



# WSUP20-0013

## Ormat Geothermal



***Washoe County Planning Commission***  
***September 1, 2020***

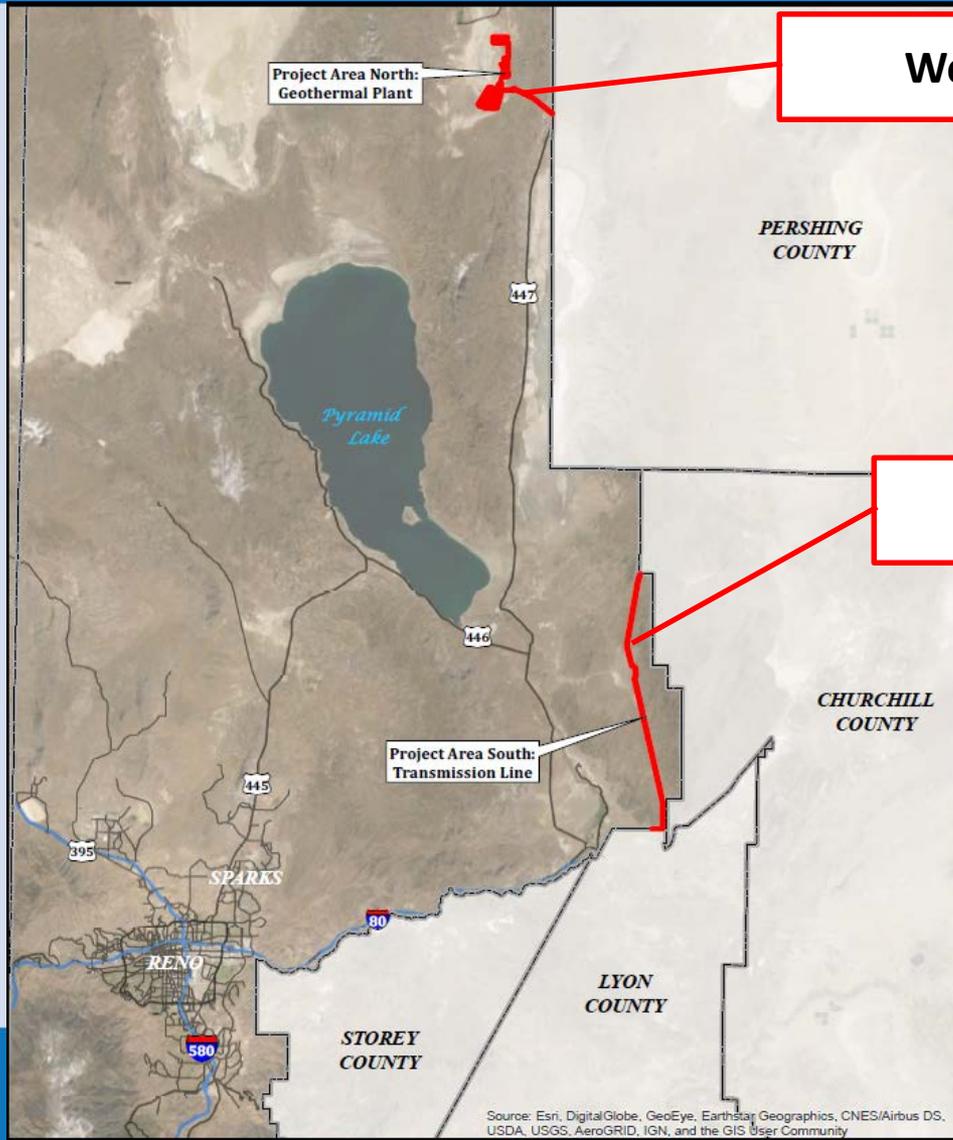


# Request

1. Applicant is requesting to establish a 48MW renewable energy use facility across 189.9 acres.
  2. Applicant is requesting to establish a Hazardous Material use – 720,000 lbs of flammable pentane gas.
  3. Applicant is requesting a major grading permit.
  4. Applicant is requesting to construct a 120kV power transmission line
  5. Applicant is requesting to vary the parking, landscaping, and grading standards.
- **This project meets the standard for a Project of Regional Significance.**



# Vicinity Map



**Well Fields/Facility**

**Transmission Line**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Vicinity Map**  
Ormat North Valleys Geothermal Plant

