

05/20/25 PC AGENDA SHEET

PUBLIC HEARING

APP. NUMBER/OWNER/DESCRIPTION OF REQUEST

UC-25-0272-USA:

USE PERMIT to allow public utility structures (electrical substation and 500 kV overhead transmission lines) and associated equipment.

WAIVER OF DEVELOPMENT STANDARDS to increase the height of public utility structures.

DESIGN REVIEW for an expansion of public utility structures with all ancillary and accessory structures in conjunction with an existing electrical substation on a portion of 3,201.55 acres in an OS (Open Space) Zone.

Generally located on the northwest side of I-15, approximately 6,580 feet northwest of Las Vegas Boulevard North within the Northeast County Planning Area. MK/jud/kh (For possible action)

RELATED INFORMATION:

APN:

083-08-000-001; 083-09-000-001; 083-10-000-001; 083-15-000-001; 083-16-000-001; 083-17-000-001 ptn

WAIVER OF DEVELOPMENT STANDARDS:

Increase the height of public utility structures up to 195 feet where 35 feet is the maximum permitted per Section 30.02.22 (a 457% increase).

LAND USE PLAN:

NORTHEAST COUNTY - OPEN LANDS

BACKGROUND:

Project Description

General Summary

- Site Address: 19485 Las Vegas Boulevard North
- Site Acreage: 3,201.55 portion
- Project Type: Public utility structures
- Number of Stories: 1 (substation control building)
- Building Height (feet): 25 (substation control building)/ 195 (transmission line structures)
- Square Feet: 1,800 (substation control building)

Site Plan

The plan shows that the proposed substation site will be connected to the existing northern and southern bound transmission corridors. The plans depict a switchyard and control station, overhead power transmission line, and access roads. The project is entirely located on the Bureau

of Land Management (BLM) land and is approximately 5 miles southwest of the I-15 and Valley of Fire Interchange. The plans depict a 1.55 mile 500-kV transmission line, the proposed Muddy switchyard, and approximately 4 miles of new temporary and existing access roads, which will connect to Las Vegas Boulevard North. The proposed switchyard and control house are on approximately 32 acres and located on the southeast corner of APN 083-08-000-001. The site will be secured with chain-link fencing topped with barbed wire. The proposed transmission line is located in a 250 foot wide right-of-way consisting of 14 structures.

Elevations and Floor Plans

The transmission line structures range in height from 80 feet to 195 feet. The structure types are self-supporting steel lattice structures. A waiver of development standards is included to allow the height increase of the transmission line structures. The metal unstaffed substation control building is 25 feet high and 1,800 square feet in area. The site will be secured with chain-link fencing topped with barbed wire, which will not exceed 10 feet in height.

Applicant's Justification

The applicant states the proposed project will interconnect the TransWest Express Transmission Project (TWE Project), a 500-kilovolt (kV) alternating current (AC) transmission line extending across four states from south-central Wyoming to Southern Nevada, with the existing Harry Allen to Eldorado (HAE) 500-kV transmission line. This project will facilitate the delivery of electric power between the TWE Project and the California Independent System Operator (CAISO) transmission system. Interconnection of the TWE Project with the CAISO via the TDI Project, as proposed in the application, will enable the reliable and cost-effective transfer of up to 1,500 megawatts of electric power between the TWE Project and the CAISO transmission system, providing clean and sustainable power to Nevada and California while enhancing system reliability. The Muddy switchyard will be located more than 15 miles away from the nearest residential property, which is in the Moapa River Indian Reservation.

Prior Land Use Requests

Application Number	Request	Action	Date
UC-23-0302	Expansion of existing utility corridor with overhead electrical power lines and towers with increased height	Approved by BCC	August 2023
UC-18-0417	Expansion of existing utility corridor with overhead electrical power lines and towers with increased height	Approved by PC	July 2018
UC-1238-01	Electric substation expansion with eliminated landscaping	Approved by PC	January 2002
UC-1249-01	500 kV power transmission line corridor	Approved by PC	November 2001
UC-0498-01	500 kV switch yard with eliminated landscaping	Approved by PC	June 2001

