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To:	Geoff Strack, PE, Waste Connections	From:	Bradley W Sullivan, PE, Stantec Consulting Services Inc.
File:	Project #B3053-20-518	Date:	January 9, 2021

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**Reference: SKB Rosemount Industrial Waste Facility 2020 Annual CCR Inspection Report****Purpose**

This memorandum fulfills the requirements of 40 CFR § 257.84 Inspection Requirements for coal combustion residue (CCR) Surface Landfills, Part b, regarding an annual inspection by a qualified professional engineer.

**Background and Applicability**

SKB Environmental, Inc. owns and operates the SKB Rosemount Industrial Waste Facility (the Landfill or Facility herein), an industrial waste disposal facility operating under MPCA Solid Waste Permit SW-383, originally issued in January of 1992.

The site is located on a 236-acre parcel in Sections 19, 20 and 25 of Township 115 North, Range 18 West, in the City of Rosemount, Minnesota, which is in Dakota County. The site is located between Minnesota State Highway 55 (aka Courthouse Boulevard) and Dakota County Road 38, and is accessed via 13425 Courthouse Boulevard, Rosemount, MN 55068.

There are 6 permitted disposal cells in the Landfill. Operating records indicate that CCR Material is contained in Cells 1, 2 and 3. See Figure 1 for a facility site plan.

**CCR Landfill Inspection (40 CFR § 257.84)**

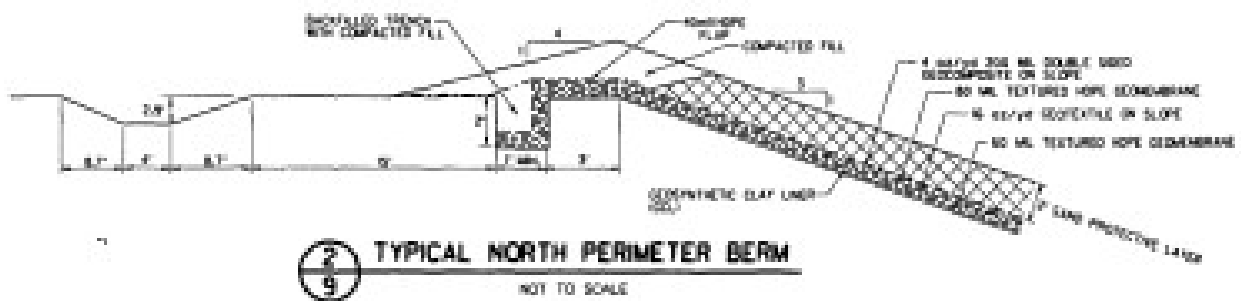
On October 23, 2020, Brad Sullivan, PE, of Wenck (now part of Stantec) conducted the on-site inspection of the CCR Landfill. As part of the inspection, the following operating and inspection records were reviewed:

- Review of weekly visual CCR inspections performed by landfill operators for this annual reporting period;
- Previous annual inspections performed by a licensed professional engineer;
- CCR unit design and construction information required by §257.73(c)(1) and §257.74(c)(1); and
- Previous periodic structural stability assessments required under § 257.73(d).

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### Landfill Cell Design

In general, most of the facility's landfill cell embankments were constructed using granular borrow material, which consisted of silty clay and clayey sand type soils. The fill was placed and compacted to 95% of Standard Proctor Dry Density in lift thicknesses ranging from 8 inches to 12 inches. The final subgrade surface was proof rolled prior to geosynthetics installation. A typical perimeter section taken from the Cell 3A Construction Documentation Report prepared by Foth & Van Dyke dated October 2005 is shown below.



During the inspection, no signs of landfill cell embankment distress or waste slope instability were observed and no other structural or containment CCR landfill issues were noted. The landfill embankments and interim covered slopes were generally in good condition with a well-established vegetation cover and no signs of significant erosion.

Photos of the landfill embankments and waste slopes were taken during the inspection. Figure 1 presents the photo locations, and Attachment 1 contains a photo log from the inspections.

### CCR Landfill Inspection Report

40 CFR § 257.84, Subpart b.2 requires the following topics in italics be addressed within this report. The requirements are shown in italics with the response immediately afterwards for each item.