May 2020



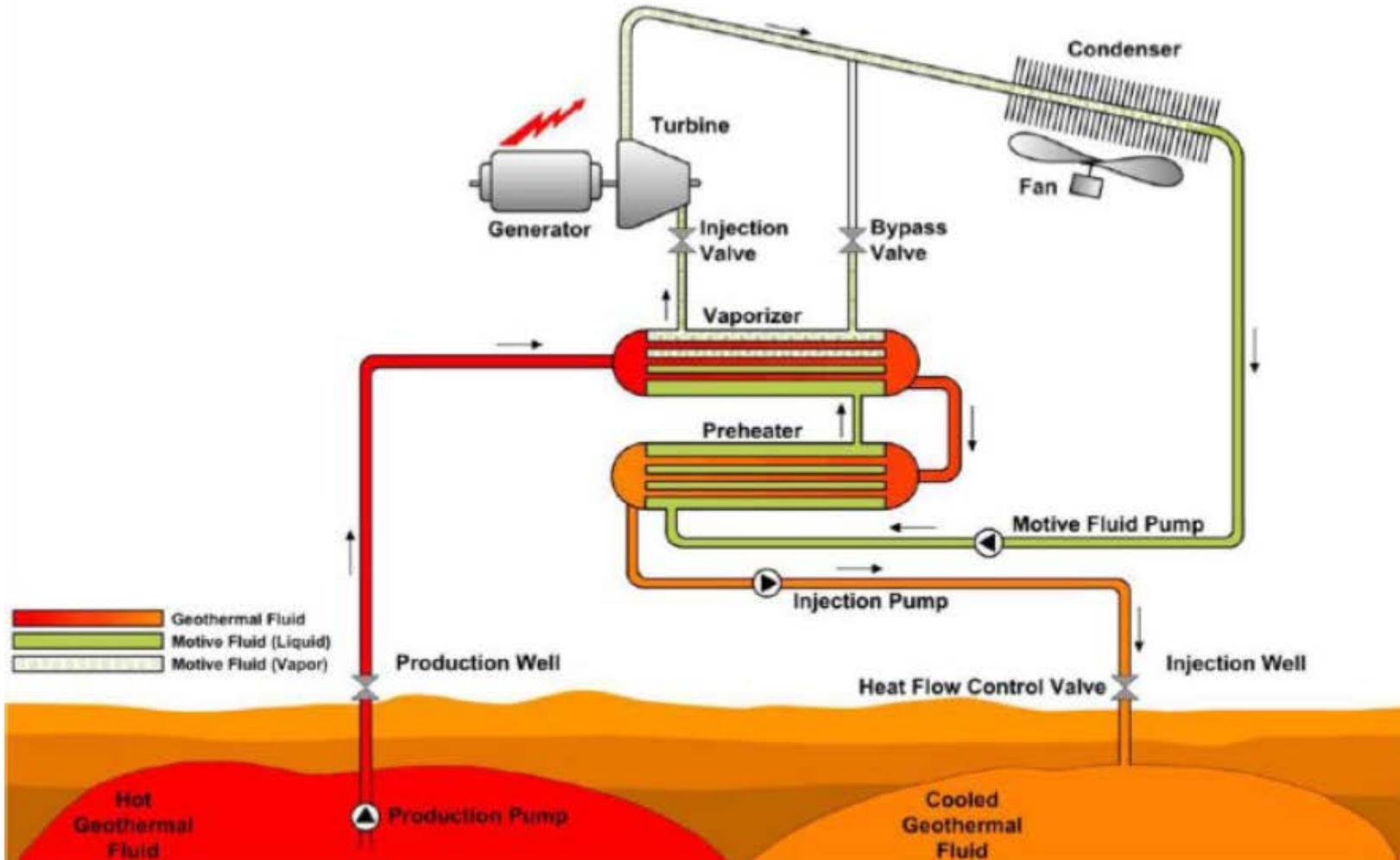


# Background

- 30 Affected parcels – all zoned General Rural (GR)
  - 8 parcels for well pads
  - 2 parcels for the geothermal power facilities
  - 20 parcels for the transmission line
- Applicant is currently operating the San Emidio geothermal facility in the vicinity
- Plants will be air cooled geothermal power generating facilities using pentane gas as a turbine working fluid

