	0	1	36.7	0.0	1.1	1.2	0.0	0.1	6.8	19.5	2.4	2.8	0.3	5.4	0.5	2.7	1.6	11.4	0.2	0.0	79.7	1.3	23.2
U41	10.75	325.8	42	0	1	48.2	0.0	1.1	1.5	0.0	0.1	8.3	23.8	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	102.6	1.6	84.4
U45	3.00	90.9	11	0	1	12.6	0.0	1.1	0.4	0.0	0.1	3.8	10.8	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.2	0.1	0.0	32.8	0.5	7.2
U50	12.70	384.8	47	0	4	53.9	0.0	4.6	1.7	0.0	0.2	15.5	44.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	137.6	2.0	23.3
U55_S1	1.80	54.5	7	0	1	8.0	0.0	1.1	0.3	0.0	0.1	3.1	8.8	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	22.9	0.3	4.3
U55_S3	10.21	309.4	39	1	1	44.8	1.1	1.1	1.4	0.0	0.1	8.0	22.9	3.0	3.4	0.3	6.8	0.7	3.4	2.0	14.3	0.2	0.0	97.9	1.6	23.8
U55_S4	12.70	384.8	42	1	8	48.2	1.1	9.2	1.5	0.0	0.5	23.5	67.3	3.7	4.3	0.4	8.5	0.8	4.2	2.5	17.8	0.3	0.1	160.6	2.1	29.0
U55_S5	24.34	737.6	82	6	10	94.1	6.9	11.5	3.0	0.3	0.6	34.3	98.4	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.1	0.5	0.1	277.5	4.0	52.5
U55_S7	1.30	39.4	4	2	0	4.6	2.3	0.0	0.1	0.1	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.6	0.2	3.1
U55_S8	1.65	50.0	6	1	0	6.9	1.1	0.0	0.2	0.0	0.0	1.0	2.8	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.3	0.0	0.0	15.3	0.3	7.0
U55_S9	4.27	129.4	17	0	1	19.5	0.0	1.1	0.6	0.0	0.1	4.5	12.9	1.3	1.4	0.1	2.8	0.3	1.4	0.9	6.0	0.1	0.0	45.3	0.7	10.2
U55_S10	7.00	212.1	27	1	0	31.0	1.1	0.0	1.0	0.0	0.0	4.1	11.8	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	63.1	1.1	14.7
U55_S11	21.65	656.1	76	5	6	87.2	5.7	6.9	2.8	0.2	0.3	24.7	70.9	6.4	7.3	0.7	14.4	1.4	7.2	4.3	30.3	0.4	0.1	230.0	3.5	122.6
U55_S12	4.65	140.9	18	0	1	20.7	0.0	1.1	0.7	0.0	0.1	4.7	13.6	1.4	1.6	0.2	3.1	0.3	1.6	0.9	6.5	0.1	0.0	48.1	0.7	32.5
U55_S17	7.35	222.7	26	3	1	29.8	3.4	1.1	1.0	0.1	0.1	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.7	1.2	51.3
U55_S18	1.31	39.7	6	0	0	6.9	0.0	0.0	0.2	0.0	0.0	0.8	2.2	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	12.7	0.2	9.1
U55_S19	0.43	13.0	1	0	1	1.1	0.0	1.1	0.0	0.0	0.1	2.3	6.5	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.9	0.1	3.0
Nephi-SA	0.67	20.3	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.4	6.9	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	4.7
Nephi-NA	2.10	63.6	7	1	1	8.0	1.1	1.1	0.3	0.0	0.1	3.2	9.3	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.4	0.4	14.7
Nephi-NB_S1	17.23	522.1	60	1	8	68.9	1.1	9.2	2.2	0.0	0.5	26.1	74.9	5.1	5.8	0.6	11.5	1.1	5.7	3.4	24.1	0.3	0.1	201.3	2.8	36.6
U255_S1	19.32	585.5	75	0	3	86.1	0.0	3.4	1.5	0.0	0.1	17.3	49.7	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.0	0.4	0.1	192.1	1.7	30.0
U255_S2	18.42	558.2	67	4	3	76.9	4.6	3.4	1.4	0.1	0.1	16.8	48.2	5.4	6.2	0.6	12.3	1.2	6.1	3.7	25.8	0.4	0.1	183.6	1.7	28.9
U255_S3	0.20	6.1	1	0	0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.0	2.0	0.0	0.5
U255_S4	1.72	52.1	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	3.0	8.6	0.5	0.6	0.1	1.1	0.1	0.6	0.3	2.4	0.0	0.0	21.4	0.2	4.9
U255_S5	3.41	103.3	10	1	3	11.5	1.1	3.4	0.2	0.0	0.1	8.0	23.0	1.0	1.1	0.1	2.3	0.2	1.1	0.7	4.8	0.1	0.0	48.4	0.3	24.7
U255_S5.1	4.12	124.8	15	1	1	17.2	1.1	1.1	0.3	0.0	0.0	4.4	12.7	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	43.5	0.4	10.1
U255_S6	5.76	174.5	18	2	4	20.7	2.3	4.6	0.4	0.1	0.1	11.4	32.7	1.7	1.9	0.2	3.8	0.4	1.9	1.2	8.1	0.1	0.0	76.0	0.6	24.6
U255_S7	2.67	80.9	10	1	0	11.5	1.1	0.0	0.2	0.0	0.0	1.6	4.5	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	24.4	0.2	21.0
U255_S8	2.86	86.7	10	1	1	11.5	1.1	1.1	0.2	0.0	0.0	3.7	10.6	0.8	1.0	0.1	1.9	0.2	1.0	0.6	4.0	0.1	0.0	32.2	0.3	13.7
A-U255_S9	0.26	7.9	0	0	2	0.0	0.0	2.3	0.0	0.0	0.1	4.2	11.9	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	14.9	0.1	1.2
A-U255_S10	0.74	22.4	0	2	1	0.0	2.3	1.1	0.0	0.1	0.0	2.4	7.0	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.5	0.1	3.6
A-U255_S10.1	0.25	7.6	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	8.0	0.0	2.0
U255_S9	1.60	48.5	5	1	1	5.7	1.1	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	6.8
U255_S10	0.71	21.5	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	3.0
U255_S11	0.32	9.7	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.7	0.0	1.4
U255_S12	0.85	25.8	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.4	0.2	0.3	0.0	0.6	0.1	0.3	0.2	1.2	0.0	0.0	8.3	0.1	5.9
U255_S13	30.13	913.0	111	5	5	127.4	5.7	5.7	2.3	0.1	0.1	27.7	79.4	8.8	10.1	1.0	20.1	2.0	10.0	6.0	42.2	0.6	0.1	300.8	2.7	128.2
N45	11.93	361.5	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.8	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.7	0.2	0.1	113.6	1.1	18.5
N50_S2	24.98	757.0	94	3	3	107.9	3.4	3.4	1.9	0.1	0.1	20.7	59.3	7.3	8.4	0.8	16.7	1.7	8.3	5.0	35.0	0.5	0.1	242.4	2.2	109.0
N50_S3	11.98	363.0	46	1	1	52.8	1.1	1.1	1.0	0.0	0.0	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.1	31.3
N70	11.48	347.9	44	0	2	50.5	0.0	2.3	0.9	0.0	0.1	10.7	30.8	3.4	3.9	0.4	7.7	0.8	3.8	2.3	16.1	0.2	0.1	115.0	1.0	28.2

