STATE OF UTAH
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
SALT LAKE CITY, UTAH 84114-4870

Ground Water Discharge Permit
Permit No. UGW270004

In compliance with the provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended, the Act,

Intermountain Power Service Corporation (IPSC)
850 West Brush Wellman Road
Delta, Utah 84624

hereafter, referred to as the "Permittee," is granted a Ground Water Discharge Permit for the operation of the **Intermountain Generating Facility** ("IGF") located 10 miles north of Delta in Millard County, Utah.

IGF is located on tracts of land in Township 15 South, Range 6 West (Salt Lake Base and Meridian) and at the following coordinates: 39° 29.789' N. Latitude and 112° 34.500' W. Longitude.

This Permit is based on representations made by the Permittee and other information contained in the administrative record. It is the responsibility of the Permittee to read and understand all provisions of this Permit.

The facility shall be constructed, maintained, and operated in accordance with conditions set forth in the Permit and the Utah Administrative Rules for Ground Water Quality Protection (Utah Admin. Code R317-6).

This Ground Water Discharge Permit for the Intermountain Generating Facility supersedes all other Ground Water Discharge Permits for this facility previously issued.

This Permit shall become effective on XXX, XX 2026.

This Permit and the authorization to discharge shall expire at midnight, March 9, 2028.

Signed this xxth day of month, 2026.

_____
Candice A. Hasenyager, P.E.
Director

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PART I CONSTRUCTION PERMIT

A. SUMMARY OF CONSTRUCTION PROJECT

Seven (7) new Evaporation Ponds have been constructed for the IGF to meet the requirements outlined in Utah Administrative Code (Utah Admin. Code) R317-6, Ground Water Quality Protection.

The new ponds are lined with a single layer 60-mil high density polyethylene (HDPE) geomembrane liner. The new ponds are interconnected via a series of HDPE transfer pipes and a valve system designed to allow one pond to remain empty at all times. The new ponds were constructed with an observation sump system consisting of perforated polyethylene pipe (CPeP) connected to a sump located at the lowest point of each pond cell. The observation sump system was installed beneath the liner and runs along the interior slopes of each pond cell to allow for the periodic monitoring of any water escaping from the liners. Now that the new Evaporation Ponds are constructed and operational, the old Evaporation Ponds must be decommissioned and abandoned in compliance with DWQ guidelines and industry best practices.

IPSC has proposed that the ground water monitoring well EMW-3 serve as the sole compliance monitoring well for the new Evaporation Ponds. The coverage and distribution of the compliance monitoring well network for the new Evaporation Ponds should be similar to those of the current Evaporation Ponds to ensure compliance with the Best Available Technology (BAT). Therefore, the proposal to utilize EMW-3 as the only compliance monitoring well for the new Evaporation Ponds is insufficient to monitor compliance with the BAT.

By the next renewal of UGW270004, IGF must update the compliance monitoring well network to provide adequate leak-detection monitoring, and the Sampling and Contingency Plan must be modified to incorporate any necessary changes. See Part II.H.1 of this permit for additional information and compliance timelines.

B. AUTHORIZATION TO CONSTRUCT

The construction of the seven new Evaporation Ponds was authorized by the Division in accordance with the Construction Permit, Engineered Plans, and the Design Report provided in Appendix A.

PART II SPECIFIC PERMIT CONDITIONS

A. GROUND WATER CLASSIFICATION

The ground water classification for the unconfined aquifer in the area of the Intermountain Generating Facility ("IGF") is generally Class II Drinking Water Quality Ground Water. Ground water at each compliance monitoring well has been classified based on historical, well-specific monitoring data.

B. GROUND WATER PROTECTION LEVELS

Ground Water protection levels for compliance monitoring wells are shown in Table 1A. Protection Levels are based on facility ground water sampling performed to date and on the protection level criteria of Utah Administrative Code (Utah Admin. Code) R317-6-4. The analytes are selected based on compounds that may be in the discharge to ground water, and levels must be met at the compliance monitoring wells.

The Permittee shall operate the facility such that the ground water quality standards (Utah Admin. Code R317-6(6.2)) and ground water permit limits in Table 1A developed for this Permit are not exceeded at the designated compliance monitoring wells. Utah ground water regulations also include standards for contaminants such as metals, pesticides, and volatile organic compounds. Accordingly, the Permittee must not discharge these or any other contaminants that could impair beneficial uses of the ground water, even though the Permit does not require monitoring for them.