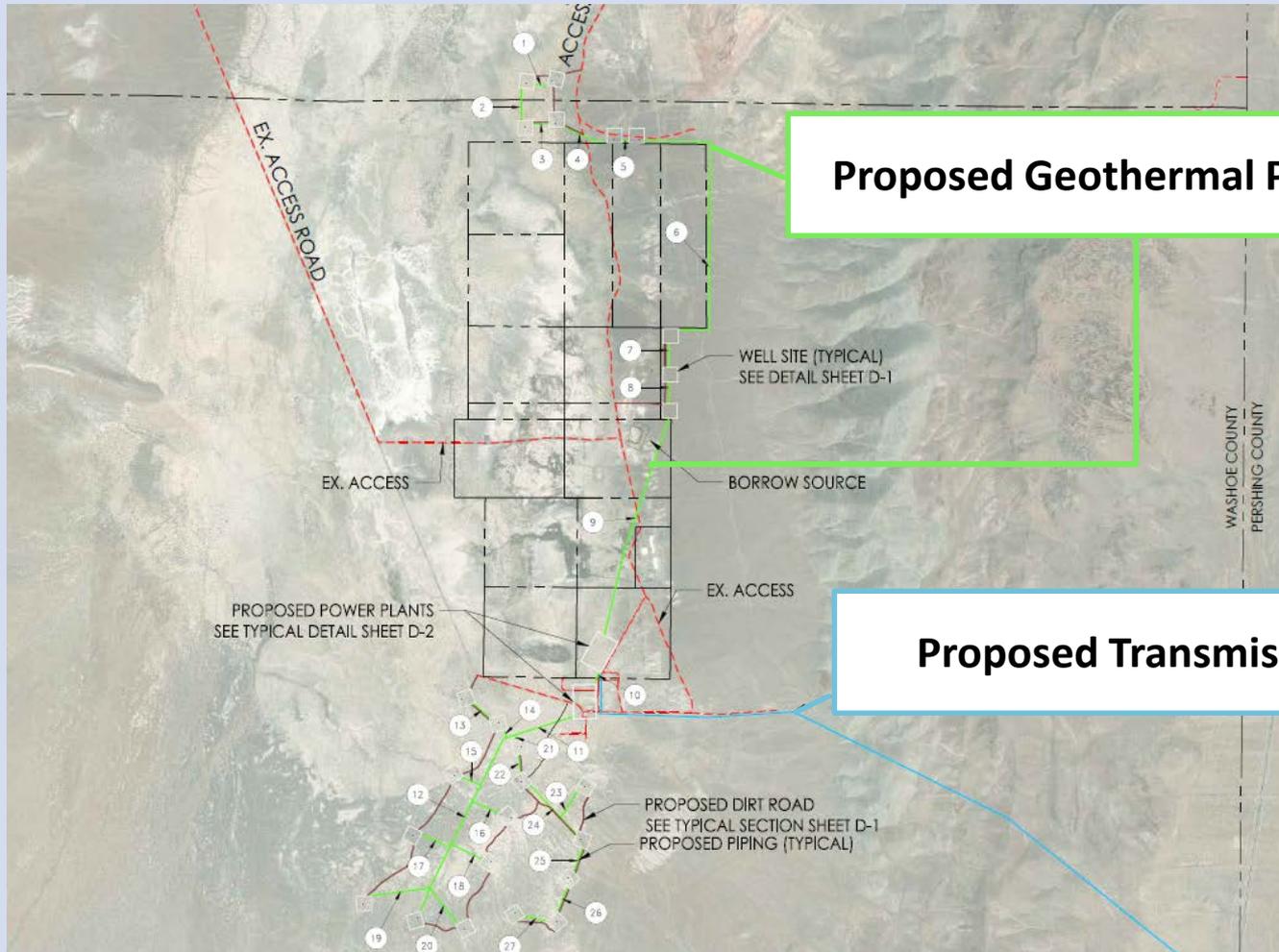
# Geothermal Power

## Air-Cooled Binary Geothermal Power Plant





# Geothermal Site Plan



**Proposed Geothermal Pipelines**

**Proposed Transmission Line**





# Existing Geothermal Facility - Photos

## Geothermal Piping



## Geothermal Well





# Proposed Well Locations

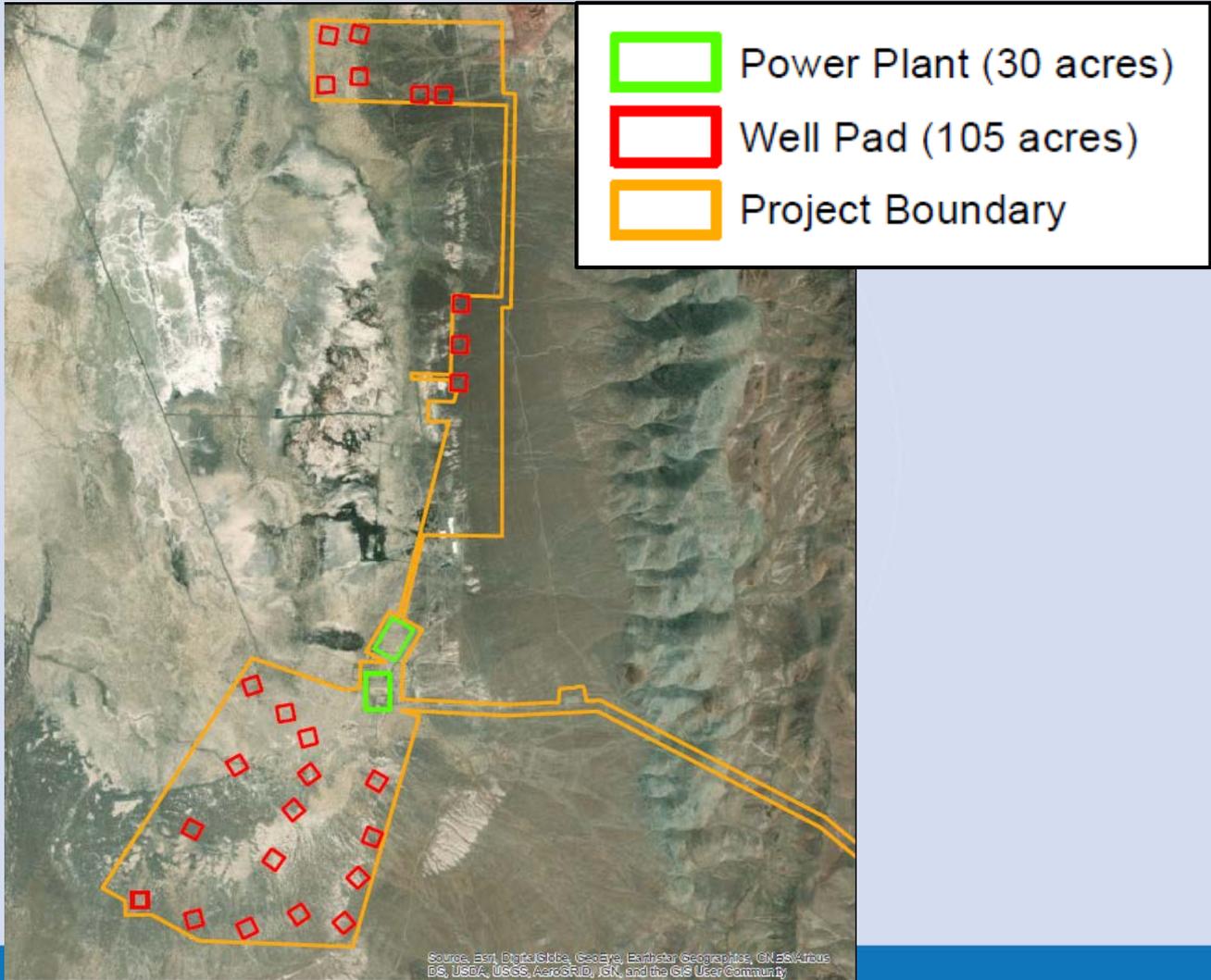


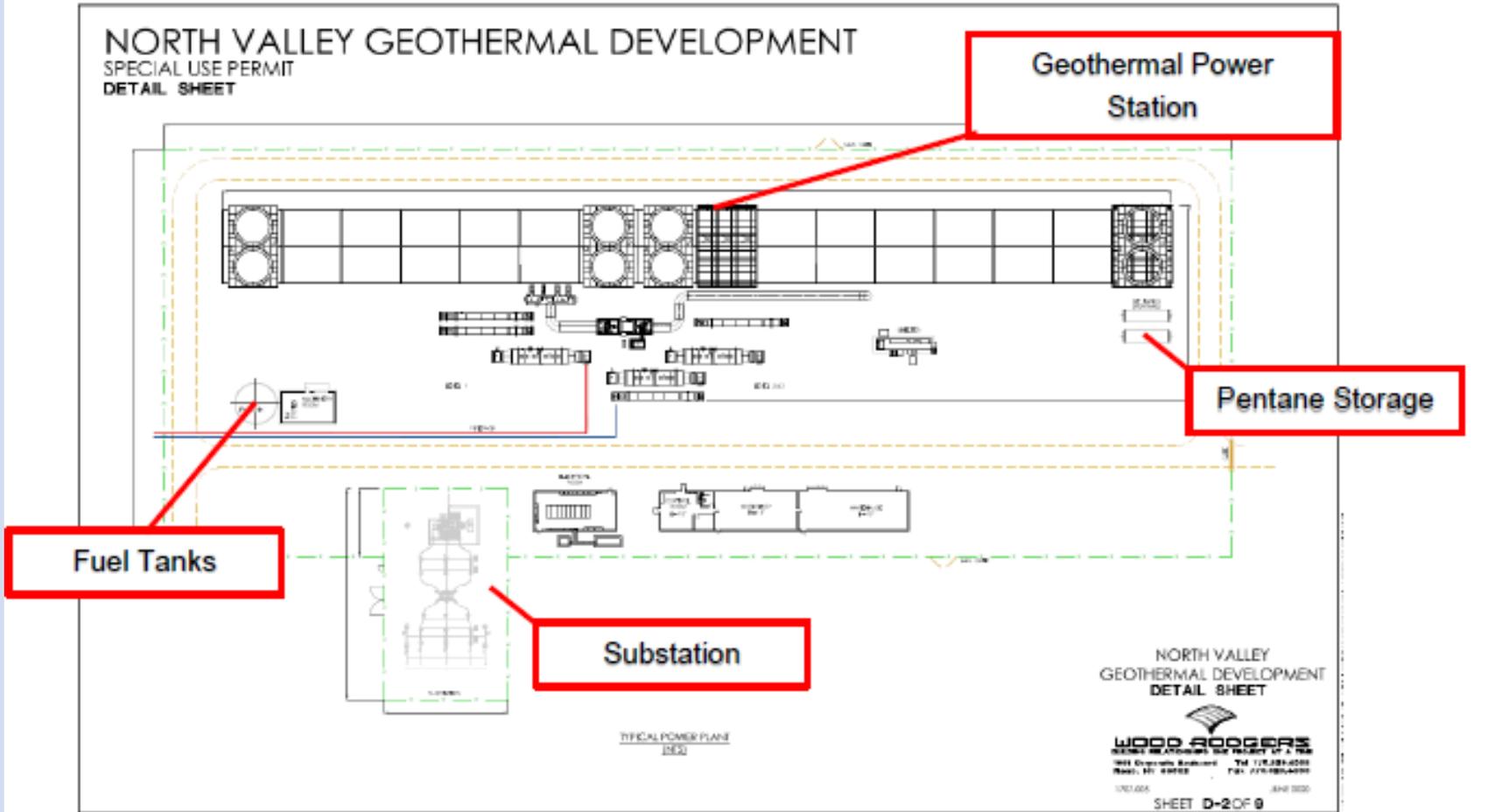
FIGURE 2 - SITE MAP  
ORMAT NORTH VALLEYS GEOTHERMAL PLANT  
WASHOE COUNTY, NV  
JUNE 2020





# Geothermal Facility Layout

## Geothermal Power Plant Site Plan





# Article 302/304 - Uses

## ■ Three proposed uses

– Energy Production, Renewable

- Permissible with an approved SUP in GR zoning

– Utility Services

- Permissible with an approved SUP in GR zoning

– Aggregate Facilities

- Borrow pit meets the 100,000cy threshold for a temporary aggregate facility per WCC

110.332.10(b)

– Not included in this SUP

- This will require a future SUP.



# Article 328- Geothermal

- **Applicant is requesting approval for 25 proposed wells**
  - Maximum number, hopefully less depending on geothermal resources
- **All future test wells require an Admin Permit**
- **Requirement to not use toxic materials in drilling fluid**
- **Reclamation of wellfields is required**
  
- **Proposed Conditions**
  - Require a list of drilling chemicals prior to issuance of building permits
  - Requirement for financial assurance for 80% of well pad reclamation.



# Article 406- Building Placement

## ■ General Rural

### – Setbacks

- Front 30ft
- Side 50ft
- Rear 30ft

### – Height – 35ft

### – Meets setback and height requirements

## ■ Fencing

### – 8ft max height for industrial fences

### – Meets fence requirements



# Article 410 – Parking and Loading

- **Required parking – 3 spaces**
  - 2 for employees
  - 1 handicapped
  
- **Proposed Conditions**
  - Staff agrees to waive the paved parking requirement for all non-ADA required parking spaces.