Table A-7 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 3

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
AGENCY PREFERRED ROUTE SEGMENTS																										
W819_S9	2.05	62.1	7	1	1	8.0	1.1	1.1	0.3	0.0	0.1	3.2	9.2	0.6	0.7	0.1	1.4	0.1	0.7	0.4	2.9	0.0	0.0	25.1	0.4	9.8
W115.07.1	2.47	74.85	9	0	1	10.3	0.0	1.1	0.3	0.0	0.1	3.4	9.9	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.5	0.0	0.0	28.1	0.4	5.7
A-W28_S2	3.79	114.8	15	0	1	17.2	0.0	1.1	0.6	0.0	0.1	4.2	12.1	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	40.9	0.6	10.7
A-W28_S3	1.12	33.9	4	0	1	4.6	0.0	1.1	0.1	0.0	0.1	2.7	7.6	0.3	0.4	0.0	0.7	0.1	0.4	0.2	1.6	0.0	0.0	16.4	0.2	3.2
U35_S1	2.70	81.8	9	0	2	10.3	0.0	2.3	0.3	0.0	0.1	5.6	16.0	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.8	0.1	0.0	36.0	0.5	6.5
U35_S2	7.21	218.5	26	1	2	29.8	1.1	2.3	1.0	0.0	0.1	8.2	23.6	2.1	2.4	0.2	4.8	0.5	2.4	1.4	10.1	0.1	0.0	76.6	1.1	26.2
U36_S1	7.37	223.33	27	2	1	31.0	2.3	1.1	1.0	0.1	0.1	6.3	18.1	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.3	0.1	0.0	72.8	1.2	19.7
U217.01	76.80	2327.27	269	10	29	308.8	11.5	33.3	9.9	0.5	1.7	103.1	295.7	22.5	25.9	2.6	51.2	5.1	25.6	15.4	107.5	1.5	0.4	859.4	12.4	290.1
U218	11.97	362.73	38	3	7	43.6	3.4	8.0	1.4	0.1	0.4	21.0	60.3	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	148.2	2.0	94.0
U219.1	0.60	18.18	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.4	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.8	0.1	2.9
U219.3	1.47	44.55	6	0	0	6.9	0.0	0.0	0.2	0.0	0.0	0.9	2.5	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.4	0.2	3.4
U219.5	16.83	510.0	52	2	14	59.7	2.3	16.1	1.9	0.1	0.8	37.9	108.7	4.9	5.7	0.6	11.2	1.1	5.6	3.4	23.6	0.3	0.1	232.8	2.9	118.9
U219.6	4.56	138.2	14	0	5	16.1	0.0	5.7	0.5	0.0	0.3	12.7	36.4	1.3	1.5	0.2	3.0	0.3	1.5	0.9	6.4	0.1	0.0	70.7	0.8	21.9
U217.052	15.82	479.39	53	4	7	60.8	4.6	8.0	1.9	0.2	0.4	23.3	66.8	4.6	5.3	0.5	10.5	1.1	5.3	3.2	22.1	0.3	0.1	183.6	2.6	101.3
Nephi-SA-S	0.65	19.70	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	5.1
Nephi-SB	4.16	126.06	13	2	2	14.9	2.3	2.3	0.5	0.1	0.1	6.4	18.5	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.8	0.1	0.0	49.4	0.7	32.7
U115b	5.60	169.70	22	0	1	25.3	0.0	1.1	0.8	0.0	0.1	5.3	15.2	1.6	1.9	0.2	3.7	0.4	1.9	1.1	7.8	0.1	0.0	56.9	0.9	14.6
U120	4.30	130.30	18	0	0	20.7	0.0	0.0	0.7	0.0	0.0	2.5	7.2	1.3	1.4	0.1	2.9	0.3	1.4	0.9	6.0	0.1	0.0	39.7	0.7	33.8
U260_S1	14.10	427.27	56	0	1	64.3	0.0	1.1	1.2	0.0	0.0	10.3	29.5	4.1	4.7	0.5	9.4	0.9	4.7	2.8	19.7	0.3	0.1	133.5	1.3	32.8
U260_S2	40.77	1235.45	154	3	7	176.8	3.4	8.0	3.2	0.1	0.3	37.9	108.8	12.0	13.7	1.4	27.2	2.7	13.6	8.2	57.1	0.8	0.2	408.6	3.7	94.9
N10	1.60	48.48	6	0	1	6.9	0.0	1.1	0.1	0.0	0.0	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.2	3.7
N805	15.22	461.21	57	1	3	65.4	1.1	3.4	1.2	0.0	0.1	14.9	42.8	4.5	5.1	0.5	10.1	1.0	5.1	3.0	21.3	0.3	0.1	154.5	1.4	51.0
N808	41.29	1251.21	146	7	13	167.6	8.0	14.9	3.0	0.2	0.5	50.2	144.1	12.1	13.9	1.4	27.5	2.8	13.8	8.3	57.8	0.8	0.2	447.7	3.9	146.1
N35A	22.47	680.91	84	3	3	96.4	3.4	3.4	1.7	0.1	0.1	19.2	55.0	6.6	7.6	0.7	15.0	1.5	7.5	4.5	31.5	0.4	0.1	219.8	2.0	34.9
N40A	16.14	489.09	60	1	4	68.9	1.1	4.6	1.2	0.0	0.1	17.5	50.1	4.7	5.4	0.5	10.8	1.1	5.4	3.2	22.6	0.3	0.1	168.9	1.5	25.0
N90A	2.66	80.61	10	0	1	11.5	0.0	1.1	0.2	0.0	0.0	3.6	10.2	0.8	0.9	0.1	1.8	0.2	0.9	0.5	3.7	0.1	0.0	30.1	0.3	4.1
N75	7.02	212.73	26	2	1	29.8	2.3	1.1	0.5	0.1	0.0	6.1	17.6	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	70.1	0.7	10.9
ALTERNATIVE ROUTE SEGMENTS																										
W15_S1	22.02	667.3	75	7	7	86.1	8.0	8.0	2.8	0.3	0.4	26.9	77.2	6.5	7.4	0.7	14.7	1.5	7.3	4.4	30.8	0.4	0.1	239.7	3.6	51.2
W15_S2	16.42	497.6	59	3	4	67.7	3.4	4.6	2.2	0.1	0.2	17.6	50.6	4.8	5.5	0.5	10.9	1.1	5.5	3.3	23.0	0.3	0.1	171.3	2.6	38.2
W15_S3	2.32	70.3	9	1	0	10.3	1.1	0.0	0.3	0.0	0.0	1.4	3.9	0.7	0.8	0.1	1.5	0.2	0.8	0.5	3.2	0.0	0.0	21.7	0.4	5.4
W65	8.27	250.6	32	1	1	36.7	1.1	1.1	1.2	0.0	0.1	6.9	19.7	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	81.3	1.3	23.5
W115.01	0.45	13.6	1	0	1	1.1	0.0	1.1	0.0	0.0	0.1	2.3	6.5	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.0	0.0	10.0	0.1	1.0
W115.02	1.50	45.5	6	0	0	6.9	0.0	0.0	0.2	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.2	3.5
W115.03	0.36	10.9	1	0	1	1.1	0.0	1.1	0.0	0.0	0.1	2.2	6.3	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.0	0.0	9.6	0.1	0.9
W115.04	12.14	367.9	45	3	1	51.7	3.4	1.1	1.7	0.1	0.1	9.1	26.2	3.6	4.1	0.4	8.1	0.8	4.0	2.4	17.0	0.2	0.1	115.6	1.9	28.3
W115.07	1.77	53.6	7	1	0	8.0	1.1	0.0	0.3	0.0	0.0	1.0	3.0	0.5	0.6	0.1	1.2	0.1	0.6	0.4	2.5	0.0	0.0	17.0	0.3	4.1
W819_S2	1.50	45.5	5	1	0	5.7	1.1	0.0	0.2	0.0	0.0	0.9	2.5	0.4	0.5	0.1	1.0	0.1	0.5	0.3	2.1	0.0	0.0	13.5	0.2	3.7
W819_S3	1.43	43.3	4	1	1	4.6	1.1	1.1	0.1	0.0	0.1	2.8	8.1	0.4	0.5	0.0	1.0	0.1	0.5	0.3	2.0	0.0	0.0	18.9	0.3	3.3
A-W19_S1	11.17	338.5	37	7	1	42.5	8.0	1.1	1.4	0.3	0.1	8.6	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.8	1.8	26.0
A-W19_S2	15.54	470.9	58	1	4	66.6	1.1	4.6	2.1	0.0	0.2	17.1	49.1	4.6	5.2	0.5	10.4	1.0	5.2	3.1	21.8	0.3	0.1	164.0	2.5	36.2
C10	11.14	337.6	43	1	1	49.4	1.1	1.1	1.6	0.0	0.1	8.5	24.5	3.3	3.8	0.4	7.4	0.7	3.7	2.2	15.6	0.2	0.1	106.6	1.7	31.6
C65	11.44	346.7	41	1	4	47.1	1.1	4.6	1.5	0.0	0.2	14.7	42.2	3.4	3.9	0.4	7.6	0.8	3.8	2.3	16.0	0.2	0.1	126.3	1.8	54.9
C100	24.25	734.8	89	2	6	102.2	2.3	6.9	3.3	0.1	0.3	26.2	75.3	7.1	8.2	0.8	16.2	1.6	8.1	4.9	34.0	0.5	0.1	253.0	3.8	60.4
C110	11.98	363.0	46	1	1	52.8	1.1	1.1	1.7	0.0	0.1	9.0	25.9	3.5	4.0	0.4	8.0	0.8	4.0	2.4	16.8	0.2	0.1	113.8	1.8	21.1
C802	21.41	648.8	80	3	3	91.8	3.4	3.4	2.9	0.1	0.2	18.6	53.3	6.3	7.2	0.7	14.3	1.4	7.1	4.3	30.0	0.4	0.1	210.6	3.3	102.8
C804	4.02	121.8	10	1	6	11.5	1.1	6.9	0.4	0.0	0.3	14.4	41.2	1.2	1.4	0.1	2.7	0.3	1.3	0.8	5.6	0.1	0.0	71.7	0.8	11.4
A-C56_S1	0.56	17.0	2	0	1	2.3	0.0	1.1	0.1	0.0	0.1	2.3	6.7	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.8	0.0	0.0	11.7	0.1	1.6
A-C56_S2	0.76	23.0	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.4	1.3	0.2	0.3	0.0	0.5	0.1	0.3	0.2	1.1	0.0	0.0	8.0	0.2	2.2
A-C56_S3	1.29	39.1	4	1	1	4.6	1.1	1.1	0.1	0.0	0.1	2.8	7.9	0.4	0.4	0.0	0.9	0.1	0.4	0.3	1.8	0.0	0.0	18.3	0.3	3.0
A-C56_S4	0.27	8.2	2	0	0	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.1	0.8
A-C56_S5	4.79	145.2	18	0	2	20.7	0.0	2.3	0.7	0.0	0.1	6.8	19.5	1.4	1.6	0.2	3.2	0.3	1.6	1.0	6.7	0.1	0.0	55.6	0.8	13.6
A-C57	2.33	70.6	9	0	1	10.3	0.0	1.1	0.3	0.0	0.1	3.4	9.7	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.3	0.0	0.0	27.5	0.4	6.6
TE-A1	0.30	9.09	1	0	1	1.1	0.0	1.1	0.0	0.0	0.1	2.2	6.2	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	9.4	0.1	0.7
TE-B_S7	1.62	49.1	6	0	1	6.9	0.0	1.1	0.2	0.0	0.1	3.0	8.5	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.3	0.0	0.0	20.9	0.3	7.8