TABLE 1A
Intermountain Generating Facility Protection Levels for Ground Water Aquifers

Monitoring Well ID	**Location**	**Minimum Sampling Frequency**	**TDS** mg/L	**Boron** mg/L
	Compliance Wells			
RW-6	west side of evaporation ponds	Semi-Annual	1100	0.53
BAC-11	west side of evaporation ponds	Semi-Annual	1100[1]	0.53
WDB-7	west side of evaporation ponds	Semi-Annual	1100	0.53
EP-W-23	west side of evaporation ponds	Semi-Annual	1100	0.53
WDB-19	combustion landfill	Semi-Annual	1100	0.53
EMW-3	west of proposed new evaporation ponds	Semi-Annual	1219	0.53
	Observation Wells			
EP-W-19	west side of evaporation ponds	Semi-Annual	NA	NA
EP-W-27	west side of evaporation ponds	Semi-Annual[2]	NA	NA
	Recovery Wells			
WR-101	evaporation pond perimeter	Semi-Annual	NA	NA
WR-102	evaporation pond perimeter	Semi-Annual	NA	NA
WR-103	evaporation pond perimeter	Semi-Annual	NA	NA

[1] In accordance with R317-6-4.6(B)(3) no net increase is allowed
NA = Not Applicable

TABLE 1B

Perched Well Monitoring Program

Monitoring Well ID	Well Location	Minimum Measurement Frequency	
		Semi-Annual	Annual
AR-P0-4	Recycle Basin	X	
BA-P-01	Bottom Ash Basins		X
BA-P-02	Bottom Ash Basins		X
BA-P-04	Bottom Ash Basins		X
BA-P-07	Bottom Ash Basins		X
BA-P-08	Bottom Ash Basins		X
BA-P-09	Bottom Ash Basins		X
BA-P-11	Bottom Ash Basins		X
BA-P-12	Bottom Ash Basins		X
BA-P-15	Bottom Ash Basins		X
BA-P-16	Bottom Ash Basins		X
BA-P-17	Bottom Ash Basins		X
EP--P01	Evaporation Ponds		X
EP-P-02	Evaporation Ponds		X
EP-P-03	Evaporation Ponds		X
EP-P-04	Evaporation Ponds		X
EP-P-05	Evaporation Ponds		X
EP-P-06	Evaporation Ponds		X
EP-P-07	Evaporation Ponds		X
EP-P-08	Evaporation Ponds		X
EP-P-09	Evaporation Ponds		X
EP-P-10	Evaporation Ponds		X
EP-P-11	Evaporation Ponds		X
EP-P-12	Evaporation Ponds	X	
EP-P-13	Evaporation Ponds		X
EP-P-14	Evaporation Ponds	X	
EP-P-16	Evaporation Ponds	X	
EP-P-17	Evaporation Ponds	X	
EP-P-18	Evaporation Ponds	X	
EP-P-20	Evaporation Ponds	X	
EP-P-21	Evaporation Ponds	X	
EP-P-22	Evaporation Ponds	X	
EP-P-24	Evaporation Ponds	X	
EP-P-25	Evaporation Ponds	X	
EP-P-26	Evaporation Ponds	X	
EP-P-28	Evaporation Ponds		X
EP-P-29	Evaporation Ponds		X
EP-P-30	Evaporation Ponds		X
EP-P-31	Evaporation Ponds		X
WW-P-05	Wastewater Holding Basin	X	
WW-P-07	Wastewater Holding Basin	X	
WW-P-08	Wastewater Holding Basin	X	

C. PERMITTED FACILITIES

The Facilities authorized under this Permit are listed in Table 2. These facilities are those not permitted by rule that have the potential to release process fluids to ground water. Any modification to the present facilities that has the potential to affect ground water as prescribed in Part II.C, will require both modification of this Permit and issuance of a Construction Permit.

D. BEST AVAILABLE TECHNOLOGY PERFORMANCE STANDARD

The IGF is operated in accordance with the specifications, plans, and drawings included in the Permit application received in September 1995 (amended in April 2000 and August 2000), the Permit application received in November 2020, and the Construction Permit application received in September 2022.

