

STAFF REPORT

To: Planning Board – Regular Meeting March 16, 2026

From: Kim Golden, P.E., City Engineer *Kim Golden*

CC: Doug Kneupper, P.E., Consulting Engineer

Date: March 10, 2026

RE: 701 SH 146 N – Proposed Revised Site Plan – Southern Select Energy BESS Project

UPDATE: This item was tabled at the regular Planning Board meeting on March 2, 2026 to allow additional time for the Applicant to provide renderings based upon the revised site plan. Staff were also asked to mail notice of the meeting to adjacent property owners.

Renderings were received on March 4, 2026 and have been added to Planning Board's agenda packet.

Letters were mailed on Friday, March 6, 2026 to six (6) adjacent property owners. A list of the property owners is included in the agenda packet. No responses have been received as of the date of this staff report.

Background: The Applicant is Alpha Omega Power (AOP). The proposed 205MW, 410MWh Battery Energy Storage System (BESS) project, referred to as the Southern Select BESS Project, will encompass approximately 5.71 acres on 6.29 acres of vacant land located at 701 SH 146 N. At its regular meeting on September 4, 2024, the City Commission held a public hearing upon advertised notice and voted to give Preliminary Zoning Approval upon certain conditions to the request by AOP Holdings, LLC d/b/a Alpha Omega Power, to rezone the site from District "F" (Light Industrial) to District "S-P" (Site Plan). On August 4, 2025 the City Commission voted unanimously to extend the Preliminary Zoning Approval an additional 12 months until September 4, 2026.

Since the Preliminary Zoning Approval, the project has progressed through detailed design engineering, and several revisions have been made to the site plan to improve drainage performance, flood resilience, safety and equipment efficiency. The revisions reflect compliance requirements, insurance considerations and finalized equipment selection, but do not change the approved land use, project footprint or operational characteristics of the project.

Because the District "S-P" zoning designation is tied to a specific site plan, any significant revisions must be reviewed and processed as zoning changes.

Requested Action: The Applicant seeks approval of the revisions to the site plan for purposes of affirming the rezoning to District "S-P" (Site Plan) as required by the Texas City Code of Ordinances for BESS projects.

"the place where COMMUNITY MATTERS"

Staff Analysis and Recommendation: The Applicant seeks approval of changes to the approved site plan to accommodate necessary design changes. Specifically, the following changes must be accommodated with changes to the approved site plan:

- 1) Addition of a detention pond to the site plan to comply with TxDOT drainage requirements to obtain an access permit for the project. The site plan as approved for the rezoning did not contain a detention pond.
- 2) Increase in Site Elevation to + 14.0 feet relative to existing site resulting in a top of container elevation of +23.0 feet.