# Article 412 - Landscaping

- **Request to waive all formal landscaping requirements**
- **Proposed Conditions**
  - Staff agrees to waive the formal landscaping requirements required per 110.412.45(a-d)



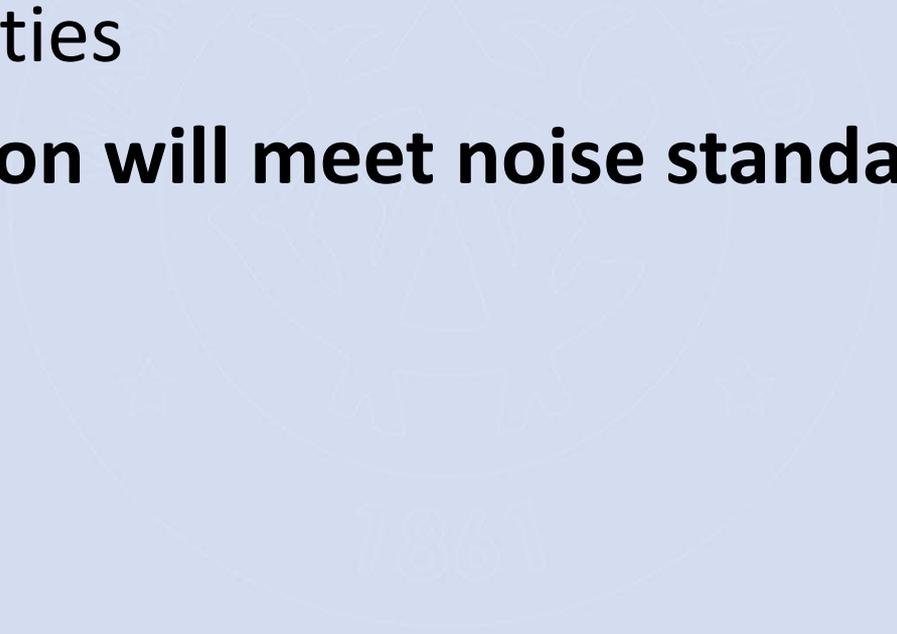
# Existing Conditions





# Article 414 – Lighting/Noise

- **Application will meet dark sky standards**
  - Will not reflect light onto adjoining properties
- **Application will meet noise standards**