Any construction, modification, or operation of new waste or wastewater disposal, treatment, or storage facilities shall require submittal of engineering design plans and specifications, and prior Director review and approval. All engineering plans or specifications submitted shall demonstrate compliance with all Best Available Technology (BAT) requirements stipulated by the Utah Ground Water Quality Protection Rules (Utah Admin. Code R317-6). Upon Director approval, a Construction Permit may be issued, and this Permit re-opened and modified to include any requirements.

The enforceable performance standard for this Permit to achieve protection of ground water quality will be discharge minimization of process fluids to ground water from the permitted facilities listed in Table 2. The Permittee is responsible for implementing and maintaining the BAT noted in Table 2 to minimize the discharge of process fluids from the permitted facilities to ground water. Maintenance of this performance standard will be demonstrated by:

1. No ground water degradation beyond permit limits established in Table 1A and measured by compliance monitoring wells.

2. Absence of measurable process water at or above the well screen in the perched monitoring wells listed in Table 1B.

3. Adherence to the maintenance and performance criteria in Table 2.

4. Implementation of the Best Management Practices Plan to ensure prompt cleanup of any spills and proper handling of process waters, as well as an ongoing inspection and maintenance program for facilities included in this Permit. The Permittee shall operate the IGF in accordance with this plan.

TABLE 2
Intermountain Generating Facility

POINT SOURCE COMPONENTS

Facility	Fluids Handled	TDS (mg/L) April 2015	BAT Description	Operation and Maintenance	Performance Criteria
Settling Basin	Process Water · Cooling Tower blowdown, storm water, misc. plant drains · Contact storm water	2,780	(1) Clay Lined Pond	· Process water recycled · Inspections per BMP Plan	· Prompt repair of leaks · Adherence to BMP Plan
Coal Pile Runoff Basin	Coal Pile · Coal System Washdowns · Contact storm water	1,090	(1) Clay Lined Pond	· Inspections per BMP Plan	· Adherence to BMP Plan
Bottom Ash Ponds	Process Water · Ash transport water and ash solids · Contact storm water	1,660 – 2,010	(3) 80-mil HDPE Lined Ponds	· Process water recycled · Inspections per CCR Rule	- Federal CCR Rule October 2015
Waste Water Holding Basin	Process Water · Scrubber sludge process water · Sanitary sewage treatment overflow · Contact storm water	19,800	(1) 80-mil HDPE Lined Pond	· Process water recycled · Inspections per CCR Rule	· Federal CCR Rule October 2015
Evaporation Ponds	Process Water · Waste Water Basin blowdown · Sewage treatment effluent · Contact storm water	26,200 to 107,000	(6) 80-mil HDPE Lined Ponds	· Inspections per BMP Plan	· Prompt repair of leaks · Adherence to BMP Plan
New Evaporation Ponds constructed in 2023/2024	Process Water · Waste Water Basin blowdown · Sewage treatment effluent · Contact storm water	TBD	(7) 60-mil HDPE Lined Ponds	· Inspections per BMP Plan	· Prompt repair of leaks · Adherence to BMP Plan
Recycle Basin	Process Water · Contact storm water	1,800	(1) 80-mil HDPE Lined Pond	· Process water recycled · Inspections per BMP Plan	· Prompt repair of leaks · Adherence to BMP Plan
Process water pipelines to ponds	· Process water	none		· Inspections per BMP Plan	· Prompt repair of leaks · Adherence to BMP Plan

E. COMPLIANCE MONITORING REQUIREMENTS

1. General Provisions

a. *Future Modification of the Monitoring Network* - If at any time the Director determines that the monitoring program is inadequate for determining compliance with BAT, or applicable Utah Admin. Code ground water protection levels, Permittee shall submit, within 30 days of receipt of written notice from the Director, a modified monitoring plan that addresses the inadequacies noted by the Director.

b. *Monitoring Well As-Built Report* - For each monitoring well constructed for UGW270004, the Permittee shall submit diagrams and descriptions of the final completion of the monitoring well. The report is due within 60 days of the date of well completion. The report shall include:

1) Casing: depth, diameter, and type of material.
2) Screen: length, depth interval, diameter, material type, slot size.
3) Sand Pack: depth interval, material type and grain size.
4) Annular Seals: depth interval, material type.
5) Surface Casing and Cap: depth, diameter, material type, protection measures constructed.
6) Elevation and Well Location: ground surface elevation, elevation of water level measuring point, latitude and longitude in degrees, minutes and seconds.
7) Well construction description, well completion description, results of well pump tests or slug tests.

c. *Compliance Monitoring Period* - Monitoring shall continue through the life of this Permit. For compliance monitoring wells that are installed during the term of this Permit, monitoring shall commence upon completion of the well installation and development.

d. *Laboratory Approval* – Analyses of all ground water samples shall be performed by a laboratory certified by the Utah Department of Health.