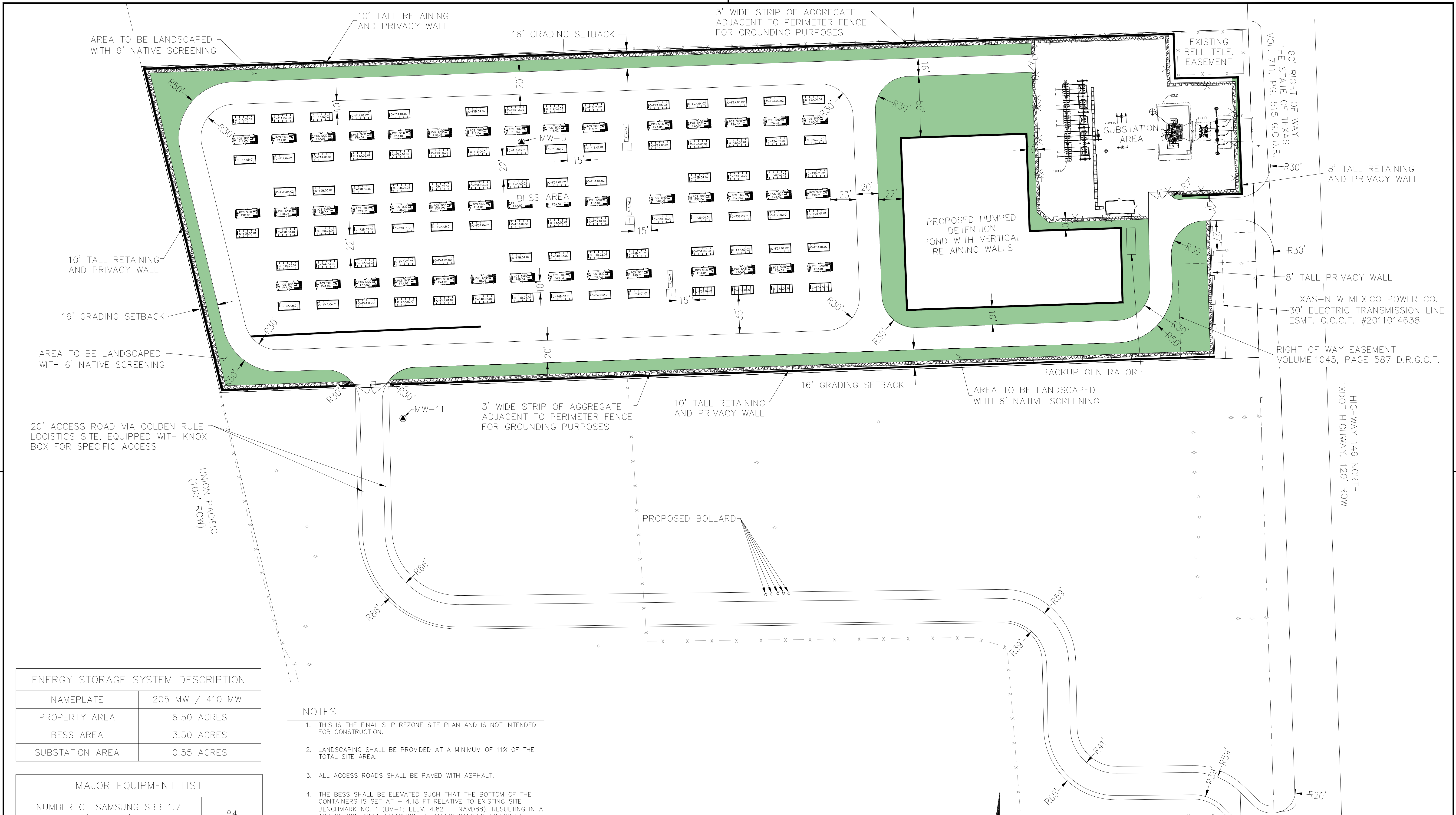
ADDITION OF DETENTION POND – Addition of a detention pond has required the reduction in the number and arrangement of battery containers from 106 to 84. It has also impacted the amount of space available for landscaping with a reduction from 15% to 11% based upon pumped detention. However, Texas City does not accept pumped detention except from institutional stakeholders via Development Agreement. A further reduction in the landscaping component may be necessary to accommodate a non-pumped detention solution. The Applicant has indicated a willingness to work with the City and TxDOT to accommodate a non-pumped detention solution.

INCREASE IN SITE ELEVATION – Height requirements are reviewed and regulated through the "S-P" designation. The previous site plan indicated battery containers would be positioned at or about existing ground level. It has been determined by the Applicant that insurers will require elevation of the battery containers by at least 14.0 ft. above existing ground level. Applicant's current plans are to accommodate this elevation increase with additional fill. The import of so much fill will require some redesign of site drainage to avoid runoff on to adjacent sites. The aesthetics of an elevated site must also be accommodated. Whereas the original site plan provided for a 6ft masonry screening wall along SH 146 and chain link fencing with slats along the side property lines, the increase in elevation will result in masonry retaining walls of 14ft (8ft above the screening walls).

The elevation of the site is most likely to physically impact, if any, the existing business, Hydrokinetics, located adjacent to the north property line. The building is set back approximately 50ft from the property line. The existing apartments are approximately 400ft north of the property line and may have minimal aesthetic impact from the increased elevation. Detrimental aesthetic impact to the traveling public along SH 146 may be minimized by the use of decorative masonry retaining walls.