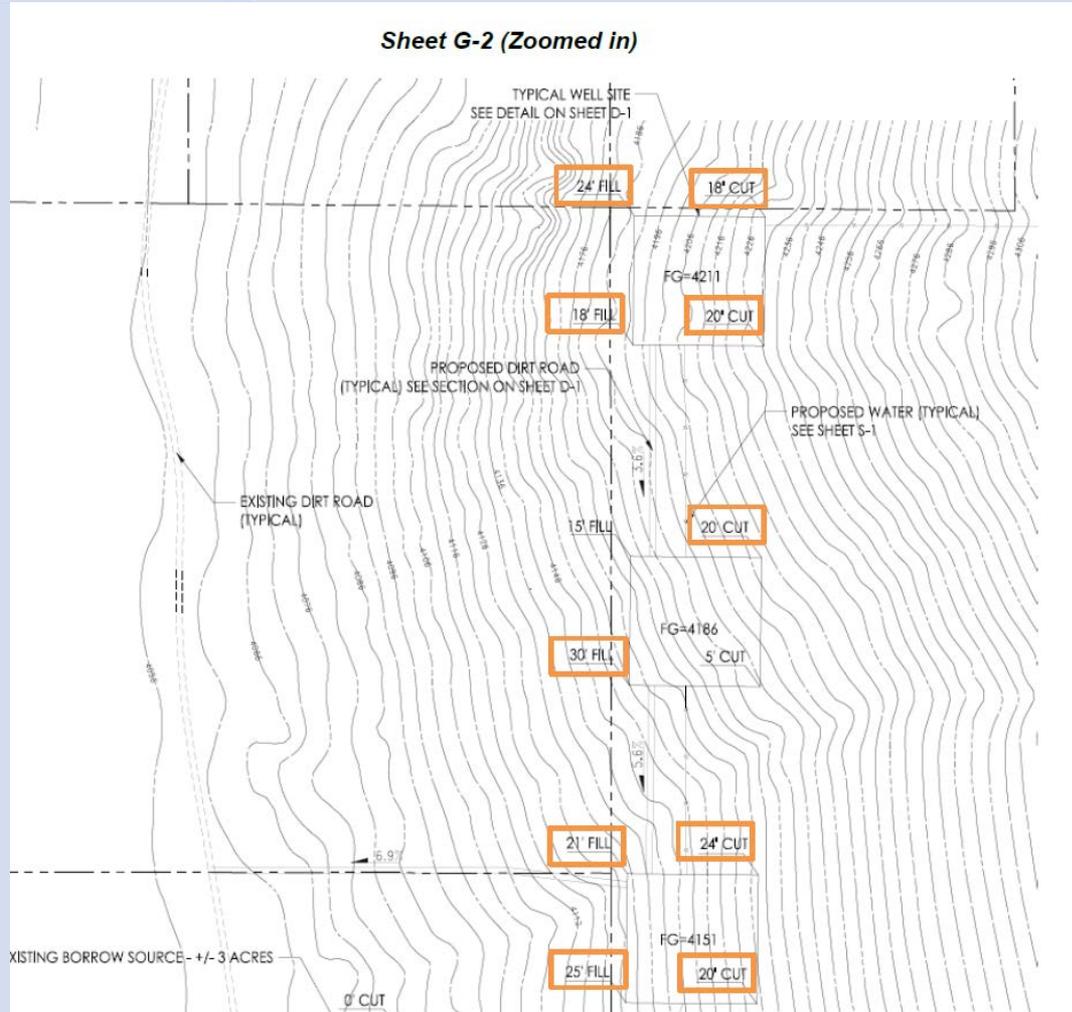
# Article 438 - Grading

- **300,000cy of excavation across 194.9 acres of disturbed area**
  - 4.2 acres disturbance per pad initially
  - 2.5 acres disturbance per pad at completion
- **Request to waive the 10ft maximum finished slope from natural grade**
  - Staff agrees to vary this standard as this may minimize grading overall.



# Slopes vary more than 10ft

Cut/Fill > 10ft





# Article 438 – Conditions

## ■ Proposed Conditions

Finish grading may vary from the natural slope by more than ten (10) feet in elevation on this project provided that these areas abide by the following mitigating standards:

- I. The proposed cut and/or fill slopes shall include stepped-back terraces (either retaining walls or stabilized slopes), and;
- II. The proposed terraces are revegetated, are a minimum of six (6) feet in width, and have a slope flatter than three horizontal to one vertical (3:1);
- III. Retaining walls used to create terraces are limited to a maximum vertical height of ten (10) vertical feet;
- IV. Terrace widths shall be at least 60% percent of the height of the higher of the two adjacent retaining walls;
- V. Bench widths shall be at least four (4) feet.



# Article 810 – Special Use Permits

- **Natural Resources SUP - Additional findings required**
- **Hazardous Materials SUP –**
  - Additional Notice – 1000ft and 30 days prior
  - Additional Agencies
    - Washoe County Director of Emergency Management and Homeland Security
    - NDEP
    - Nevada State Fire Marshall
    - Division of Industrial Relations at the Nevada State Department of Business and Industry
  - Various agencies provided comments and conditions for the storage of pentane in Exhibit A.



# Reviewing Agencies

## ■ Applications were sent to 27 reviewing agencies with 12 agencies providing comments

- **Bureau of Land Management**
  - Nevada State Office
  - Winnemucca District Office
- **USFWS**
- **NDEP**
- **NDF – Endangered species**
- **NDOT**
- **NDWR**
- **NDOW**
- **Nevada Division of Minerals**
- **Pyramid Lake Paiute Tribe**
- **Nevada Historic Preservation**
- **Nevada State Fire Marshall**
- **Division of Industrial Relations of NDBI**
- **Washoe-Storey Conservation District**
- **WC Sherriff**
- **Washoe County**
  - Planning and Building
  - Engineering
  - Water Resource Planning
  - Water Rights Management
  - Parks and Open Spaces
  - Director of Emergency Management
- **WC Health District**
  - Environmental Health
  - Air Quality Management
  - Emergency Management Services
- **TMFPD**
- **TMRPA**
- **RTC Washoe**