Prior Land Use Requests

Application Number	Request	Action	Date
UC-0901-97	Electric substation with overhead power transmission lines	Approved by PC	June 1997
WT-0900-97	Waived off-site improvements	Approved by PC	June 1997
ZC-1238-96	Reclassified the site to O-S for an open space buffer zone along boundary of the Apex Heavy Industrial Site	Approved by BCC	October 1996

Surrounding Land Use

	Planned Land Use Category	Zoning District	Existing Land Use
North	Tribal Land (Moapa River Indian Reservation)	RS80 & OS	Solar generation facility & undeveloped
South	Open Lands	OS	Undeveloped
East	Open Lands	RS80	Undeveloped
West	Tribal Land (Moapa River Indian Reservation), Open Lands, Industrial Employment	OS & RS80	Existing utility corridor & undeveloped

STANDARDS FOR APPROVAL:

The applicant shall demonstrate that the proposed request is consistent with the Master Plan and is in compliance with Title 30.

Analysis**Comprehensive Planning**Use Permit

A special use permit is considered on a case by case basis in consideration of the standards for approval. Additionally, the use shall not result in a substantial or undue adverse effect on adjacent properties, character of the neighborhood, traffic conditions, parking, public improvements, public sites or right-of-way, or other matters affecting the public health, safety, and general welfare; and will be adequately served by public improvements, facilities, and services, and will not impose an undue burden.

Staff finds that there is a significant history of using the subject site and the surrounding area for electricity generation and transmission line corridors. In addition, staff finds that to reduce impacts on the environment and the rural character of the area, it is best to concentrate these types of structures in certain areas, such as the subject site, where there will be no new visual or environmental impacts. The addition of the proposed substation supports Master Plan Goal 3.2 of expanding the use of clean energy and achieving greenhouse gas reduction targets. Therefore, staff can support this request.

Waiver of Development Standards

The applicant shall have the burden of proof to establish that the proposed request is appropriate for its proposed location by showing the following: 1) the use(s) of the area adjacent to the

subject property will not be affected in a substantially adverse manner; 2) the proposal will not materially affect the health and safety of persons residing in, working in, or visiting the immediate vicinity, and will not be materially detrimental to the public welfare; and 3) the proposal will be adequately served by, and will not create an undue burden on, any public improvements, facilities, or services.

The proposed transmission line structures are in a variety of shapes and heights but are similar to structures that are currently found in the area. Staff finds that the number of additional structures and their heights should not create any undue burdens in the area given that such structures already exist. In addition, the nearest residential use is nearly 15.5 miles away and would not be affected by the additional height. For these reasons, staff can support this request.

Design Review

Development of the subject property is reviewed to determine if 1) it is compatible with adjacent development and is harmonious and compatible with development in the area; 2) the elevations, design characteristics and others architectural and aesthetic features are not unsightly or undesirable in appearance; and 3) site access and circulation do not negatively impact adjacent roadways or neighborhood traffic.

Overall, staff finds that the design of the proposed substation and utility structures are similar to those in the area. Staff does not anticipate any negative visual effects and environmental impact by locating along a transmission corridor and in an area with several renewable energy and electrical substation projects. For these reasons, staff can support this request.

Staff Recommendation

Approval.

If this request is approved, the Board and/or Commission finds that the application is consistent with the standards and purpose enumerated in the Master Plan, Title 30, and/or the Nevada Revised Statutes.

PRELIMINARY STAFF CONDITIONS:

Comprehensive Planning

- Applicant is advised within 2 years from the approval date the application must commence or the application will expire unless extended with approval of an extension of time; a substantial change in circumstances or regulations may warrant denial or added conditions to an extension of time; the extension of time may be denied if the project has not commenced or there has been no substantial work towards completion within the time specified; changes to the approved project will require a new land use application; and the applicant is solely responsible for ensuring compliance with all conditions and deadlines.

Public Works - Development Review

- Drainage study and compliance.

Fire Prevention Bureau

- No comment.

Clark County Water Reclamation District (CCWRD)

- Applicant is advised that there are no public sanitary sewer facilities available in the vicinity of the parcel and none are planned within the next 5 years.

TAB/CAC:

APPROVALS:

PROTESTS:

APPLICANT: TRANSWEST EXPRESS, LLC

CONTACT: CAMERON MING, TRANSWEST EXPRESS, LLC, 555 SEVENTEENTH STREET, SUITE 2400, DENVER, CO 80202