Table A-7 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 3

Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
C195	5.19	157.3	19	0	2	21.8	0.0	2.3	0.7	0.0	0.1	7.0	20.2	1.5	1.7	0.2	3.5	0.3	1.7	1.0	7.3	0.1	0.0	58.5	0.8	13.2
C800_S1	7.69	233.0	28	2	1	32.1	2.3	1.1	1.0	0.1	0.1	6.5	18.7	2.3	2.6	0.3	5.1	0.5	2.6	1.5	10.8	0.2	0.0	75.3	1.2	54.9
C800_S2	19.26	583.6	72	3	3	82.6	3.4	3.4	2.6	0.1	0.2	17.3	49.6	5.6	6.5	0.6	12.8	1.3	6.4	3.9	27.0	0.4	0.1	191.9	3.0	54.6
C800_S3	46.87	1420.3	156	9	23	179.1	10.3	26.4	5.7	0.4	1.3	73.5	210.9	13.7	15.8	1.6	31.2	3.1	15.6	9.4	65.6	0.9	0.2	555.0	7.7	182.0
TE-A_S1	8.38	253.9	32	1	1	36.7	1.1	1.1	1.2	0.0	0.1	6.9	19.8	2.5	2.8	0.3	5.6	0.6	2.8	1.7	11.7	0.2	0.0	81.8	1.3	36.3
U36	9.58	290.3	35	2	2	40.2	2.3	2.3	1.3	0.1	0.1	9.6	27.6	2.8	3.2	0.3	6.4	0.6	3.2	1.9	13.4	0.2	0.0	98.6	1.5	42.1
A-U56_S5	7.41	224.5	28	0	2	32.1	0.0	2.3	1.0	0.0	0.1	8.3	24.0	2.2	2.5	0.2	4.9	0.5	2.5	1.5	10.4	0.1	0.0	78.7	1.2	21.0
U55_S13	1.93	58.5	7	0	1	8.0	0.0	1.1	0.3	0.0	0.1	3.1	9.0	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	23.5	0.3	13.5
U55_S14	2.54	77.0	11	0	0	12.6	0.0	0.0	0.4	0.0	0.0	1.5	4.3	0.7	0.9	0.1	1.7	0.2	0.8	0.5	3.6	0.1	0.0	23.9	0.4	17.7
U55_S15	2.59	78.5	8	0	3	9.2	0.0	3.4	0.3	0.0	0.2	7.5	21.6	0.8	0.9	0.1	1.7	0.2	0.9	0.5	3.6	0.1	0.0	41.3	0.5	18.1
U55_S16	0.23	7.0	0	0	1	0.0	0.0	1.1	0.0	0.0	0.1	2.1	6.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.0	7.9	0.1	1.6
U60	77.84	2358.8	290	11	11	332.9	12.6	12.6	10.7	0.5	0.6	67.7	194.2	22.8	26.2	2.6	51.9	5.2	25.9	15.6	109.0	1.6	0.4	765.3	12.2	190.7
U75	1.93	58.5	8	0	0	9.2	0.0	0.0	0.3	0.0	0.0	1.1	3.2	0.6	0.6	0.1	1.3	0.1	0.6	0.4	2.7	0.0	0.0	17.7	0.3	5.5
U75A	13.20	400.0	50	1	2	57.4	1.1	2.3	1.8	0.0	0.1	11.7	33.7	3.9	4.4	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	2.1	22.8
U85A	98.93	2997.9	352	18	26	404.0	20.7	29.8	12.9	0.8	1.5	110.0	315.8	29.0	33.3	3.3	66.0	6.6	33.0	19.8	138.5	2.0	0.5	1041.1	15.7	350.1
U90_S1	10.78	326.7	39	1	4	44.8	1.1	4.6	1.4	0.0	0.2	14.3	41.1	3.2	3.6	0.4	7.2	0.7	3.6	2.2	15.1	0.2	0.0	121.1	1.8	28.5
U90_S2	50.26	1523.0	154	18	30	176.8	20.7	34.4	5.7	0.8	1.7	89.5	256.8	14.7	16.9	1.7	33.5	3.4	16.8	10.1	70.4	1.0	0.2	626.2	8.4	298.8
U135_S1	14.69	445.15	53	3	3	60.8	3.4	3.4	1.9	0.1	0.2	14.6	41.9	4.3	4.9	0.5	9.8	1.0	4.9	2.9	20.6	0.3	0.1	149.9	2.3	43.7
U135_S2	13.22	400.61	48	3	2	55.1	3.4	2.3	1.8	0.1	0.1	11.8	33.7	3.9	4.5	0.4	8.8	0.9	4.4	2.6	18.5	0.3	0.1	130.7	2.1	24.8
U140	3.63	110.0	13	0	2	14.9	0.0	2.3	0.5	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.6	8.4
U145_S1	7.94	240.61	31	0	1	35.6	0.0	1.1	1.1	0.0	0.1	6.7	19.1	2.3	2.7	0.3	5.3	0.5	2.6	1.6	11.1	0.2	0.0	77.6	1.2	12.3
U200	38.16	1156.4	141	3	9	161.8	3.4	10.3	5.2	0.1	0.5	40.4	115.9	11.2	12.8	1.3	25.4	2.5	12.7	7.6	53.4	0.8	0.2	395.9	6.0	97.2
U217.02	16.03	485.8	49	5	11	56.2	5.7	12.6	1.8	0.2	0.6	31.4	90.1	4.7	5.4	0.5	10.7	1.1	5.3	3.2	22.4	0.3	0.1	208.6	2.7	89.2
U217.03	0.94	28.5	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.6	1.6	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.2	7.4
U217.051	20.30	615.2	76	3	3	87.2	3.4	3.4	2.8	0.1	0.2	17.9	51.4	6.0	6.8	0.7	13.5	1.4	6.8	4.1	28.4	0.4	0.1	201.1	3.2	67.4
U217.10	20.87	632.4	61	9	14	70.0	10.3	16.1	2.2	0.4	0.8	40.2	115.5	6.1	7.0	0.7	13.9	1.4	7.0	4.2	29.2	0.4	0.1	269.0	3.6	98.9
U217.15	36.37	1102.1	118	12	16	135.4	13.8	18.4	4.3	0.6	0.9	53.3	153.1	10.7	12.2	1.2	24.2	2.4	12.1	7.3	50.9	0.7	0.2	420.2	6.0	213.4
U219.2	19.79	599.70	51	11	18	58.5	12.6	20.7	1.9	0.5	1.0	47.6	136.6	5.8	6.7	0.7	13.2	1.3	6.6	4.0	27.7	0.4	0.1	282.6	3.5	140.2
U219.4	1.60	48.5	5	1	1	5.7	1.1	1.1	0.2	0.0	0.1	2.9	8.4	0.5	0.5	0.1	1.1	0.1	0.5	0.3	2.2	0.0	0.0	20.8	0.3	12.6
U222.05	41.20	1248.5	150	9	6	172.2	10.3	6.9	5.5	0.4	0.3	36.2	103.8	12.1	13.9	1.4	27.5	2.7	13.7	8.2	57.7	0.8	0.2	405.9	6.5	81.9
U222.10	14.16	429.1	48	3	6	55.1	3.4	6.9	1.8	0.1	0.3	20.3	58.3	4.2	4.8	0.5	9.4	0.9	4.7	2.8	19.8	0.3	0.1	162.5	2.3	53.3
U223.00	18.16	550.3	60	7	6	68.9	8.0	6.9	2.2	0.3	0.3	22.7	65.0	5.3	6.1	0.6	12.1	1.2	6.1	3.6	25.4	0.4	0.1	198.5	3.0	64.4
U225	38.41	1163.9	136	3	15	156.1	3.4	17.2	5.0	0.1	0.9	52.5	150.8	11.3	12.9	1.3	25.6	2.6	12.8	7.7	53.8	0.8	0.2	432.6	6.2	106.8
U325.1	43.28	1311.5	136	14	24	156.1	16.1	27.5	5.0	0.7	1.4	73.4	210.6	12.7	14.6	1.4	28.9	2.9	14.4	8.7	60.6	0.9	0.2	528.8	7.2	136.6
U325.2	4.12	124.8	12	3	2	13.8	3.4	2.3	0.4	0.1	0.1	6.4	18.4	1.2	1.4	0.1	2.7	0.3	1.4	0.8	5.8	0.1	0.0	49.2	0.7	28.8
U821	24.04	728.5	92	1	4	105.6	1.1	4.6	3.4	0.0	0.2	22.1	63.4	7.1	8.1	0.8	16.0	1.6	8.0	4.8	33.7	0.5	0.1	240.6	3.8	65.5
U145_S2	9.51	288.18	34	2	3	39.0	2.3	3.4	0.7	0.1	0.1	11.6	33.2	2.8	3.2	0.3	6.3	0.6	3.2	1.9	13.3	0.2	0.0	104.0	0.9	14.8
U155-165	35.93	1088.8	140	0	4	160.7	0.0	4.6	2.9	0.0	0.1	29.1	83.4	10.5	12.1	1.2	24.0	2.4	12.0	7.2	50.3	0.7	0.2	347.1	3.2	62.5
Ox_Vly_Conn	0.65	19.7	1	1	1	1.1	1.1	1.1	0.0	0.0	0.0	2.4	6.8	0.2	0.2	0.0	0.4	0.0	0.2	0.1	0.9	0.0	0.0	12.1	0.1	1.8
U256_S1	7.00	212.1	25	1	2	28.7	1.1	2.3	0.5	0.0	0.1	8.1	23.3	2.1	2.4	0.2	4.7	0.5	2.3	1.4	9.8	0.1	0.0	74.6	0.7	33.6
U256_S2	6.60	200.0	22	1	4	25.3	1.1	4.6	0.5	0.0	0.1	11.9	34.1	1.9	2.2	0.2	4.4	0.4	2.2	1.3	9.2	0.1	0.0	83.1	0.7	31.7
U256_S3	9.25	280.3	30	1	6	34.4	1.1	6.9	0.6	0.0	0.2	17.4	50.0	2.7	3.1	0.3	6.2	0.6	3.1	1.9	13.0	0.2	0.0	117.8	0.9	72.7
U495	7.64	231.5	29	0	2	33.3	0.0	2.3	0.6	0.0	0.1	8.5	24.3	2.2	2.6	0.3	5.1	0.5	2.5	1.5	10.7	0.2	0.0	80.8	0.7	17.8
U506.01	28.56	865.5	97	2	16	111.3	2.3	18.4	2.0	0.1	0.6	48.8	139.9	8.4	9.6	1.0	19.0	1.9	9.5	5.7	40.0	0.6	0.1	350.1	2.8	111.1
N35B	3.05	92.4	10	0	3	11.5	0.0	3.4	0.2	0.0	0.1	7.8	22.4	0.9	1.0	0.1	2.0	0.2	1.0	0.6	4.3	0.1	0.0	45.6	0.3	8.7
N65	9.72	294.5	37	0	2	42.5	0.0	2.3	0.8	0.0	0.1	9.7	27.8	2.9	3.3	0.3	6.5	0.6	3.2	1.9	13.6	0.2	0.0	99.2	0.9	23.1
N80	3.62	109.7	13	0	2	14.9	0.0	2.3	0.3	0.0	0.1	6.1	17.6	1.1	1.2	0.1	2.4	0.2	1.2	0.7	5.1	0.1	0.0	44.7	0.4	8.4
N85	19.34	586.1	70	0	8	80.3	0.0	9.2	1.4	0.0	0.3	27.3	78.5	5.7	6.5	0.6	12.9	1.3	6.4	3.9	27.1	0.4	0.1	220.9	1.8	49.8
N806	124.76	3780.6	477	6	17	547.5	6.9	19.5	9.9	0.2	0.6	107.2	307.6	36.6	42.0	4.2	83.2	8.3	41.6	25.0	174.7	2.5	0.6	1223.0	11.2	342.9
N115	0.92	27.9	4	0	0	4.6	0.0	0.0	0.1	0.0	0.0	0.5	1.5	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	8.7	0.1	2.1
N117	3.87	117.3	16	0	0	18.4	0.0	0.0	0.3	0.0	0.0	2.3	6.5	1.1	1.3	0.1	2.6	0.3	1.3	0.8	5.4	0.1	0.0	35.5	0.3	14.6
N118	5.42	164.2	17	1	4	19.5	1.1	4.6	0.4	0.0	0.1	11.2	32.1	1.6	1.8	0.2	3.6	0.4	1.8	1.1	7.6	0.1	0.0	72.2	0.6	26.0
N125_S1	8.31	251.8	29	2	3	33.3	2.3	3.4	0.6	0.1	0.1	10.9	31.2	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	93.0	0.8	37.3
N125_S2	0.42	12.7	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	4.2	0.0	1.0
N130	4.18	126.7	14	0	3	16.1	0.0	3.4	0.3	0.0	0.1	8.5	24.3	1.2	1.4	0.1	2.8	0.3	1.4	0.8	5.9	0.1	0.0	55.2	0.4	20.1
N140	8.06	244.2	24	3	6	27.5	3.4	6.9	0.5	0.1	0.2	16.7	48.0	2.4	2.7	0.3	5.4	0.5	2.7	1.6	11.3	0.2	0.0	107.9	0.8	57.2
N150	20.59	623.9	72	2	9	82.6	2.3	10.3	1.5	0.1	0.3	30.1	86.3	6.0	6.9	0.7	13.7	1.4	6.9	4.1	28.8	0.4	0.1	237.9	2.0	44.1
N155	8.31	251.8	27	3	4	31.0	3.4	4.6	0.6	0.1	0.1	12.9	36.9	2.4	2.8	0.3	5.5	0.6	2.8	1.7	11.6	0.2	0.0	98.7	0.8	27.1
N160	3.79	114.8	12	1	3	13.8	1.1	3.4	0.2	0.0	0.1	8.2	23.6	1.1	1.3	0.1	2.5	0.3	1.3	0.8	5.3	0.1	0.0	52.3	0.4	16.2

Table A-7 Summary of Temporary and Permanent Disturbance by TWE Transmission Line Route Segment - Design Option 3

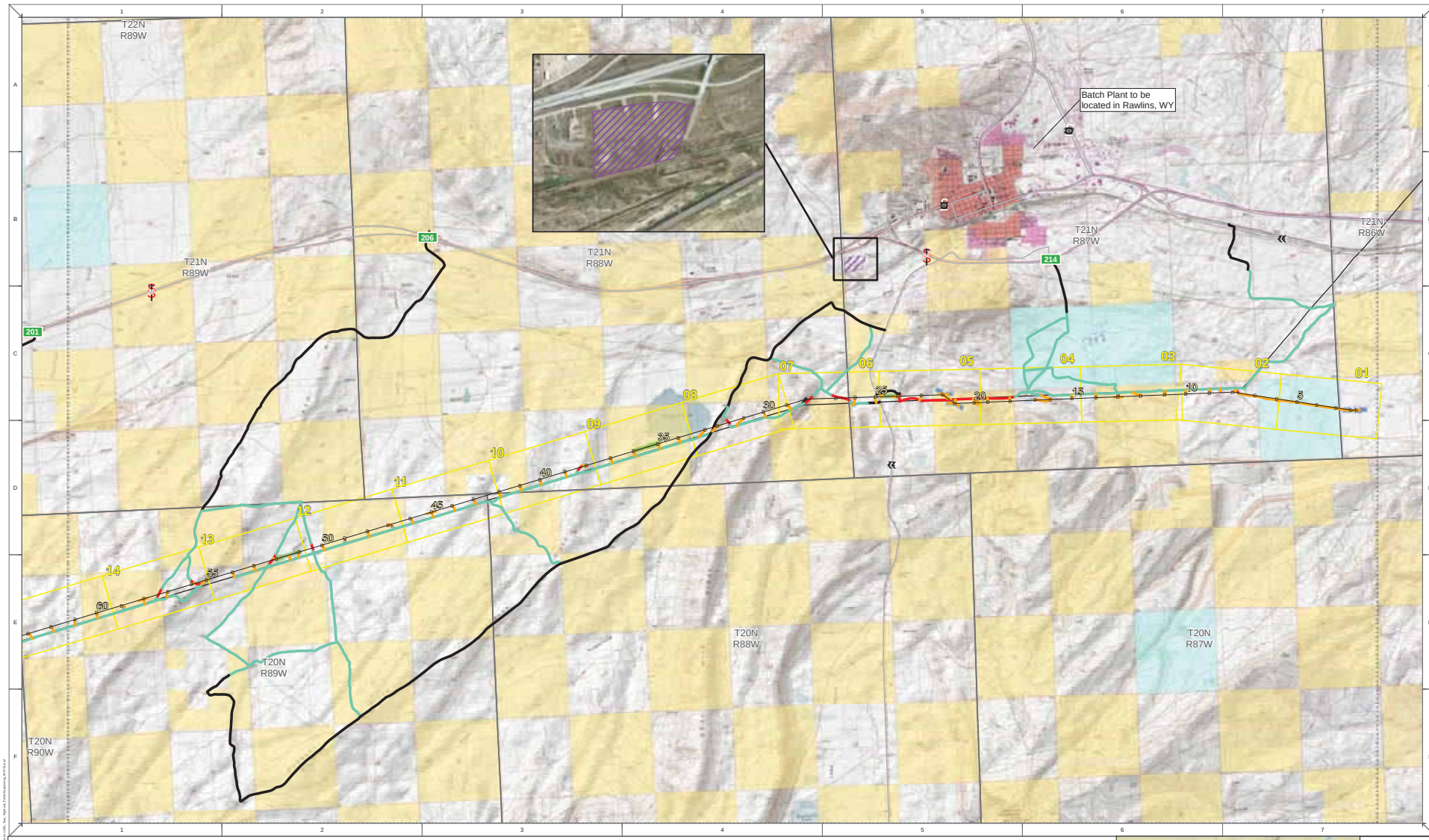
Route Segment ID	Total Line Length (miles)	Total ROW (acres)	Approximate Structures (number)			Structure Work Area (acres)			Structure Base (acres)			Pulling / Tensioning / Splicing Sites				Material Storage Yards		Batch Plants		Fly Yards / Staging Areas		Fiber Optic Comm. & Regen. Sites		Temporary Disturbance (acres)	Permanent Disturbance (acres)	New Access Roads Disturbance (acres)
												Wire		Fiber												
			Tangent	Angle	DE	Tangent	Angle	DE	Tangent	Angle	DE	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres			
N170	0.93	28.2	2	1	1	2.3	1.1	1.1	0.0	0.0	0.0	2.5	7.3	0.3	0.3	0.0	0.6	0.1	0.3	0.2	1.3	0.0	0.0	14.4	0.1	1.4
N170A	8.00	242.4	29	0	3	33.3	0.0	3.4	0.6	0.0	0.1	10.7	30.7	2.3	2.7	0.3	5.3	0.5	2.7	1.6	11.2	0.2	0.0	89.3	0.7	18.6
N175_S1	7.10	215.2	26	2	1	29.8	2.3	1.1	0.5	0.1	0.0	6.2	17.7	2.1	2.4	0.2	4.7	0.5	2.4	1.4	9.9	0.1	0.0	70.4	0.7	11.0
N175_S2	0.27	8.2	2	0	0	2.3	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	3.5	0.0	0.4
N175_S4	0.70	21.2	2	0	1	2.3	0.0	1.1	0.0	0.0	0.0	2.4	6.9	0.2	0.2	0.0	0.5	0.0	0.2	0.1	1.0	0.0	0.0	12.3	0.1	1.1
Gyp_opn_Conn	0.17	5.2	0	0	1	0.0	0.0	1.1	0.0	0.0	0.0	2.1	6.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0	7.6	0.0	0.4
Gyp_opn	0.41	12.4	0	1	1	0.0	1.1	1.1	0.0	0.0	0.0	2.2	6.4	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.6	0.0	0.0	9.8	0.1	1.0
NRA-rt_S1	2.42	73.3	7	1	2	8.0	1.1	2.3	0.1	0.0	0.1	5.4	15.6	0.7	0.8	0.1	1.6	0.2	0.8	0.5	3.4	0.0	0.0	33.7	0.3	7.2
NRA-rt_S2	2.77	83.9	9	0	3	10.3	0.0	3.4	0.2	0.0	0.1	7.6	21.9	0.8	0.9	0.1	1.8	0.2	0.9	0.6	3.9	0.1	0.0	43.2	0.3	7.9

Notes: TUA - Temporary Use Areas (structure work sites, pulling/tensioning sites, material storage yards, batch plants, fly yards and staging areas)

* Rows highlighted in blue text indicate segments that are assumed to have 600 kV HVDC structures but the line operating as a single circuit 500 kV AC transmission line (Phase 1).
* All structures are assumed to be Self Supporting Lattice.
* Splicing areas are included with the Pulling/Tensioning Sites per common construction practices.
* Material Storage Yards have a disturbance area of 20 acres.
* Batch Plants have a disturbance area of 5 acres.
* Fly Yards/Staging Areas have a disturbance area of 7 acres.
* Temporary disturbance areas for Structure Work Areas and Pulling/Tensioning/Splicing Sites are within the 250 feet wide ROW

Structures per mile -	Approximately		4				
Right-of-Way Width (ROW) -			250	feet			
Structure Work Area -	ROW	x	200	feet			
Wire-Pulling, Tensioning, Splicing Site							
Dead-End (DE) Structure -	ROW	x	500	feet	2 @ every DE Structure		
Mid-Span Conductor and Shield Wire -	ROW	x	500	feet	Every	9,000	feet
Fiber Optic Cable Set-Up Sites -	100	x	500	feet	Every	18,000	feet
Material Storage Yards -	Approximately		20	Acres	Every	30	miles
Batch Plant Sites - Stand-alone, Temporary -	Approximately		5	Acres	Every	15	miles
Fly Yards / Staging Areas -	Approximately		7	Acres	Every	5	miles
Structure Base (600 kV HVDC Towers)							
Lattice Tower (Tangent) -	30	x	30	feet			
Lattice Tower (Angle) -	35	x	35	feet			
Lattice Tower (Dead End) -	40	x	40	feet			
Structure Base (600 kV HVDC Line operated as Single Circuit 500 kV AC line)							
Lattice Tower (Tangent) -	40	x	40	feet			
Lattice Tower (Angle) -	45	x	45	feet			
Lattice Tower (Dead End) -	50	x	50	feet			
Regeneration Sites (most located on ROW) -	100	x	100	feet	Every	50	miles

APPENDIX AB
SAMPLE MAPS FOR ROD POD SHOWING INITIAL LAYOUT OF ALL TEMPORARY WORK AREAS AND ALL EXISTING AND NEW ACCESS ROADS TO EACH STRUCTURE LOCATION FOR THE AGENCY PREFERRED ALTERNATIVE



Proposed Transmission

- Centerline
- D — Proposed Tower Location (every 5th structure labeled)

Preliminary Access Roads

- New Road (Cagegory 3,4,5,6)

Backbone Access Roads

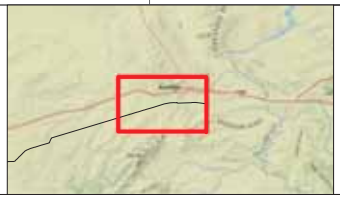
- Existing (Category 1)
- Existing Road Requiring Improvement (Category 2A)
- Existing Road Requiring Improvement (Category 2B)

Project Features

- Fly Yard/Staging Area
- Wire-Pulling, Tensioning, Splicing Site
- Material Storage Yard
- Access aerials exhibit index

Jurisdiction

- Forest Service
- BLM
- Bureau of Reclamation
- Fish and Wildlife Service
- State
- Private



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1:72,000 when printed on 11x17 inch sheet

Page 01 of 01

Date: 5/12/2014

NO.	DATE	REVISION	ENGINEER	DES. DR.	CHECKED	APPROVED

TRANSWEST EXPRESS LLC

DISCIPLINE ENG.
PROJECT ENG.
APPROVAL ENG.
PROJECT #
PL #
Date: 5/12/2014
DES.
CH.
ENG.
DR.
SCALE:

TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
I80 ACCESS ROAD LAYOUT

PRELIMINARY DRAFT: NOT FOR CONSTRUCTION

SHEET
REVISION

0 200 400 800 Feet

1:2,400 when printed on 34x22 inch sheet
1:4,800 when printed on 11x17 inch sheet

Proposed Transmission
- Centerline
- 250' ROW
- Proposed Tower Location
- FEIS Corridor

Preliminary Work Areas
- Wire-Pulling, Tensioning, Splicing Site
- Structure Work Area
- Material Storage Yard
- Fly Yard/Staging Area

Preliminary Access Roads
- New (Category 3,4,5,6)

Backbone Access Roads
- Existing Improved Road (Category 1)
- Existing Road Requiring Improvement (Category 2A)
- Existing Road Requiring Improvement (Category 2B)

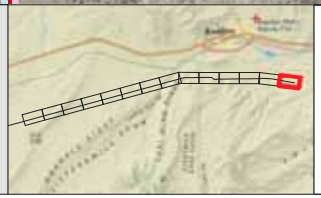
Existing Transportation
- Divided Highway
- Major Highway
- Major Road
- Railroad

Constraints
- Trails (AECOM 7-30-2013)
- NWI Wetland (USGS 3-6-2012)
- Midget Faded Rattlesnake Model Habitat (AECOM 1-19-2012)
- Raptor Buffer (AECOM 7-30-2013)
- Forest Service
- Fish and Wildlife
- Private Parcel
- BLM
- BOR
- State
- Section Line
- Contours - 10 ft interval

Existing Utilities
- Existing Transmission (115 kV or Higher)

