



| Cascade Services, LLC | 3403-B E. County Road 44, Midland, TX 79705 |

Rule 34 Registration

January 2026

Hat Mesa Containment MODIFICATION

Sections 34 & 35 of 20S 33E, Lea County

Volume 2 MODIFICATION

- Transmittal Letter
- Plate showing new location relative to original C-147
- C-147 MODIFICATION
- Stamped Design Drawings



Looking west from the center of the location. The hummocky nature of the eolian sand can be seen.

Prepared for:

Solaris Water Midstream, LLC

The Woodlands, TX

Prepared by:

George Jennings
Cascade Services LLC
Midland, Texas

R.T. Hicks Consultants, Ltd.
901 Rio Grande NW F-142
Albuquerque, New Mexico

January 21, 2026

Ms. Leigh Barr
EMNRD - Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505
Via E-Mail

Ms. Victoria Venegas
NMOCD - District 2
811 S. First St.
Artesia, NM 88210
Via E-Mail

RE: Solaris Water Midstream, LLC – Hat Mesa Containment Registration Modification
Section 34 & 35 T20S R33E, Lea County

Dear Ms. Barr and Ms. Venegas:

On behalf of Solaris Water Midstream, LLC, Cascade Services and R.T. Hicks Consultants are pleased to submit a C-147 permit registration MODIFICATION for the above-referenced project. Western anticipates that installation of the primary liner and leak detection shortly.

The modification consists of

- 1 moving the northern boundary of the setback polygon for the approved containment approximately 1200 feet north and the southern boundary approximately 2000 feet north and
- 2 Changing the design of the containment to fit this new location.

Cascade Services and Hicks Consultants reviewed the approved C-147 package and conclude that this slight change in location does not impact the Siting Criteria Demonstration of the approved Volume 1 or the variances, Design and Construction Plan, Operations and Maintenance Plan, and Closure Plan approved in Volume 2. With your permission, we will not change all the Plates of Volume 1 or re-submit a new Volume 1 and only submit the parts of Volume 2 that have changed. We hope the attached Plate, which is part of the modification request, is satisfactory to allow OCD approval of the registration.

Solaris Water Midstream, LLC will transmit the registration package to OCD via the OCD Online portal. In compliance with 19.15.34.10 of the Rule, Solaris Water Midstream, LLC provided this package to the surface owner (the BLM).

If you have any questions or concerns regarding this modification or the attached C-147, please contact me. As always, we appreciate your work ethic and diligence.

Sincerely,
Cascade Services


George Jennings
Senior Geologist

For
R.T. Hicks Consultants


Randall T. Hicks PG
Principal

Copy: Solaris Water Midstream, LLC



Corporate Headquarters | 952 Echo Lane, Ste 130 | Houston, TX 77024
 Midland Headquarters | 3403-B E. County Road 44 | Midland, TX 79705

Hat Mesa Containment (1RF-534) In-Ground Containment Financial Assurance Cost Estimate

Attached is the cost estimate for reclamation of the Hat Mesa Containment recycling in-Ground containment.

Hat Mesa Containment In-Ground Containment

The contractor’s detailed estimate for closure of the in-ground containment immediately follows this outline of closure costs.

The attached cost sheet shows closure sampling and analysis cost is estimated at \$1,725 (sampling) plus \$2,700 (laboratory cost) to “test the soils beneath the containment for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in Table I” of Rule 34. Total closure sampling costs including project management and preparation of the Closure Report for the site are estimated at \$7,500. The cost estimates are presented below.

All work elements required by Rule 34:	\$545,593.00
Preparation of sampling results and closure report:	\$7,500.00
Total In-Ground Containment Closure Cost:	\$553,093.00

Hat Mesa AST Containment

Total estimated cost for closure, reclamation, and restoration of the facility (AST, fencing, etc.) pursuant to Rule 34 is based on the work elements show in the table below. We used the same estimate as previously approved AST containments. The AST containment is placed on the treatment pad adjacent to the recycling facility. The cost for reclamation of the AST pad is included in the estimate.

Removal of AST, Liner, and Disposal:	\$30,000.00
Assess Soil for Impacts:	\$2,500.00
Estimated Tax:	\$2,476.88
Total In-Ground Containment Closure Cost:	\$34,976.88

Total Cost

Total In Ground Closure:	\$553,093.00
Total AST Closure:	\$34,976.88
Total In-Ground Containment Closure Cost:	\$588,079.88

Cascade Services, LLC

952 Echo Ln Ste 130
Houston, TX 77024-2762
www.cascadeservicesllc.com



Estimate

ADDRESS	SHIP TO	ESTIMATE	1771
Solaris Water Midstream LLC	Solaris Water Midstream LLC	DATE	02/04/2026
9651 Katy Freeway, Suite 400	9651 Katy Freeway, Suite 400	EXPIRATION	03/04/2026
Houston, TX 77024	Houston, TX 77024	DATE	

CUSTOMER PROJECT NAME	PROJECT LOCATION COORDINATES
Hat Mesa Closure Revised Plan s	32.524464°, -103.638361°

DESCRIPTION	QTY	UNIT	RATE	AMOUNT
This is pricing a package to reclaim the 1mm bbl pond cell Mobilize equipment to site.	1		231,065.40	231,065.40
Dirt reclaim of pond consist of- Bury all material (Caliche, Gypsum, Sand, ect.) below ground level, backfill pond area with uncontaminated soil from pond walls. Pond area will be reclaimed to natural elevations and water flow patterns. All stockpiled strippings will be put down last to ensure ground has been completely returned to native design.				
Environmental soil sampling This will include digging 6 sample locations for each containment. One composite sample from 0-4 feet below surface and one discrete sample from each location at 4.25 feet Cost include trip, labor, materials, and laboratory testing	1		1,725.00	1,725.00
Environmental Soil testing Before earthwork can begin the soil must be tested for contamination in case of liner leakage. Cost include trip, labor, materials, and laboratory testing of 18 tests.	1		2,700.00	2,700.00
Broadcast seeding of pond area Seed will be a native mix for Lea County NM	1		3,000.00	3,000.00

Includes purchase of seed mix and placement

Fence removal and disposal	4,192	4.00	16,768.00
Fence estimated at 4,192 ft per pond This includes removal of all posts, braces, wire, fabric, gates, and hardware.			

Remove and dispose of all four layers	1,935,564	0.15	290,334.60
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Preferred payment method: ACH/Wire
Email AR@cascadeservicesllc.com for ACH/Wire details.

SUBTOTAL	545,593.00
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TAX	0.00
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Remit Checks To:
Cascade Services LLC
PO Box 200954
Dallas, TX 75320-0954

TOTAL	\$545,593.00
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**THIS ESTIMATE IS SUBJECT TO THE TERMS & CONDITIONS ATTACHED.

**If pumping is needed due to weather conditions, a \$350 daily fee will be charged on final invoice.

**Materials will be invoiced upon receipt of customer purchase order or job approval.

**This estimate may not include tax and may be added on invoice unless customer provides a valid tax exemption document.

Questions? Email AR@Cascadeservicesllc.com

Accepted By

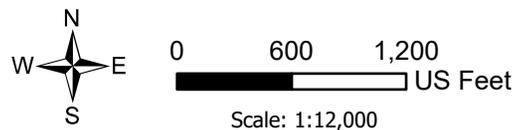
Accepted Date

P:\SolarisHatMesa\SolarisHatMesa.aprx



Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Map Center: 103°38'33"W



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Hat Mesa Containment Modification Polygon v. Approved
 Hat Mesa Containment - Solaris Water Midstream LLC

January 2026

State of New Mexico
 Energy Minerals and Natural Resources
 Department Oil Conservation Division
 1220 South St. Francis Dr.
 Santa Fe, NM 87505
<https://www.emnrd.nm.gov/ocd/ocd-e-permitting/>

Form C-147
 Revised October 11, 2022

Recycling Facility and/or Recycling Containment

Type of Facility: Recycling Facility Recycling Containment*

Type of action: Permit
 Modification
 Closure

Registration
 Extension
 Other (explain) This modification reflects the move of the facility due to the presence of a new pipeline that was unmapped.

* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
 Operator: Solaris Water Midstream LLC (For multiple operators attach page with information) OGRID #: 371643
 Address: 9950 WOODLOCH FOREST DR, STE 2800, THE WOODLANDS, TX 77380
 Facility or well name (include API# if associated with a well): Hat Mesa Containment
 OCD Permit Number: 1RF-534 (For new facilities the permit number will be assigned by the district office)
 U/L or Qtr/Qtr K & L Section 34 & 35 Township 20S Range 33E County: Lea
 Surface Owner: Federal State Private Tribal Trust or Indian Allotment

2.
 Recycling Facility:
 Location of recycling facility (if applicable): Latitude 32.52870 Longitude -103.63821 NAD83
 Proposed Use: Drilling* Completion* Production* Plugging *
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
 Other, requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.
 Fluid Storage
 Above ground tanks Recycling containment Activity permitted under 19.15.17 NMAC explain type _____
 Activity permitted under 19.15.36 NMAC explain type: _____ Other explain _____
 For multiple or additional recycling containments, attach design and location information of each containment
 Closure Report (required within 60 days of closure completion): Recycling Facility Closure Completion Date: _____

3.
 Recycling Containment:
 Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
 Center of Recycling Containment (if applicable): Latitude 32.52851 Longitude -103.64081 NAD83
 For multiple or additional recycling containments, attach design and location information of each containment
 Lined Liner type: Thickness 60 pri & 40 sec ft LLDPE HDPE PVC Other _____
 String-Reinforced
 Liner Seams: Welded Factory Other _____ Volume: 1,025,669 bbl See attached engineered plans; Shapes are irregular
 Dimensions: L _____ x W _____ x D _____
 Recycling Containment Closure Completion Date: _____

4.

Bonding:

Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)

Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ 588,079.88 (work on these facilities cannot commence until bonding amounts are approved)

Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify Fixed knot woven wire, 8-foot height

6.

Signs:

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

<u>General siting</u>	
<u>Ground water is less than 50 feet below the bottom of the Recycling Containment.</u> NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; written approval obtained from the municipality	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

9.

Recycling Facility and/or Containment Checklist:

Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- Design Plan - based upon the appropriate requirements.
- Operating and Maintenance Plan - based upon the appropriate requirements.
- Closure Plan - based upon the appropriate requirements.
- Site Specific Groundwater Data -
- Siting Criteria Compliance Demonstrations -
- Certify that notice of the C-147 (only) has been sent to the surface owner(s)

10.

Operator Application Certification:

I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Nicholas Shaw Title: Regulatory Supervisor
 Signature: *Nick Shaw* Date: 1/21/2026
 e-mail address: Nick.Shaw@westernmidstream.com Telephone: 346-786-5122

11.

OCD Representative Signature: Victoria Venegas Approval Date: 02/05/2026

Title: Senior Environmental Scientist OCD Permit Number: 1VV2504941573

- OCD Conditions _____
- Additional OCD Conditions on Attachment _____



| Cascade Services, LLC | 3403-B E. County Road 44, Midland, TX 79705 |

Recycling Containment Design Drawings



CIVIL PLANS

WESTERN MIDSTREAM

HAT MESA RECYCLE FACILITY

SECTION 35, TOWNSHIP 20 SOUTH, RANGE 33 EAST
N.M.P.M., LEA COUNTY, NEW MEXICO



VICINITY MAP
N.T.S.

INDEX OF SHEETS		
SHEET	NAME	DESCRIPTION
1	C-100	COVER SHEET
2	C-101	GENERAL NOTES
3	CS-101	EXISTING SITE FEATURES
4	CS-102	CIVIL SITE PLAN
5	CS-103	MASTER LAYOUT
6	CS-104	FENCE LAYOUT
7	CS-201	CONTAINMENT P&P WEST TO EAST STA. 0+00 TO STA. 12+00
8	CS-202	CONTAINMENT P&P NORTH TO SOUTH STA. 0+00 TO STA. 5+50
9	CS-103	VOLUME QUANTITIES
10	CS-501	LEAK DETECTION DETAILS
11	CS-502	LINER DETAILS
12	CS-503	FENCE DETAILS



(505)-254-7310
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



GENERAL NOTES

- NEW MEXICO ADMINISTRATIVE CODE TITLE 19, CHAPTER 15, PART 34, DESIGN CRITERIA FOR RECYCLING CONTAINMENTS SHALL APPLY TO THIS PROJECT.
- ALL BOUNDARY, TOPOGRAPHIC AND UTILITY INFORMATION SHOWN ARE BASED ON SURVEY INFORMATION FURNISHED BY TOPOGRAPHIC.
- THE CONTRACTOR SHALL IDENTIFY AND LOCATE UTILITY LINES, MONITORING WELLS, SURVEY MONUMENTS, AND OTHER NEARBY STRUCTURES PRIOR TO PERFORMING WORK.
- COORDINATE INFORMATION IS BASED ON STATE PLANE COORDINATES, NEW MEXICO EAST, NAD 83.
- THE CONTRACTOR SHALL IDENTIFY ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION AND CONTACT THE ENGINEER IN WRITING.
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN BEST MANAGEMENT PRACTICES (BMPs) TO MINIMIZE EROSION AND CONTROL SEDIMENT TO PROTECT SURFACE WATER QUALITY DURING STORM EVENTS.

EARTHWORK NOTES

- THE CONTRACTOR SHALL USE WATER FOR COMPACTION AT ALL TIMES. THE CONTRACTOR SHALL ENSURE THEIR BID INCLUDES CONSTRUCTION WATER. NO EARTHWORK OPERATIONS SHALL TAKE PLACE IF CONSTRUCTION WATER IS NOT AVAILABLE ONSITE.
- THE CONTRACTOR SHALL BUILD THE LEVEES USING COMPACTED LAYERS. UNCONTROLLED AND INCONSISTENT PUSHING AND PILING OF MATERIAL FOR LEVEE CONSTRUCTION IS NOT ACCEPTABLE. THE CONTRACTOR SHALL DEVELOP A SUCCESSFUL COMPACTION PATTERN EARLY IN THE PROCESS, VERIFIED THROUGH NUCLEAR DENSITY OR SAND CONE TESTING, AND SHALL MAINTAIN CONSISTENCY IN THE COMPACTION EFFORT AS LONG AS THE MATERIALS ENCOUNTERED REMAINS CONSISTENT. IF ONSITE SOILS ENCOUNTERED CHANGE, THE CONTRACTOR SHALL DEVELOP A NEW COMPACTION PATTERN.
- FILL FOR LEVEES SHALL BE PLACED AND COMPACTED IN HORIZONTAL LIFTS WITH MAXIMUM LOOSE LIFT THICKNESS OF 10 INCHES, OR AS DIRECTED BY ENGINEER. CONSTRUCT EACH LAYER CONTINUOUSLY AND APPROXIMATELY HORIZONTAL FOR THE WIDTH AND LENGTH OF THE LEVEE. FILL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY DETERMINED BY THE ASTM D698 AND AT MOISTURE CONTENT WITHIN +2% TO -2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY A STANDARD PROCTOR SOILS TEST ON SAMPLES FROM THE SOURCE AREA.
- FILL SHALL NOT BE PLACED AND COMPACTED WHEN THE MATERIALS ARE TOO WET TO PROPERLY COMPACT. MATERIAL WHICH IS TOO WET SHALL BE SPREAD ON THE FILL AREA AND PERMITTED TO DRY, ASSISTED BY HARROWING IF NECESSARY, UNTIL THE MOISTURE CONTENT IS REDUCED TO ALLOWABLE LIMITS. IF THE ENGINEER DETERMINED THAT ADDED MOISTURE IS REQUIRED, WATER SHALL BE APPLIED UNIFORMLY OVER THE AREA TO BE TREATED, AND GIVE COMPLETE AND ACCURATE CONTROL OF THE AMOUNT OF WATER TO BE USED. IF TOO MUCH WATER IS ADDED, THAT AREA SHALL BE PERMITTED TO DRY BEFORE COMPACTION IS CONTINUED.
- PERFORM ONE NUCLEAR DENSITY GAGE TEST PER 2500 CY MINIMUM OR AS DIRECTED BY THE ENGINEER.
- EARTHWORK CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF THE FINISHED COMPACTED POND BOTTOM AND SIDE SLOPES BEFORE HDPE LINER INSTALLATION, REMOVING ALL DEBRIS, SHARP OBJECTS AND GRAVEL LARGER THAN 3/4 INCH.
- EARTHWORK CONTRACTOR SHALL ROLL SURFACE WITH A SMOOTH ROLLER TO ELIMINATE RUTS.

LINER NOTES

- LINER CONTRACTOR SHALL INSPECT GRADED SURFACE FOR DEBRIS, ROCKS OR OTHER MATERIAL THAT MAY DAMAGE THE LINER AND COORDINATE WITH OWNER IF ADDITIONAL SUBGRADE RESURFACING IS NEEDED PRIOR TO PERFORMING WORK.
- LINER CONTRACTOR TO PROVIDE SUBMITTAL OF LINER PANEL LAYOUT.
- LINER CONTRACTOR TO SIGN SUBGRADE ACCEPTANCE FORM (PROVIDED BY OWNER REPRESENTATIVE) DAILY PRIOR TO INSTALLATION.
- LINER TO BE INSTALLED PER GRI SPECIFICATIONS, GUIDES AND PRACTICES.
- CONTRACTOR SHALL PLACE SANDBAGS ON LINER DURING INSTALLATION AS REQUIRED TO PREVENT WIND UPLIFT UNTIL POND IS FILLED TO A DEPTH OF 3 FEET.
- CONTRACTOR SHALL USE BLACK 60 MIL HDPE SMOOTH GEOMEMBRANE AS THE PRIMARY LINER AND BLACK 40 MIL HDPE SMOOTH GEOMEMBRANE AS THE SECONDARY LINER.
- A 3' DIAMETER MINIMUM PIECE OF 40MIL LINER SHALL BE EXTRUDED WELDED WHERE THE PIE SHAPED CORNER SECTIONS MEET FOR SEAM REINFORCEMENT.
- INSTALL A FULL DOUBLE WIDTH SECTION OF BLACK OR WHITE 60 MIL TEXTURED HDPE GEOMEMBRANE RUB SHEET. EXTRUDE WELD TO LINER. WELDS SHALL BE 2" LONG AND SPACED EVERY 12" ALONG BOTH SIDES OF THE SHEET. DO NOT WELD END EDGES. SECTION SHALL EXTEND FROM SUMP AND INSTALLED INTO LINER ANCHOR TRENCH AS SHOWN.
- LINER SHALL BE PROTECTED WITH A 8 OZ. NONWOVEN GEOTEXTILE IF ROCK OR OTHER ANGULAR MATERIALS WITH A DIMENSION GREATER THAN 3/4 INCH ARE PRESENT.
- SUMPS SHALL BE BACKFILLED WITH NON-ANGULAR MAXIMUM 3/8 INCH SIZED PEA GRAVEL.
- ALL SEAMS MUST BE WELDED WITH A 6" MINIMUM OVERLAP.
- CONTRACTOR SHALL NON-DESTRUCTIVELY TEST ALL SEAMS THEIR FULL LENGTH USING AN AIR PRESSURE OR VACUUM TEST, THE PURPOSE OF THIS TEST IS TO CHECK THE CONTINUITY OF THE SEAM.
- FOR AIR PRESSURE TESTING (ASTM 5820), THE FOLLOWING PROCEDURES ARE APPLICABLE TO THE SEAMS WELD WITH DOUBLE SEAM FUSION WELDER.
 - THE EQUIPMENT USED SHALL CONSIST OF AN AIR TANK OR PUMP CAPABLE OF PRODUCING A MINIMUM 35 PSI AND A SHARP NEEDLE WITH A PRESSURE GAUGE ATTACHED TO INSERT INTO THE AIR CHAMBER.
 - SEAL BOTH ENDS OF THE SEAM BY HEATING AND SQUEEZING THEM TOGETHER. INSERT THE NEEDLE WITH THE GAUGE INTO THE AIR CHANNEL. PRESSURIZE THE AIR CHANNEL TO A MINIMUM OF 35 PSI. NOTE TIME STARTS AND WAIT A MINIMUM OF 5 MINUTES TO CHECK. IF PRESSURE AFTER 5 MINUTES HAD DROPPED LESS THAN 2 PSI THE TEST IS SUCCESSFUL (THICKNESS OF MATERIAL MAY CAUSE VARIANCE).
 - CUT OPPOSITE SEAM END AND LISTEN FOR PRESSURE RELEASE TO VERIFY FULL SEAM HAS BEEN TESTED.
 - IF THE TEST FAILS, FOLLOW THESE PROCEDURES.
 - WHILE CHANNEL IS UNDER PRESSURE WALK THE LENGTH OF THE SEAM LISTENING FOR A LEAK.
 - WHILE CHANNEL IS UNDER PRESSURE APPLY A SOAPY SOLUTION TO THE SEAM EDGE AND LOOK FOR BUBBLES FORMED BY AIR ESCAPING.
 - RE-TEST THE SEAM IN SMALLER INCREMENTS UNTIL THE LEAK IS FOUND.
 - ONCE LEAK IS FOUND USING ONE OF THE PROCEDURES ABOVE, CUT OUT THE AREA AND RETEST THE PORTIONS OF THE PORTIONS OF THE SEAMS BETWEEN THE LEAK AREAS PER 6A AND 6B ABOVE. CONTINUE THIS PROCEDURE UNTIL ALL SECTIONS OF THE SEAM PASS THE PRESSURE TEST.
 - REPAIR THE LEAK WITH A PATCH AND VACUUM TEST.
- ALL NON-DESTRUCTIVE TESTS WILL BE NOTED IN THE NON-DESTRUCTIVE LOGS.
- LINER GAS VENTS SHALL BE SPACED ALONG THE INSIDE SLOPE AT APPROXIMATELY 100 FEET ON CENTER OR MINIMUM 2 VENTS PER SIDE.
- WHEN ANY PIPING EQUIPMENT, INLET, OR OUTLET IS IN DIRECT CONTACT WITH THE LINER, AN APRON CONSISTING OF 60 MIL HDPE MATERIAL SHALL BE INSTALLED BENEATH THE EQUIPMENT OR STRUCTURE TO PROTECT THE PRIMARY LINER.
- LAY BOTH LINERS IN ANCHOR TRENCH. BACKFILL ANCHOR TRENCH IN 2 LIFTS AND COMPACT.

SUGGESTED CONSTRUCTION SEQUENCE

- CLEAR EXISTING VEGETATION.
- STRIP AND STOCKPILE TOPSOIL AT THE LOCATION DESIGNATED ON THESE PLANS.
- PERFORM EARTHWORK OPERATIONS:
 - CONSTRUCT STORMWATER DIVERSION CHANNEL.
 - PERFORM RIPPING/EXCAVATING OPERATIONS.
 - REPLACE EXCAVATED MATERIAL IN COMPACTED LAYERS ON THE LEVEE/PAD IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS.
 - FINISH SLOPES USING A SMOOTH ROLLER.
 - DIG ANCHOR TRENCH.
- INSTALL NEW GAME FENCE AND GATES.
- INSTALL GEOMEMBRANES:
 - INSTALL GEOTEXTILE AS NEEDED, SECONDARY LINER, GEONET, LEAK DETECTION SYSTEM AND PRIMARY LINER.
 - INSTALL RUB SHEETS AND WATER LEVEL GAGE/LADDER.
 - BACKFILL AND COMPACT ANCHOR TRENCH.



7921 N. World Dr.
Hobbs, NM 88242
Squarerootservices.net
575-231-7347

ENGINEERING SHEET:

GENERAL NOTES

PROJECT NAME: OF

HAT MESA RECYCLE FACILITY

CLIENT: FOR WESTERN MIDSTREAM

PROJECT NUMBER: 25377

PROJECT ENGINEER: JEREMY BAKER, PE

DRAWN BY: C. JIMENEZ

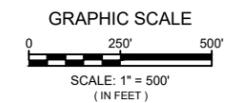
REVISIONS		
No.	DATE	DESCRIPTION



ENGINEERING SHEET:
EXISTING SITE FEATURES
OF
PROJECT NAME:
HAT MESA RECYCLE FACILITY
FOR
CLIENT:
WESTERN MIDSTREAM

PROJECT NUMBER:
25377

PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ

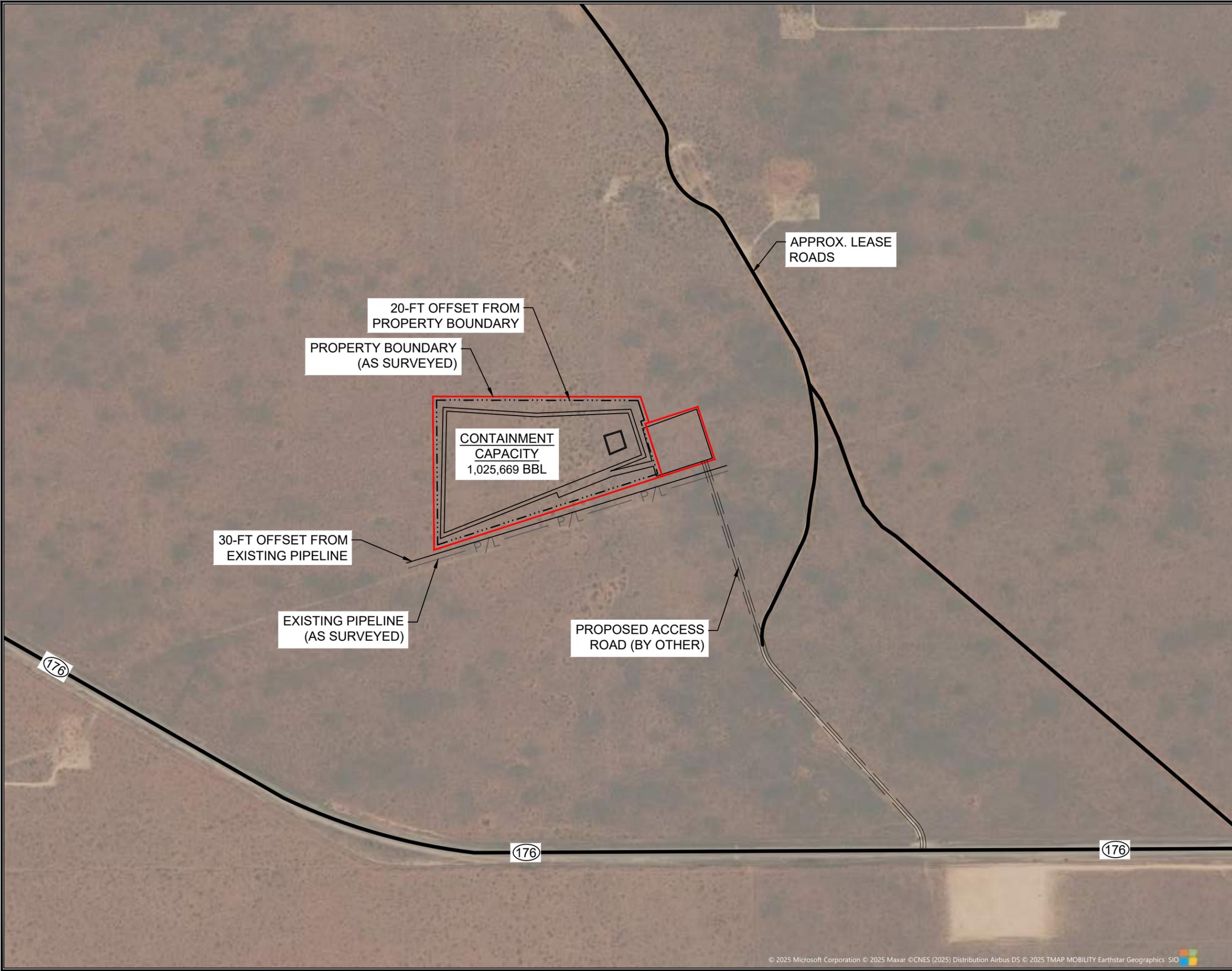


REVISIONS		
No.	DATE	DESCRIPTION



JEREMY BAKER
NEW MEXICO
16207
LICENSED PROFESSIONAL ENGINEER
01/05/2026

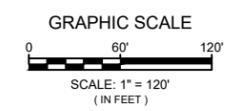
SHEET:
3 of 12
CS-101



ENGINEERING SHEET:
CIVIL SITE PLAN
OF
PROJECT NAME: **HAT MESA RECYCLE FACILITY**
FOR
CLIENT: **WESTERN MIDSTREAM**

PROJECT NUMBER: **25377**

PROJECT ENGINEER: **JEREMY BAKER, PE**
DRAWN BY: **C. JIMENEZ**

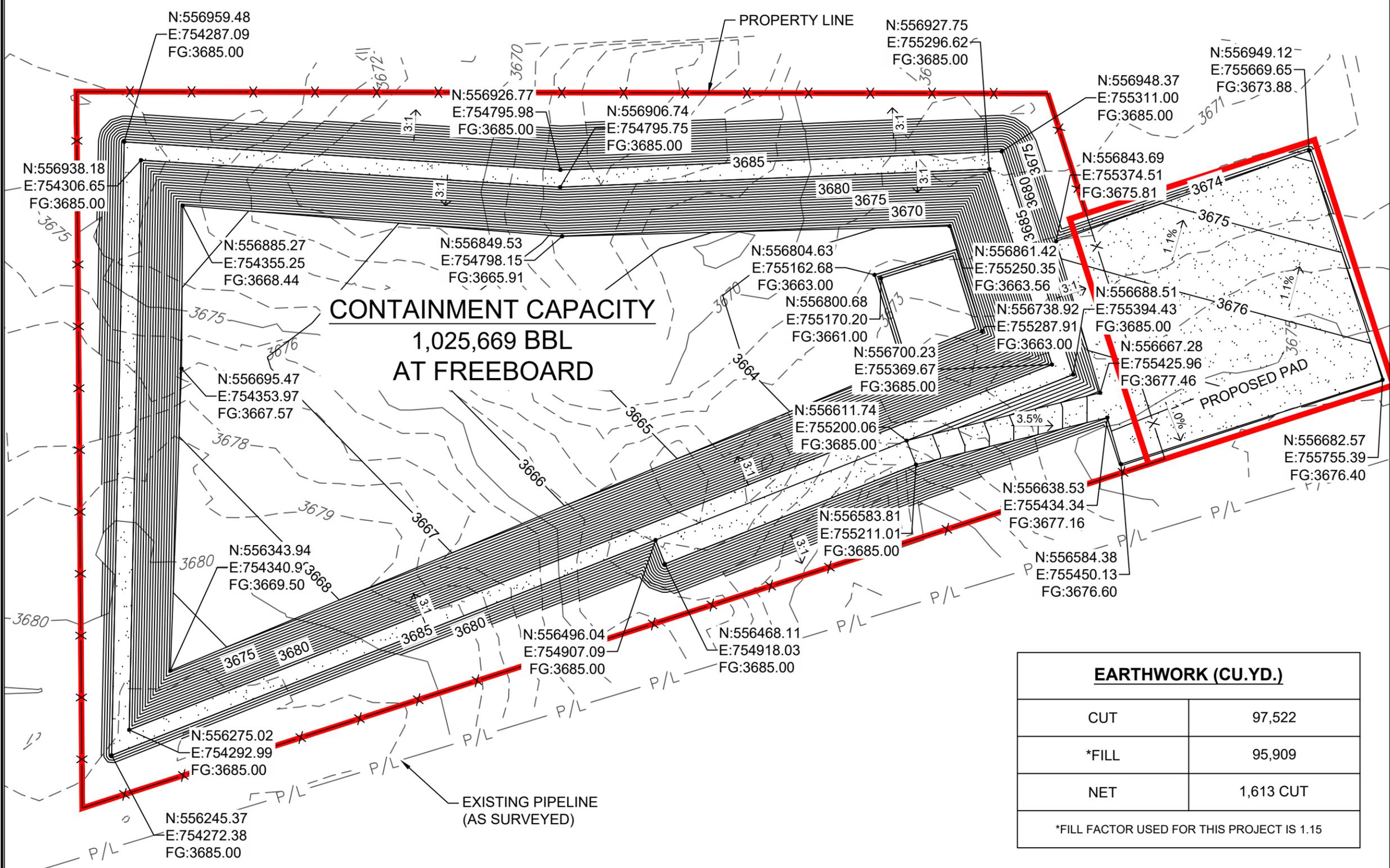


REVISIONS		
No.	DATE	DESCRIPTION



01/05/2026

SHEET:
4 of 12
CS-102



EARTHWORK (CU.YD.)	
CUT	97,522
*FILL	95,909
NET	1,613 CUT
*FILL FACTOR USED FOR THIS PROJECT IS 1.15	

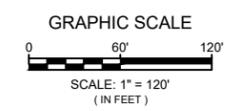
LINER QUANTITIES (SQFT)	
CONTAINMENT	483,891

CONTAINMENT VOLUME (BBL.)	
AT FREEBOARD	1,025,669

ENGINEERING SHEET:
MASTER LAYOUT
OF
PROJECT NAME: **HAT MESA RECYCLE FACILITY**
FOR
CLIENT: **WESTERN MIDSTREAM**

PROJECT NUMBER:
25377

PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ

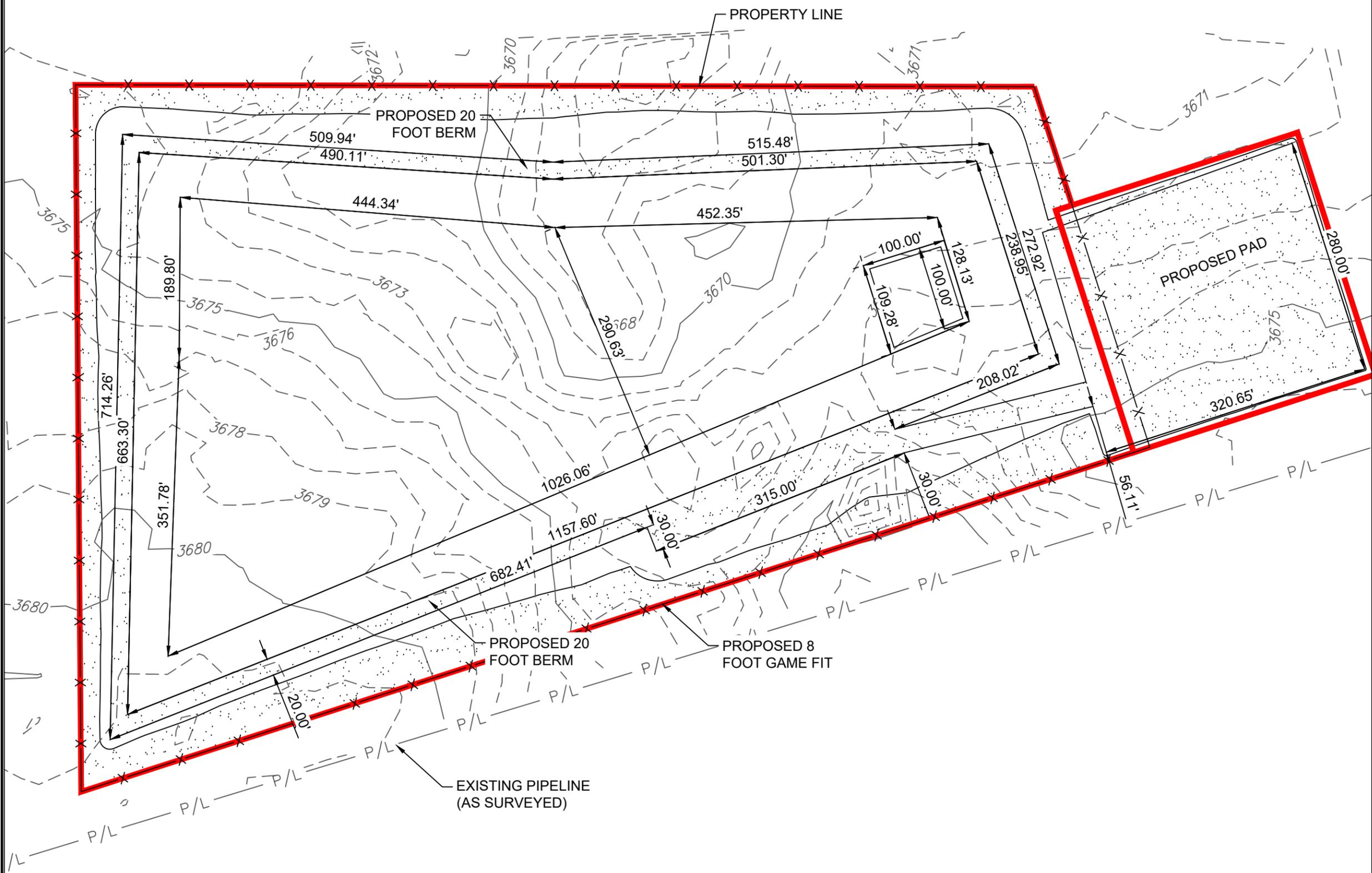


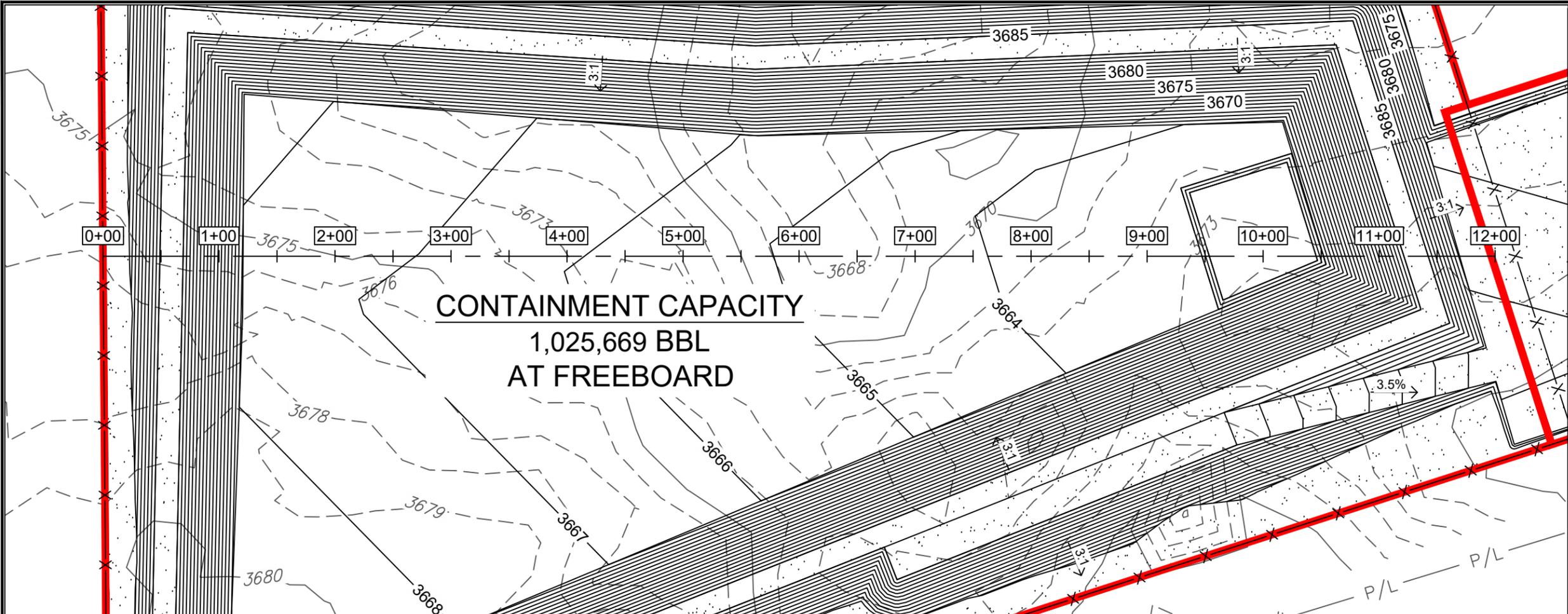
REVISIONS		
No.	DATE	DESCRIPTION



01/05/2026

SHEET:
5 of 12
CS-103





CONTAINMENT CAPACITY
1,025,669 BBL
AT FREEBOARD

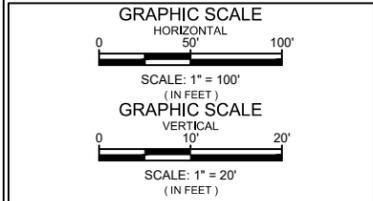


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 Squarerootservices.net
 575-231-7347

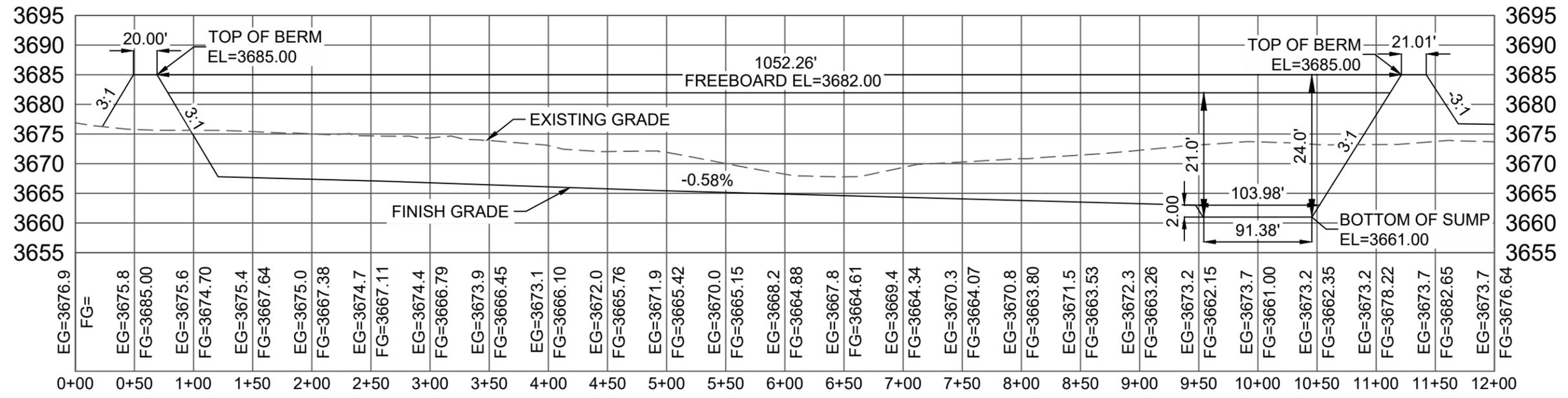
ENGINEERING SHEET:
 CONTAINMENT P&P WEST TO
 EAST STA. 0+00 TO STA. 12+00
 OF
 PROJECT NAME:
 HAT MESA RECYCLE
 FACILITY
 FOR
 CLIENT:
 WESTERN MIDSTREAM

PROJECT NUMBER:
25377

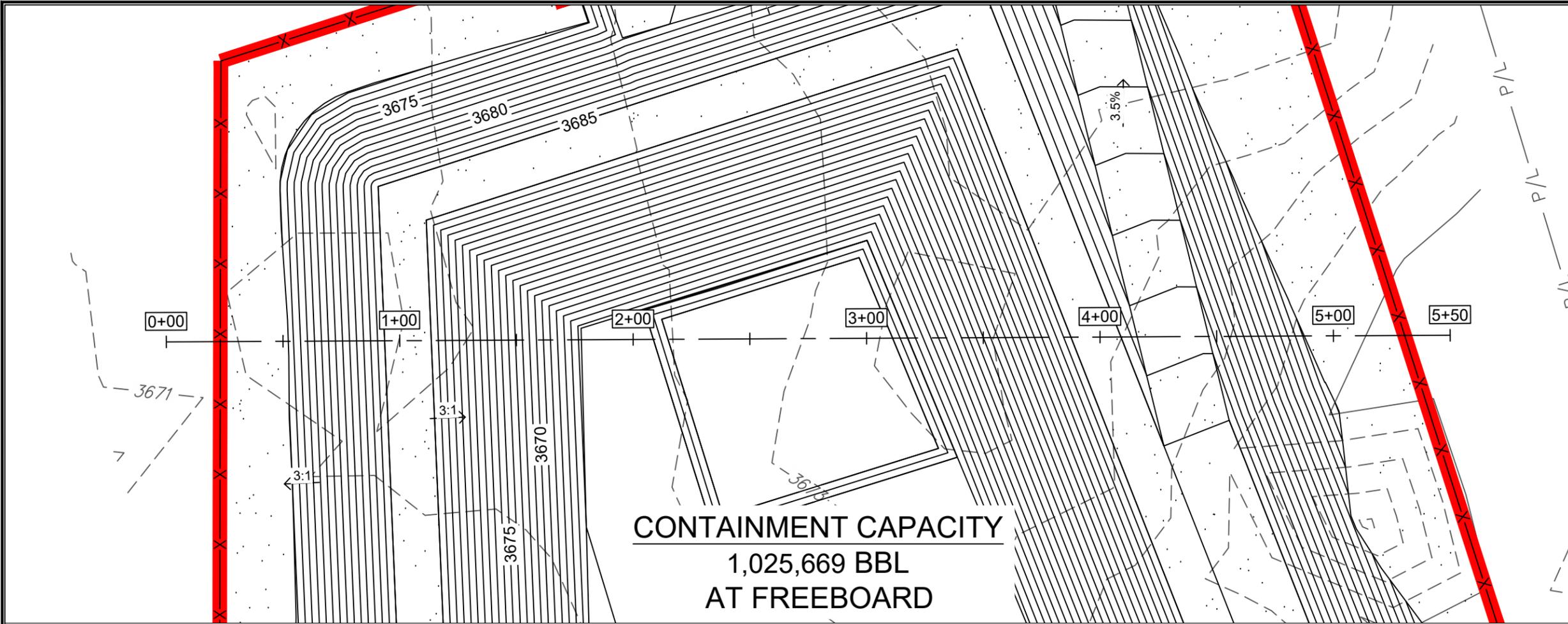
PROJECT ENGINEER:
 JEREMY BAKER, PE
 DRAWN BY:
 C. JIMENEZ



REVISIONS		
No.	DATE	DESCRIPTION



SHEET:
 7 of 12
CS-201

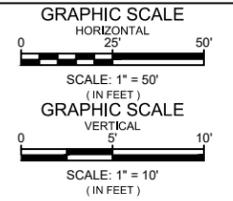


7921 N. World Dr.
Hobbs, NM 88242
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ENGINEERING SHEET:
CONTAINMENT P&P NORTH TO SOUTH STA. 0+00 TO STA. 5+50
OF
PROJECT NAME:
HAT MESA RECYCLE FACILITY
FOR
CLIENT:
WESTERN MIDSTREAM

PROJECT NUMBER:
25377

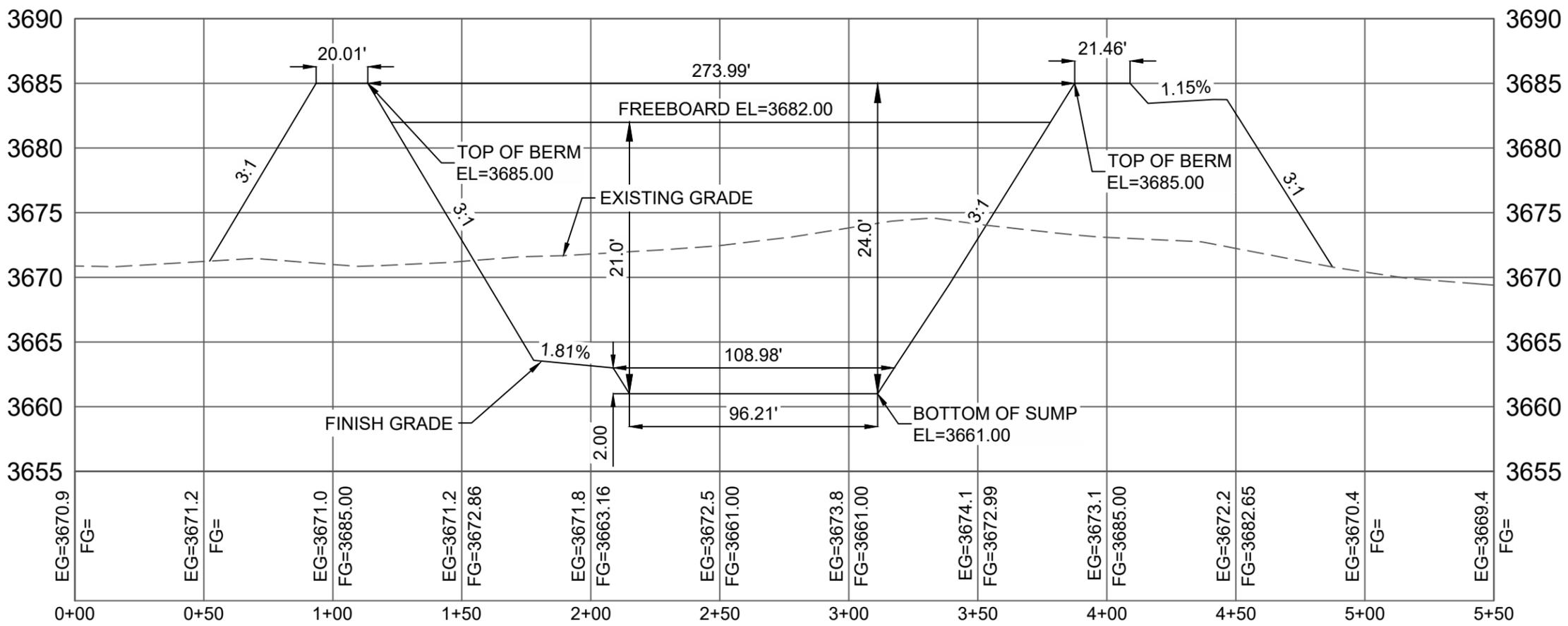
PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ



REVISIONS		
No.	DATE	DESCRIPTION



SHEET:
8 of 12
CS-202



ENGINEERING SHEET:
VOLUME QUANTITIES
OF
PROJECT NAME:
HAT MESA RECYCLE FACILITY
FOR
CLIENT:
WESTERN MIDSTREAM

PROJECT NUMBER:
25377

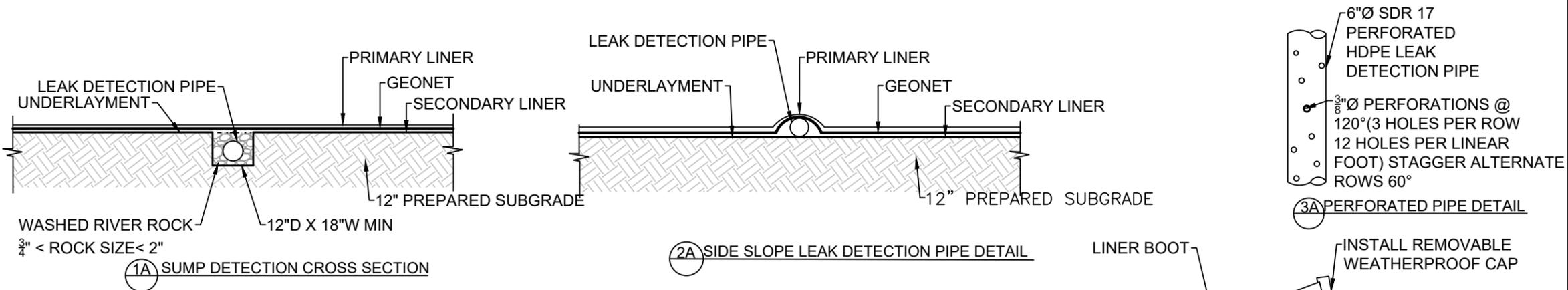
PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ

REVISIONS		
No.	DATE	DESCRIPTION

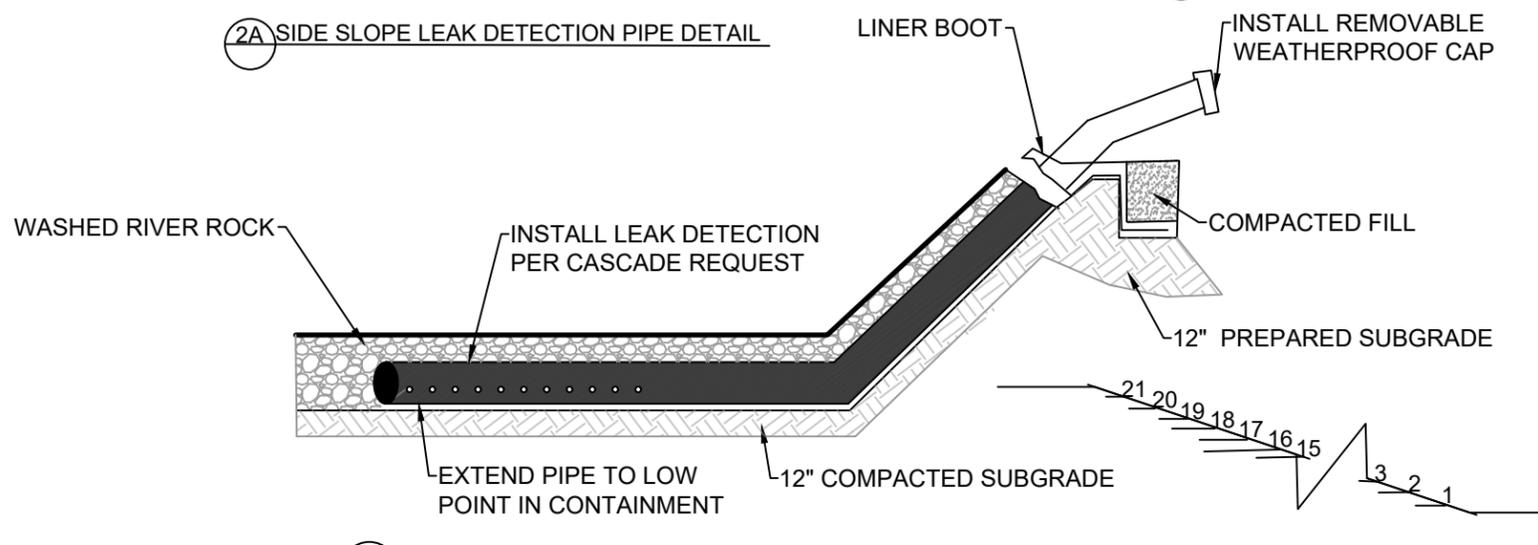


01/05/2026

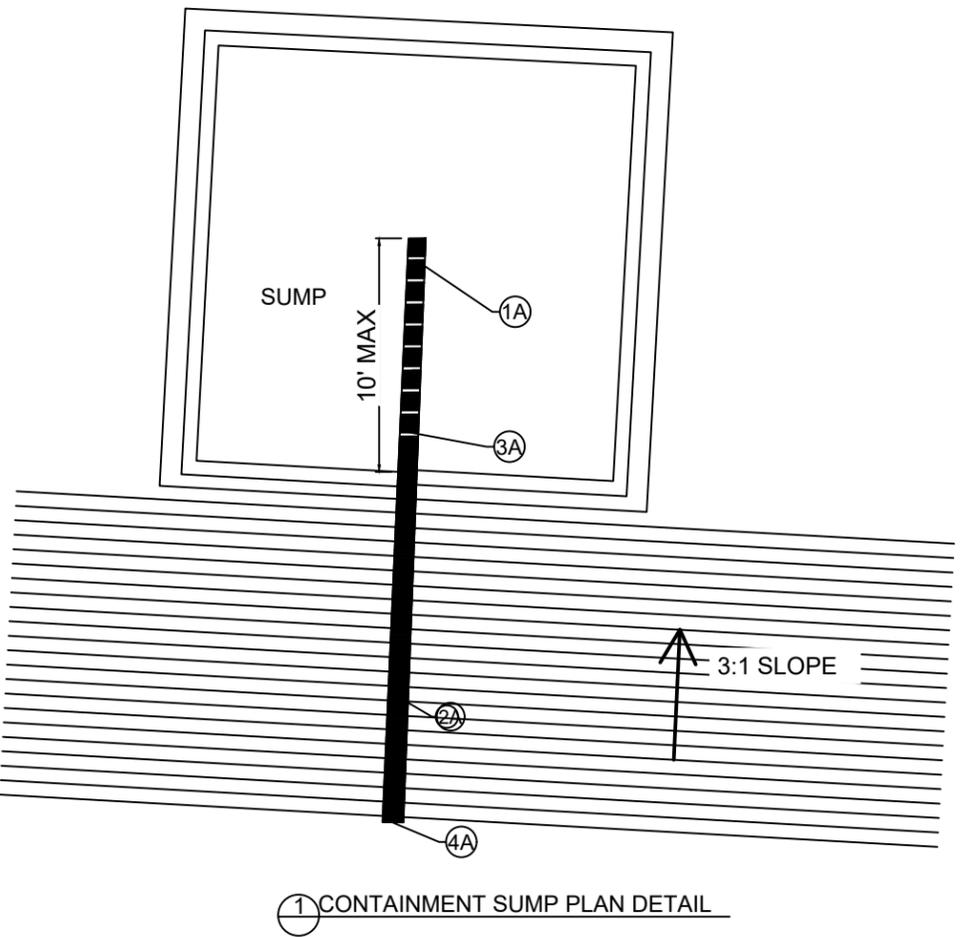
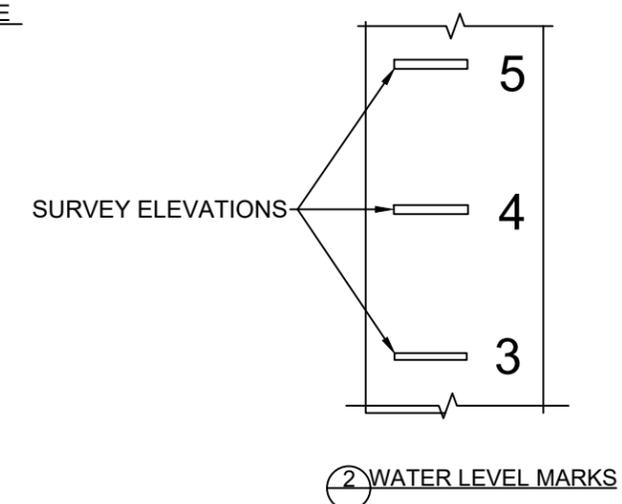
ELEVATION (FT)	CONTAINMENT DEPTH (FT)	REMAINING STORAGE (FT)	REMAINING STORAGE VOL (FT3)	REMAINING STORAGE VOL (GAL)	REMAINING STORAGE VOL (BBL)	PERCENT OF TOTAL VOL (%)	VOL IN CONTAINMENT (FT3)	VOL IN CONTAINMENT (GAL)	VOL IN CONTAINMENT (BBL)	VOL IN CONTAINMENT (AC-FT)	PERCENT OF TOTAL VOL (%)	
3,685.00	0	24	0	-	-	0%	7,078,684	52,955,637	1,260,674	162.50	100%	
3,684.00	1	23	448,811	3,357,555	79,931	6%	6,629,873	49,598,082	1,180,743	152.20	94%	FREEBOARD
3,683.00	2	22	888,639	6,647,905	158,262	13%	6,190,046	46,307,732	1,102,412	142.10	87%	
3,682.00	3	21	1,319,553	9,871,573	235,005	19%	5,759,132	43,084,063	1,025,669	132.21	81%	MAX VOLUME
3,681.00	4	20	1,741,624	13,029,087	310,173	25%	5,337,061	39,926,550	950,501	122.52	75%	
3,680.00	5	19	2,154,922	16,120,972	383,780	30%	4,923,762	36,834,664	876,894	113.03	70%	
3,679.00	6	18	2,559,518	19,147,756	455,836	36%	4,519,166	33,807,881	804,838	103.75	64%	
3,678.00	7	17	2,955,482	22,109,960	526,355	42%	4,123,202	30,845,677	734,319	94.66	58%	
3,677.00	8	16	3,342,884	25,008,116	595,349	47%	3,735,800	27,947,521	665,325	85.76	53%	
3,676.00	9	15	3,721,795	27,842,747	662,831	53%	3,356,889	25,112,890	597,843	77.06	47%	
3,675.00	10	14	4,092,284	30,614,378	728,813	58%	2,986,400	22,341,259	531,861	68.56	42%	STORAGE
3,674.00	11	13	4,454,422	33,323,534	793,308	63%	2,624,262	19,632,102	467,366	60.24	37%	VOLUME
3,673.00	12	12	4,808,280	35,970,746	856,328	68%	2,270,404	16,984,891	404,346	52.12	32%	
3,672.00	13	11	5,153,928	38,556,537	917,886	73%	1,924,756	14,399,100	342,788	44.19	27%	
3,671.00	14	10	5,491,436	41,081,433	977,994	78%	1,587,248	11,874,204	282,680	36.44	22%	
3,670.00	15	9	5,820,874	43,545,959	1,036,665	82%	1,257,810	9,409,678	224,009	28.88	18%	
3,669.00	16	8	6,141,842	45,947,118	1,093,828	87%	936,842	7,008,519	166,846	21.51	13%	
3,668.00	17	7	6,442,598	48,197,078	1,147,391	91%	636,086	4,758,559	113,283	14.60	9%	
3,667.00	17	7	6,686,634	50,022,711	1,190,852	94%	392,050	2,932,926	69,822	9.00	6%	
3,666.00	19	5	6,857,483	51,300,832	1,221,279	97%	221,201	1,654,805	39,395	5.08	3%	
3,665.00	20	4	6,969,875	52,141,635	1,241,296	98%	108,809	814,002	19,378	2.50	2%	FLOOR
3,664.00	21	3	7,034,370	52,624,120	1,252,782	99%	44,315	331,517	7,892	1.02	1%	VOLUME
3,663.00	21	3	7,060,145	52,816,948	1,257,372	100%	18,539	138,688	3,302	0.43	0%	
3,662.00	23	1	7,069,987	52,890,573	1,259,125	100%	8,697	65,064	1,549	0.20	0%	SUMP
3,661.00	24	0	7,078,684	52,955,637	1,260,674	100%	0	0	0	0.00	0%	VOLUME



- NOTES:
1. LEAK DETECTION SYSTEM TO BE INSTALLED BY OWNER.
 2. PERFORATED PIPE TO BE ALONG THE BOTTOM OF THE CONTAINMENT. SOLID PIPE ON THE SIDE SLOPE.
 3. CONSTRUCT COMPACTED SUBGRADE TO 95% STANDARD PROCTOR AS PER ASTM D-698
 4. EXTEND 60 MIL RUB SHEET 1.0-FT PAST TOP OF SHOULDER OF SUMP.
 5. WASHED RIVER ROCK SHALL BE 3/4" MIN @ 2" MAX.



- NOTE:
1. LEVEL MARKS TO BE LOCATED BY SURVEYOR
 2. MARKS TO BE MADE BY AN EXTRUSION WELDER USING BLACK FILAMENT (OR WHITE FILAMENT ON BLACK LINER)
 3. MARKS WILL BE DETERMINE ON THE FIELD BY THE OWNER AND CONTINUE TO THE TOP OF THE BERM.
 4. REFERENCE PIT CAPACITY TABLES FOR ACCURATE ELEVATIONS.



PROPOSED PIT REFERENCE TABLE	
DETAIL	DESCRIPTION
PRIMARY LINER	60 MIL HDPE LINER
LEAK DETECTION	200 MIL GEONET
SECONDARY LINER	40 MIL HDPE LINER
UNDERLAYMENT	COMPACTED SUBGRADE/10 OZ GEOTEXTILE
BOTTOM OF POND	3,661.00'
BERM (ROAD CREST)	3,685.00'
LEAK DETECTION PIPING	6-IN DR11 X PERFORATED HEPE PIPE LEAK DETECTION PIPE



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575-231-7347

ENGINEERING SHEET:
LEAK DETECTION DETAILS
OF
PROJECT NAME:
HAT MESA RECYCLE FACILITY
FOR
CLIENT:
WESTERN MIDSTREAM

PROJECT NUMBER:
25377

PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ

REVISIONS		
No.	DATE	DESCRIPTION



SHEET:
10 of 12
CS-501

ENGINEERING SHEET:
LINER DETAILS
OF
PROJECT NAME: **HAT MESA RECYCLE FACILITY**
FOR
CLIENT: **WESTERN MIDSTREAM**

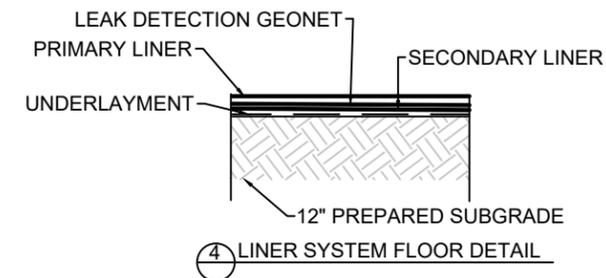
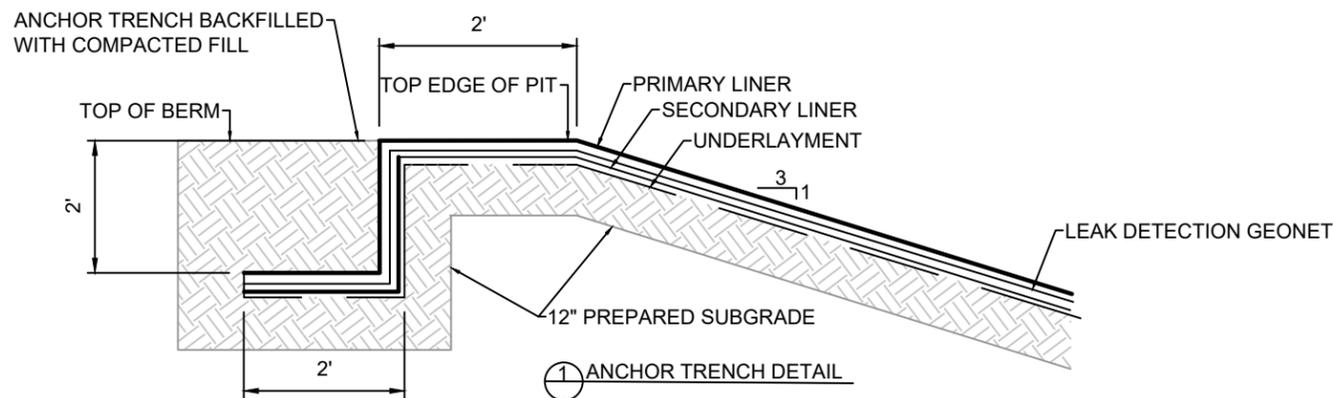
PROJECT NUMBER: **25377**

PROJECT ENGINEER: **JEREMY BAKER, PE**
DRAWN BY: **C. JIMENEZ**

REVISIONS		
No.	DATE	DESCRIPTION

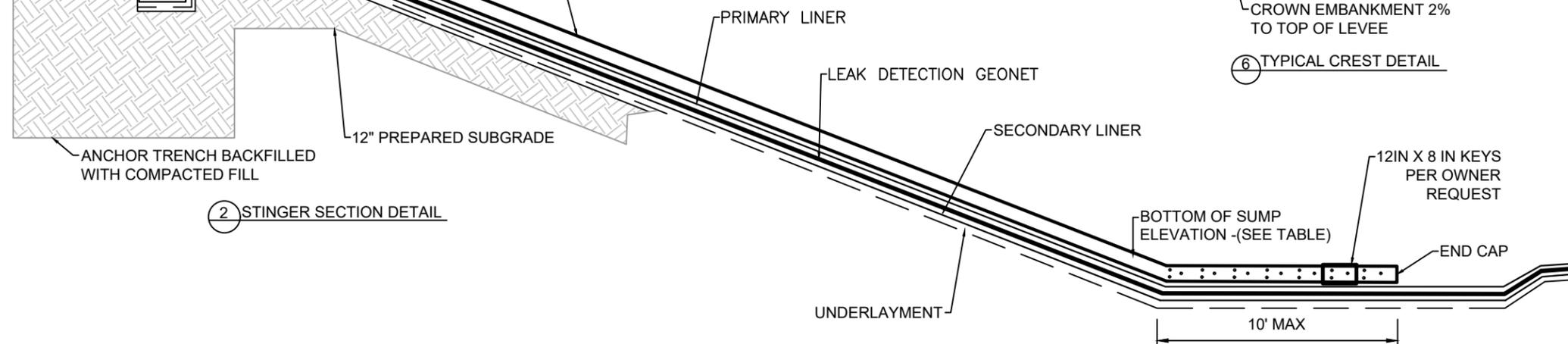
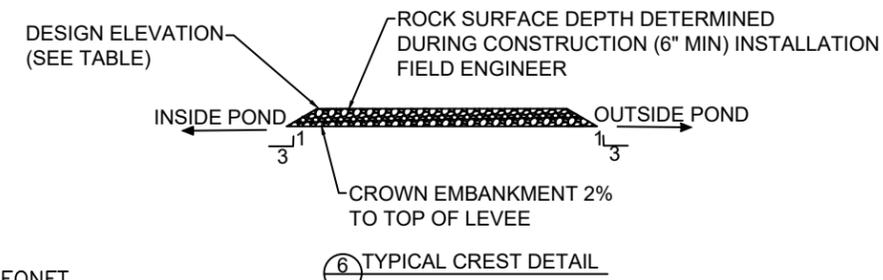
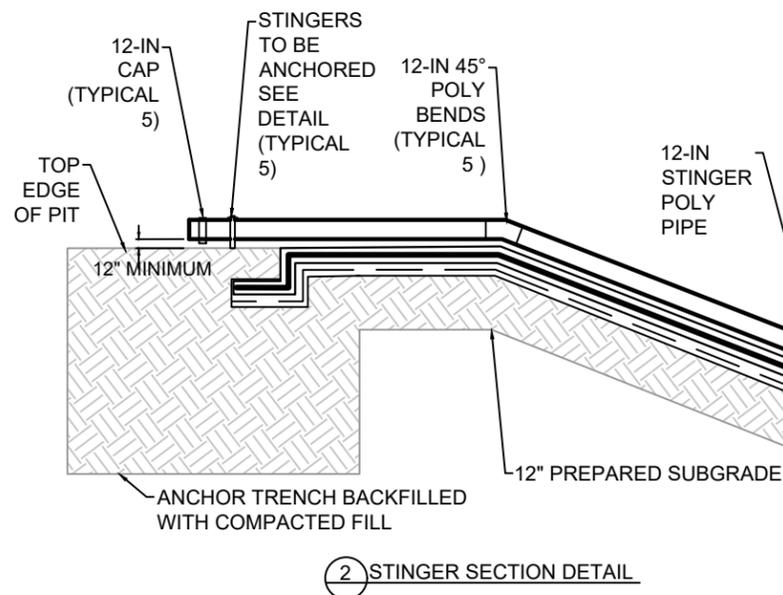
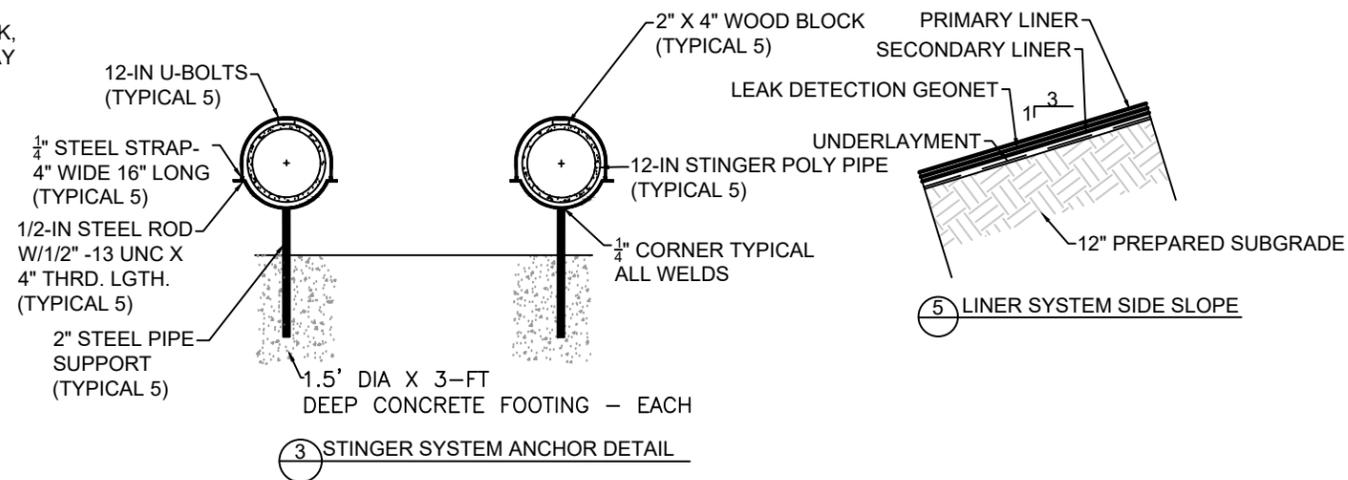
JEREMY BAKER
NEW MEXICO
16207
LICENSED PROFESSIONAL ENGINEER
01/05/2026

SHEET:
11 of 12
CS-502



GENERAL NOTES:

1. PREPARED SUBGRADE MEANS COMPACTED SMOOTH SUBGRADE FREE OF ROCK, ROOTS, WOOD DEBRIS, CONCRETE RUBBLE AND ANY SHARP OBJECTS THAT MAY PUNCTURE THE HDPE LINER, A MINIMUM COMPACTED DEPTH OF 12".
2. ALL INTERIOR SLOPES AND TOP OF BERMS TO BE SMOOTH DRUM ROLLED
3. ALL EMBANKMENT SLOPES SHALL HAVE A SLOPE (H:V RATIO) OF 3:1.
4. COMPACTED EARTH EMBANKMENTS TO BE CONSTRUCTED WITH 12 INCH (MAXIMUM LOOSE LIFTS, COMPACTED TO 95% STANDARD PROCTOR DENSITY)
5. PERFORM GEOTECHNICAL ANALYSIS ON EXISTING SOIL TO CONFIRM SOIL IS SUITABLE FOR USE IN THE LEVEE.
6. LINER SPECIFICATIONS PROVIDED ON SHEET CS - 501



ENGINEERING SHEET:
FENCE DETAILS
OF
PROJECT NAME:
HAT MESA RECYCLE FACILITY
FOR
CLIENT:
WESTERN MIDSTREAM

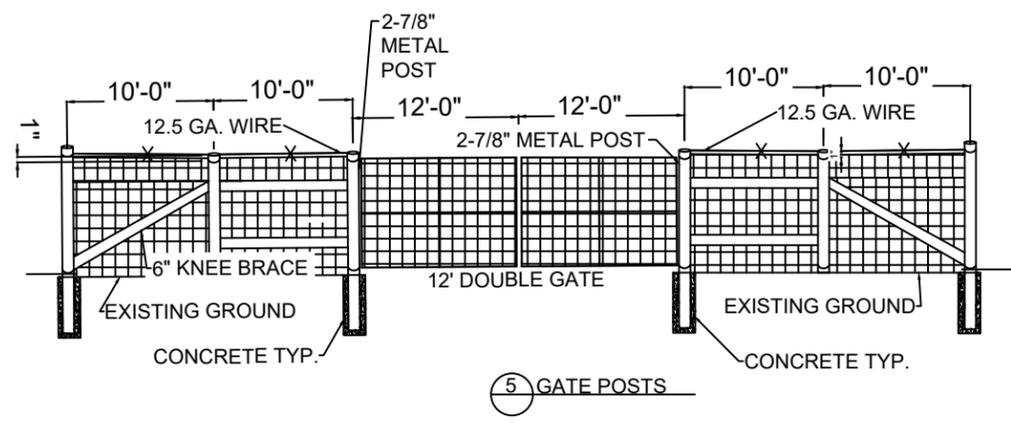
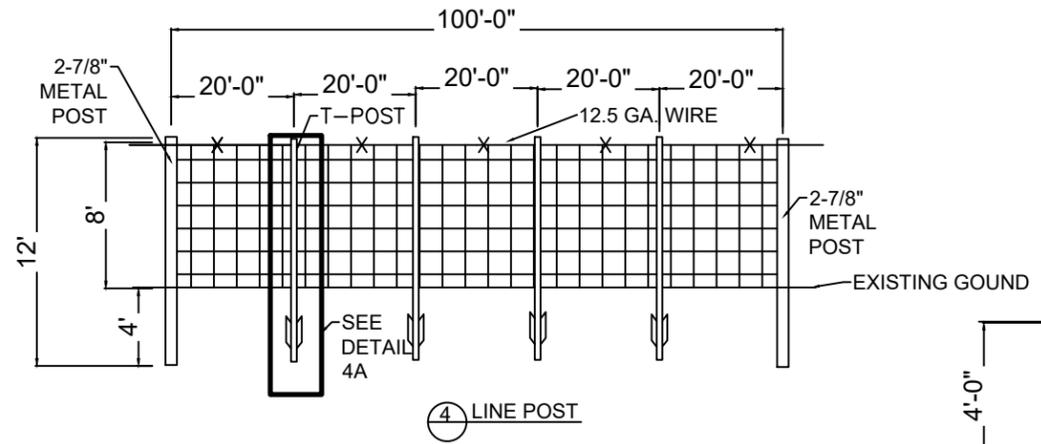
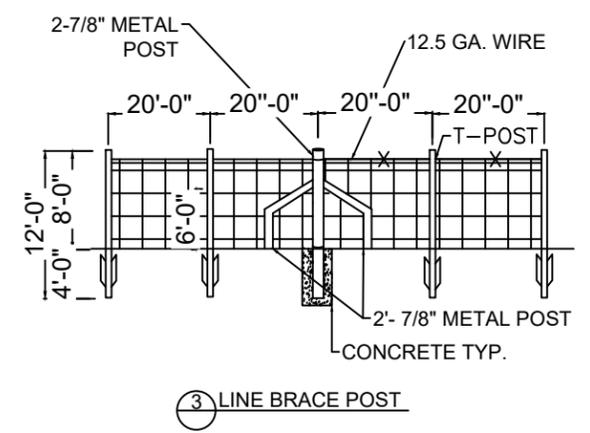
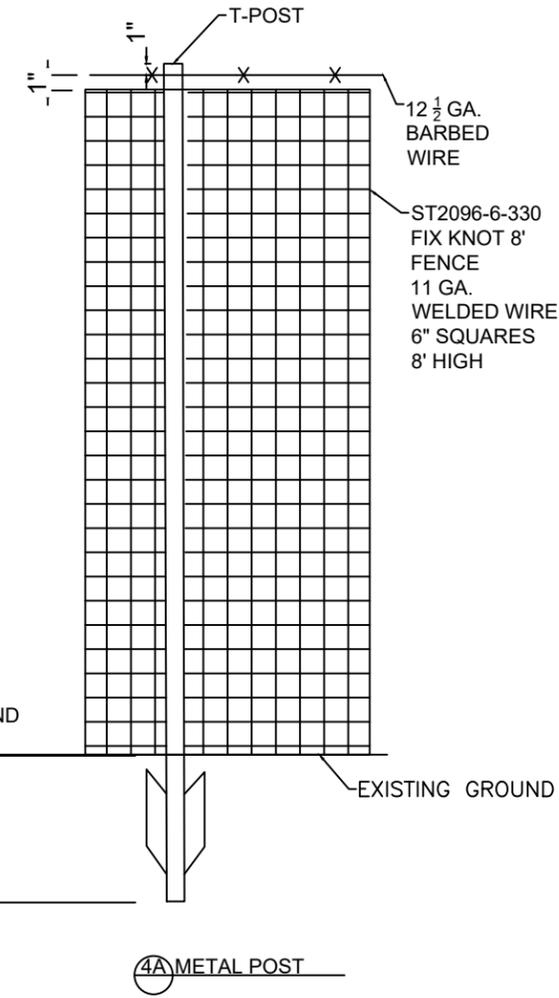
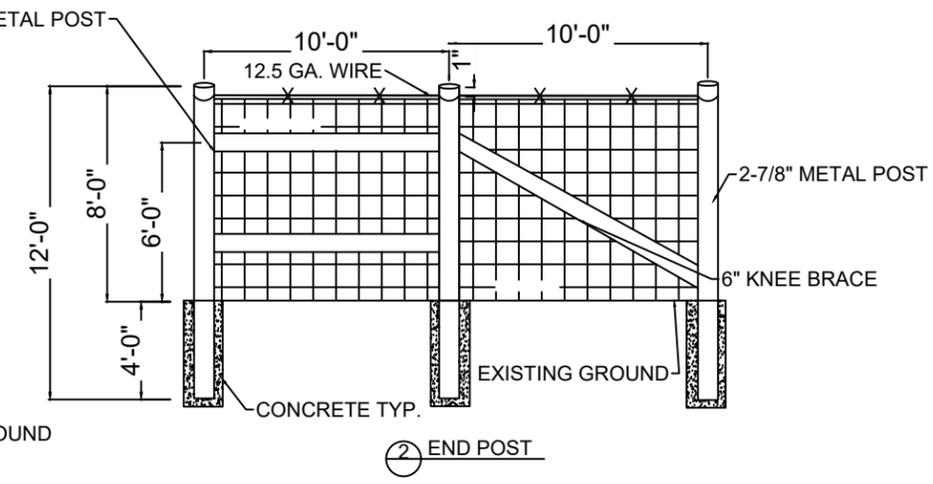
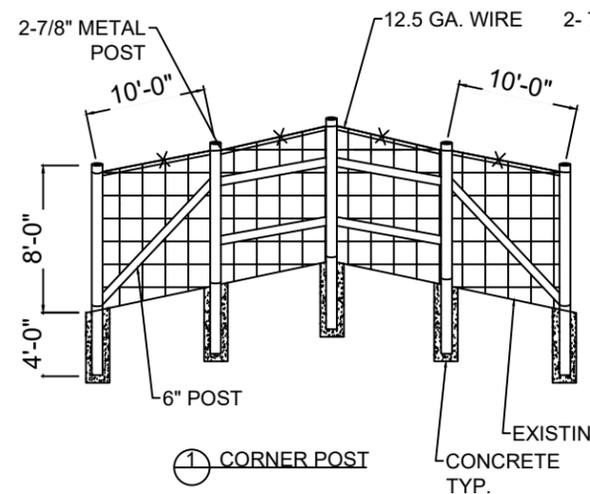
PROJECT NUMBER:
25377

PROJECT ENGINEER:
JEREMY BAKER, PE
DRAWN BY:
C. JIMENEZ

REVISIONS		
No.	DATE	DESCRIPTION


 01/05/2026

SHEET:
12 of 12
CS-503



Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Thursday, February 5, 2026 1:45 PM
To: nick.shaw@westernmidstream.com; gjennings@CascadeServicesLLC.com; Bobbi Jo Crain
Subject: 1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573]
Attachments: C-147 1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573] 02.05.2026.pdf

1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573]

Good afternoon Mr. Shaw.

The NMOCD has reviewed the permit modification request submitted by [371643] SOLARIS WATER MIDSTREAM, LLC 01/21/2026, Application ID **545187** for 1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573]. [371643] SOLARIS WATER MIDSTREAM, LLC has requested the following modifications:

1. Moving the northern boundary of the setback polygon for the approved containment, due to the presence of a new unmapped pipeline, approximately 1200 feet north and the southern boundary, approximately 2000 feet north.
2. Changing the design of the containment to fit this new location.

The requested modifications have been approved with the following conditions of approval:

- The 1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573] registration/permit expiration date is 02/16/2030. Cascade Services and Hicks Consultants reviewed the approved C-147 package and concluded that this slight change in location does not impact the Siting Criteria Demonstration of the approved Volume 1 or the variances, Design and Construction Plan, Operations and Maintenance Plan, and Closure Plan previously approved.
- [371643] SOLARIS WATER MIDSTREAM, LLC will comply with all conditions previously approved for the 1RF-534 - HAT MESA CONTAINMENTS [fVV2504941573] permit.
- No changes to the operations procedures, maintenance, monitoring procedures, or closure procedures will be made, aside from the approved modification.
- The closure cost estimated provided in the modification request in the amount of \$588,079.88 meets the requirements of NMAC 19.15.34.14.
- The financial assurance should be mailed to: EMNRD - Oil Conservation Division. Administration & Compliance Bureau. Attn: Bond Administrator. 1220 S. St. Francis Drive |. Santa Fe, NM 87505. (505) 660-2501.
- NMOCD will notify you when the bond has been received and approved.

Please let me know if you have any additional questions.

Best regards,

Victoria Venegas • Senior Environmental Scientist
EMNRD - Oil Conservation Division
506 W. Texas Ave. Artesia, NM 88210
575.909.0269 | Victoria.Venegas@emnrd.nm.gov

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 545187

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 9950 WOODLOCH FOREST DR THE WOODLANDS, TX 77380	OGRID: 371643
	Action Number: 545187
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	[371643] SOLARIS WATER MIDSTREAM, LLC has requested the following modifications: 1. Moving the northern boundary of the setback polygon for the approved containment, due to the presence of a new unmapped pipeline, approximately 1200 feet north and the southern boundary, approximately 2000 feet north. 2. Changing the design of the containment to fit this new location. The requested modifications have been approved. • No changes to the operations procedures, maintenance, monitoring procedures, or closure procedures will be made, aside from the approved modification.	2/5/2026