

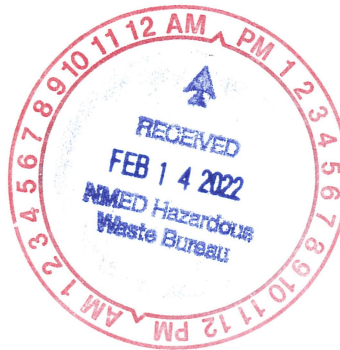
**DEPARTMENT OF ENERGY**

Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-2022-BF046-02-001

February 14, 2022

Mr. Rick Shean
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313



Subject: Revised Request for Approval of Area of Contamination for the Retrieval of Corrugated Metal Pipes [Solid Waste Management Unit 54-015(k)] at Technical Area 54

Dear Mr. Shean:

On March 5, 2020, the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) submitted a request for approval to designate one large area of contamination in support of retrieval of corrugated metal pipes (CMPs) [Solid Waste Management Unit (SWMU) 54-015(k) located at Technical Area 54 (TA-54)]. On March 23, 2020, EM-LA, the New Mexico Environment Department (NMED), and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) participated in a conference call regarding the original request for approval to designate one large area of contamination for CMP retrieval from SWMU 54-015(k). The intent of this letter is to request NMED approval of the area of contamination request and provide additional information requested by NMED in the March 23, 2020, meeting on how overburden soils will be managed during CMP retrieval activities. Proposed boundaries for the area of contamination are shown in Enclosure 1.

SWMU 54-015(k) consists of a subsurface layer of 158 retrievable CMPs placed on top of inactive Pit 29 at TA-54. The CMPs were free of surface contamination when they were buried above Pit 29. Contamination is not expected to be encountered in the overburden fill material above the layer of CMPs. SWMU 54-015(k) is part of Material Disposal Area (MDA) G at TA-54. MDA G will not be transferred and will therefore remain under DOE control. Eventually, as a separate action, all of MDA G, including SWMU 54-015(k), will undergo the remedy selection process under the 2016 Compliance Order on Consent (Consent Order). NMED will select the final remedy for MDA G.

The sampling of the overburden material will occur during or after excavation of the CMPs from SWMU 54-015(k). Approximately 4700 yd³ of overburden material is expected to be removed during CMP retrieval. Although this work is not considered a Consent Order investigation, management of excavated soils will follow the same process used in investigation work plans for Consent Order investigations. The process for the management of excavated soil is detailed in the "Corrugated Metal Pipe Soil Management Plan," N3B-PLAN-TRU-1033 (Enclosure 2). The overburden material will be field-screened for radioactivity during the excavation process to determine the potential for radioactive contamination. Incremental samples of the overburden material will be collected either as the material is excavated or after the material is placed onto tarps on the ground. A minimum of one composite sample will be collected for every 100 yd³. Multiple samples will be collected for every 100 yd³ excavated; they

will be composited and the composite sample will be sent off-site to be analyzed for inorganic chemicals, organic chemicals, and radionuclides. The overburden material will remain within the area of contamination boundary awaiting analytical results.

Analytical results of inorganic and organic chemical concentrations will initially be compared with residential soil screening levels in the current (November 2021) version of the NMED “Risk Assessment Guidance for Site Investigations and Remediation.” If concentrations within the soil exceed the residential soil screening levels, discussions will be held with NMED to determine the appropriate path forward. If the overburden material is determined to be suitable for reuse (i.e., inorganic and organic chemical concentrations are less than or equivalent to industrial worker soil screening levels and radionuclide activities are less than the TA-54 Area G operational cover acceptance criteria), the overburden material may be used to backfill the excavation. If the overburden material is not suitable for reuse, the material will be managed as waste and dispositioned at an authorized facility appropriate for the waste classification.

EM-LA is requesting that the area of contamination designation be effective through the completion of the CMP retrieval activities at the site, which are planned to start in February of 2022 and end in April of 2023.

If you have any questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or M. Lee Bishop at (702) 218-4460 (lee.bishop@em.doe.gov).

Sincerely,

**ARTURO
DURAN**

Arturo Q. Duran
Compliance and Permitting Manager
Environmental Management
Los Alamos Field Office

Digitally signed by
ARTURO DURAN
Date: 2022.02.13
21:28:41 -07'00'

Enclosure(s): Two hard copies with electronic files –

1. Proposed Area of Contamination for SWMU 54-015(k) at TA-54 (EM2022-0058)
2. Corrugated Metal Pipe Soil Management Plan (N3B-PLAN-TRU-1033)

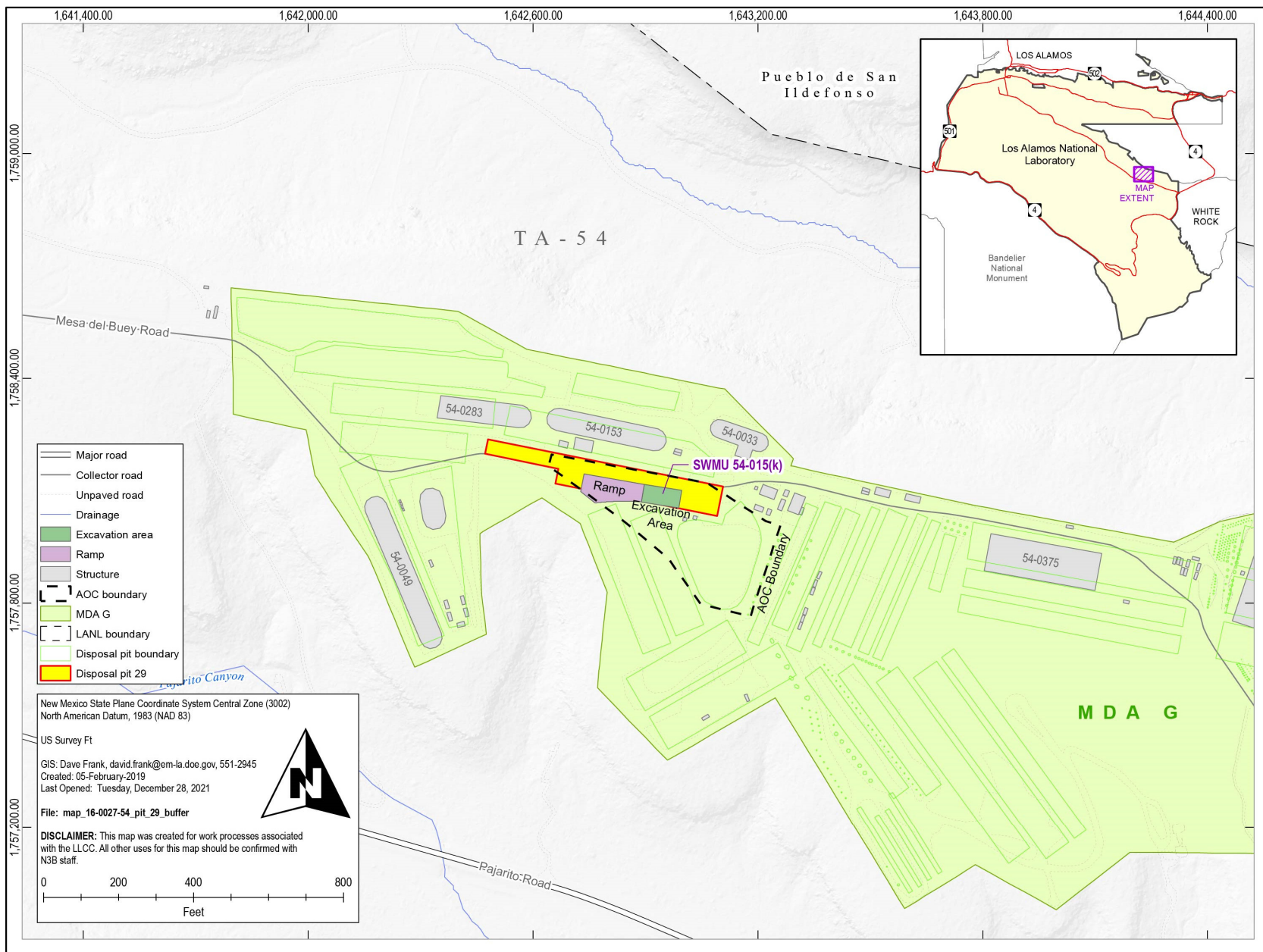
cc (letter and enclosure[s] emailed):

Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
David Gomez, Los Alamos County, Los Alamos, NM
Steve Yanicak, NMED-DOE-OB

Chris Catechis, NMED-RPD
Jennifer Payne, LANL
Stephen Hoffman, NA-LA
William Alexander, N3B
Emily Day, N3B
Steve Godfrey, N3B
Vince Medina, N3B
Gerald O'Leary III, N3B
Kim Lebak, N3B
Joseph Legare, N3B
Pamela Maestas, N3B
Christian Maupin, N3B
Joseph Murdock, N3B
M. Lee Bishop, EM-LA
Arturo Duran, EM-LA
John Evans, EM-LA
Thomas McCrory, EM-LA
Michael Mikolanis, EM-LA
David Nickless, EM-LA
Cheryl Rodriguez, EM-LA
emla.docs@em.doe.gov
n3brecords@em-la.doe.gov
Public Reading Room (EPRR)
PRS website

ENCLOSURE 1

**Proposed Area of Contamination for
SWMU 54-015(k) at TA-54**



Proposed area of contamination for SWMU 54-015(k) at TA-54

ENCLOSURE 2

Corrugated Metal Pipe Soil Management Plan

N3B-PLAN-TRU-1033, R.2

Corrugated Metal Pipe Soil Management Plan

Effective Date: 02/04/2022

Next Review Date: 02/04/2025

Classification Review: ☒ Unclassified ☐ UCNI ☐ Classified

Ellen Gammon	/	230665	/	Signature on File	/	02/01/2022
Name (print)		Z#		Signature		Date

Responsible Manager, Waste Operations Manager

James P. O'Grady	/	115358	/	Signature on File	/	02/03/2022
Name (print)		Z#		Signature		Date

Corrugated Metal Pipe Soil Management Plan

Document No.: N3B-PLAN-TRU-1033

Revision: 2

Effective Date: 02/04/2022

Page: 2 of 35

Reference

REVISION HISTORY

Document No./Revision No.	Issue Date	Action	Description
N3B-PLAN-TRU-1033, R.0	03/17/2020	New document	New plan for managing soil associated with CMP retrieval activities.
N3B-PLAN-TRU-1033, R.1	August 26, 2020	Major	Revised to incorporate additional requirements from Regulatory Compliance. No rev bars total rewrite.
N3B-PLAN-TRU-1033, R.2	February 4, 2022	Major	Revised to update Regulatory Compliance and additional requirements, standards and notifications. Updated to include latest project maps and drawings

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1. PURPOSE

This Corrugated Metal Pipe (CMP) Soil Management Plan (Plan) provides requirements and the directions for managing and disposition of soils for the Corrugated Metal Pipe (CMP) Retrieval Campaign.

2. SCOPE

This Soil Management Plan is applicable to the soil-disturbing activities associated with retrieval of the CMPs in the Solid Waste Management Unit (SWMU) 54-015(k) on top of Pit 29 at Technical Area 54 (TA-54) Area G. Soil-disturbing activities include preparation, excavation, grading, and soil restoration activities. Excavation boundaries for this project were staked / flagged and defined via ground penetrating radar (GPR) conducted in February 2020 reference CMP GPR drawing 50-12-001 6 and November 2021 reference CMP GPR drawing CH-TRU-2021-083.GPR.CMP.Final.

The CMP retrieval project has also been evaluated in accordance with the N3B-P351, N3B Project Planning and Regulatory Review (PPRR) process and 22-N3B-P-0024, Project Plan and Regulatory Review. The PPRR process engages a team of subject matter experts (SMEs) who review project elements to determine impacts to the facility, environment, and human health. The PPRR process provides information and documented decisions regarding regulatory issues that may arise, such as impacts to utilities, archeological review, migratory bird, endangered species, and excavation permit requirements.

This Soil Management Plan builds on these executed processes, site walk downs, and historical research to detail actionable items associated with soil management.

3. BACKGROUND

3.1 Site Location

Pit 29 is located south of Dome 0153 and Mesita Del Buey Road in TA-54 Area G. See Appendix B, CMP Retrieval Site Layout with reference drawings: N00051-DWG-54-MULT-G-0001, N00051-DWG-54-MULT-C-1001, N00051-DWG-54-MULT-C-1002, and N00051-DWG-MULT-C-2001.

3.2 CMP Burial Description

The CMPs are horizontally buried in two rows across and two high on top of Pit 29. The CMPs sit on approximately 3 to 4 feet of fill above Pit 29. The CMPs are not part of the mixed low-level waste (MLLW) Pit 29 Resource Conservation and Recovery Act (RCRA) Unit, but rather are retrievable transuranic (TRU) and hazardous waste contained in solid waste management unit (SWMU) 54-015(k) which is located directly above Pit 29. The CMPs are covered with approximately six feet of soil to grade (reference LA-UR-09-07533, "Characterization Sampling of Corrugated Metal Pipe Overburden at TA-54-Area G Field Summary Report"). Approximately 4,500 to 4,700 cubic yards (CY) of soil is anticipated to be excavated based on a 12-ft-depth area of 50 ft. by 160 ft. long, which includes 1.5:1 sloping on the sides of the excavation. This will also include a 20 ft. wide ramp to enter the CMP retrieval area. The length of the ramp will be approximately 120 ft. in length at a less than 10% slope. The sides of the ramp will be sloped back at a 1.5:1.

3.3 Hydrology

As shown in Appendix C, TA-54 Area G Site Map, the direction of storm water flow prior to the start of ground disturbance at the site is primarily to the north with runoff discharging to the northeast into Cañada del Buey. The surface water flows in this direction due to an earthen berm (0052) shown in Appendix C. Berm 0052 is required to be removed in order to retrieve the CMPs. During CMP retrieval, temporary storm water controls will be installed to ensure that the direction of storm water flow remains consistent with current flow patterns with runoff discharging to the northeast into Cañada del Buey. After the completion of CMP retrieval, the site will be restored to its original contours and elevation including reconstruction of the storm water controls in accordance with EM2021-0180, Storm Water Pollution Prevention Plan for Technical Areas G and L or its successor as applicable. During the construction phase of CMP retrieval the Construction CMP Storm Water Pollution Prevention Plan will be used to manage the Storm Water controls for the CMP Area of Concern (AOC).

Corrugated Metal Pipe Soil Management Plan

4. SOIL SAMPLING REQUIREMENTS

The soil sampling approach is designed to obtain representative samples that yield defensible results to be used in regulatory determinations. Soil Sampling must be performed in accordance with a Plan.

4.1 Pre-Excavation Sampling

The soil sampling report LA-UR-09-07533, Characterization Sampling of Corrugated Metal Pipes Overburden at TA-54 Area G Field Summary Report documents the soil sampling of the CMP retrieval area in preparation for CMP excavation. The report concludes that the radionuclide concentrations in the soil samples collected from the TA-54, Area G, CMP overburden and soil are orders of magnitude less than the LANL or National Council on Radiation Protection screening levels.

4.2 Sampling of CMP Excavated Staged Soils

The current path is to utilize the staged soils (See Section 6.2 for types of excavated soil) from the CMP excavation site for the backfill and restoration of the CMP excavation in SWMU 54-015(k). All the excavated soils from the CMP excavation will be sampled and evaluated in accordance with N3B-P-409-1, N3B Waste Acceptance Criteria (WAC), and the New Mexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation: Volume I Soil Screening Guidance for Human Health Risk Assessments (November 2021). The use of the CMP staged soils for restoration of the CMP retrieval site will only be allowed after a formal review is conducted by the N3B Regulatory Compliance and CH-TRU Waste Engineering which includes a determination that the sample results meet Waste Acceptance Criteria (WAC), and the applicable NMED Risk Assessment Guidance SSLs Residential Standard. Formal documentation of this review by Director TRU Waste Management and the Director of Regulatory Compliance Group and approval is required to use the excavated staged soils as backfill for restoration of the CMP excavation.