Recommendation: Measures are available to mitigate the impact of the site plan changes to adjacent properties, such as (1) enhanced landscaping to offset the reduction in the amount of landscaping area; (2) non-pumped detention design; and (3) the use of decorative retaining wall materials where visible to the public or adjacent properties. So long as the Applicant agrees to include these mitigate

measures on the revised site plan, staff have no objection to the changes on the site plan.

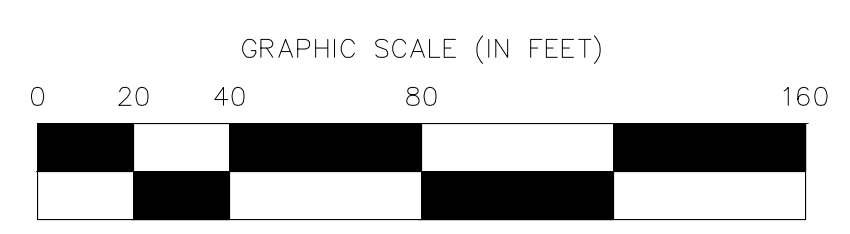


ENERGY STORAGE SYSTEM DESCRIPTION	
NAMEPLATE	205 MW / 410 MWH
PROPERTY AREA	6.50 ACRES
BESS AREA	3.50 ACRES
SUBSTATION AREA	0.55 ACRES

MAJOR EQUIPMENT LIST	
NUMBER OF SAMSUNG SBB 1.7 (6138kWh)	84
NUMBER OF EPC POWER M10	44
NUMBER OF MEDIUM VOLTAGE TRANSFORMERS, RATED AT 5.3 MVA	44

- NOTES**
- THIS IS THE FINAL S-P REZONE SITE PLAN AND IS NOT INTENDED FOR CONSTRUCTION.
 - LANDSCAPING SHALL BE PROVIDED AT A MINIMUM OF 11% OF THE TOTAL SITE AREA.
 - ALL ACCESS ROADS SHALL BE PAVED WITH ASPHALT.
 - THE BESS SHALL BE ELEVATED SUCH THAT THE BOTTOM OF THE CONTAINERS IS SET AT +14.18 FT RELATIVE TO EXISTING SITE BENCHMARK NO. 1 (BM-1; ELEV. 4.82 FT NAVD88), RESULTING IN A TOP OF CONTAINER ELEVATION OF APPROXIMATELY +23.68 FT (BM-1 DATUM).
 - EXISTING MONITORING WELLS ARE CAPPED AND DECOMMISSIONED.
 - THE LAYOUT AS SHOWN IS INTENDED TO SUPPORT COMPLIANCE WITH NFPA 855 GUIDELINES.

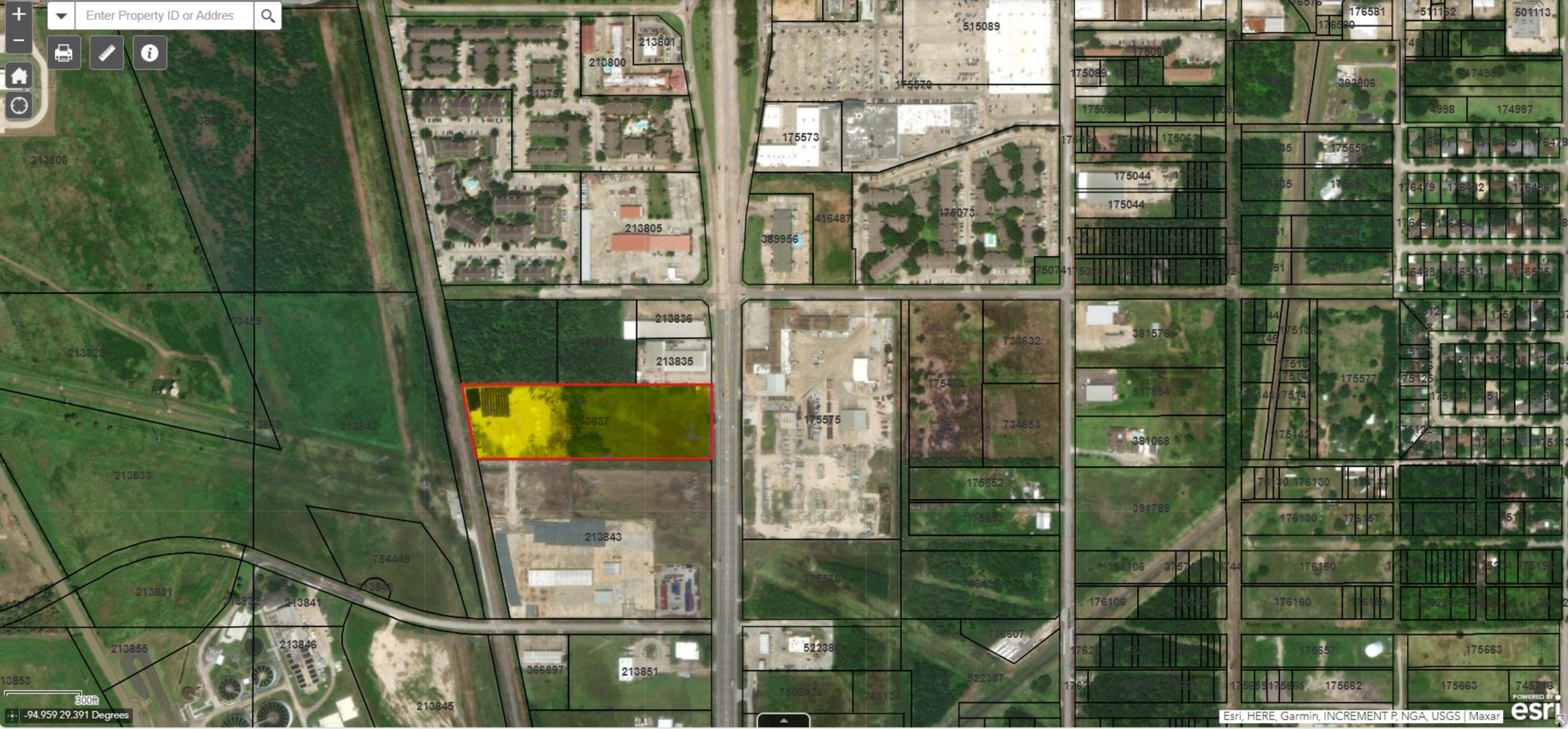
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DASHIELL ENGINEERS CONSTRUCTORS
www.dashiell.com

ALPHA OMEGA POWER, TEXAS CITY, TX
SOUTHERN SELECT 200MW BESS
SITE PLAN EXHIBIT

DATE 02/11/26	DWG. NO.	REVISION
DRAWN MDT	SCALE 1" = 40'	A
ENG. TJM	SHEET 1 of 1	



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300ft

-94.959 29.391 Degrees



Date: 2-13-2026

Texas City Engineering
7800 Emmett F Lowry Expy
Texas City, TX 77591

Attn: Kim Golden

Re: Southern Select S-P Rezone – Design Updates

Summary of Design Revisions

Southern Select Energy Storage located at 701 Hwy 146, Texas City, TX 77591 currently has S-P Rezone preliminary approval as of September 2024, with an extension granted by the City in September 2025.

As engineering has progressed from conceptual layout to detailed design, several revisions have been made to improve drainage performance, flood resilience, safety, and equipment efficiency. These revisions reflect compliance requirements, insurance considerations, and finalized equipment selection, and do not change the approved land use, project footprint, or operational characteristics of the project.

1. Detention Pond Addition (Drainage Compliance)

A detention pond has been incorporated into the site design to comply with **applicable TxDOT drainage requirements** identified during detailed drainage analysis. The detention facility maintains post-development runoff rates at or below pre-development conditions and improves overall stormwater management performance. The approved discharge location and downstream drainage assumptions remain unchanged.

As part of incorporating the detention pond into the finalized layout, the project requested a reduction in the landscaping requirement from 15% to 10% to accommodate required drainage infrastructure. The current site plan provides **11% landscaping**, which remains consistent with the requested adjustment while maintaining appropriate site screening and aesthetics.

2. Site Elevation Adjustment (Insurance and Flood Protection)

The BESS equipment area has been elevated as part of finalized grading and drainage design. The bottom of containers will be set at **+14.0 feet relative to existing site Benchmark No. 1 (BM-1; Elev. 4.82 ft NAVD88)**, resulting in a top-of-container elevation of **+23.0 feet (BM-1**



datum). This adjustment is driven by project insurance requirements and flood risk mitigation considerations while maintaining positive site drainage and consistency with the approved site layout.

3. Equipment Configuration Update

The equipment configuration has been updated following final equipment selection and system optimization. The previously submitted layout included **106 battery containers**. The updated design includes **84 battery containers**.

The reduction in the number of containers reflects the selection of newer, higher-capacity battery technology that allows the project to meet required power and operational objectives with fewer units. The battery units are manufactured in the United States. The revised configuration improves equipment spacing, simplifies implementation of the project safety and emergency response plan, and enhances overall site safety while maintaining the approved project capacity and footprint.

Simon Labrosse-Gelinas

Project Developer
Alpha Omega Power LLC

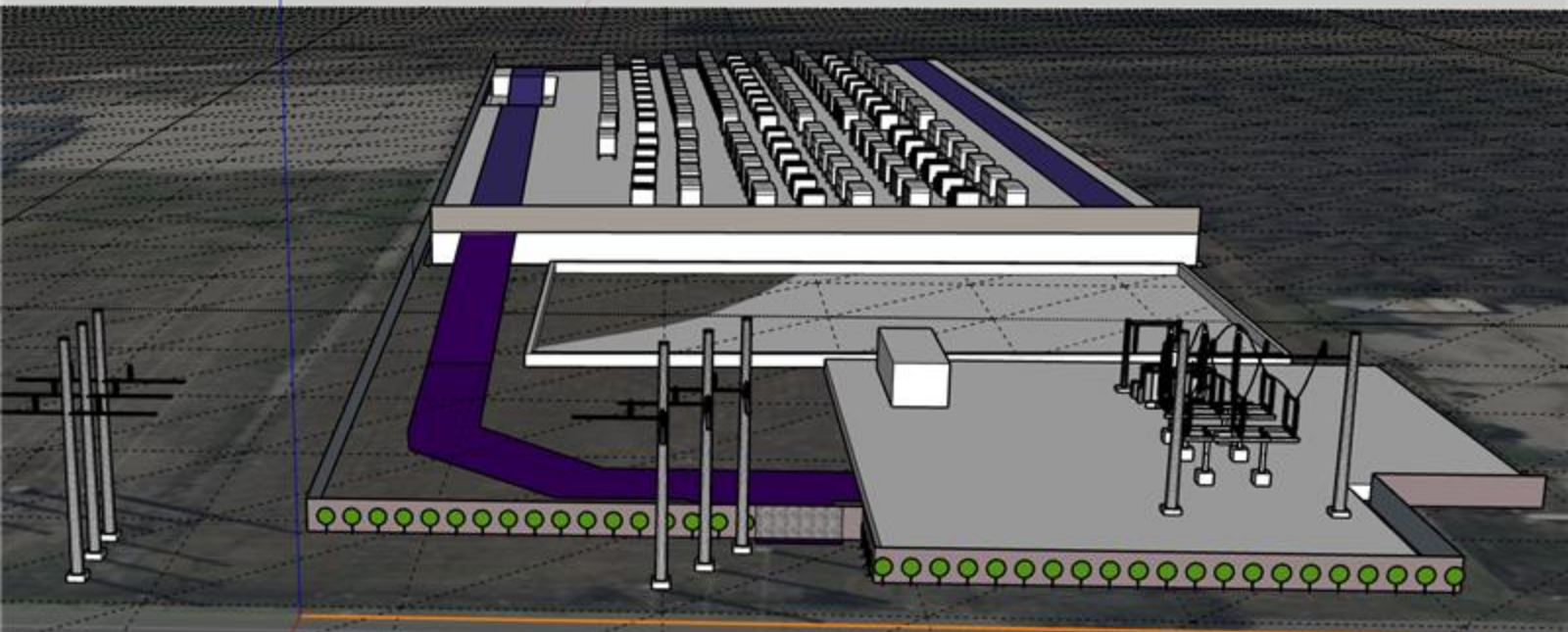
NAME	ADDRESS2	CITY	ST	ZIP
LM STORAGE LLC	5309 INTERSTATE 45	LA MARQUE	TX	77568-3090
HBB BRADFORD LLC	PO BOX 79182	HOUSTON	TX	77279
MOSAIC VERANDA LP	15021 KATY FWY STE 580	HOUSTON	TX	77094-1900
GULF COAST WATER AUTHORITY	3630 TEXAS AVE	TEXAS CITY	TX	77591-4824
BATY INTEREST	2912 FROSTWOOD CR	DICKINSON	TX	77539
TEXAS NEW MEXICO POWER CO	414 SILVER AVE SW, MS TAX 1025	ALBUQUERQUE	NM	87102

Levee wall: NONE
dirt raised BESS yard 12ft
piles 2ft
assume NG is 5ft NAVD88
substation raised 4ft

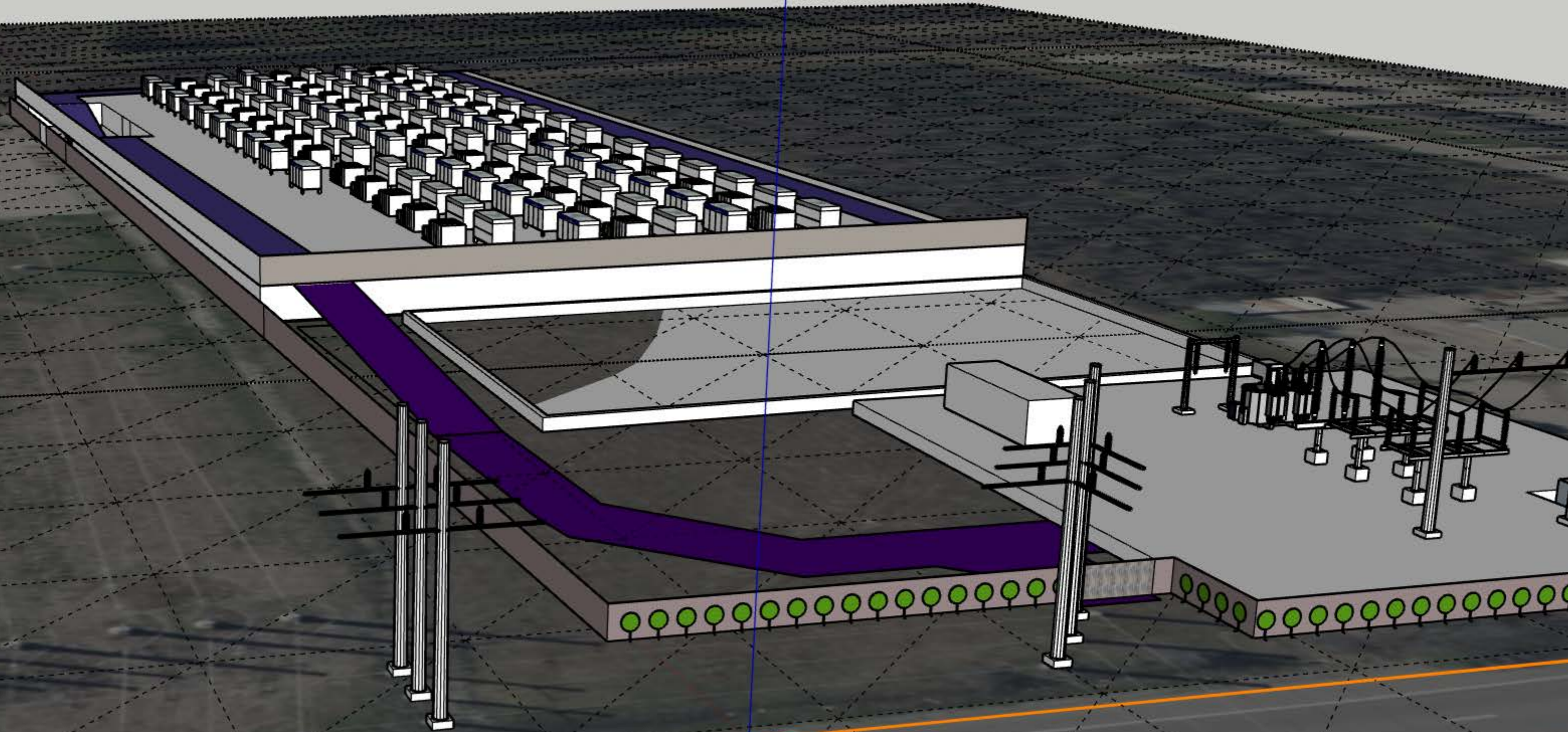


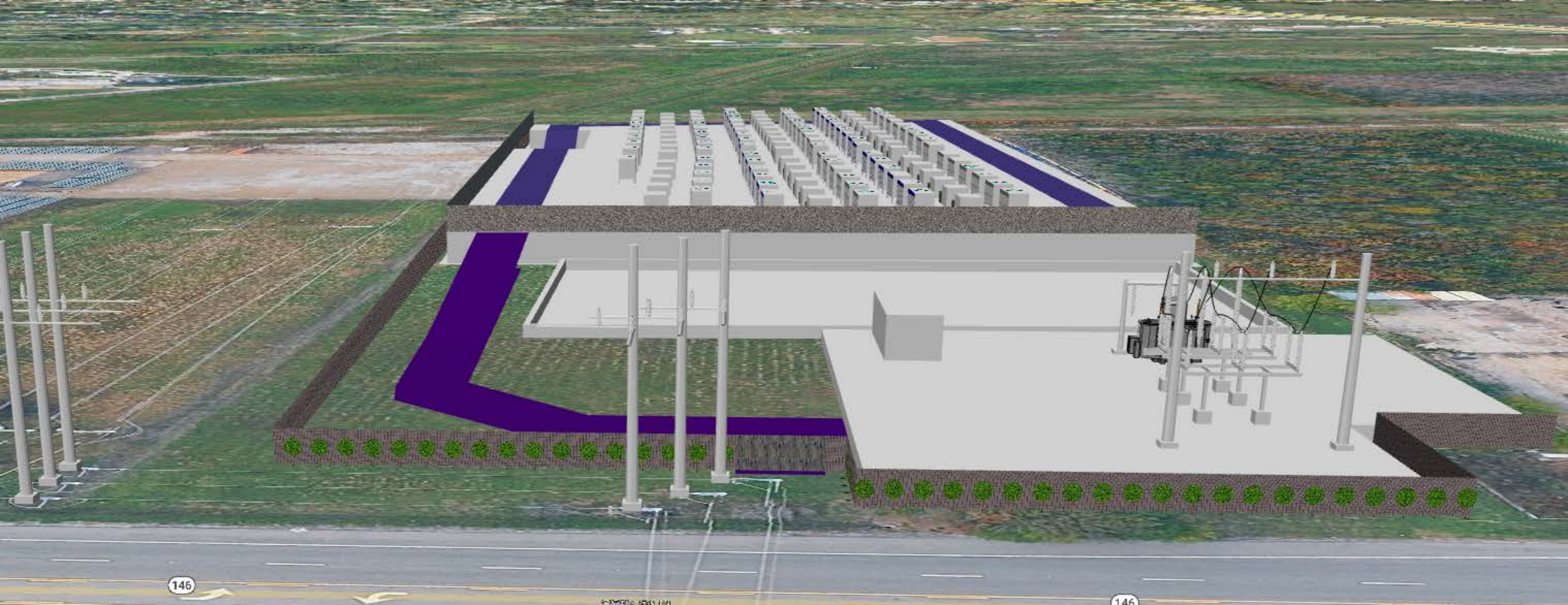


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piles 2ft
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substation raised 4ft



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piles 2ft
assume NG is 5ft NAVD88
substation raised 4ft





146

146