POWER ENGINEERS

TRANSWEST EXPRESS LLC



Sample Access Layout:
Sample I80 Revised Date: 5/12/2014

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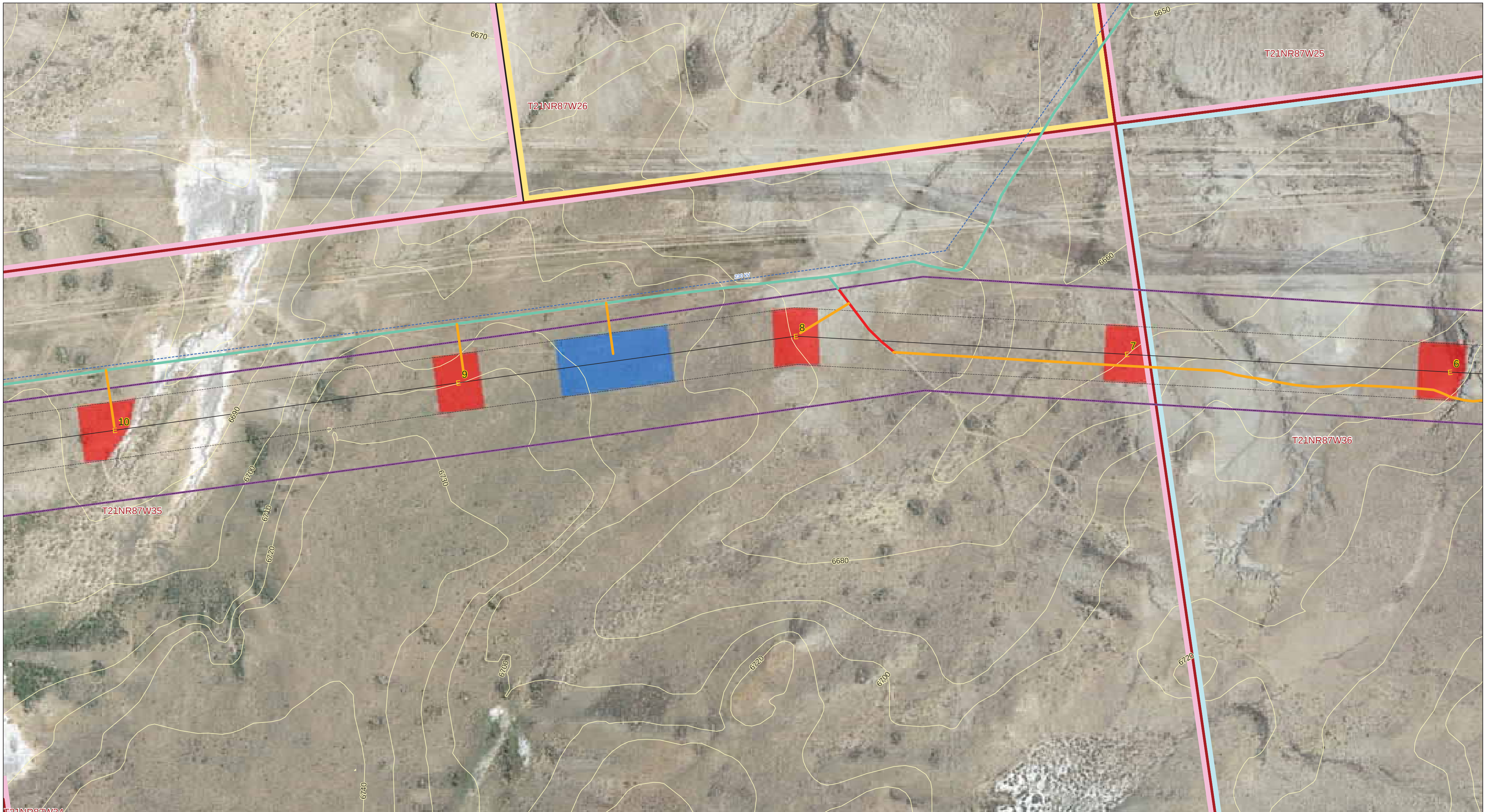
TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
I80 SAMPLE



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- State

- Section Line
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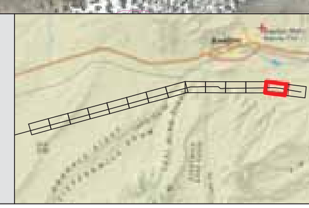
Existing Utilities
- Existing Transmission (115 kV or Higher)



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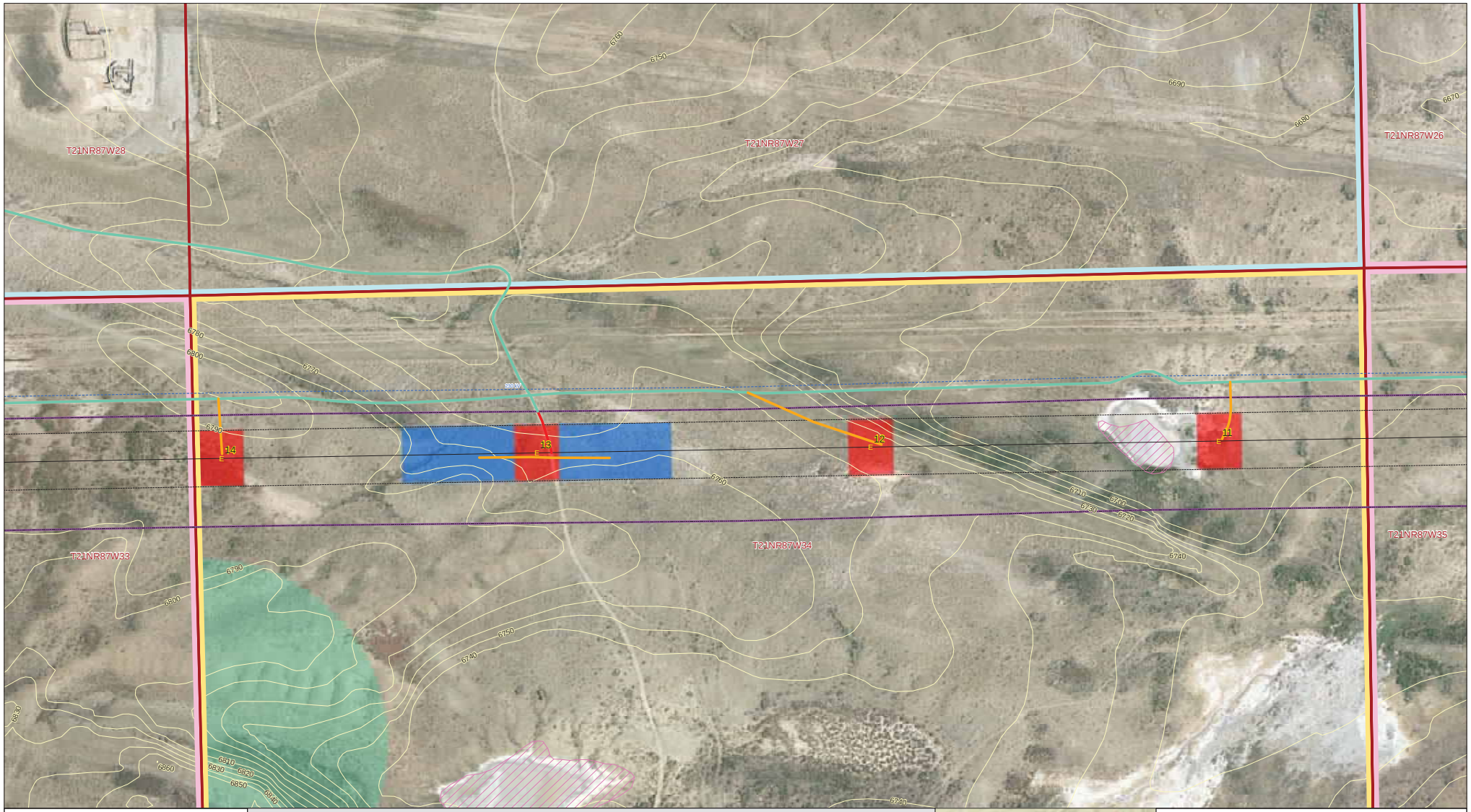

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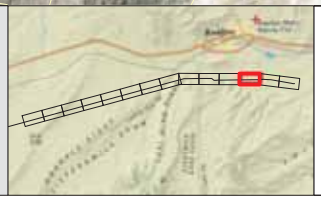
- Section Line
- Contours - 10 ft interval

Existing Utilities
- Existing Transmission (115 kV or Higher)



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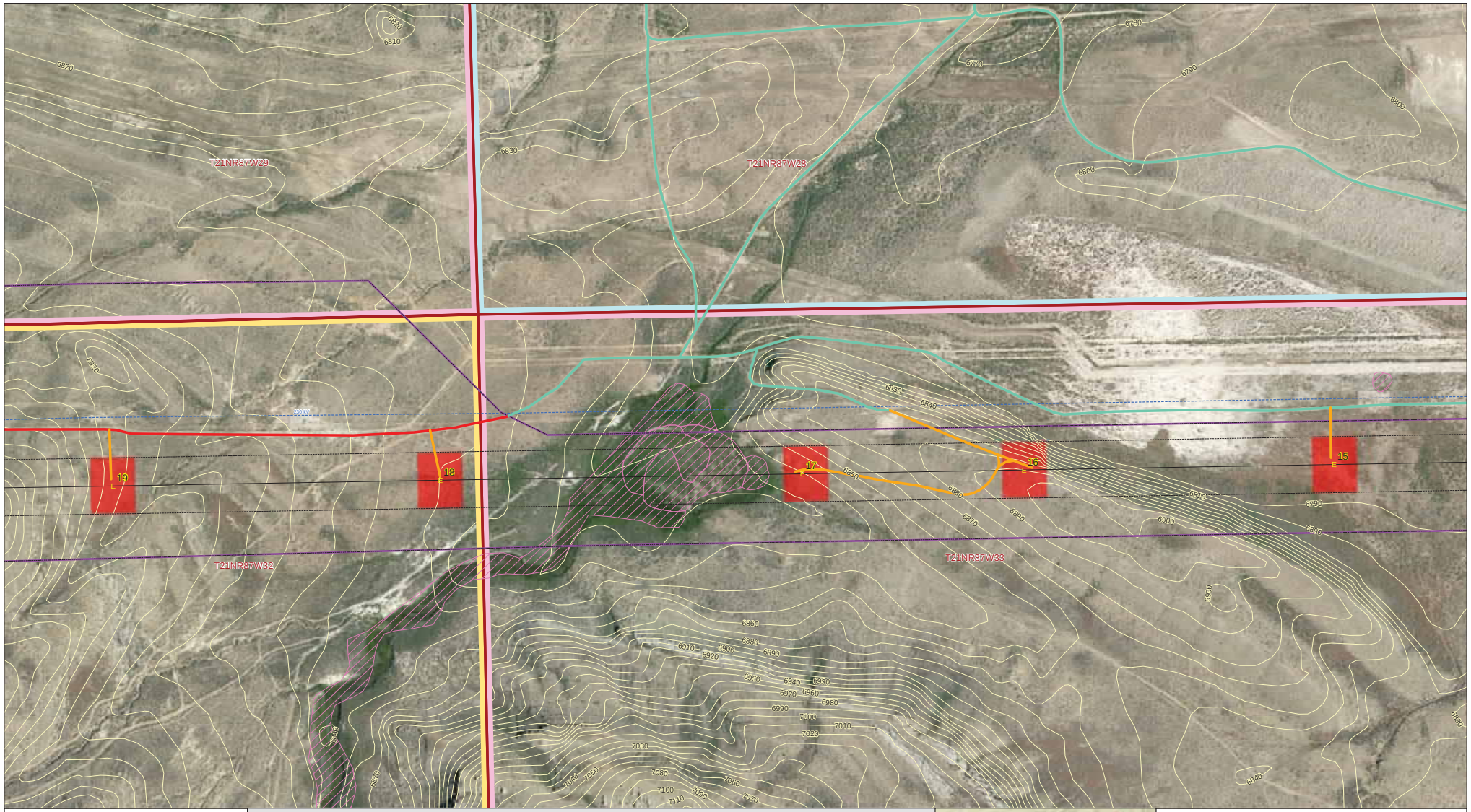
TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
I80 SAMPLE