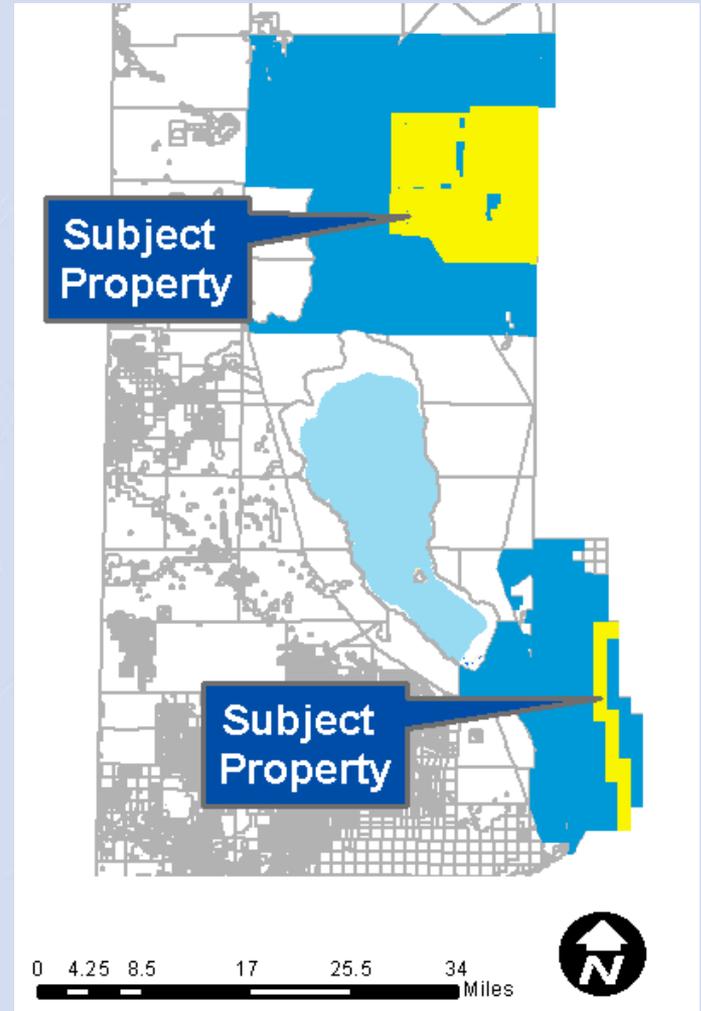
# Draft Environmental Assessment

- **Project is subject to an Environmental Assessment (not completed at time of review)**
- **Washoe County is evaluating the project strictly on:**
  - Use
  - Hazardous Materials
  - Project of Regional Significance
  - Major Grading



# Public Notice

- Notice was sent to 37 affected property owners (blue) within 21,000 feet of the site (yellow).





# Citizen Advisory Board Meeting

- **No Gerlach/Empire or East Truckee CAB meetings scheduled**
  - Worksheets provided
- **Concerns brought up by CAB**
  - Proximity to fire station
  - Borrow pit concerns
  - Wear and tear on Rodeo Creek
  - Water table concerns
- **Received late public comment against the proposed facility**
  - Impacts on neighboring geothermal resources
  - Impacts on fault lines
  - Impacts on mineral deposits



# Neighborhood Meeting – Plan Response

- **Applicant provided feedback to the CAB**
  - On-site fire suppression will be included in project implementation
  - Ormat will complete a Road Maintenance Agreement prior to major construction
  - No additional water resources will be used
    - Working with BLM for a monitoring plan
  - Ormat will get a permit for the losses of pentane through NDEP



# Special Use Permit Findings

1. **Consistency.** That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the High Desert Area Plan.
2. **Improvements.** That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.
3. **Site Suitability.** That the site is physically suitable for renewable energy generation use, and for the intensity of such a development.
4. **Issuance Not Detrimental.** That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area.
5. **Effect on a Military Installation.** Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

## Additional Findings

6. That to proposed development is not unduly detrimental to surrounding properties, land uses and the environment in general.
7. That to proposed development will not unduly block scenic views or degrade and surrounding scenic facilities.
8. That to proposed development will reclaim the site and all affected areas at the conclusion of the operation.



# Recommendation

Those agencies which reviewed the application recommended conditions to address applicable codes and impacts associated with the project. After a thorough analysis and review, staff recommends that the Planning Commission carefully consider all aspects of Special Use Permit number WSUP20-0013 and the nature of the stringent recommended conditions of approval and approve the requested Special Use Permit.



# Possible Motion – Special Use Permit

**APPROVAL:** I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Planning Commission approve with conditions Special Use Permit Case Number WSUP20-0013 for Orni 36, LLC for the following requests 1) establishment of an Energy Production, Renewable use type, 2) the establishment of a Hazardous Materials use, 3) major grading, and 4) request to vary parking, landscaping, and grading standards as recommended in the conditions of approval in Exhibit A , having made all five findings in accordance with Washoe County Code Section 110.810.30 and the additional findings in accordance with Washoe County Code Section 110.810.35, 40, & 42: