

Wasatch County
Planning Commission
December 14, 2017



Item #8

Heber Light & Power and
Rocky Mountain Power

Conditional Use Permit

WASATCH COUNTY
Wasatch County Planning Staff Report
December 14, 2017

ITEM 8:

Heber Light & Power and Rocky Mountain Power request a conditional use permit from Wasatch County to rebuild and extend a transmission line and expand an existing substation. The transmission line extension portion of this permit application begins on the existing transmission line on Old Highway 40, approximately 2 miles south of the Jordanelle Dam, and extends south 1.6 miles connecting onto the existing transmission line on Highway 40 approximately 0.8 miles south of the Highway 40/32 Interchange. The transmission line extension begins again at approximately 950 North and Highway 40 and runs 1.6 miles west and south, following the planned bypass road corridor, to the intersection of approximately 1200 West and Highway 113. The rebuilt transmission line portion of this permit application follows the existing transmission line and begins around 650 South and 1200 West and runs 2.2 miles ending at Highway 113, then again from Wards Lane and 600 West and runs 0.5 miles ending at the Midway Substation located west of the cemetery in Midway City. The substation portion of this permit application will expand Rocky Mountain Power's Midway Substation approximately $\frac{3}{4}$ of an acre to the west and south and will rebuild or modify the transmission lines entering and exiting the substation. The structures and poles will range in height from 75-90' with dead end poles ranging in height from 90-110'.

LAND USE SUMMARY:

1. Replace and consolidate the existing power lines and poles along Old Highway 40 and extend poles down the new highway 40 to the existing poles on highway 40 for a total of approximately 1.6 miles at a typical height of 75-90' for tangent poles and 90' – 110' for angles, crossings, and tap poles. Existing poles are approximately 45'tall.
2. Install approximately 1.6 miles of new lines from 950 North and Highway 40 along the proposed bypass corridor to 1200 West and Highway 113 at a typical height of 75-90' for tangent poles and 90' – 110' for angles, crossings, and tap poles.
3. Replace and upgrade 2.2 miles of existing lines running from 650 South and 1200 West to Highway 113 from an existing height of 50' – 70' to a typical height of 75-90' for tangent poles and 90' – 110' for angles, crossings, and tap poles. This section has two locations with special conditions requiring taller poles than typical (a) Provo River Crossing and Tap, next to the sewer ponds, and (b) fish hatchery crossing.
4. Replace and upgrade 0.5 miles of existing lines from Wards Lane and 600 West to the Applicant's Midway substations. From an existing height of 50' – 70' to a proposed height typical height of 75-90' for tangent poles and 90' – 110' for angles, crossings, and tap poles.
5. Expansion of the Midway Rocky Mountain Power substation of approximately $\frac{3}{4}$ of an acre and 150' feet to the south. Applicant is coordinating the expansion proposal with the affected landowner.
6. Height of the poles is proposed overall to go from 50' – 70' to 75'-90' with poles at termination points, sharp turns, and crossings being 90'-110' with two specific exceptions for taller poles at (a) the Provo River Crossing next to the sewer ponds and (b) the fish hatchery building crossing.
7. The number of poles along already existing line routes remains approximately the same.

8. New routes will have poles approximately every 200'-300'.
9. Proposal accommodates future power needs for Wasatch County.

BACKGROUND:

The Heber Valley and surrounding region have, for some time, experienced growth in population and demand on the applicant's electric systems. Applicants state they must upgrade existing facilities and build new facilities in the Heber Valley area of Wasatch County to address this growth. Applicants state the project will bring capacity and reliability to power users in Wasatch County.

Heber Light & Power must rebuild its South 46kV transmission line for capacity, complete the transmission circuit north to College Substation, and obtain a second point of interconnection to the regional transmission grid to address existing and future capacity and reliability needs. Rocky Mountain Power must build a 138kV transmission line between Jordanelle Substation, south of Jordanelle Reservoir, and Midway Substation, west of the Midway Cemetery and expand Midway Substation to address reliability needs in Wasatch County.

The first phase of the project was completed in 2014 and includes approximately one (1) mile of line along Utah State Road 40 from College Substation to Coyote Lane. The second phase is under construction scheduled to be complete in late winter 2017 to early 2018 and includes approximately one (1) additional mile along Utah State Road 40 from Coyote Lane to approximately 950 North. The rest of the transmission line is targeted for construction from fall 2018 – fall 2019.

The Proposal crosses through several zones including the North Village, A-20 and RA-1 zones. Each of these zones list power and utilities as a conditional use. There are a number of neighboring property owners that could be affected by this proposal. Property owners near existing lines to be upgraded as well as those that will border the future bypass route.

The applicants are requesting the conditional use so they can finalize the engineering necessary to construct the line. The planning commission reviews conditional uses. This is not a recommendation to the County Council.

ANALYSIS:

Old Highway 40 and North Village Connection (segments 1 and 2)

This segment of the proposal will replace the existing poles running from south of the Jordanelle dam to the existing upgraded poles along Highway 40. Currently there are two lines that exist in this location, one for Rocky Mountain Power and a separate line for Heber Light & Power. This upgrade will allow for distribution lines and transmission lines for both providers to be consolidated onto one line of poles. The location will follow the existing lines along Old Highway 40, cross highway 32 and follow existing lines on the south to the intersection with Highway 40. It is proposed to then be within the UDOT right-of-way until it connects with the newer poles on Highway 40 completed in 2014. The county has previously asked about paths that would take the lines either along the future collector road east of Highway 40 or a path above the upper canal. Applicants ultimately conveyed to county staff that, despite several efforts, those routes were operationally unacceptable, too costly, or not acceptable to the landowner. The proposed alignment, in staff's opinion, was the least attractive alternative. This segment runs for 1.6 miles in length. Applicants state this segment would be comprised of 2/3 wood and 1/3 steel poles and would be spaced at approximately 300'. This alignment will be a big visual impact to county residents and visitors at this busy intersection.



Bypass Route Connection (segment 3)

This segment of the proposal runs from 950 North and Highway 40 along the proposed bypass corridor to 1200 West and Highway 113 for about 1.6 miles. While the bypass road is still in the planning stages with UDOT, the road does have a general location which the power lines will border on the north and west boundaries. In the future this is expected to be on the edge of the future bypass road. The poles along this route will be spaced as far apart as is possible, with 300' being the typical separation, while still meeting power company and safety requirements.

Applicant has stated that they would be at a minimum 200'-300' apart. Applicant has indicated that this segment would be mostly wood poles with steel poles at the corners and at road crossings. This will connect to a portion of the line being permitted in Heber City at 650 South.



South Field Replacements (segment 4)

The fourth segment runs for 2.2 miles from approximately 650 South and 1200 West and follows the existing alignment to the border of Midway at Highway 113. The existing poles will be replaced on a pole for pole basis with wood or steel poles ranging in size from 75'-90' in height to a proposed height typical height of 75-90' for tangent poles and 90' – 110' for angles, crossings, and tap poles with two specific exceptions for taller poles at (a) the Provo River Crossing (tallest is 135' next to the sewer ponds) and (b) the fish hatchery building crossing (expected at 120'). Applicant indicates this segment will be predominately wood poles. Steel poles are expected at angles, crossings, like at the Provo River, to accommodate the longer spans to make the crossing.





Wards Lane Connection to Substation (segment 5)

The final segment will be from Wards Lane and 600 West at the Midway border and then run west then north approximately 0.5 miles to the Midway Rocky Mountain Power and the Heber Light & Power substations. These poles are anticipated to be replaced on a pole for pole basis and will increase the overall pole height to 75' -90' from existing height of 50' – 70'. This section will be predominately wood poles with steel poles expected at angles and crossings.



Midway Substation Expansion

In order to ensure transmission line protection and reliability the Rocky Mountain Power Midway substation will be expanded. It is anticipated that the site would expand by $\frac{3}{4}$ of an acre in size and 150' to the south and would include installation of similar equipment to what already exists on site. Applicants request flexibility in the layout of the site plan to allow for coordination with land owners long term plans. See the attached plan for the preliminary site plan.

Pole height –Throughout the entire proposal, the applicant states all pole heights will be kept to the minimum possible based on individual circumstances, but will range from a typical 75’ to 90’ on standard poles and 90’-110’ at the corners and ends of the lines with the two (2) exceptions at the Provo River tap next to the sewer, at approximately 135’, and the fish hatchery crossing, at approximately 120’.

Materials/colors –The applicant is proposing power poles that would typically be either wood or self-weathering steel (similar to the existing poles on Highway 40) or galvanized, as determined by the Planning Commission. Staff feels that wood or self-weathering steel would blend in best. The applicant will use low reflective, non-spectral, wire to minimize visual impacts if requested by Commission. The applicant will also install cross arms made of wood, earth-toned fiberglass, or self-weathering steel, if requested by the Commission.

Setbacks – The lines in the North Fields are anticipated to be the boundary of the future bypass road. While the poles can be inside of the right-of-way of such roads, since the exact location has not yet been determined for the bypass, the lines should be as far to the north and to the west of the road as is possible while staying within the planned bypass corridor. Where possible based on the corridor, pole locations should generally follow straight fence lines or property boundaries as is feasible. Applicants have coordinated the siting with UDOT based on all available information known today. For the substation expansion, sufficient area should be acquired so as to allow for all setbacks that match the provided site plan.

Following is a list of items that should be satisfied prior to the granting of a conditional use:

16.23.06. General Standards and Findings Required.

The County shall not issue a Conditional Use Permit unless the issuing department or commission finds:

- (1) The application complies with all requirements of this Title;
- (2) The use will be compatible with surrounding structures in use, location, scale, mass, design and circulation;
- (3) The visual or safety impacts caused by the proposed use can be adequately mitigated with conditions;
- (4) The use is consistent with the Wasatch County General Plan;
- (5) All issues of lighting, parking, the location and nature of the proposed use, the character of the surrounding development, the traffic capacities of adjacent and collector streets, the environmental factors such as drainage, erosion, soil stability, wildlife impacts, dust, odor, noise, and vibrations have been adequately mitigated through conditions;
- (6) The use will not place an unreasonable financial burden on the County or place significant impacts on the County or surrounding properties, without adequate mitigation of those impacts; and
- (7) The use will not adversely affect the health, safety or welfare of the residents and visitors of Wasatch County.

POSSIBLE FINDINGS:

- According to applicants this upgrade and new lines are essential to provide reliable power to the Heber Valley.
- Due to the preliminary nature of the proposal, meaning the engineering has not been completed, it is hard to detail the exact heights and materials of the poles.
- Some of the alignment proposed by the applicant is not the preferred alignment of the planning staff.
- The Planning Commission should have enough detail to understand what the impacts will be and feel comfortable that the least obtrusive, feasible options have been used.
- The applicant has the burden of providing the information necessary for the Planning Commission to make an informed decision.
- Pole heights in most locations will increase from a height of 50' – 70' to a height of 75'-90' with end points and corners being 90'-110' with two (2) exceptions at the Provo River tap next to the sewer, at approximately 135', and the fish hatchery crossing, at approximately 120'.
- Location of overhead power lines are generally located parallel to existing transportation corridors.
- The proposed location will increase impacts on neighboring properties.
- The proposal is a conditional use and impacts of the use should, as much as possible, be mitigated with conditions.
- The proposal will accommodate future needs and eliminates the need for a second parallel line.

ALTERNATIVE ACTIONS:

Alternative actions associated with this proposal may include the following:

1. Recommendation for Conditional Approval. This action may be taken based upon the premise that the proposed alignment minimizes impacts on the community and areas near the proposed route and that the impacts of the line can be mitigated with conditions.
2. Recommendation for Continuance. This action may be taken if the Planning Commission needs more information before making a decision.
3. Recommendation for Denial. This action may be taken if it is determined that the proposal is detrimental to the public health, safety, and welfare of the public, neighboring properties, and environment, and those conditions cannot be adequately mitigated by imposing reasonable conditions.

RECOMMENDED CONDITIONS OF APPROVAL:

- a. The power poles should be as low as possible yet still be able to accommodate the power line and separation requirements.

- b. All poles should be either wood or self-weathering steel.
- c. The maximum height limit is 110' on corner and end poles and 90' on all other poles. Except for exceptions as detailed by applicant and approved by the Commission.
- d. The wire used shall be non-spectral (low-reflective) to reduce visual impact.
- e. Cross arms shall be wood, earth-toned fiberglass, or self-weathering steel.
- f. In all areas where two lines exist applicants shall co-locate lines.
- g. Location of poles through the north fields will follow the western and northern boundary of the planned bypass corridor and poles should be placed near fence lines if fences exist along the corridor boundary.
- h. Pole spans shall be as long as possible while maintaining the pole height limitations.
- i. Wood poles shall be used where feasible and efficient if determined to be of less impact than steel poles as determined by the Planning Commission.

Attachments: Route maps, substation site plan, equipment details

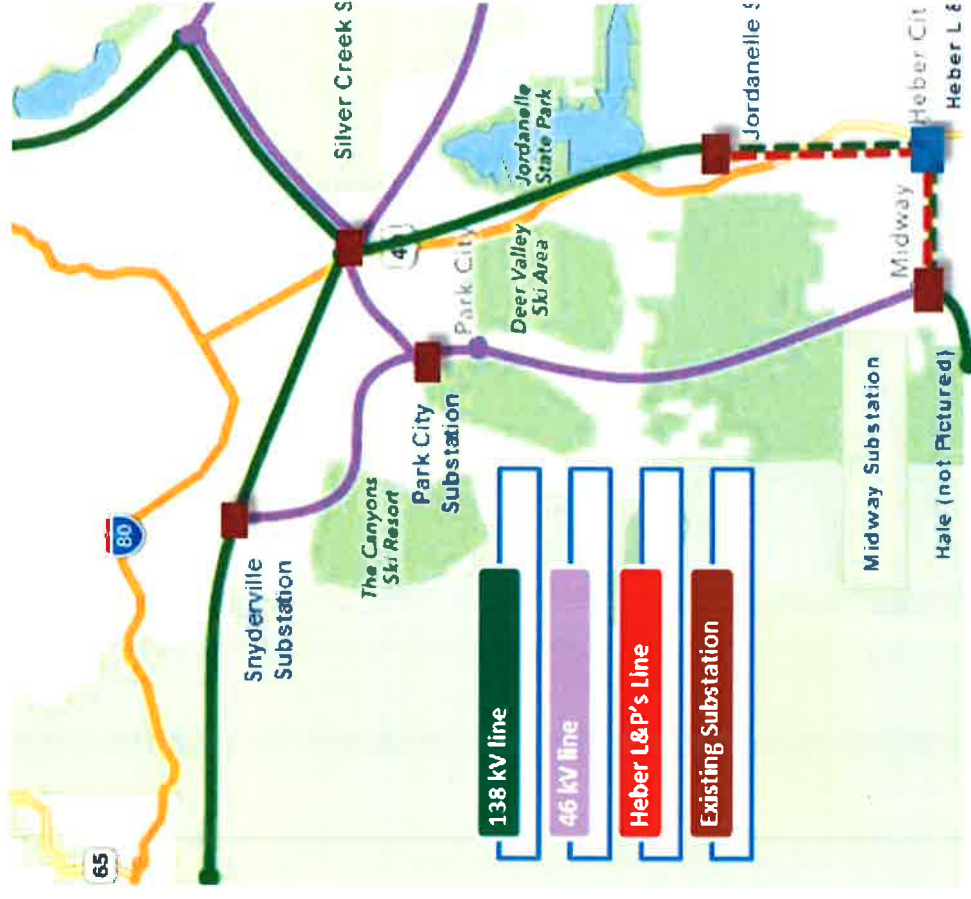
Transmission Line Map
Wasatch County Conditional Use Permit
Jordanelle - Midway Transmission Line
Overall Map

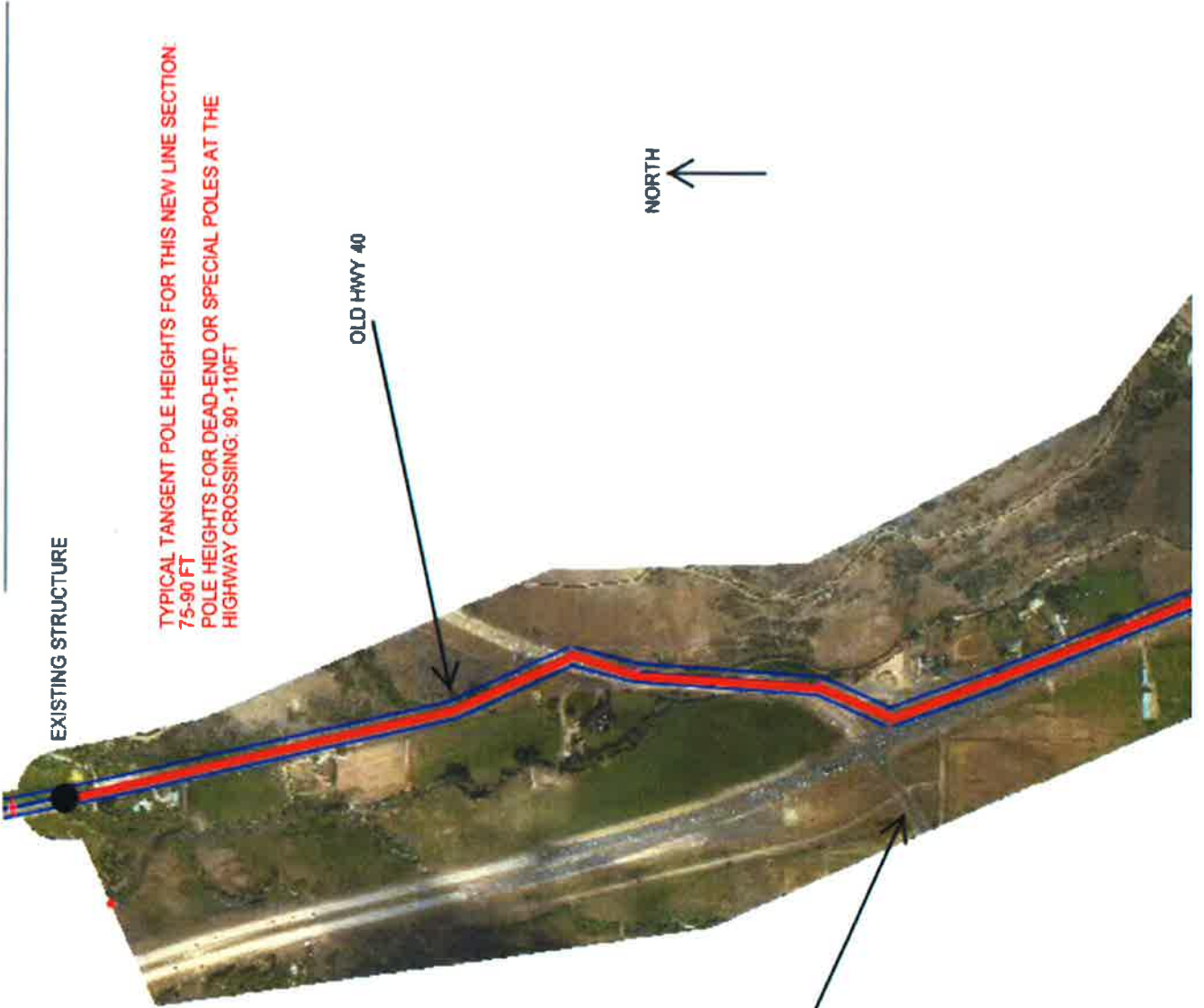
Legend
New Transmission Line
Rebuild Transmission Line



Midway - Jordanelle project

- An approximately 10 mile transmission line project. Both rebuilding an existing line and building a new line that will share one set of poles
- The first two miles of the project have been permitted by the county
- The project will follow existing transmission lines, highways and proposed highways to minimize impacts to communities
- Construction will begin 2018 and complete in 2019
- The line will bring added capacity to Wasatch County and increase the reliability
- A substation upgrade will be completed at the Midway substation to accommodate the new 138,000 Volt line. HLP will complete a new substation near their operations center
- See detailed maps included in CUP package for routing details.





EXISTING STRUCTURE

TYPICAL TANGENT POLE HEIGHTS FOR THIS NEW LINE SECTION:
75-90 FT
POLE HEIGHTS FOR DEAD-END OR SPECIAL POLES AT THE
HIGHWAY CROSSING: 90 - 110 FT

OLD HWY 40

HWY 32

NORTH

Segment 1:

Transmission Line Map

Wasatch County Conditional Use Permit
Jordanelle - Midway Transmission Line





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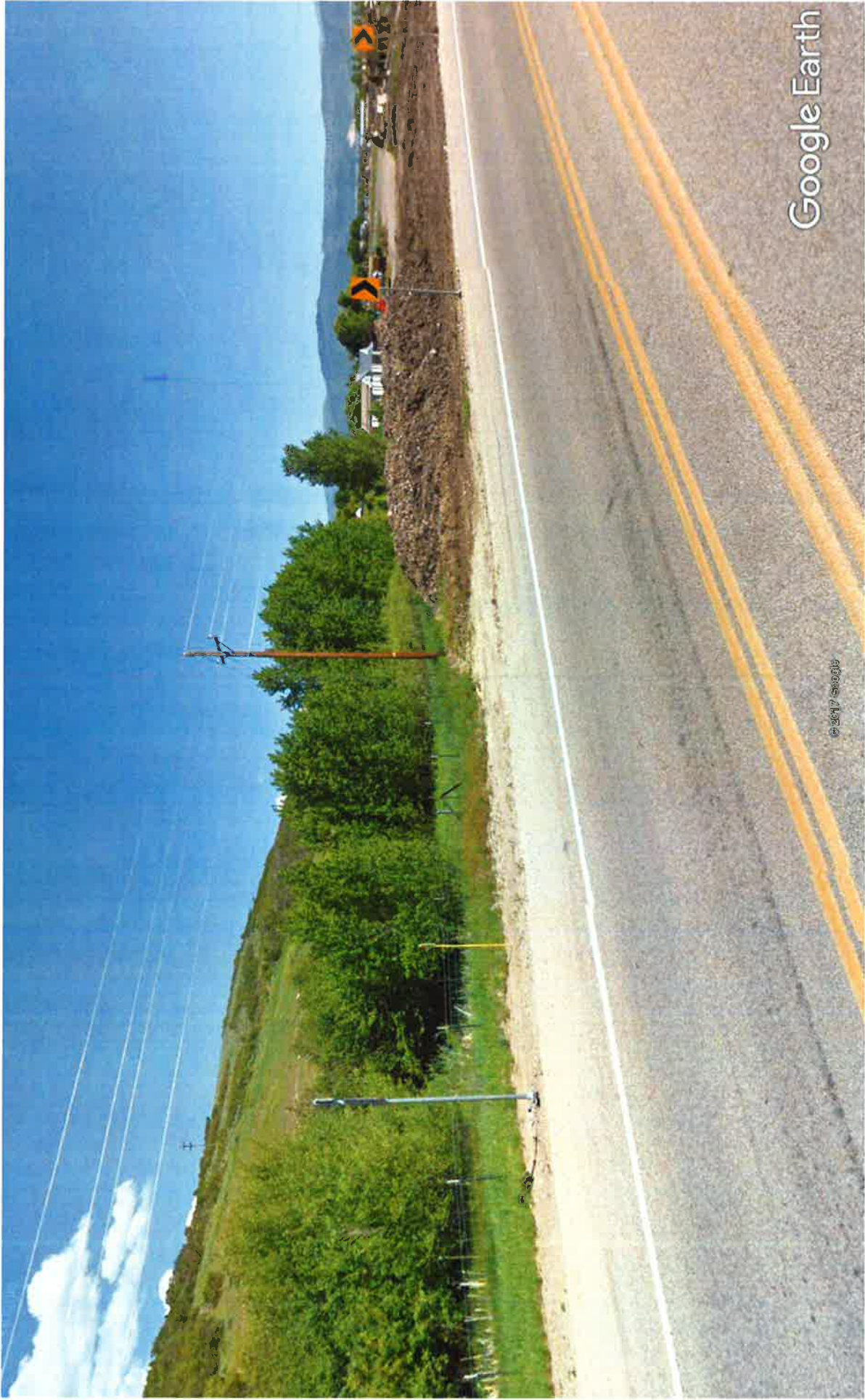
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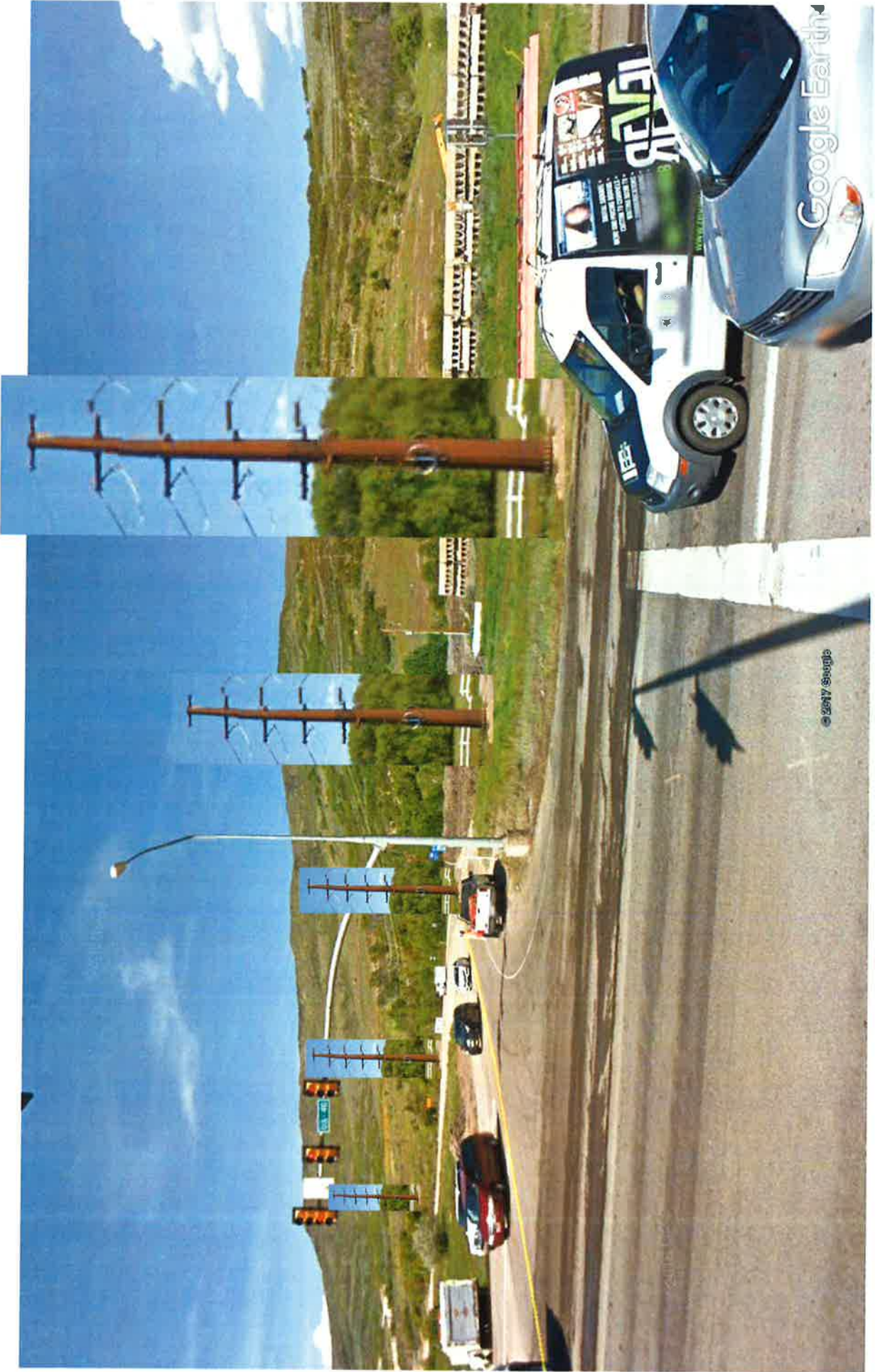
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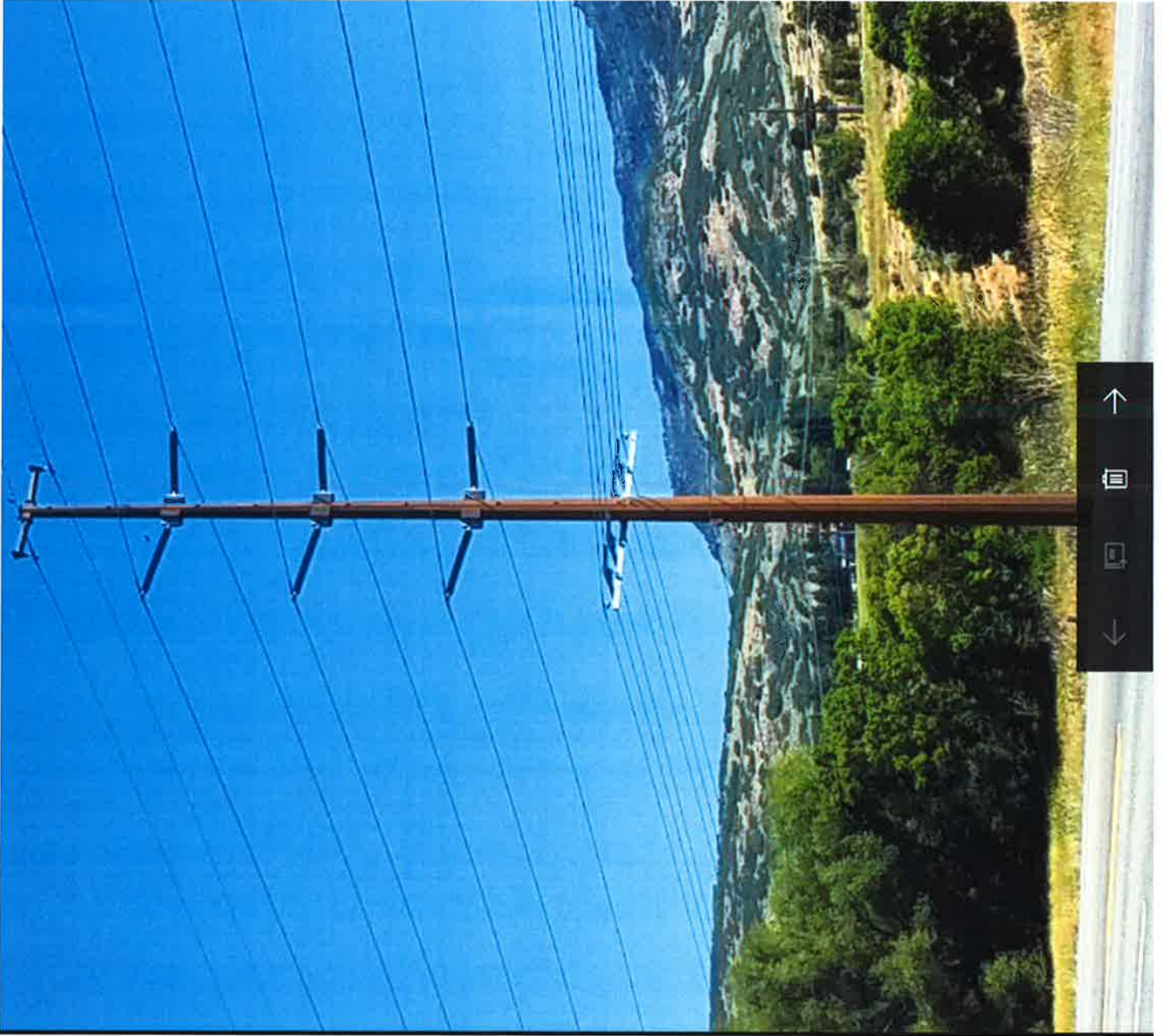
Segment 2:





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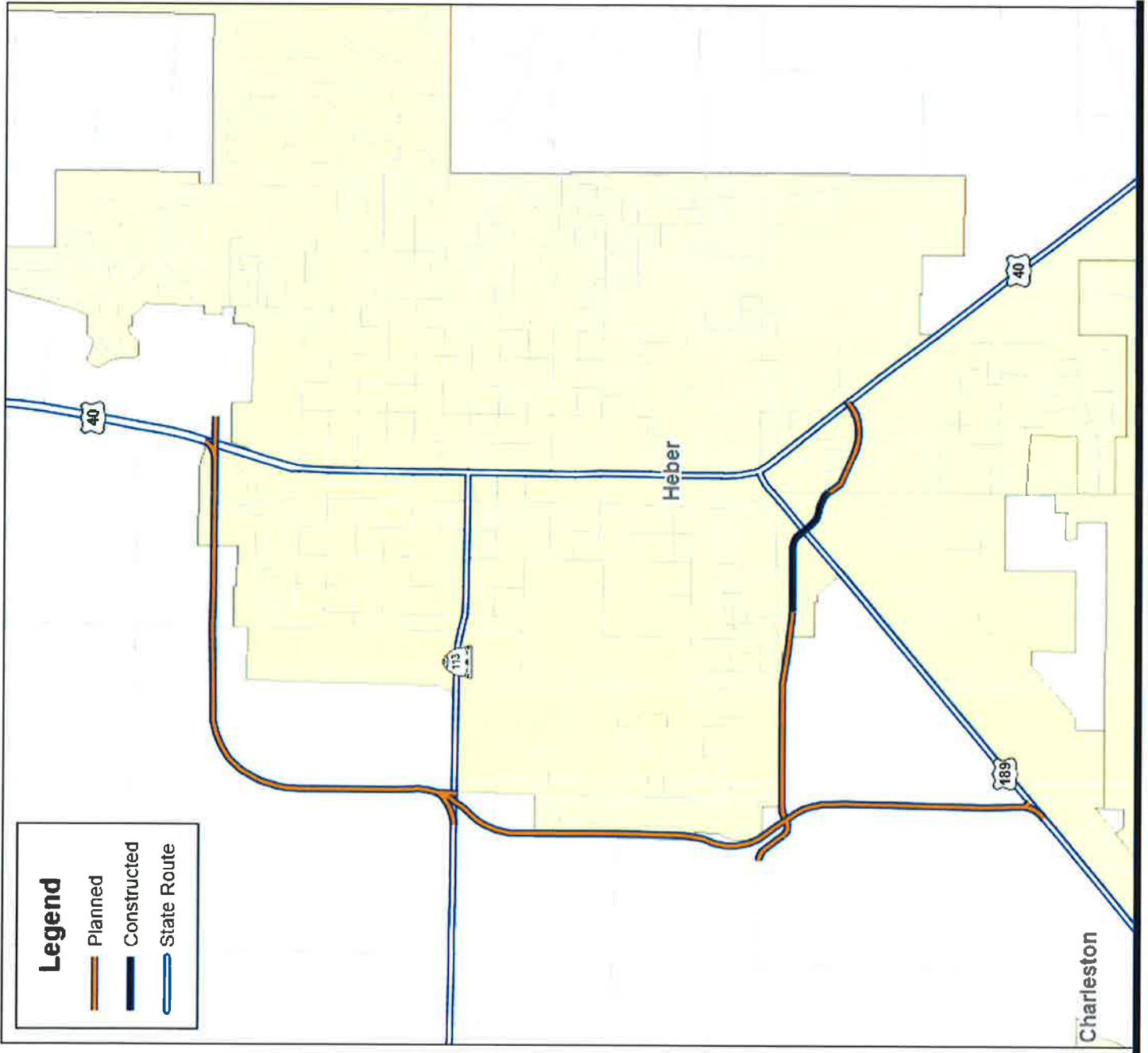


Segment 3:

Transmission Line Map
Wasatch County Conditional Use Permit
Jordanelle - Midway Transmission Line



Legend
● New Transmission Line
● Rebuild Transmission Line





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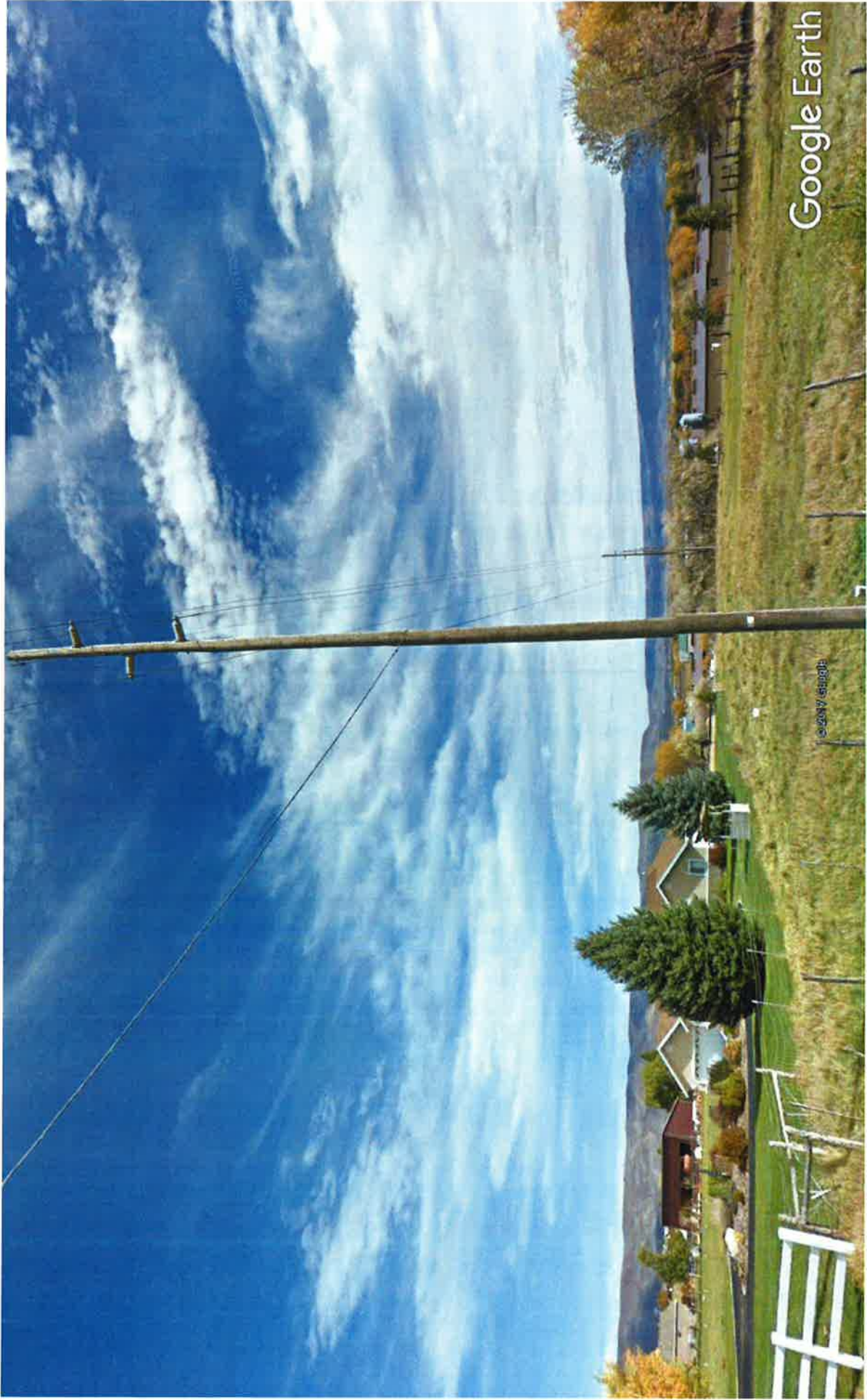
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Segment 5:

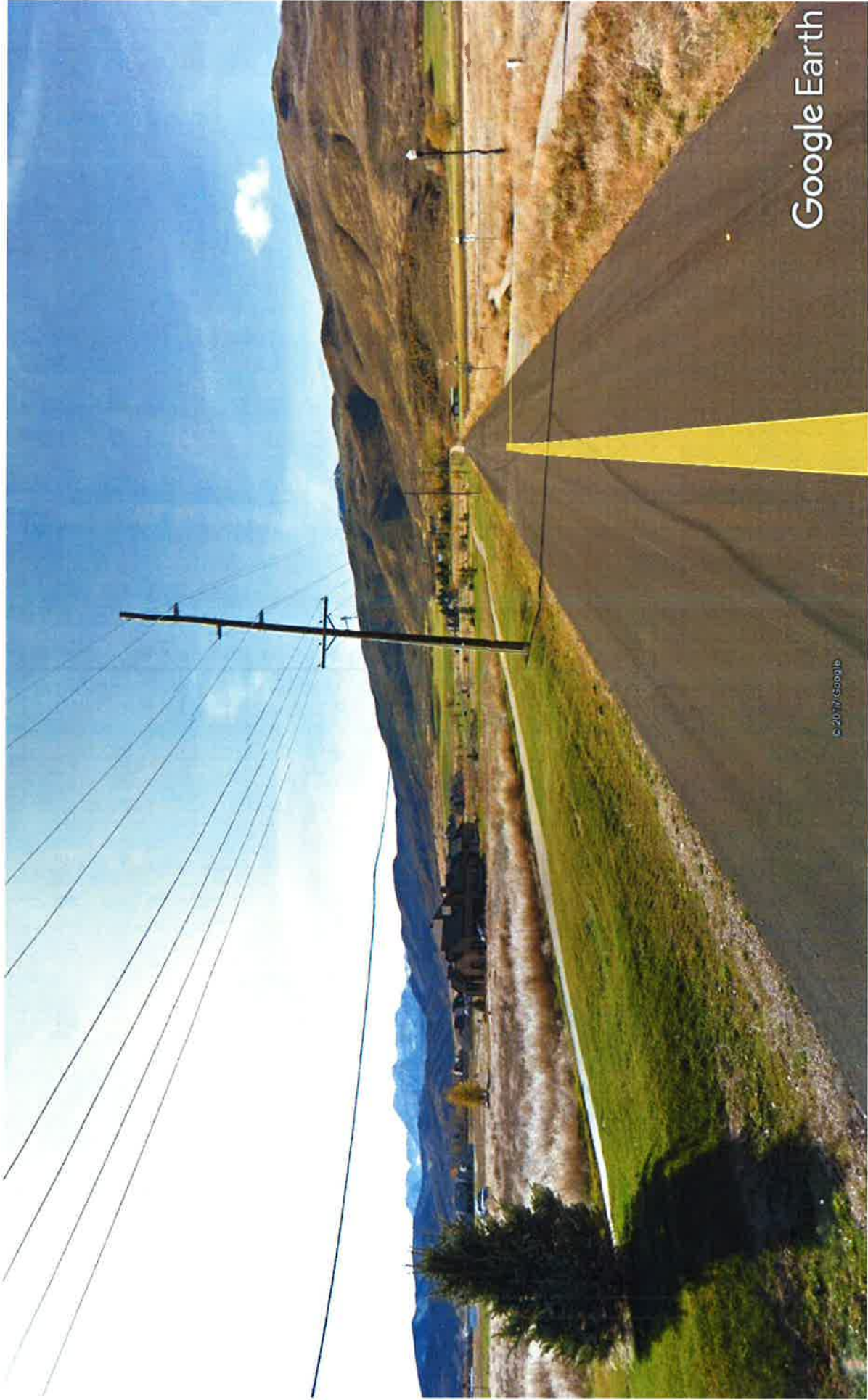
Transmission Line Map
Wasatch County Conditional Use Permit
Jordanelle - Midway Transmission Line





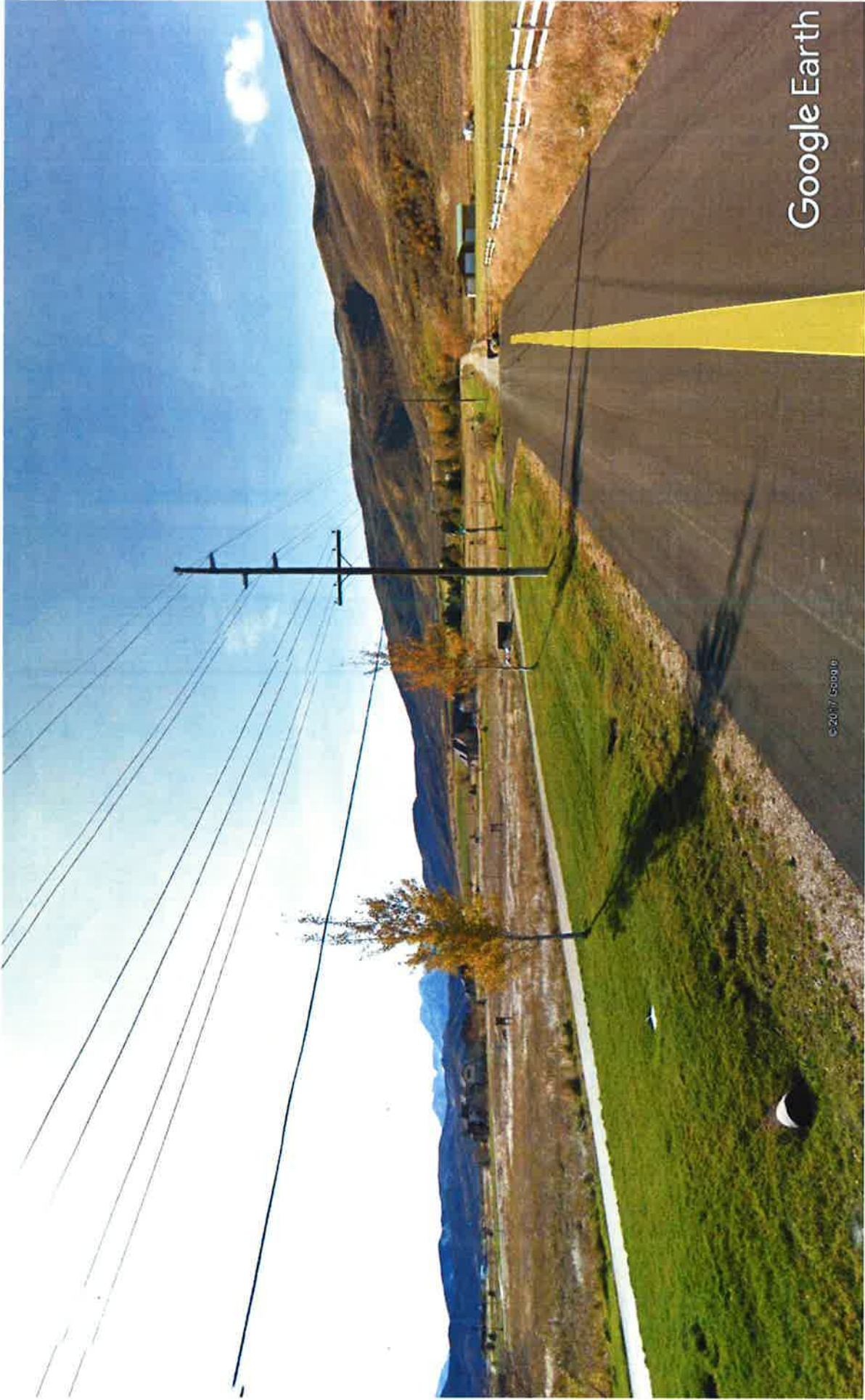
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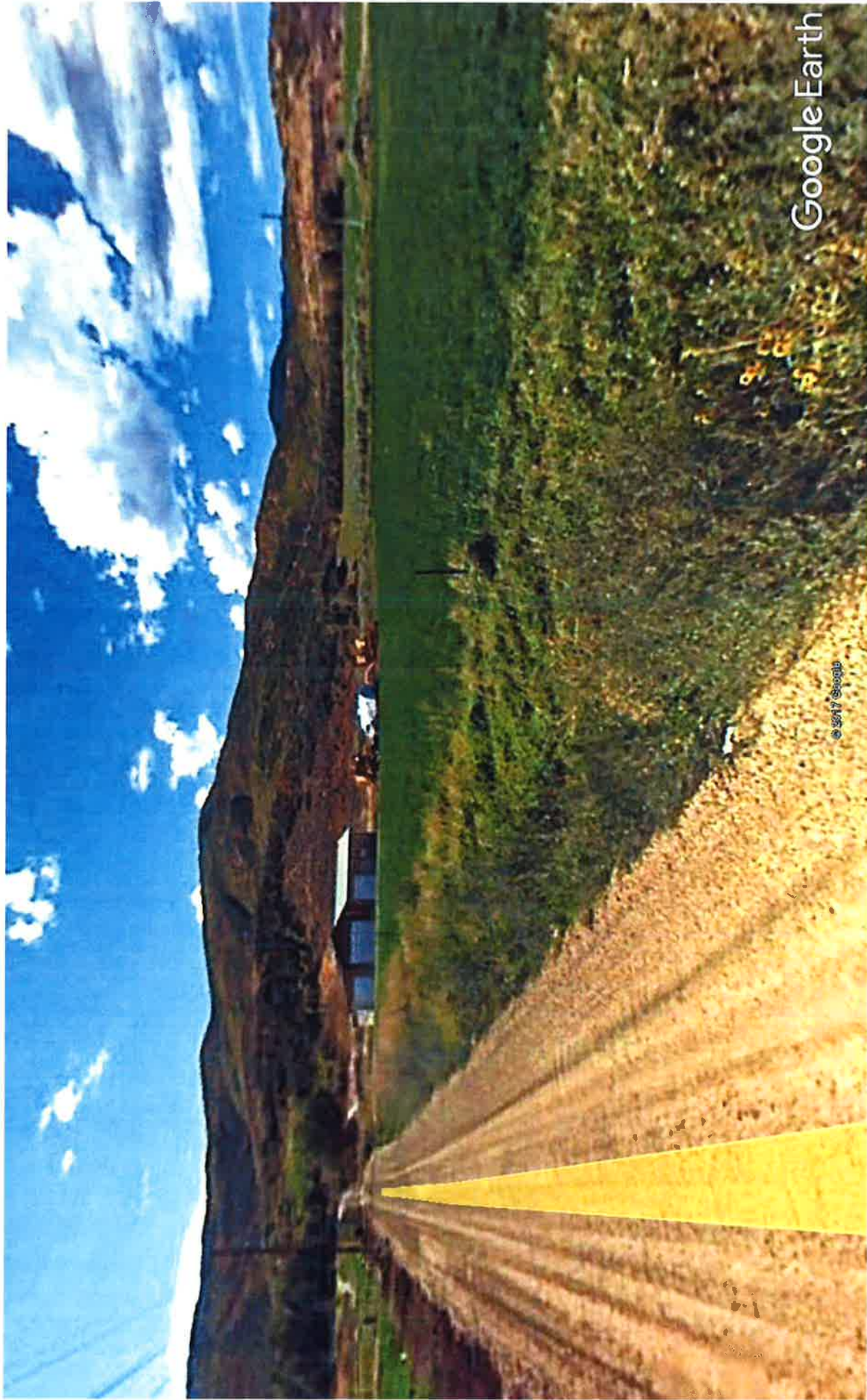
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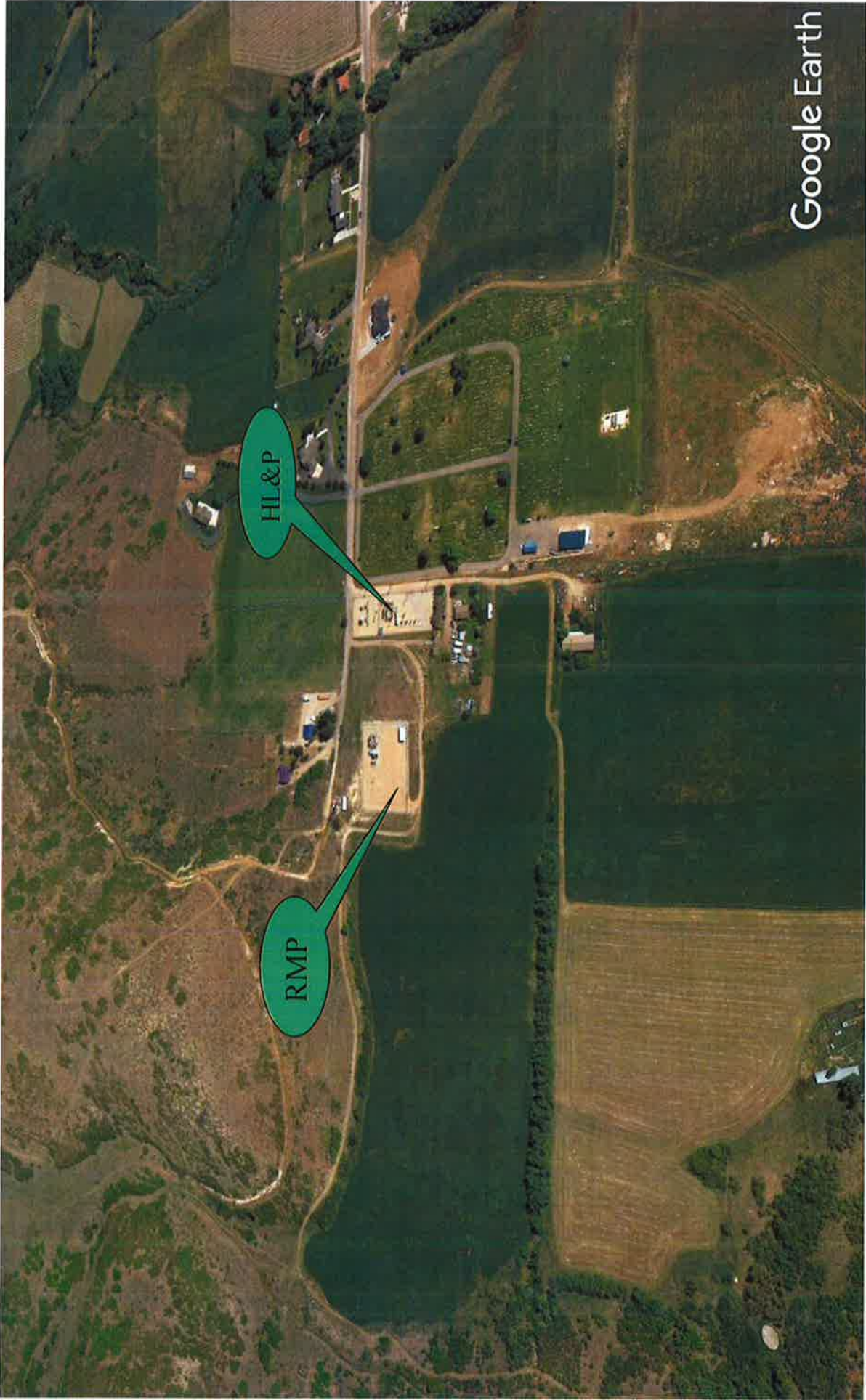
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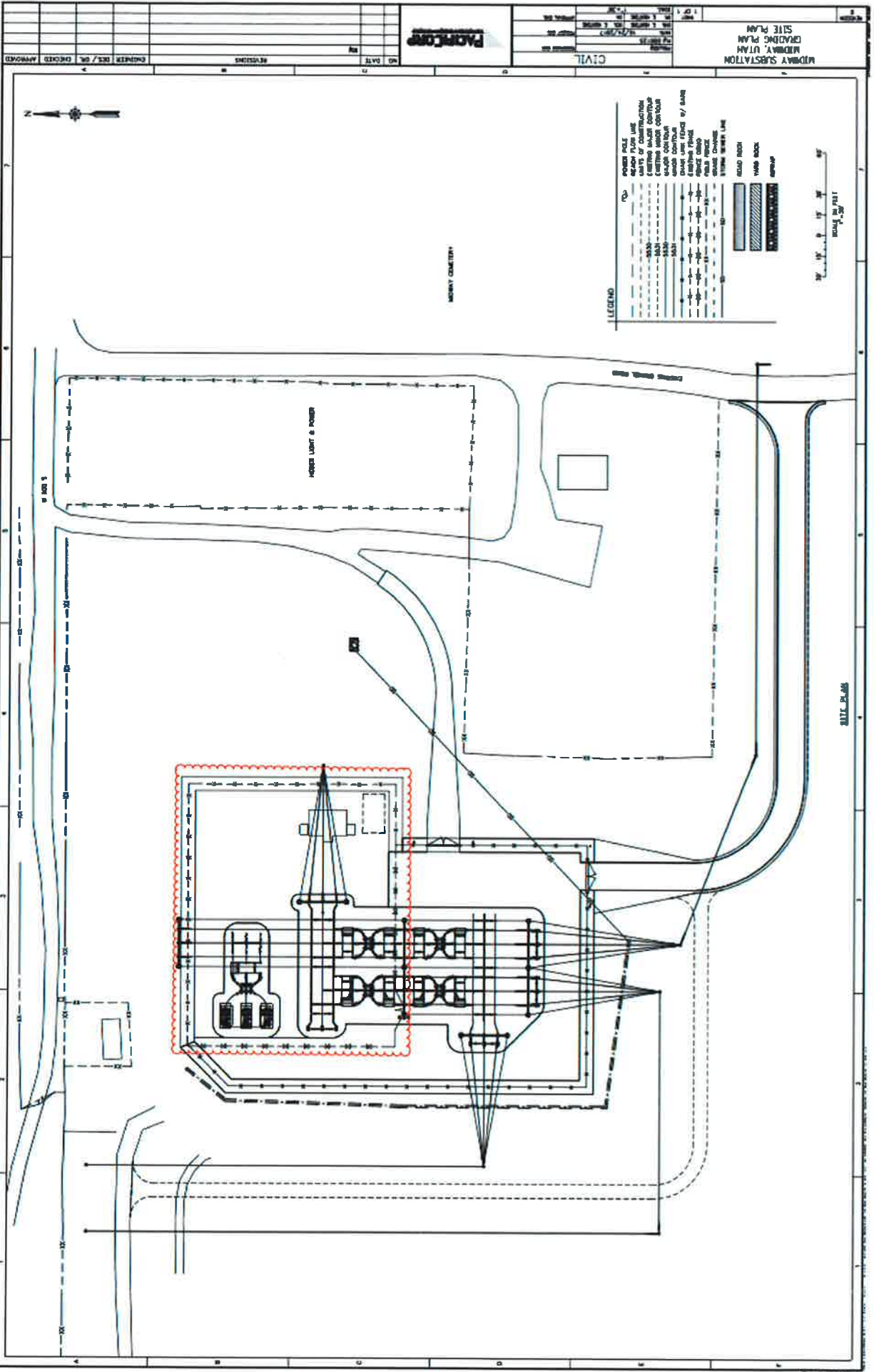




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December 7, 2017

Wasatch County
Attn: Mike Davis
25 North Main
Heber, UT 84032

RE: Heber Light & Power and Rocky Mountain Power CUP Review

Mr. Davis,

Heber Light & Power and Rocky Mountain Power are requesting a conditional use permit to rebuild and extend transmission lines and enlarge the Midway substation.

Relative to engineering, the greatest concern I can see for the county relative to this project is where the poles for the transmission lines fall within county right of ways with roads. There are two sections shown in the proposal adjacent to county maintained roads; old highway 40 up to highway 32 and 650 south. There really is not enough information submitted to determine what the impact will be to the roads as the project is being built and once it is completed.

My only comment can be that the approval of the conditional use permit be conditioned that the plans be approved by the county prior to a grading permit being issued.

If you have any questions or would like to discuss feel free to call me at 435 671-5034.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Dahmen", with a long horizontal flourish extending to the right.

Andy Dahmen, PE
Wasatch County, Consulting Engineer

Cc: Doug Smith
Luke Robinson
File

DRC Sign Off for Planning Commission Items

(Without each individual signature recommending the item can go forward, items will not be advertised)

Name of Proposal: Heber Light & Power - Bypass Transmission Lines - CUP **Type of Approval:**
Conditional Use

Date of intended Planning Commission Meeting: December 14, 2017

By signing this sheet you are stating that according to the requirements of your department, this item is ready for whatever approval is listed above. The County Manager signs last. A signature does not necessarily mean that your item will be on the final Planning Commission agenda. Applicable departments must have a recommendation for approval or items may be continued.

Health Department: Tracy Richardson
Comments: No Issues

Engineering: Michael Davis
Comments: ok

Recorder: PEGGY SULSER
Comments: N/A

Fire: WCFD
Comments: N/A

Water Resources: Steve Farrell
Comments: OK per Steve Farrell

Public Works: Brandon Cluff
Comments: None

JSSD/Twin Creeks/North Village: Ron Phillips
Comments: No comment. No effect on SSDs.

Building Department: Robert McDonald
Comments: No comment

GIS/Addressing: Ivan Spencer

Comments: No address needed.

Sheriff: Todd L Bonner

Comments: None

Surveyor: J C Kaiserman

Comments: No comment

Planning/Trails: Travis Hair

Comments: A staff report will be provided by staff.

Housing Authority: Wasatch County Housing Authority

Comments: No affordable housing issues.

Jeffery M Bradshaw

Executive Director

Manager: Michael Davis

Comments: ok

Assessor:

Comments: **No objections noted.**

Outside Emails were Sent"