The sampling of the CMP staged soils as defined in Appendix A, Definitions and Acronyms for backfill will be conducted by taking one composite sample of every 100 cubic yards of excavated staged soils as defined in the CMP Sampling and Analysis Plan. The analytical results will be evaluated against the N3B-P-409-1 criteria and the NMED risk assessment guidance protocols by the N3B Regulatory Compliance Group as described above and in N3B-PLAN-TRU-2158, Corrugated Metal Pipe Overburden Soil Sampling and Analysis Plan.

Throughout the CMP retrieval project, Radiological Control Technicians (RCTs) will perform continuous surveys of equipment, personnel, CMPs, and CMP handling equipment. The detection of radiological contamination will indicate a potential release from the CMPs.

4.2 Sampling of CMP Excavated Staged Soils (continued)

Monitoring for radiological contamination of the soil will be used to determine the extent of contaminated soils for removal.

Any contaminated soils encountered will be packaged and characterized in accordance with N3B-P409-0, N3B Waste Management and will not be used for restoration of the CMP Excavation Site. Sampling of contaminated soils is not addressed in this plan but will be addressed in the appropriate Sampling and Analysis Plan for the characterization of the soils for treatment or disposal. Contaminated soils will be packaged as defined by N3B CH-TRU Policies and Procedures. Contaminated soils that intrude into the 4 foot soil profile above Pit 29 will not be sampled, but rather marked by GPS and notated on CMP retrieval restoration map for consideration during site closure. This project is not approved to process Pit 29 soils or waste.

4.3 Confirmatory Sampling After Removal of CMPs

Soil Sampling is not required below the CMP excavation either prior to or following the CMP retrieval activities unless contamination related to the CMPs (i.e., due to a spill/release from the CMPs during the retrieval and/or packaging process) is detected or suspected within soil underlying the excavation in Pit 29. Intrusion into the 4 foot of overburden above Pit 29 will only be sampled to a maximum depth of 6 inches. If contaminated soils are still present they will be marked by GPS and notated on CMP retrieval restoration map for consideration during site closure. This project is not approved to process Pit 29 soils or waste.

If radiological contamination is detected, the suspect contaminated soils will be packaged in accordance with N3B approved policies and procedures. Contaminated soils will be processed in accordance with the N3B-PLAN-TRU-1043, Corrugated Metal Pipe Waste Processing Plan. Contaminated soils from the CMPs detected below the original grade of the CMP excavation pit may be excavated to a maximum of six (6) inches below the grade of the original excavation to remove and package as waste in accordance with approved N3B procedures and plans.

4.3 Confirmatory Sampling after Removal of CMPs (continued)

If the contaminated soils extend more than six (6) inches below the original below the original grade of the CMP, the extent of the contamination will be documented through GPS for future evaluation during the eventual closure of TA-54. Excavation into the underlying Pit 29 is not authorized under this Soil Management Plan (SMP).

5. EXCAVATION

All soil and debris excavated from the AOC will undergo visual inspection to identify anomalous items or conditions (e.g., debris, radiological contaminated soil, etc.). RCTs will provide continuous job monitoring coverage during excavation activities, and excavation in the CMP AOC will only occur with radiological protection personnel present. In addition, RCTs will perform continuous routine surveys in support of CMP retrieval activities.

Excavation activities will be performed in accordance with the N3B CMP Excavation Permit and the Integrated Work Document WT-2020-0208-001 for the removal of the CMP overburden soils prior to CMP retrieval.

6. SOIL MANAGEMENT DURING EXCAVATION

6.1 Soil Quantities

The CMP retrieval operation is estimated to excavate 4,500 to 4,700 CY of soil during excavation. In addition, approximately 800 CY of clean fill as defined in accordance to New Mexico Administrative Code, 20.9.2.7(c)(4) is needed to backfill the excavation without the CMPs. This will be a total of approximately 5,300 to 5,500 CY of soil that will be managed under this Plan.

6.2 Excavated Soil Types Requirements

6.2.1 In-Process Soils

In-process soils must be placed back into the excavation pit by the end of each shift or managed as staged soils. (See Appendix A, Acronyms and Definitions)

6.2.2 Staged Soils

Staged soils must be placed by the end of each shift onto a fire-retardant plastic sheet within the AOC shown in Appendix D, Area of Concern Boundary and managed in accordance with the CMP Storm Water Pollution Prevention Plan (See Appendix A, Acronyms and Definitions)

6.3 **Management of Excavated Staged Soil Staging**

Excavated staged soil will be staged and managed within the defined boundaries of the AOC shown in Appendix D. Soil sampling activities are performed in accordance with Section 4.0.

Stockpiling of excavated staged soils shall occur as specified in Section 6.2 and as designated on the maps in Appendix B, CMP Retrieval Site Layout in the following manner:

- Staged soil will be stockpiled within a designated area located within the CMP AOC boundary. All stockpiles will be situated a minimum of ten (10) feet from the excavation area. (See Appendix B)
- Each stockpile of staged soil will be covered or stabilized using an approved soil fixative (e.g., water, chemical stabilizer) (see Section 7.1, Dust Control) and/or protected with a perimeter sediment barrier.

6.4 **Clean Soil and Base Course**

Approximately 800 CY of clean fill will be needed to fill the void of the removed CMPs. Clean fill must be free from any chemical or radiological contamination and meet the requirements defined in 20.9.2.7(c)(4), New Mexico Administrative Code. (NMAC). Base course will be applied in the CMP excavation and ramp as dust control and may be layered with CMP excavation soils that are verified in accordance with N3B-P-409-01, N3B Waste Acceptance Criteria, and the NMED Risk Assessment Guidance Residential Standard.

6.4.1 Base Course Standard

Base course used for this project will consist of crushed stone, sand, crushed or screened gravel, or a combination of such material. Base course shall be free from vegetable matter and other deleterious materials, including silt and clay. Ensure that at least 50 percent of the materials on or above the No. 4 sieve have at least two fractured faces, a Maximum Liquid Limit of 25, and a maximum Plasticity Index of 6 in accordance with American Society for Testing and Materials (ASTM) D 4318 Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

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Reference

6.4.1 Base Course Standard (continued)

Base course aggregate shall conform to:

Sieve Size	Percent Passing
1.0 inch	100
¾ inch	80 - 100
No. 4	30 - 60
No. 10	20 - 45
No. 200	3.0 - 10

Approximately 140 CY of base course will be placed along the excavation ramp, sloped at 1.5:1 to the excavation area to provide dust control and additional compaction for support of heavy equipment used in the retrieval of the CMPs.

Base course will be used to fill in any voids to create a secure surface for heavy equipment. Visual inspections conducted by the Environmental Safety and Health (ES&H) soils competent person will be used to determine conditions appropriate for heavy equipment use. The base course should be placed in the needed areas on the ramp and/or excavation area and the appropriate equipment should be used to smooth the surface.

6.4.2 Clean Fill Standard

Clean fill will consist of non-plastic granular soils free of organic or other deleterious materials having a maximum particle size of two (2) inches. Only clean approved materials will be used for fill and/or backfill.

Clean fill will be stored and managed as follows:

- Clean fill will be staged in a designated area that is easily accessible to the excavation site.
- Clean fill will be covered or stabilized in accordance with Section 7.1, and/or protected by a perimeter sediment barrier and in accordance with the CMP SWPPP.
- The soil pile currently stored on the south side of Pit 38, which is a combination of Pit 38 soil and clean fill from the Los Alamos National Laboratories (LANL) utility clean fill pile, may be utilized as fill material per N3B-STD-342-100, Engineering Standards Manual. The use of the Pit 38 soil pile as backfill for the CMP retrieval excavation will not be allowed until the N3B Regulatory Compliance Group has reviewed and approved the soils for use as specified in section 4.0. The existing location of this clean fill soil pile is marked on the site map provided in Appendix C.

6.5 Excavated Soil Designated for Waste Disposal

In the event of a CMP failure, or the encounter of contaminated soil, impacted materials will be packaged and managed in accordance with N3B-P409-0, N3B Waste Management.

6.6 Staging Area for Corrugated Metal Pipes (CMPs)

Fire-retardant tarps shall be used as a ground cover under the excavated staged soils and the CMPs when staging the CMPs outside the area of excavation to contain potential contamination and spills/releases. CMP retrieval operations will be performed in accordance with N3B-DOP-TRU-2135, CMP Retrieval.

7. SITE CONTROL MEASURES

7.1 Dust Control

Water for dust control will be applied at a rate that prevents run-off and discharge from the Site.

A stockpile that is inactive or unused for four or more work shifts shall be covered with fire retardant plastic sheeting or otherwise appropriately stabilized to prevent dust from impacting worker health minimize erosion of stockpiled materials and to eliminate the movement of sediment in storm water from the AOC boundary as shown in Appendix D. Chemical dust suppressants may be utilized if product-specific written approval is provided by the N3B Regulatory Compliance Organization.

Base course and clean soil as defined in Section 6.4, may be applied to the CMP excavation and areas within the AOC as a method of dust control.

7.2 Daily Inspections

Daily inspections will be conducted at CMP Retrieval Site in accordance with the requirements of this section. The results of each inspection will be recorded using the Attachment 1, Soil Management Plan/SWPPP Site Inspection Form. Inspections are to be performed, signed, and submitted on a daily basis for project documentation with exceptions noted in the following statements. If a portion of the CMP project area is not actively worked, the frequency of inspections may be reduced, provided they are performed at least every seven days and after a storm event of 0.25 inch rain fall or greater or any major weather event. Any conditions noted during the inspection as unsatisfactory must be reported to the TA-54 Operations Center, Regulatory Compliance, and the CMP Retrieval Project Manager. CMP Retrieval Operations will not continue until the unsatisfactory condition(s) are resolved and corrective actions

7.2 Daily Inspections (continued)

documented. These documented corrective actions must be attached to the appropriate inspection form for review and inclusion in the project folder and final project report. In addition, documentation of all corrective actions must be maintained in accordance with project-specific Storm Water Pollution Prevention Plan (SWPPP).

Inspections shall be performed by a qualified knowledgeable of applicable soil management, and sediment and erosion control, best management practices (BMPs) in accordance with the SWPPP, and the applicable 2017 NPDES Construction General Permit.

Completed Inspection forms generated in conjunction with this plan will be maintained with the site copy of the SMP and also considered a quality record. Inspection forms are considered completed when all signatures are obtained on a daily basis unless otherwise noted due to a period of inactivity or an adverse weather event. The completed inspection forms will be maintained by the Person In-Charge (PIC). At the end of the project, inspection forms will be forwarded to the Project Manager for inclusion in the final project report.

The maps from the SMP and the SWPPP will be used by ES&H personnel during each inspection and updated as needed to reflect site conditions.

7.2.1 Ramp and Excavation Site

The CMP ramp and excavation area including cleared, graded, and disturbed soil area at the site will be inspected each working day, and prior to beginning of CMP excavation activities. Each inspection will evaluate the following:

- Soil sock or berms are presence at each entrance.
- No pooled water present in the excavation site
- No sluffing in excess of 18 inches along the edges of the excavation area

The base course will be used to fill in any voids to create a secure surface for the heavy equipment and will be visually inspected to determine if it is safe for the heavy equipment. The backfill soil should be placed in the needed areas on the ramp and/or excavation area and the appropriate equipment should be used to smooth the surface.

7.2.2 Excavation Fall Protection Fence

- Base and fencing installed properly and free of visible defects
- Base and Fence is minimally three (3) feet from the sides of the excavation site
- Fencing is continuous around the excavation area that requires fall protection with the exception of the ramp entry

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Reference

7.2.3 AOC Boundary

- AOC boundary intact, upright and continuous

7.2.4 In-Process Soils

- Stabilized at the end of the shift

7.2.5 Staged Soil Piles

- Staged soils are placed on the fire retardant plastic
- Appropriate barrier in place around the perimeter of each staged soil pile
- No evidence of erosion originating from any staged soil pile
- Staged Soil piles stabilized within 4 shifts of non-activity

7.2.6 Clean-Fill and Base Course Piles

- Appropriate barrier in place around the perimeter of each stockpile
- No evidence of erosion originating from any staged stockpile

7.2.7 Equipment Storage

- Equipment stored properly

7.2.8 Other Inspections Criteria

- No vehicle leaks in the CMP AOC boundary
- Drip pans or fire retardant plastic are placed under any equipment left in the CMP AOC and are free from the accumulation of excess liquids
- Roll-Off Bins secured at the end of shift and the CMP AOC boundary is free of loose debris or waste
- Secondary waste containers are secured and stored properly in accordance with the permit requirements
- No sediment track out

7.2.9 SWPPP

- Spill Kit are present and adequate for potential spills
- Appropriate BMPs are in place and correctly used to effectively control the movement of sediment and storm water from the site.

7.2.10 SWPPP Modifications

- If SWPPP modifications are necessary, then the inspector will document in the comments section and notify the Project Manager and the SWPPP Inspector.

7.2.11 Spills

- Inspector will review any spills that may have occurred from the previous inspection and document in the comment section of Attachment 1. The CH-TRU Shift Operations Manager must be notified of any spills.

8. POST EXCAVATION

8.1 Fill and Grading

The following are requirements for fill and grading for post excavation:

- Verify that areas to be backfilled are free of debris, snow, ice, and water, and the surfaces are not frozen.
- Do not use any CMP Excavated soils, Clean-Fill, and/or the clean-fill soils from the Pit 38 excavation pile without formal written approval from the N3B Regulatory Compliance Organization after evaluation of the sample results for the applicable soils. This written approval will be provided to the Project Manager and included in the project files.
- Storm Water Pollution Prevention Controls used for compliance with the 2017 CGP and Soil Management Plan Controls must be maintained until the site is restored. Site inspections required by the CGP will be conducted until a Notice of Termination is submitted to EPA for the site by the N3B Regulatory Compliance Organization and approved by EPA Region 6.
- Backfill and fill areas to approximate contour lines and elevations of the original site shown on the drawings.
- Backfill and fill systematically in layers in accordance with the approved Integrated Work Control Program (IWCP).
- Backfill material shall be in a thawed state before being placed, mixed, or compacted.
- Recondition, reshape and re-compact areas that are damaged by freezing.
- Place backfill and fill materials in continuous layers not exceeding eight (8) inches in loose depth.
- Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content
- Compact each layer to required percentage of maximum density for the area. The roads should be compacted to 95% compaction and verified to the standard. The CMP excavation and surrounding areas that are not the roads Designated Road (DR)1 or DR2 should be compacted to 90% compaction and verified to the standard.

8.1 Fill and Grading (continued)

- Compact layers uniformly before a succeeding layer is placed.

Backfill and grading of excavation area will be performed in accordance with the N3B-STD-342-100, Engineering Standards Manual, as implemented through this plan.

The excavation site and all areas within the AOC will be restored to the original contours and elevation including the storm water controls as specified in the TA-54 Area G SWPPP. Any deviations will be documented and provided to the N3B Regulatory Compliance Organization for updates to the TA-54 Area G SWPPP. TA-54 Site maps and the site specific SWPPP will be updated accordingly to reflect the final configuration of the CMP retrieval area.

8.2 **CMP Retrieval Completion Walk-down**

Upon completion of CMP retrieval activities and site restoration, a final walk-down will be performed with the N3B Regulatory Compliance Organization, CMP Waste Operations Director, Waste Engineering, and CMP Retrieval Project Manager to verify the complete restoration of the Site. Site inspections will continue in accordance with the EPA 2017 Construction General Permit (or the predecessor permit) until the site is stabilized and a Notice of Termination is submitted by Regulatory Compliance and approved by EPA Region 6.

9. RECORDS PROCESSING

PIC

- [1] **ENSURE** all records generated by the performance of this procedure are processed and protected accordingly:
- When the records are no longer needed for current business, transfer all records to N3B Records Management custody according to N3B-P1020-1, N3B Records Management.
 - Use N3B-PLAN-RM-0004, N3B Specific Records File Plan and Retention Schedule, to determine approved disposition schedules for Federal records created or received in performance of work for the Los Alamos Legacy Cleanup Contract (LLCC).

Record Identification	Record Type Determination	Protection/Storage Methods
Attachment 1, Soil Management Plan/SWPPP Daily Inspection Checklist Note: Quality Assurance (QA) documents shall be considered valid records only if stamped, initialed, or signed and dated by authorized personnel or otherwise authenticated. Corrections to documents shall be reviewed and approved by the responsible individual from the originating or authorized organization.	QA Record Lifetime Note: Lifetime QA Records must be retained for the life of the item. Nonpermanent QA Records provide evidence that an activity was performed in accordance with applicable requirements, but do not meet the criteria for Lifetime Records. Nonpermanent Records must be maintained for their identified retention period.	Supervision shall ensure the records are managed, maintained and stored according to NQA-1 2008/2009a requirements: <ul style="list-style-type: none">▪ Limit access to the processing, storage, and retrieval of records to authorized personnel.▪ Provide for the temporary storage of QA records in a cabinet with 1-hour fire rating, unless dual storage requirements are met.▪ Provide for the long-term storage (single storage) of QA records in a cabinet with a minimum 2-hour fire rating unless dual storage requirements are met.

10. REFERENCES

22-N3B-P-0024, Project Plan and Regulatory Review

CMP GPR drawing 50-12-001 6

DOE Order 435.1, Radioactive Waste Management

EM2021-0180, Storm Water Pollution Prevention Plan for Technical Area 54 Areas G and L

Integrated Work Document WT-2020-0208-001

LA-UR-09-07533, Characterization Sampling of Corrugated Metal Pipe Overburden at TA-54-Area G Field Summary Report

10. REFERENCES (continued)

N00051-DWG-54-MULT-G-0001, TA-54 Area G CMP Retrieval Excavation Title Sheet

N00051-DWG-54-MULT-C-1001, TA-54 Area G CMP Retrieval Excavation, Civil Site Location and Equipment Layout Plan

N00051-DWG-54-MULT-C-1002, TA-54 Area G CMP Retrieval Excavation, Retrieval Area Plan

N00051-DWG-MULT-C-2001, TA-54 Area G CMP Retrieval Excavation, Excavation Slope Sections

N3B-DOP-TRU-2135, CMP Retrieval

N3B-P351, N3B Project Planning and Regulatory Review

N3B-P409-0, N3B Waste Management

N3B-P409-1, Waste Acceptance Criteria

N3B-P1020-1, N3B Records Management

N3B-PLAN-TRU-1043, Corrugated Metal Pipe Waste Processing Plan

N3B-STD-342-100, Engineering Standards Manual

New Mexico Administrative Code, 20.9.2.7(c)(4)

New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation: Volume I Soil Screening Guidance for Human Health Risk Assessments (November 2021)

Storm Water Pollution Prevention Plan, Corrugated Metal Pipe Retrieval Technical Area 54

Storm Water Pollution Prevention Plan for Technical Area 54 Areas G and L, May 2021 EM2021-0180

APPENDIX A

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ACRONYMS AND DEFINITIONS**Acronyms**

AOC	Area of Concern
ASTM	American Society for Testing and Materials
BMP	Best Management Practice
CH-TRU	Contact Handled-Transuranic
CMP	Corrugated Metal Pipe
CY	cubic yards
DR	Designated Road
ft	foot or feet
GPR	Ground Penetrating Radar
GPS	Global Positioning System
IWCP	Integrated Work Control Program
LANL	Los Alamos National Laboratory
MSGP	Multi Sector General Permit
MLLW	Mixed Low Level Waste
NCRP	National Council on Radiation Protection
NMED	New Mexico Environment Department
PIC	Person In Charge
PPRR	Project Planning and Regulatory Review
RCT	Radiological Control Technician
RCRA	Resource Conservation and Recovery Act
SME	Subject Matter Expert
SMP	Soil Management Plan
SSL	Soil Screening Level
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution Prevention Plan
TA	Technical Area
TRU	Transuranic
WAC	Waste Acceptance Criteria

APPENDIX A

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Definitions

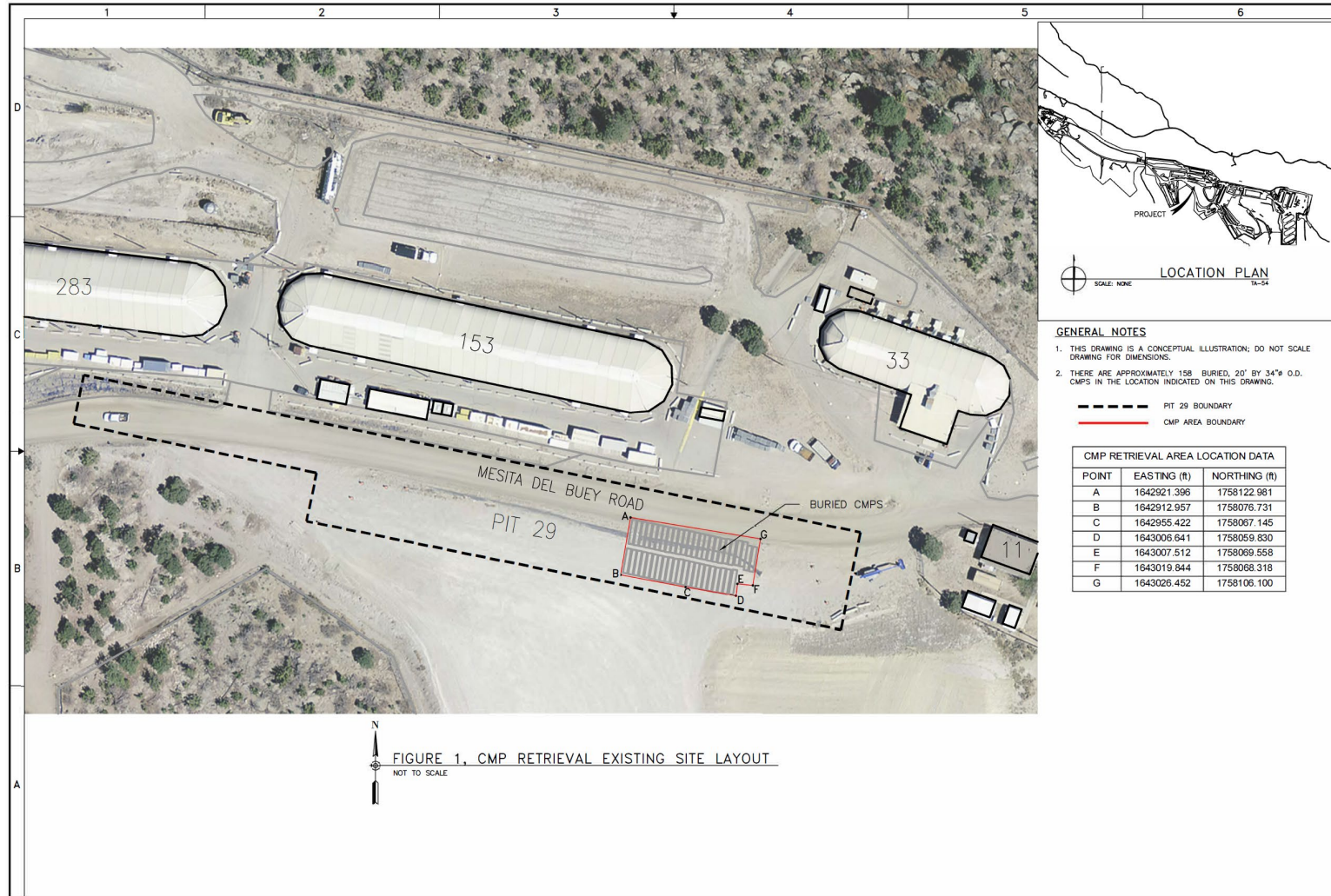
In-Process Soils—In-process soils are defined as soils removed from the CMP excavation pit during retrieval operations and accumulated next to the open excavation for re-use. These soils will be placed back in the pit as a ramp to support the removal of the top layer of the CMPs. After removal of the top CMP layer, the soils will be re-excavated and again placed next to the excavation for reuse. These soils will be excavated and replaced in the excavation pit throughout the CMP retrieval process. In-process soils must be placed back into the excavation pit by the end of each shift or managed as staged soils

Staged Soils—Staged Soils are defined as soils that are removed from the CMP excavation pit during retrieval operations and will not be placed into the excavation pit during the same work shift. Staged soils must be placed onto a fire-retardant plastic sheet within the Area of Concern (AOC) shown in Appendix D, Area of Concern Boundary) and managed in accordance with the Storm Water Prevention Plan

APPENDIX B

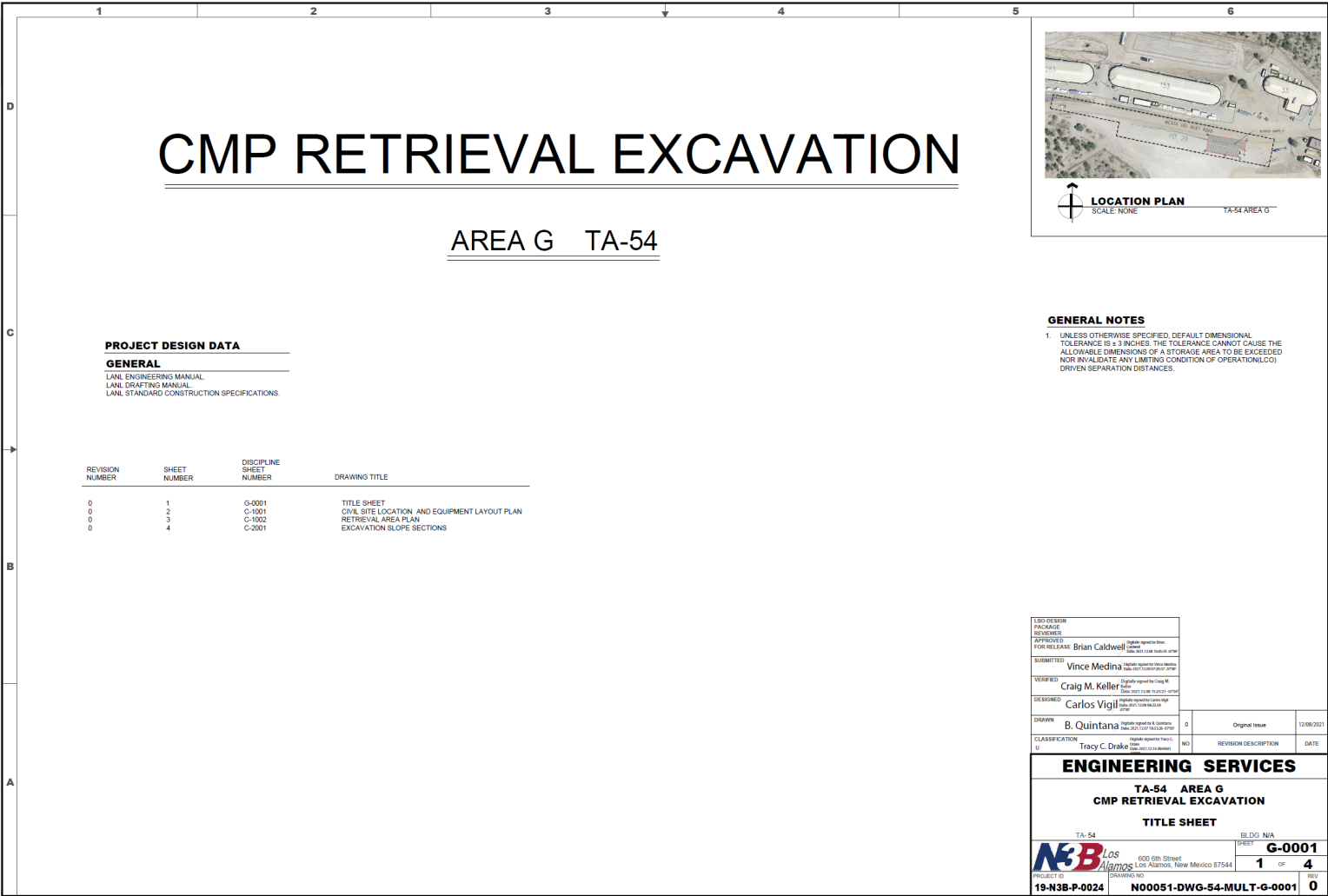
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CMP RETRIEVAL SITE LAYOUT



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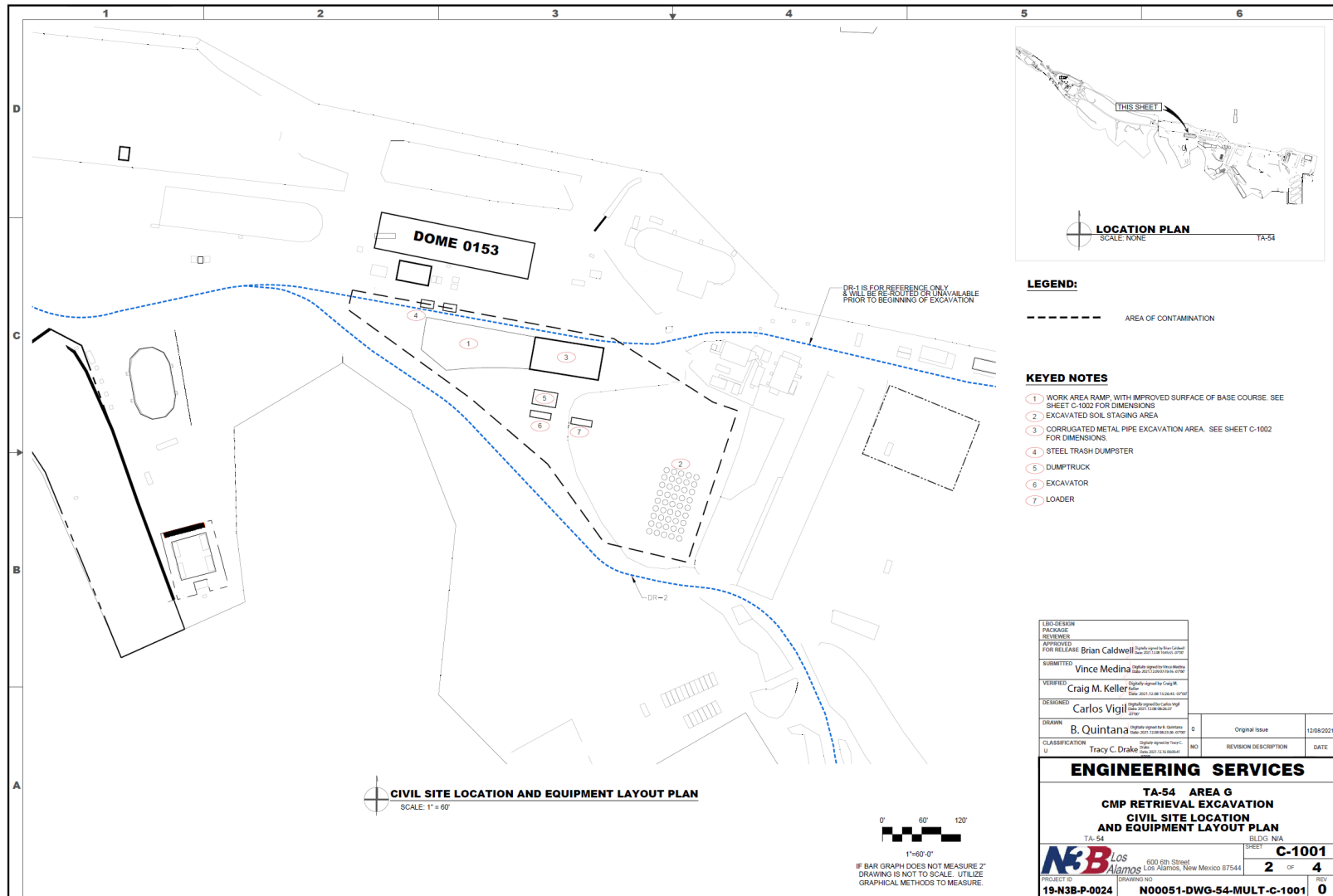
Corrugated Metal Pipe Soil Management Plan

Reference

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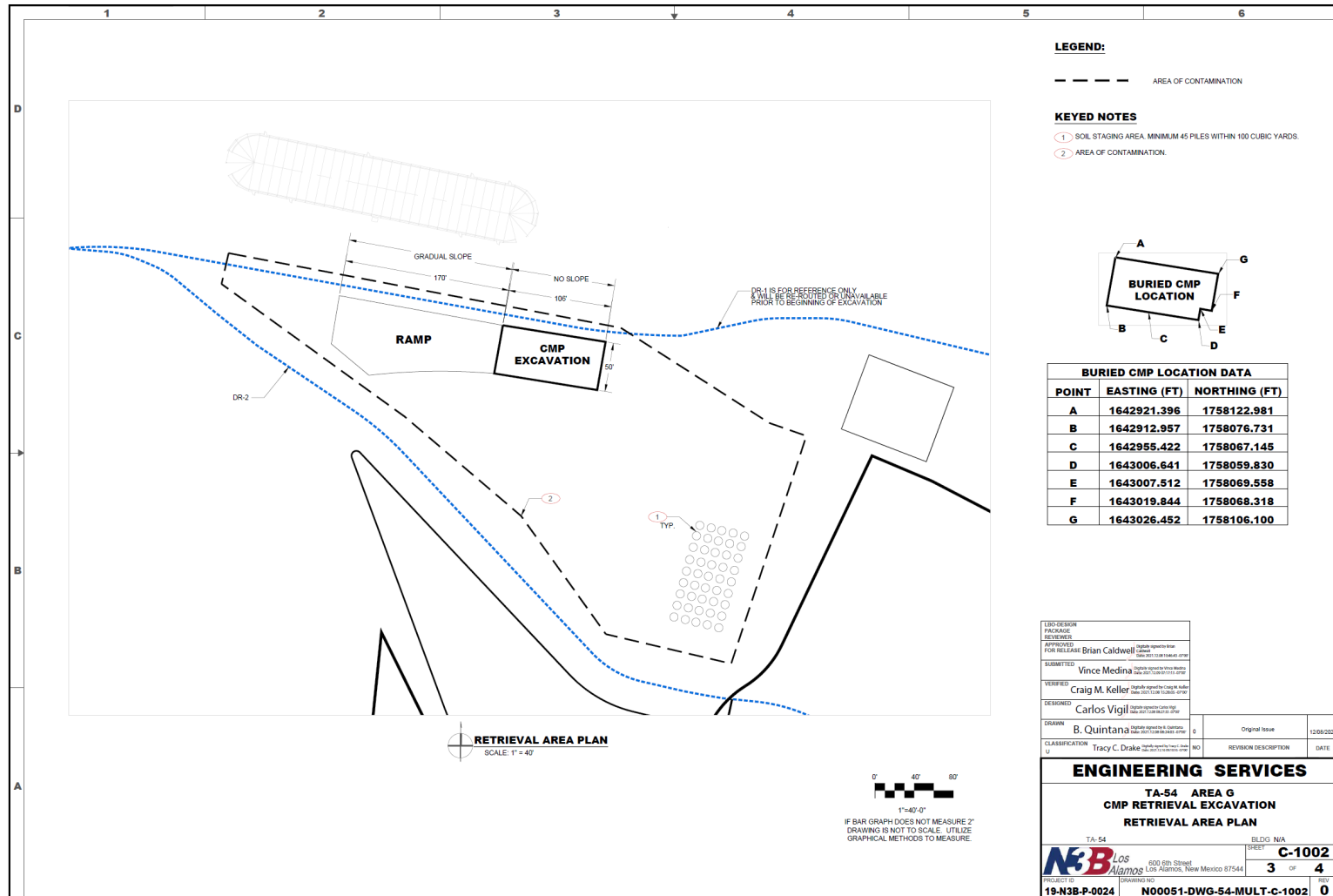
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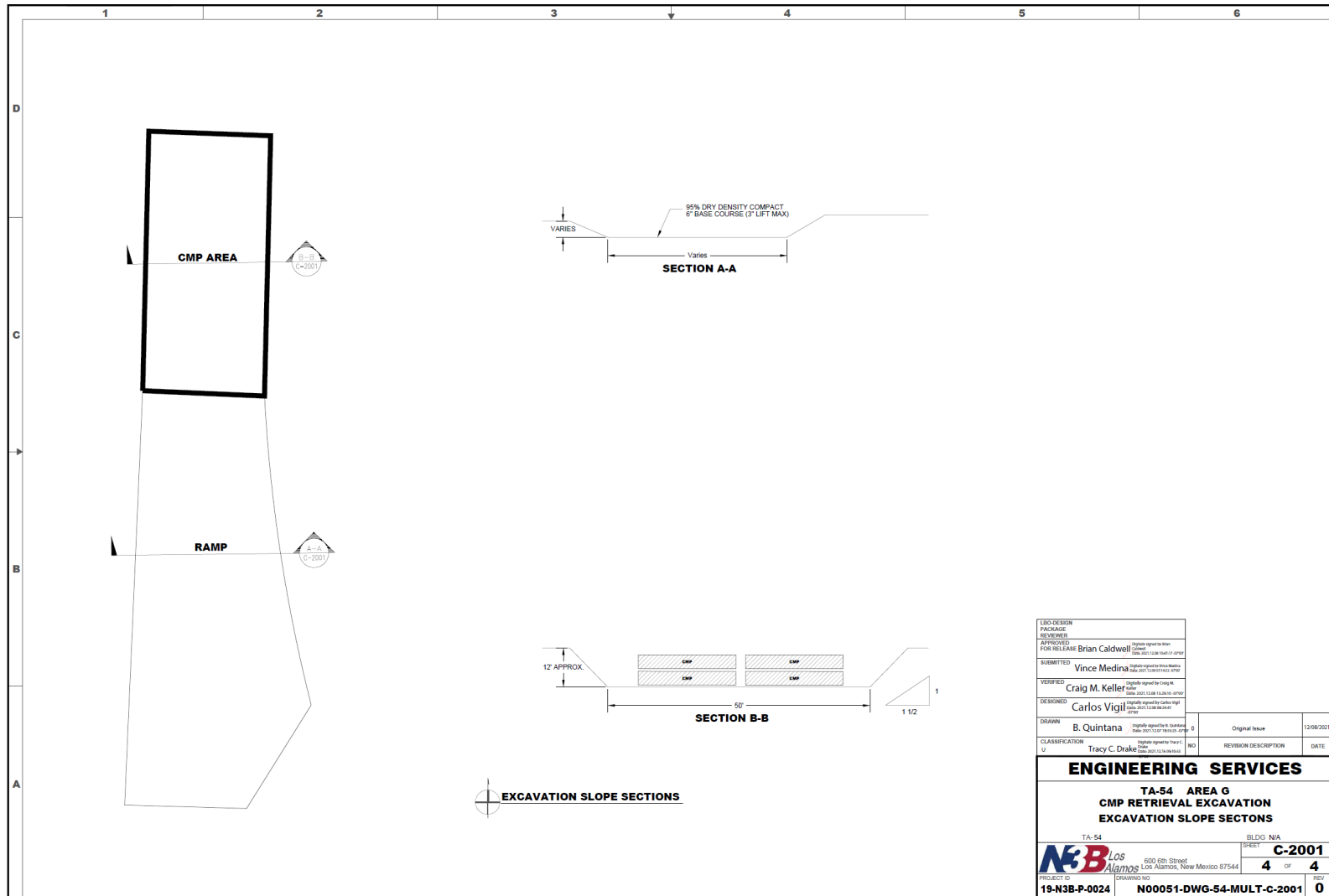
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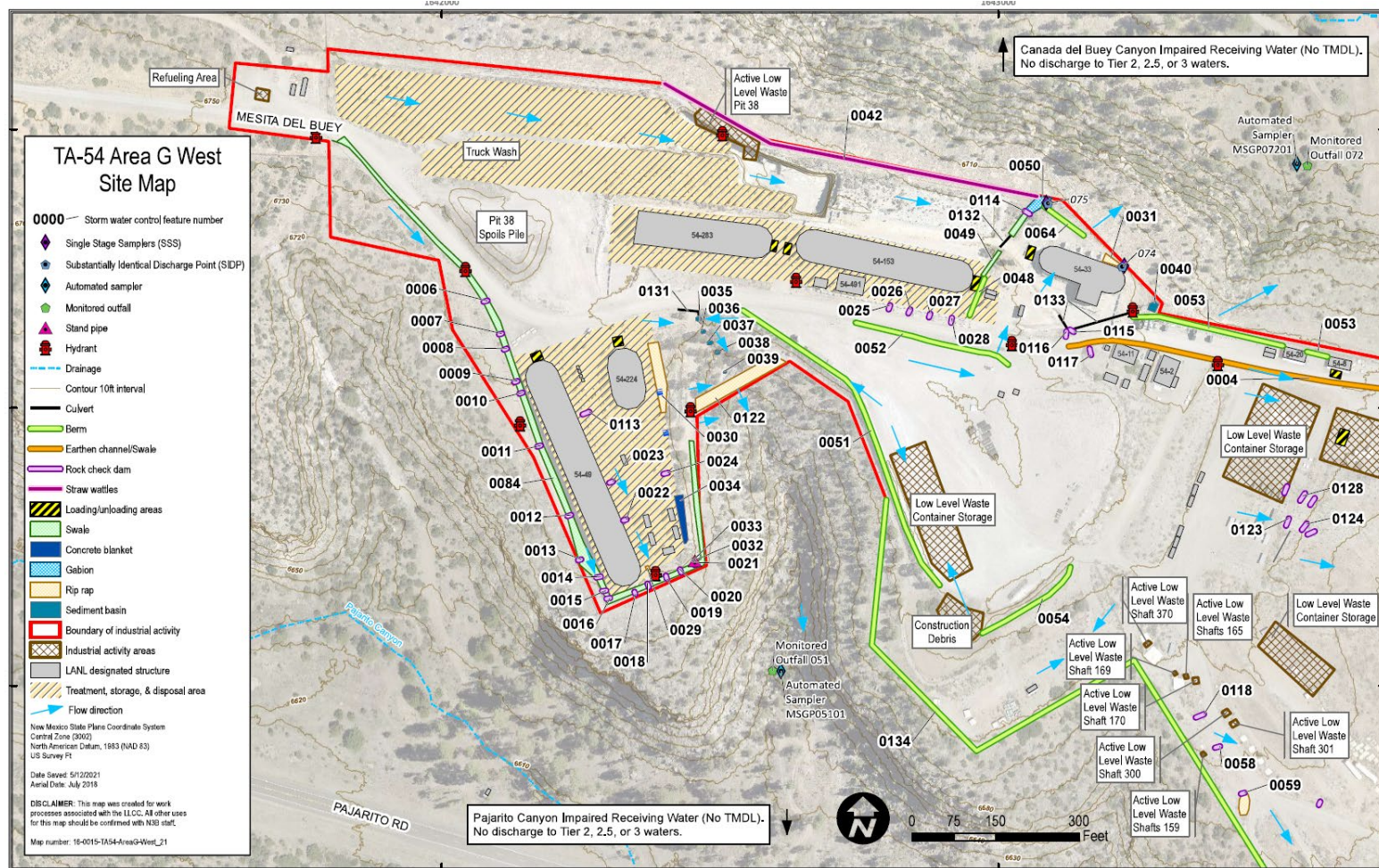
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TA-54 AREA G SITE MAP



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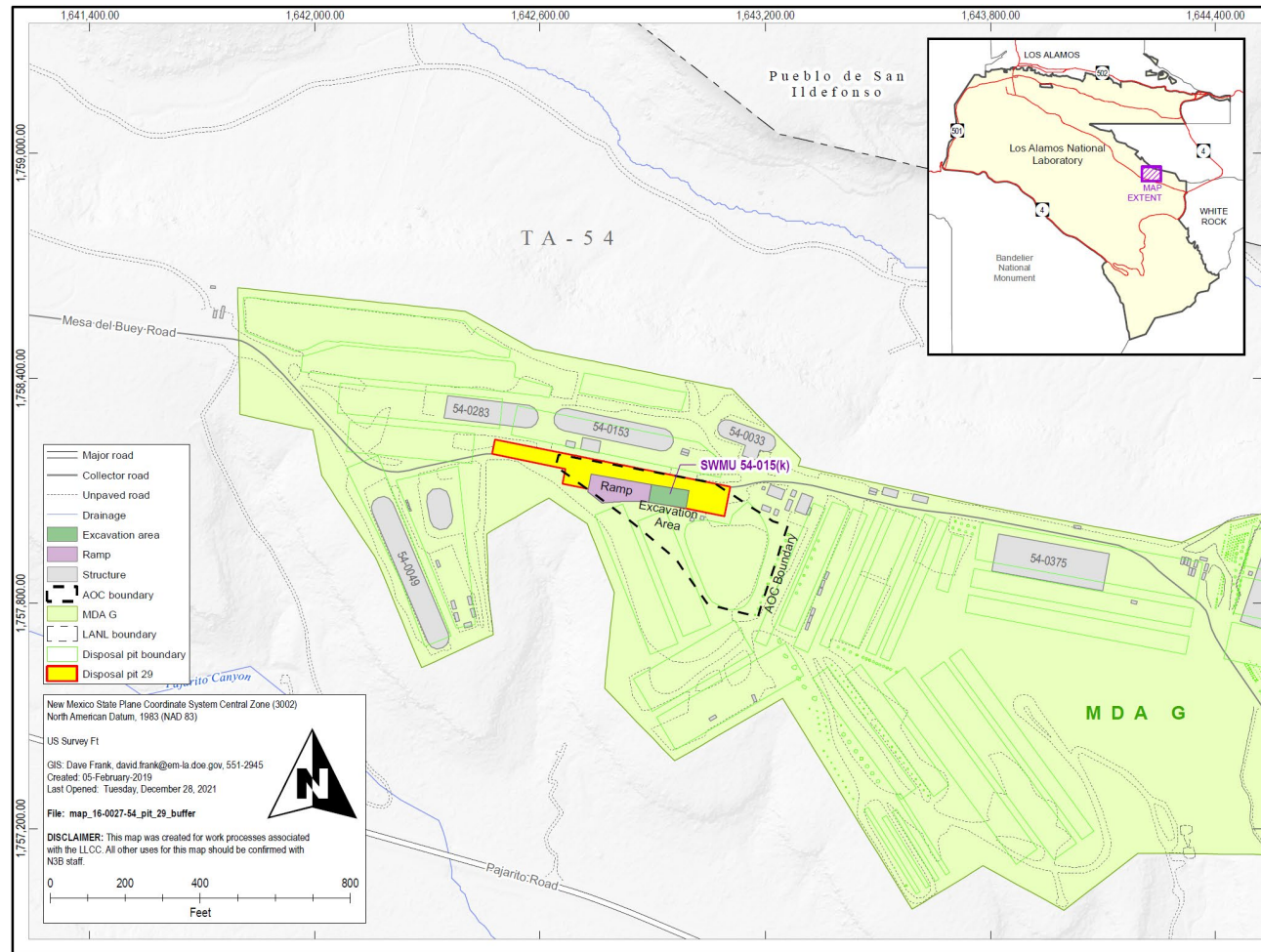
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AREA OF CONCERN BOUNDARY



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Pit 29 CMP Retrieval Inspection Criteria		Period Covered (mm/dd/yy) _____ to _____					
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Record Date/Time Completed (/xx/xx/xx, 24 hr)							
11. Spills (If yes was checked, document in comment section and notify SOM and PM)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Comments _____

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Comments (continued) _____

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Signature of Operator or “Duly Authorized Representative”: _____ Date: _____

Printed Name and Affiliation: _____

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Performed By: _____ / _____ / _____ / _____
 Competent Person (print) Signature Initial Z # Date

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Reviewed By: _____ / _____ / _____ / _____
 PIC (print) Signature Z # Date Time