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POWER ENGINEERS

TRANSWEST EXPRESS LLC

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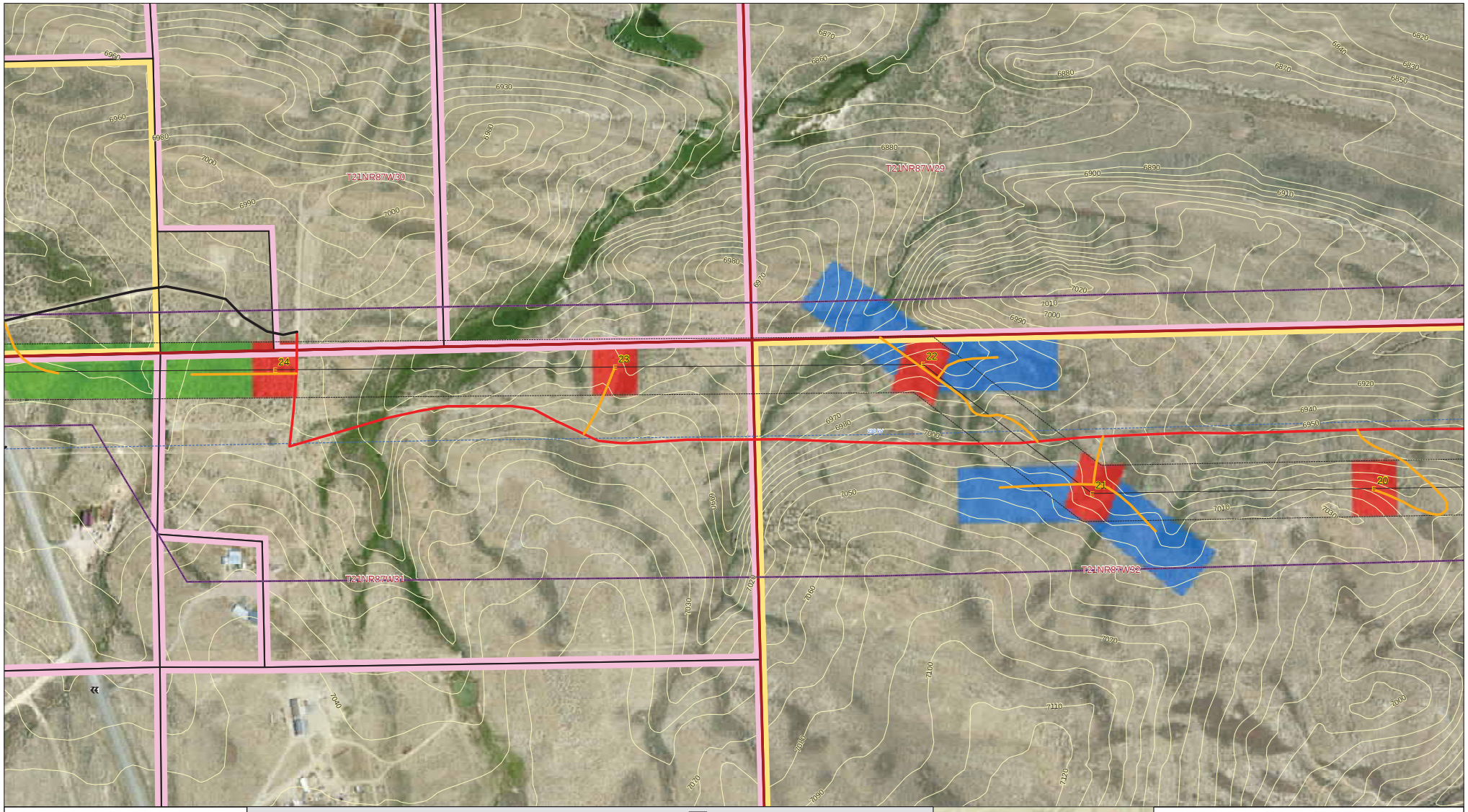

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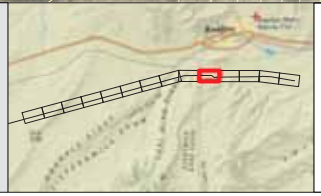

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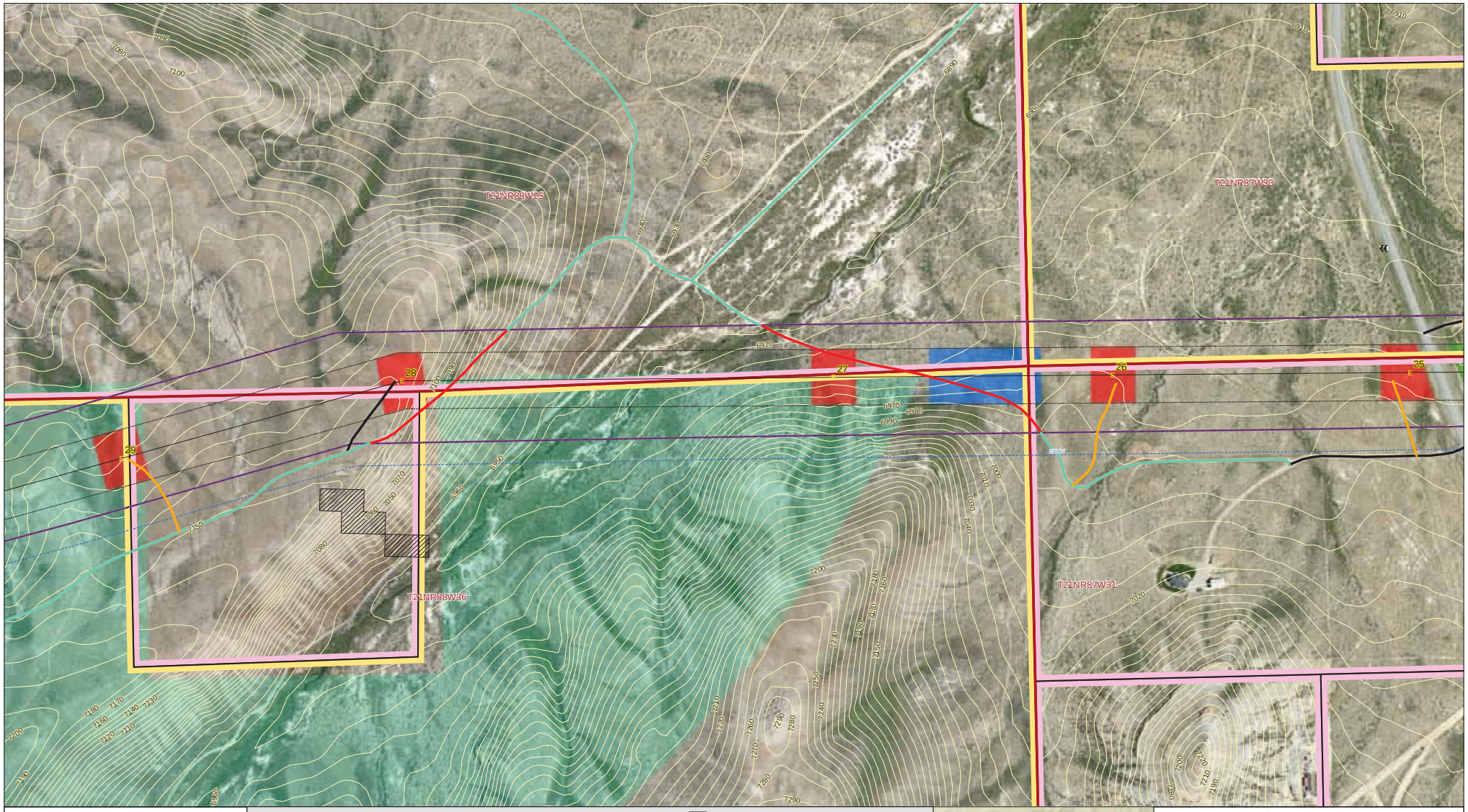

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TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
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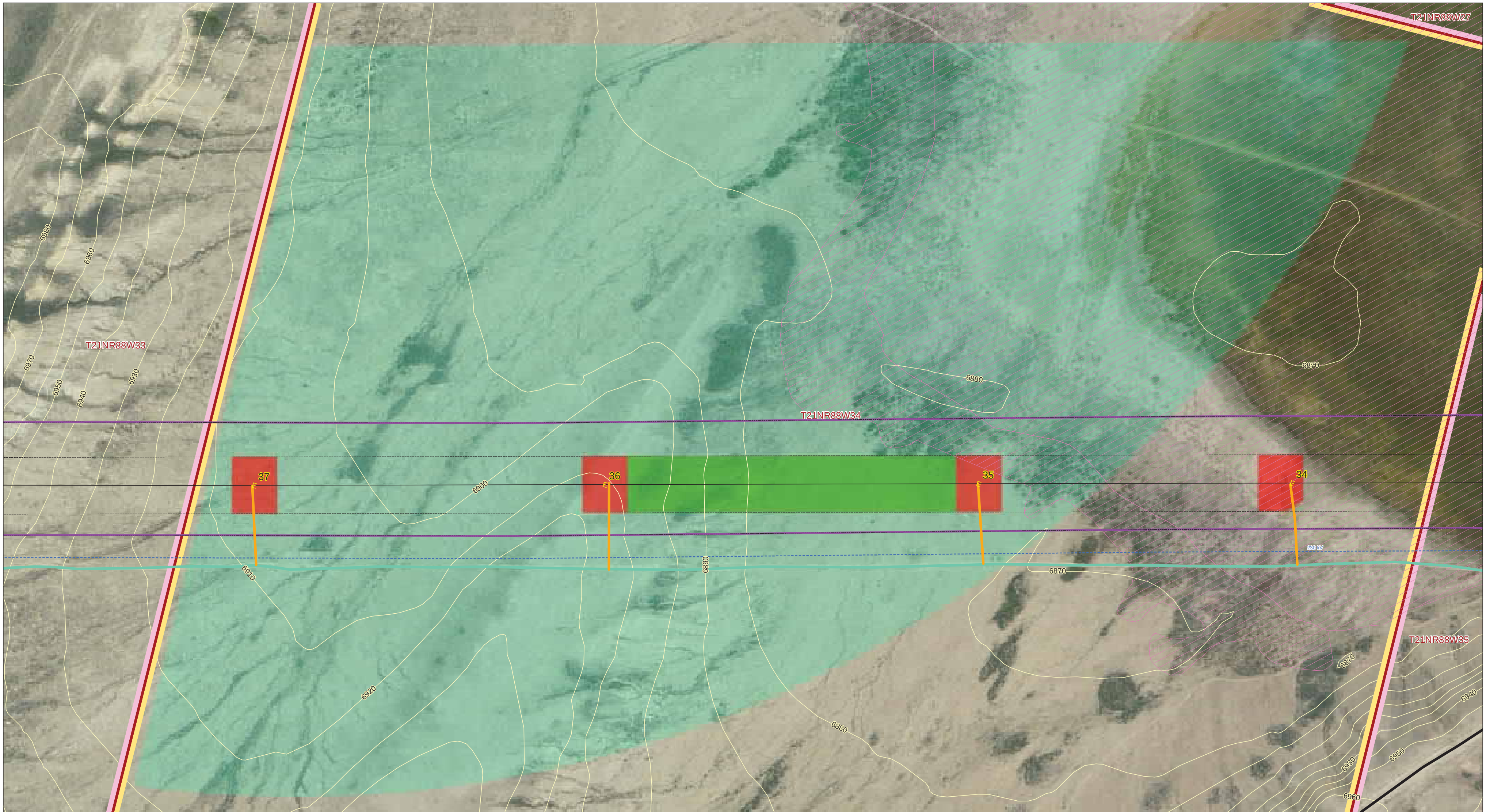

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Existing Utilities
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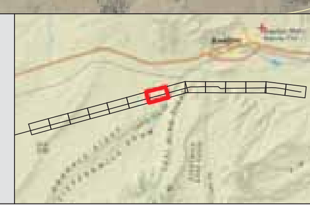

Sample Access Layout:
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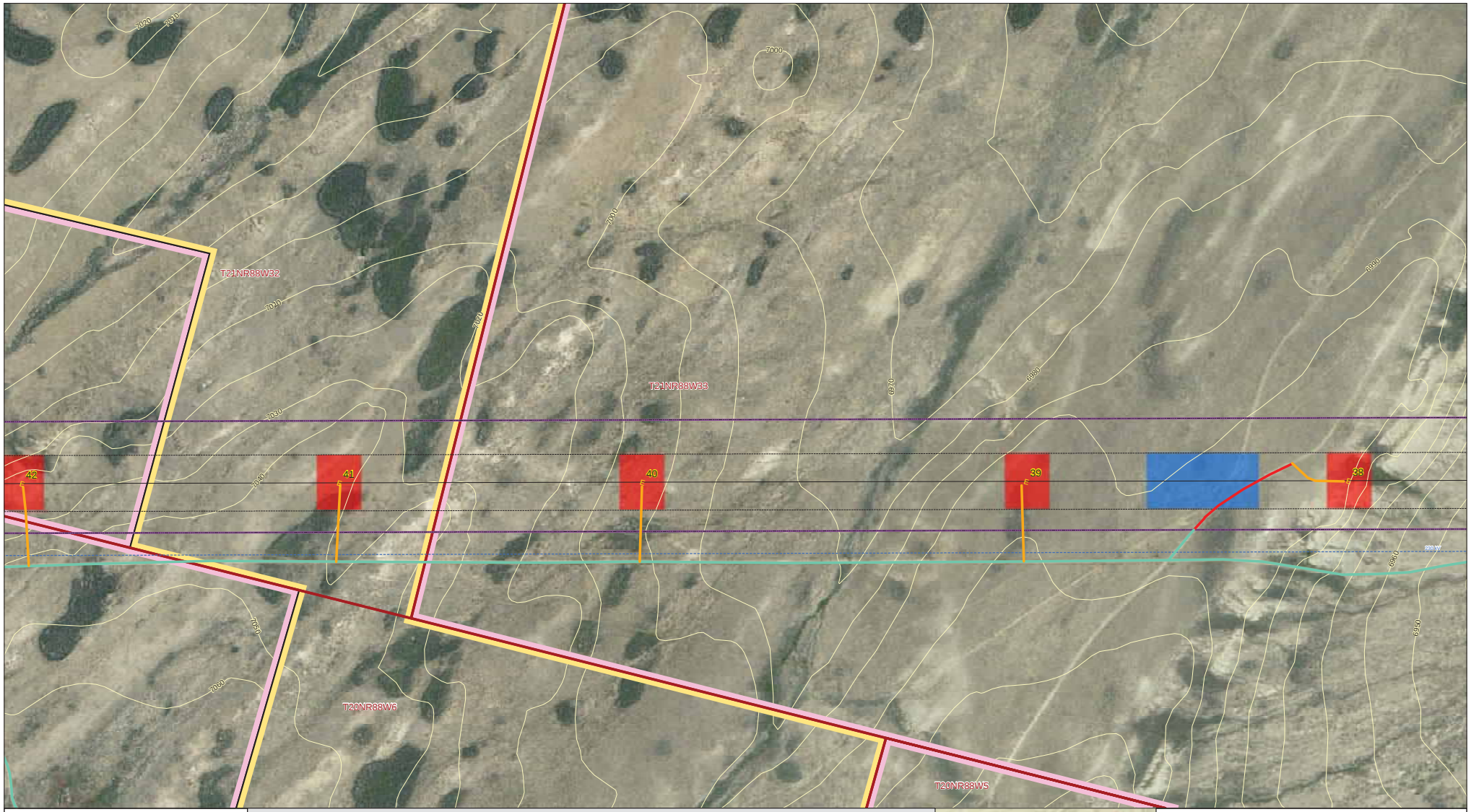
NOT FOR CONSTRUCTION

TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
I80 SAMPLE



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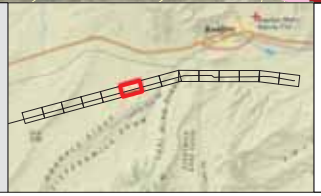
- Private Parcel
- BLM
- BOR
- State

- Section Line
- Contours - 10 ft interval

Existing Utilities
- Existing Transmission (115 kV or Higher)



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Sample I80 Revised Date: 5/12/2014

PRELIMINARY DRAFT:
NOT FOR CONSTRUCTION

TRANSWEST, I80 SAMPLE, TRANSMISSION PROJECT:
I80 SAMPLE

0 200 400 800 Feet

1:2,400 when printed on 34x22 inch sheet
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POWER ENGINEERS

TRANSWEST EXPRESS LLC

Proposed Transmission
- Centerline
- 250' ROW
- Proposed Tower Location
- FEIS Corridor

Preliminary Work Areas
- Wire-Pulling, Tensioning, Splicing Site
- Structure Work Area
- Material Storage Yard
- Fly Yard/Staging Area

Preliminary Access Roads
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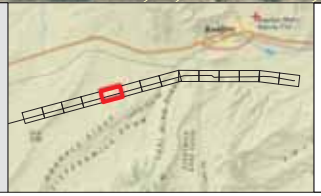

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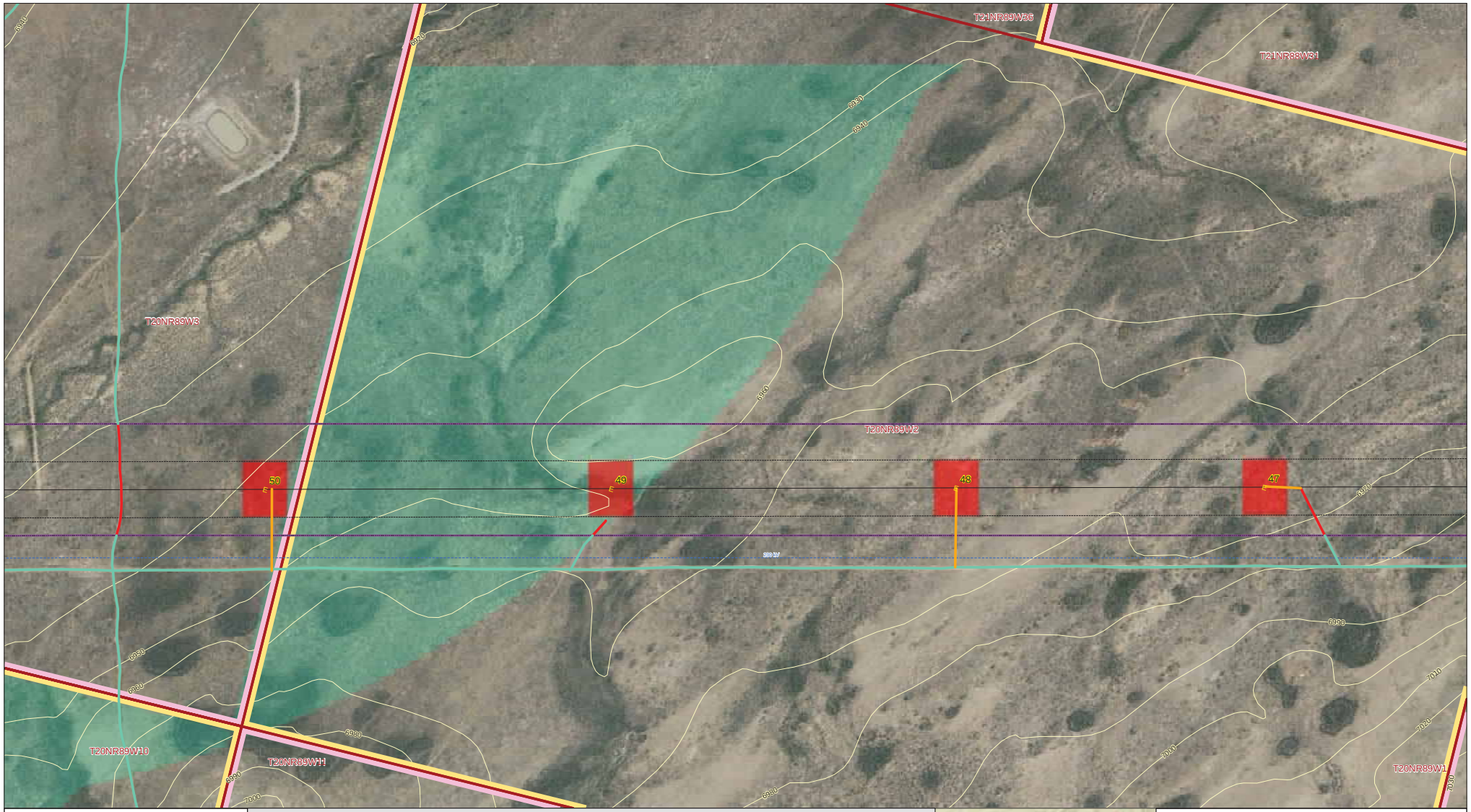

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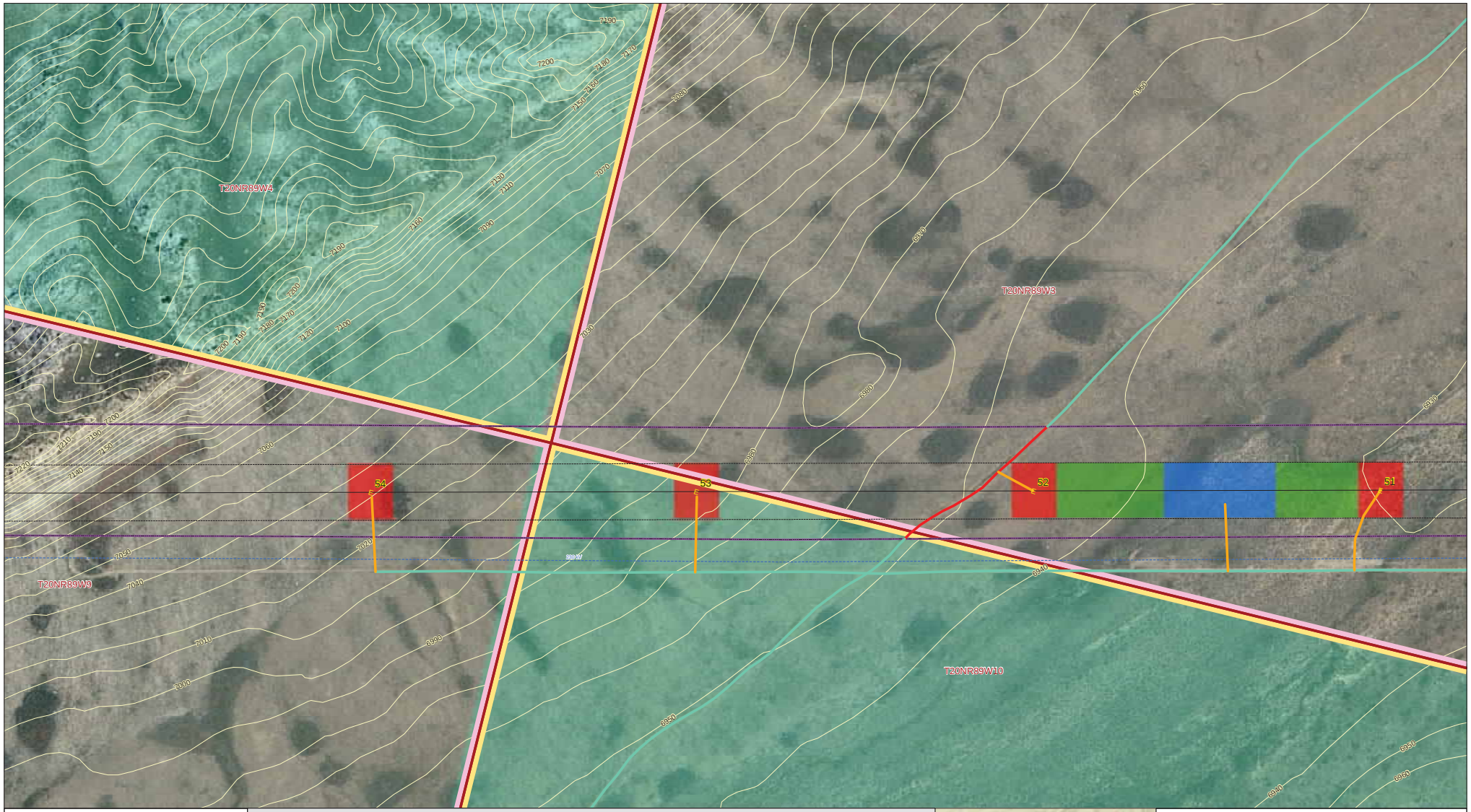

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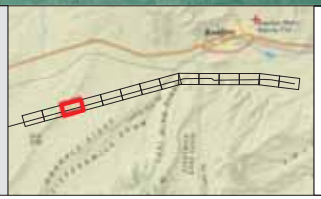

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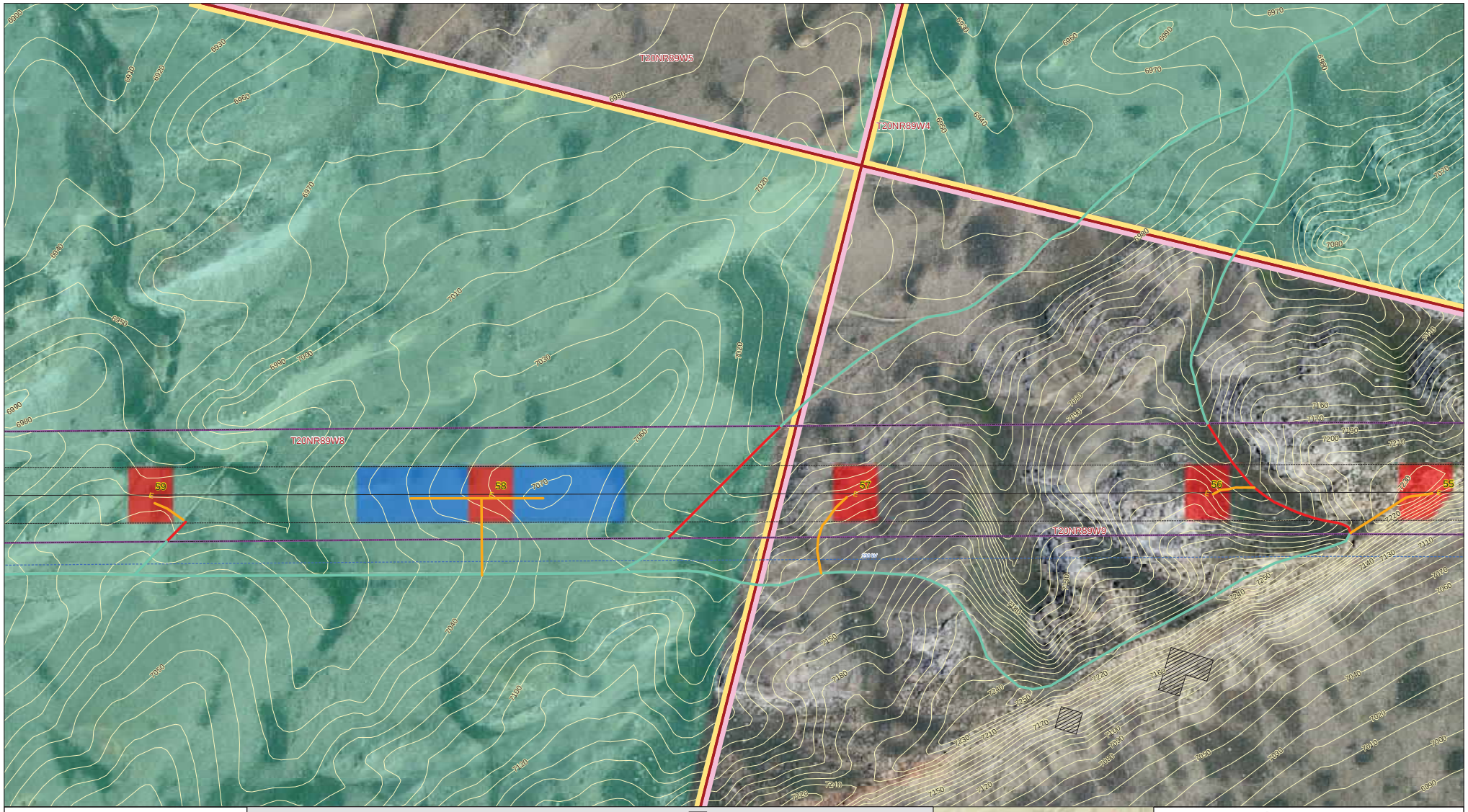

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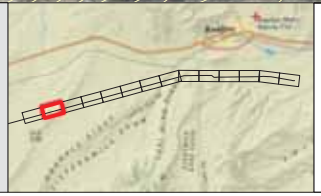

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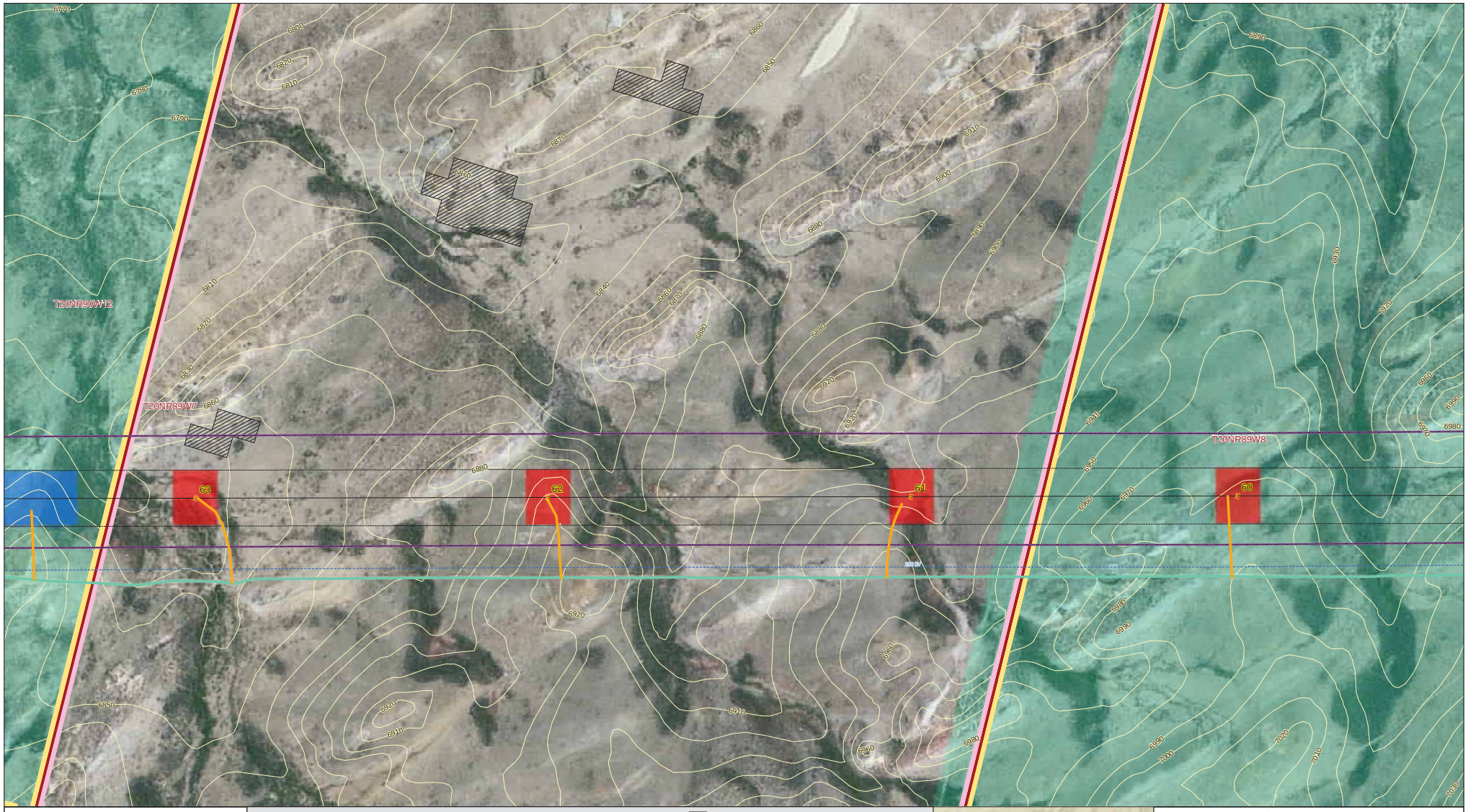

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