- (i) *Any changes in geometry of the impounding structure since the previous annual inspection;*

There has been no landfill cell construction since the 2019 annual CCR inspection. Since then, waste filling (inclusive of CCR) has been within cell 3F which is the overlay

**Reference:** SKB Rosemount Industrial Waste Facility 2020 Annual CCR Inspection Report

liner connected to the southwestern anchor trench of Cells 2D, 3A, and 3C, and is constructed over the top of Cells 5A, B, and C.

There were no other apparent changes to the embankment geometry of any other landfill cell when compared to the permit drawings or the past inspection reports.

The annual aerial photogrammetry survey was performed on October 30, 2020 which the estimated in-place volume is based on. A comparison of the 2020 and 2019 aerial surveys confirm that the embankment and slope topography is substantially unchanged with no significant movement. The 2020 aerial survey is included as Figure 2.

(ii) *The approximate volume of CCR contained in the unit at the time of the inspection;*

The approximate volume of CCR material contained in the landfill at the time of the inspection is 633,600 cubic yards.

(iii) *Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures; and*

None of the following were observed that could indicate structural weakness;

- Signs of slumping or rotational movement;
- Lateral or vertical distortion of the embankment crest;
- Seepage on the outboard slope; or
- Borrowing or damage due to vectors.

(iv) *Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.*

There were no changes noted that may could potentially affect the stability or operation of the impoundment. Observations were consistent with those noted in that report.

### **Notification Requirements**

The SKB Rosemount Industrial Waste Landfill is in compliance with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

January 9, 2021  
Geoff Strack, PE

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## Conclusions and Recommendations

It is recommended that the trees rooted in the southern perimeter berms be monitored as part of future regular inspections. Observations requiring action would be signs of the tops of the trees leaning away from the slope. This leaning can cause concentrated stresses in the slope that, in some cases, can induce slumping of the slope's fill materials. It is our understanding that part of Cell 6 will be constructed during 2021 which will involve connecting new liner to the existing southern edge of Cells 2 and 3. All vegetative cover will be removed along this berm that are within the limits of that construction, therefore mitigating any potential rooting problems from woody vegetation. All other recommendations presented in the previous inspection report were implemented.

The SKB Rosemount Landfill facility has been constructed and operated in accordance with the facility permit and the CCR regulations. No embankment or waste slope stability issues were observed during the visual inspection.

40 CFR § 257.83, Subpart b.5 and 40 CFR § 257.84, Subpart b.5 each require that if a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken. There were no deficiencies or releases related to CCR operations identified during the inspection.

### Stantec Consulting Services Inc.



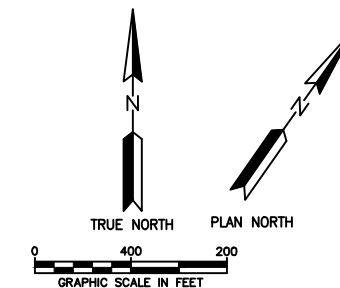
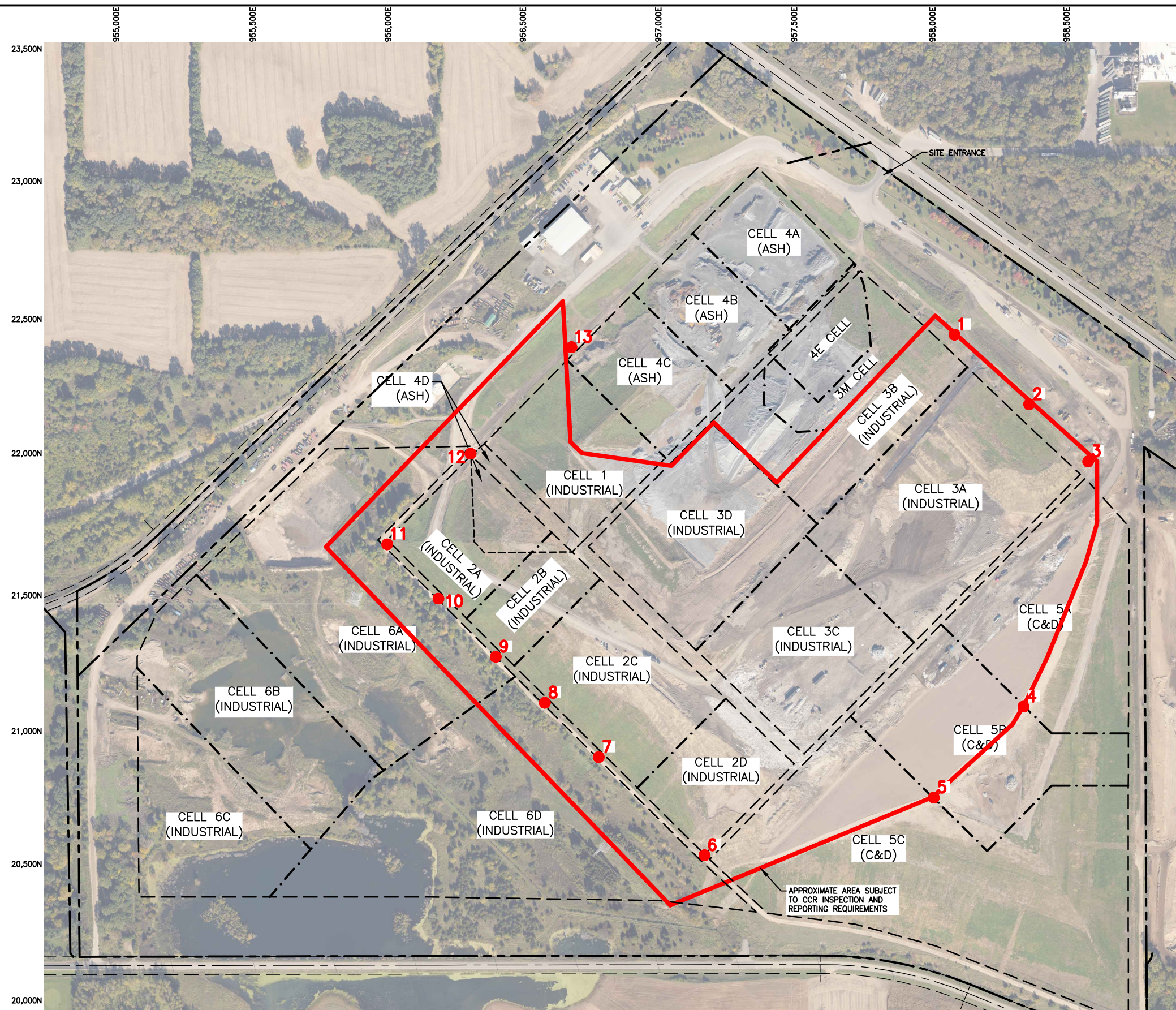
**Bradley W. Sullivan, PE**  
Civil Engineer, Associate

Phone: (763) 479-4259  
Cell: (603) 289-5257

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.



**Bradley W Sullivan PE # 56502**  
January 9, 2021



LEGEND  
 ● PHOTO LOCATIONS

NOTE:  
 BASE MAPPING HAS BEEN UPDATED BY AERIAL SURVEY PROVIDED BY CONTINENTAL MAPPING COMPLETED ON OCTOBER 17, 2019.  
 BASE MAPPING HAS BEEN UPDATED BY AERIAL SURVEY PROVIDED BY CONTINENTAL MAPPING COMPLETED ON OCTOBER 30, 2020. AERIAL IMAGE IS FROM OCTOBER 17, 2020.