2. Water Quality Sampling

a. *Water Level Measurement* - In association with each well sampling event, water level measurements shall be made in each monitoring well prior to removal of any water from the well bore. These measurements will be made from a permanent single reference point clearly marked on the top of the well or surface casing. Measurements will be made to the nearest 0.01 foot. Depth to water measurements shall be reported in the monitoring reports.

b. *Sampling Protocol* - Water quality samples will be collected and handled in conformance with the current approved version of the IPSC Sampling and Contingency Plan. The results of ground water quality monitoring shall be reported in accordance with the schedule in Part II.H.

c. *Constituents Sampled* - The following analysis shall be performed on all water quality samples collected:

1) Field Measurements: temperature, pH, specific conductance.

2) Laboratory Analysis: Total dissolved solids (TDS), boron.

d. *Additional Constituents Sampled* - The following analyses shall be performed on water samples collected from any well that has been determined to be in non-compliance status, and all water samples collected for permit renewal:

1) Major Ions: chloride, sulfate, alkalinity, sodium, magnesium, potassium, and calcium.

3. Monitoring Frequency

Compliance Well Monitoring Frequency - All compliance monitoring wells listed in Table 1A will be sampled semi-annually throughout the term of this Permit. All new or replacement compliance monitoring wells shall be sampled quarterly for a period of two years following installation to establish baseline ground water quality. Following completion of accelerated sampling, monitoring shall change to a semi-annual sampling frequency unless more frequent sampling is required under other terms of this Permit.

Perched Well Monitoring Frequency - Water levels in perched monitoring wells will be measured at the frequency listed in Table 1B throughout the term of this Permit. Results shall be reported semi-annually as indicated in Part II.H.

Water extraction wells installed for ground water corrective action will be operated according to the Corrective Action Plan approved by the Director. These wells will be sampled a minimum of two times per year. Results shall be reported semi-annually as indicated in Part II.H.

Monitoring wells installed to monitor groundwater corrective action shall be sampled a minimum of two times per year, unless the Director determines that other periodic sampling is appropriate. Results shall be reported semi-annually as indicated in Part II.H.

Permittee shall verify the results of BAT designated for each facility component listed in Table 2 with an inspection and maintenance program. Documentation of compliance with this program shall be maintained on site for review by representatives of the Division.

F. NON- COMPLIANCE STATUS

1. Probable Out of Compliance Status - The Permittee shall evaluate results of each ground water sampling event to determine any exceedence of the Ground Water Protection Levels found in Table 1A above. Upon determination that a Ground Water Protection Level has been exceeded at any downgradient compliance monitoring well, the Permittee shall:

a. Immediately re-sample the monitoring well(s) found to be in probable out-of-compliance status for laboratory analysis of the exceeded protection level parameter(s). Submit the analytical results thereof and notify the Director of the probable out-of-compliance status within 30 days of the initial detection.

b. Upon exceedence of any one parameter listed in Table IA for two consecutive sampling events, immediately implement an accelerated schedule of monthly sampling, consistent with the requirements of this permit. This monthly sampling will continue for at least two months or until the compliance status can be determined by the Director. Reports of the results of this sampling will be submitted

to the Director as soon as they are available, but not later than 30 days from each date of sampling.

2. Out-of-Compliance Status Based on Confirmed Exceedance of Permit Ground Water Protection Levels

Out-of-compliance status shall be defined as follows:

a. For parameters that have been defined as detectable in the background and for which protection levels have been established, out-of-compliance shall be defined as two consecutive samples exceeding the protection level. Out of compliance status for exceedance of total dissolved solids (TDS) occurs only when the protection level is exceeded **and** the protection level for boron is also exceeded.

3. Notification and Accelerated Monitoring - upon determining that an out-of-compliance status exists, the Permittee shall:

a. Verbally notify the Director of the out-of-compliance status within 24 hours, and provide written notice within 5 days of the detection, and

b. Continue an accelerated schedule of monthly ground water monitoring for at least two months and continue monthly monitoring until the facility is brought into compliance as determined by the Director.

c. Source and Contamination Assessment Study Plan - within 90 days after the written notice to the Director required in Part II.F.2.b.2, above, the Permittee shall submit an assessment study plan and compliance schedule for:

1) Assessment of the source or cause of the contamination, and determination of steps necessary to correct the source, if the contamination is caused by facilities or activities for which the Permittee is responsible.

2) Assessment of the extent of the ground water contamination and any potential dispersion.

3) Evaluation of potential remedial actions to restore and maintain ground water quality and ensure that the ground water standards will not be exceeded at the compliance monitoring wells.

4. Probable Non- Compliance for Best Available Technology (BAT) - If the monitoring of fluid levels in a perched well indicates the probable presence of process water at or above the well screen, the Permittee shall:

a. If the source is undetermined, check all perched wells for fluid;

b. Collect a sample of the fluid and analyze for TDS, boron, and any other ions that are indicative of the probable source;

c. Notify the Director in writing within 30 days of receipt of the data;

d. If a leak from any of the permitted facilities is suspected, implement the applicable Sampling and Contingency Plan components to determine the source of the leak.

5. Failure to Maintain Best Available Technology Required by Permit

A facility will be determined to be in an out-of-compliance status if best available technology has failed or cannot be maintained according to the provisions required by this permit, unless

a. The Permittee has notified the Division according to Part II.F.2, and

b. The failure was not intentional or was not caused by Permittee's negligence, either in action or in failure to act;

c. The Permittee has taken adequate remedial measures in a timely manner or has developed an approvable remedial action plan and implementation schedule for restoration of best available control technology, an equivalent control technology, or closure of the facility (implementation of an equivalent technology will require permit modification and re-issuance), and

d. The Permittee has demonstrated that any discharge of a pollutant from the facility is not in violation of the provisions of UCA 19-5-107.

G. REPORTING REQUIREMENTS

1. Reporting

a. *Monitoring Wells*- Water quality sampling results for compliance monitoring wells shall be submitted to the Director according to the following semi-annual reporting schedule:

Semi-Annual Monitoring Period		Report Due On
1st	(January- June)	August 15
2nd	(July – December)	February 15

b. *Water Level Measurements* - water level measurements from ground water monitoring wells will be reported as measured depth to ground water from the surveyed casing measuring point.

c. *Ground Water Quality Sampling* - reporting will include:

Field Data Sheets - or copies thereof, including the field measurements, required in Part II.E.2.b.3 above, and other pertinent field data, such as: well name/number, date and time, names of sampling crew, type of sampling pump or bail, volume of water purged before sampling.

Laboratory Analytical Results - including date sampled, date received; and the results of analysis for each parameter, including: value or concentration, units of measurement, reporting limit (minimum detection limit for the examination), analytical method, and the date of the analysis.

d. Monitoring data from the perched wells shall be reported semi-annually and also maintained on file at the IGF.

e. Electronic Filing Requirements - The Permittee will electronically submit the required ground water monitoring data in the electronic format specified by the

Director. The data may be submitted by e-mail, compact disc, or other approved transmittal mechanism.

H. COMPLIANCE SCHEDULE

1. IPSC constructed seven new Evaporation Ponds in the Spring of 2023. To ensure that the monitoring well network can adequately determine compliance with BAT, IPSC shall submit the following:

   a. Within 30 days of the effective date of this permit, a Modified Monitoring Plan that addresses the inadequacies of the proposed compliance monitoring well network in accordance with Permit Part II.E.1.a.

   b. Within 60 days of any new monitoring well installation, a Monitoring Well As-Built Report in accordance with Permit Part II.E.3.

   c. Within 120 days of the effective date of this permit, a modified Sampling and Contingency Plan for Division review and approval.

2. Within 1 year of permit expiration, Permittee shall collect water samples to characterize process waters in the basins and ponds listed in Table 2. IPSC shall submit the analytical results with the permit renewal application, due 6 months before permit expiration. The analytical parameters suite shall include the constituents listed in Permit Part II.E.2.c and Part II.E.2.d.

3. Within 1 year of permit expiration, Permittee shall collect water samples from EMW-01 through EMW-08 to evaluate BAT performance of all basins, the ability of stratified clay beds to protect underlying aquifers, and to ensure any contaminants remain on plant property. The analytical parameters suite shall include the constituents listed in Permit Part II.E.2.c and Part II.E.2.d. Analytical results shall be submitted with the permit renewal application, due 6 months before permit expiration.

PART III MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. REPRESENTATIVE SAMPLING

Samples taken in compliance with the monitoring requirements established under Part II shall be representative of the monitored activity.

B. ANALYTICAL PROCEDURES

Water sample analysis must be conducted according to test procedures specified under Utah Admin. Code R317-6-6.3L, unless other test procedures have been specified in this permit.

C. PENALTIES FOR TAMPERING

The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

D. REPORTING OF MONITORING RESULTS

Monitoring results obtained for each monitoring period specified in the Permit, shall be submitted to the Director, Utah Division of Water Quality at the following address no later than 15th day of the month following the completed reporting period:

State of Utah
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Attention: Ground Water Protection Section

E. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this Permit shall be submitted no later than 14 days following each schedule date.

F. ADDITIONAL MONITORING BY THE PERMITTEE

If the Permittee monitors any pollutant more frequently than required by this Permit, using approved test procedures as specified in this Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted. Such increased frequency shall also be indicated.

G. RECORDS CONTENTS

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

H. RETENTION OF RECORDS

The Permittee shall retain records of all monitoring information, including all water monitoring equipment calibration and maintenance records and copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended at the request of the Director at any time.

I. TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING

1. The Permittee shall verbally report any noncompliance, or spills subject to the provisions of UCA 19-5-114, which may endanger public health or the environment, as soon as possible, but no later than twenty-four (24) hours from the time the Permittee first became aware of the circumstances. The report shall be made to the Utah Department of Environmental Quality 24-hour number, (801) 536-4123, or to the Division of Water Quality, Ground Water Protection Section at (801) 536-4300, during normal business hours (7:00 AM - 6:00 PM Monday through Thursday Mountain Standard Time).

2. A written submission shall also be provided to the Director within five days of the time that the Permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times;
   c. The estimated time noncompliance is expected to continue if it has not been corrected; and,
   d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

3. Reports shall be submitted to the addresses in Part III.D, Reporting of Monitoring Results.

J. OTHER NONCOMPLIANCE REPORTING

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part III.D are submitted.

K. INSPECTION AND ENTRY

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

PART IV COMPLIANCE RESPONSIBILITIES

A. DUTY TO COMPLY

The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

The Act provides that any person who violates a Permit condition implementing provisions of the Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine not exceeding $25,000 per day of violation. Any person convicted under Section 19-5-115(2) of the Act a second time shall be punished by a fine not exceeding $50,000 per day. Nothing in this Permit shall be construed to relieve the Permittee of the civil or criminal penalties for noncompliance.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

D. DUTY TO MITIGATE

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the Permit.

PART V GENERAL REQUIREMENTS

A. PLANNED CHANGES

The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when the alteration or addition could significantly change the nature of the facility or increase the quantity of pollutants discharged.

B. ANTICIPATED NONCOMPLIANCE

The Permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. PERMIT ACTIONS

This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. DUTY TO REAPPLY

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee must apply for and obtain a permit renewal or extension. The application should be submitted at least 180 days before the expiration date of this Permit.

E. DUTY TO PROVIDE INFORMATION

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit.

F. OTHER INFORMATION

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.

G. SIGNATORY REQUIREMENTS

All applications, reports or information submitted to the Director shall be signed and certified.

1. All permit applications shall be signed as follows:

   a. For a corporation: by a responsible corporate officer;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

   c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the Permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Director , and,

b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to Authorization. If an authorization under Part IV.G.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part IV.G.2 must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

5. Certification. Any person signing a document under this section shall make the following certification:

"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 gather and evaluate 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. PENALTIES FOR FALSIFICATION OF REPORTS

The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. AVAILABILITY OF REPORTS

Except for data determined to be confidential by the Permittee, all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Director . As required by the Act, permit applications, permits, effluent data, and ground water quality data shall not be considered confidential.

J. PROPERTY RIGHTS

The issuance of this Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

K. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

L. TRANSFERS

This Permit may be automatically transferred to a new Permittee if:

1. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify, or revoke and reissue the Permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

M. STATE LAWS

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, penalties established pursuant to any applicable state law or regulation under authority preserved by Section 19-5-117 of the Act.