#	DESCRIPTION	XXX	XXX	XX/XX/XX	
REV	REVISION DESCRIPTION	DWN	APP	REV DATE	

SEAL

SUB CONSULTANT

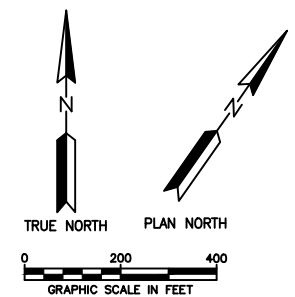
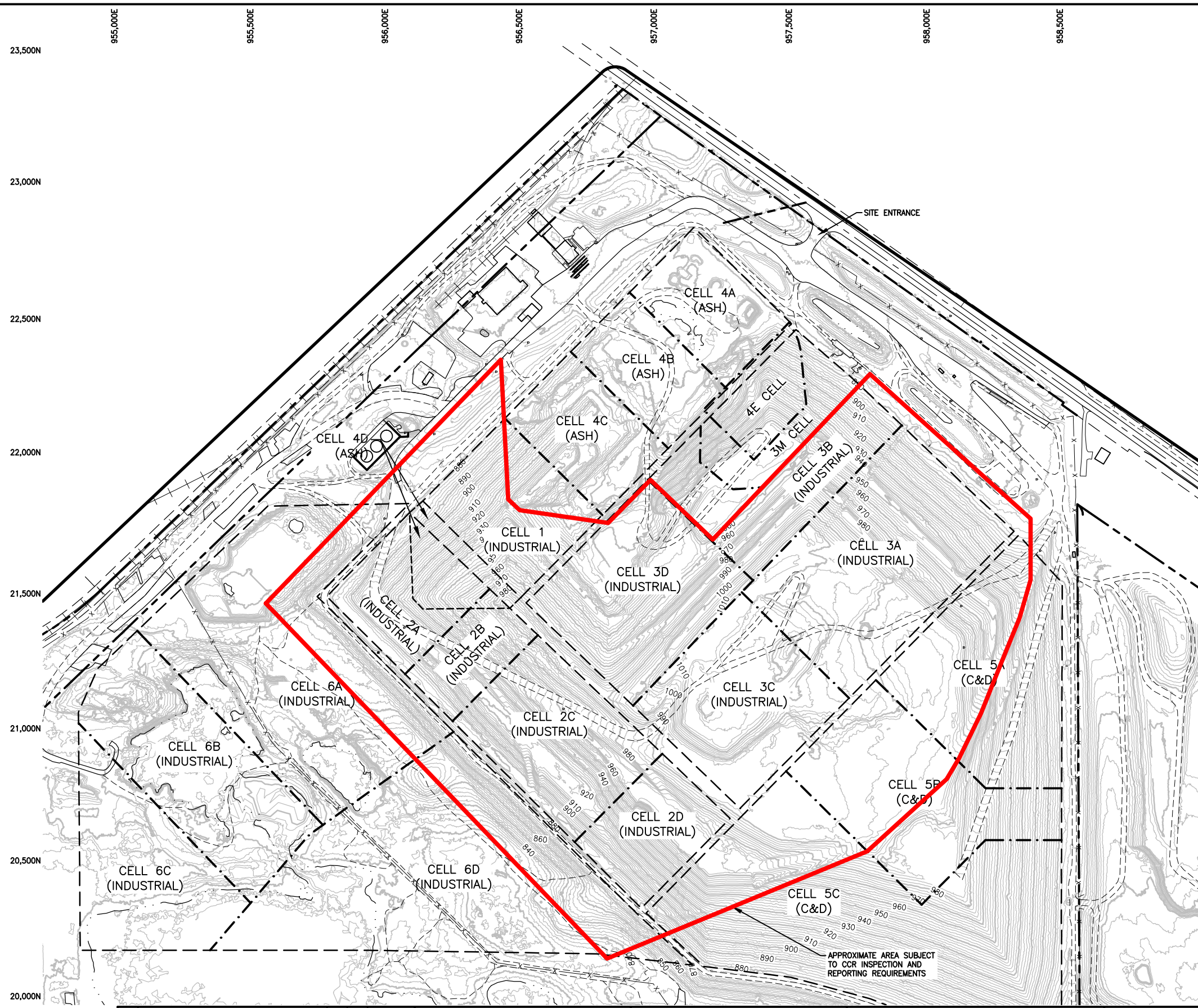
PRIME CONSULTANT

now part of

PROJECT TITLE  
 2020 CCR INSPECTION REPORT

SKB ROSEMOUNT LANDFILL  
 ROSEMOUNT, MINNESOTA

SHEET TITLE PHOTO LOCATIONS			
DWN BY JJT	CHK'D TJS	APP'D BWS	DWG DATE JAN. 2021
PROJECT NO. 3053-20-518	SHEET NO. FIGURE 1	SCALE AS NOTED	REV NO. 0



NOTE:  
BASE MAPPING HAS BEEN UPDATED BY AERIAL  
SURVEY PROVIDED BY CONTINENTAL MAPPING  
COMPLETED ON OCTOBER 30, 2020.

#	DESCRIPTION	XXX	XXX	XX/XX/XX	
REV	REVISION DESCRIPTION	DWN	APP	REV DATE	

SEAL

SUB CONSULTANT

PRIME CONSULTANT



now part of



PROJECT TITLE  
**2020 CCR INSPECTION REPORT**

SKB ROSEMOUNT LANDFILL  
ROSEMOUNT, MINNESOTA

SHEET TITLE <b>SITE MAP</b>			
DWN BY JJT	CHK'D TJS	APP'D BWS	DWG DATE JAN. 2021
PROJECT NO. 3053-20-518	SHEET NO. FIGURE 2	SCALE AS NOTED	REV NO. 0

2020 Rosemount Landfill CCR Inspection



Location 1 – Looking Southeast, Cell 3A & 3B Waste Slope & Anchor Trench



Location 1 – Looking Northwest, Cell 3 Berm



Location 2 – Looking Northwest, Cell 3 Berm & Stormwater Pond



Location 2 – Looking Northwest, Cell 3 Anchor Trench and Waste Slope



2020 Rosemount Landfill CCR Inspection



Location 2 – Looking Southeast, Phase 3A Anchor Trench and Northeastern Waste Slope



Location 3 – Looking Northwest, Phase 3A Anchor Trench and Northeastern Waste Slope



Location 3 – Looking Southwest, Phase 3 East Corner at toe of Interior Access Road



Location 3 – Looking Southwest along Cell 5 Access road/Phase 3F Liner Limit

2020 Rosemount Landfill CCR Inspection



Location 4 – Looking Northeast, Phase 3F Liner Limit



Location 4 – Looking Southwest, Phase 3F Liner Limit



Location 5 – Looking Southwest, Phase 3F Liner Limit



Location 5 – Looking Northeast, Phase 3F Liner Limit

2020 Rosemount Landfill CCR Inspection



Location 6 – Looking Northeast, Southeastern Slope, Anchor Trench & New Liner Construction



Location 6 – Looking Northwest, Cell 2D Southwestern Slope and Perimeter Road

2020 Rosemount Landfill CCR Inspection



Location 6 – Looking North, Cell 2D Berm



Location 7 – Looking Southeast, Cell 2D Southwestern Slope, Anchor Trench, and Road

2020 Rosemount Landfill CCR Inspection



Location 7 – Looking Southeast, Cell 2D Berm



Location 7 – Looking Northwest, Cell 2C Southwestern Slope, Anchor Trench, and Road

2020 Rosemount Landfill CCR Inspection



Location 7 – Looking Northwest, Cell 2C Cell 2C Southwestern Berm



Location 8 – Looking Southwest, Cell 2C Southwestern Berm



2020 Rosemount Landfill CCR Inspection



Location 8 – Looking Southwest, Cell 2C Southwestern Waste Slope and Anchor Trench



Location 8 – Looking Northwest, Cell 2C & 2B Southwestern Waste Slope and Anchor Trench

2020 Rosemount Landfill CCR Inspection



Location 8 – Looking Northwest, Cell 2C & 2B Berm



Location 9 – Looking Southeast, Cell 2C Southwestern Waste Slope and Anchor Trench



Location 9 – Looking Southeast, Cell 2C Southwestern Berm



Location 9 – Looking Northwest, Cell 2B Southwestern Waste Slope and Anchor Trench

2020 Rosemount Landfill CCR Inspection



Location 9 – Looking Northwest, Cell 2B Southwestern Berm



Location 10 – Looking Northwest, Cell 2A Southwestern Berm



Location 10 – Looking Southeast, Cell 2B Southwestern Berm



Location 10 – Looking Northwest, Cell 2A Southwestern Waste Slope and Perimeter Road

2020 Rosemount Landfill CCR Inspection



Location 10 – Looking Southeast, Cell 2B Southwestern Waste Slope and Perimeter Road



Location 11 – Looking Southeast, Cell 2A Southwestern Berm



Location 11 – Looking Southeast, Cell 2A Southwestern Waste Slope



Location 11 – Looking Northeast, Cell 2A Northwestern Berm

2020 Rosemount Landfill CCR Inspection



Location 11 – Looking Northeast, Cell 2A Northwestern Perimeter Road and Anchor Trench



Location 12 – Looking Southwest, Cell 2A Northwest Waste Slope and Anchor Trench



2020 Rosemount Landfill CCR Inspection



Location 12 – Looking Northeast, Cell 1 Northwestern Waste Slope



Location 13 – Looking Southwest, Cell 1 Toe of Waste Slope, Limit of Industrial Waste (CCR)



Location 13 – Looking South, Edge of Cap over Cell 1, Limit of Industrial Waste (CCR)