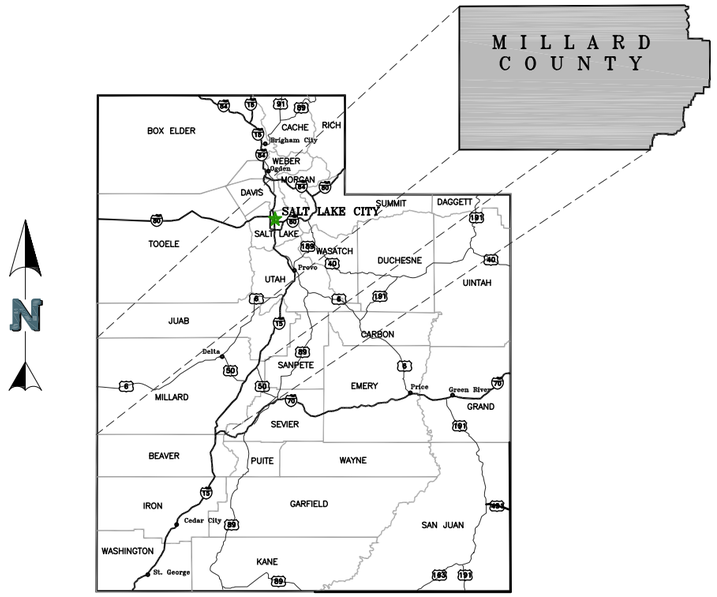
N. REOPENER PROVISION

This Permit may be reopened and modified (following proper administrative procedures) to include the appropriate limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. If new ground water standards are adopted by the Board, the Permit may be reopened and modified to extend the terms of the Permit or to include pollutants covered by new standards. The Permittee may apply for a variance under the conditions outlined in R317-6-6.4(D).

2. If alternate compliance mechanisms are required.

3. If water quality of the facility is significantly worse than represented in the original permit application.

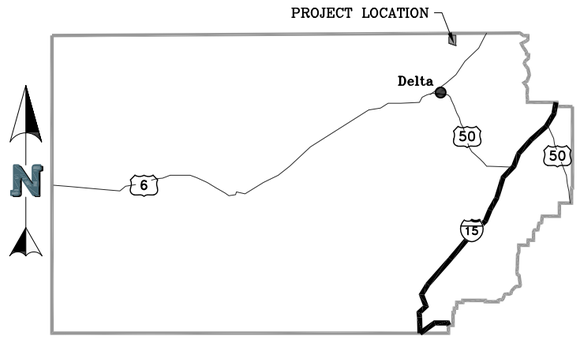


UTAH COUNTY MAP

KIEWIT

INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY 12/9/22



MILLARD COUNTY VICINITY MAP

DRAWING INDEX		
DWG NO.	TITLE	REV
A000	COVER SHEET & DRAWING INDEX	1
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A020	STAGE–STORAGE CURVE AND POND PROPERTIES	1
A050	GEOTECHNICAL INVESTIGATION LOCATIONS	1
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A110	OVERALL POND SECTIONS (1 OF 2)	1
A112	OVERALL POND SECTIONS (2 OF 2)	1
A200	OVERALL GRADING ISOPACH	1
A202	9WWB–BSN–0001 GRADING ISOPACH	1
A204	9WWB–BSN–0002 GRADING ISOPACH	1
A206	9WWB–BSN–0003 GRADING ISOPACH	1
A208	9WWB–BSN–0004 GRADING ISOPACH	1
A210	9WWB–BSN–0005 GRADING ISOPACH	1
A212	9WWB–BSN–0006 GRADING ISOPACH	1
A214	9WWB–BSN–0007 GRADING ISOPACH	1
A216	SETTING OUT POINTS	1
A300	TYPICAL EMBANKMENT SECTIONS AND DETAILS (1 OF 3)	1
A310	TYPICAL EMBANKMENT SECTIONS AND DETAILS (2 OF 3)	1
A320	TYPICAL EMBANKMENT SECTIONS AND DETAILS (3 OF 3)	1
A400	POND PIPING PLAN	1
A410	OBSERVATION SLEEVE SECTIONS AND DETAILS	1
A420	POND INLET PLAN	1
A430	POND INLET SECTION	1

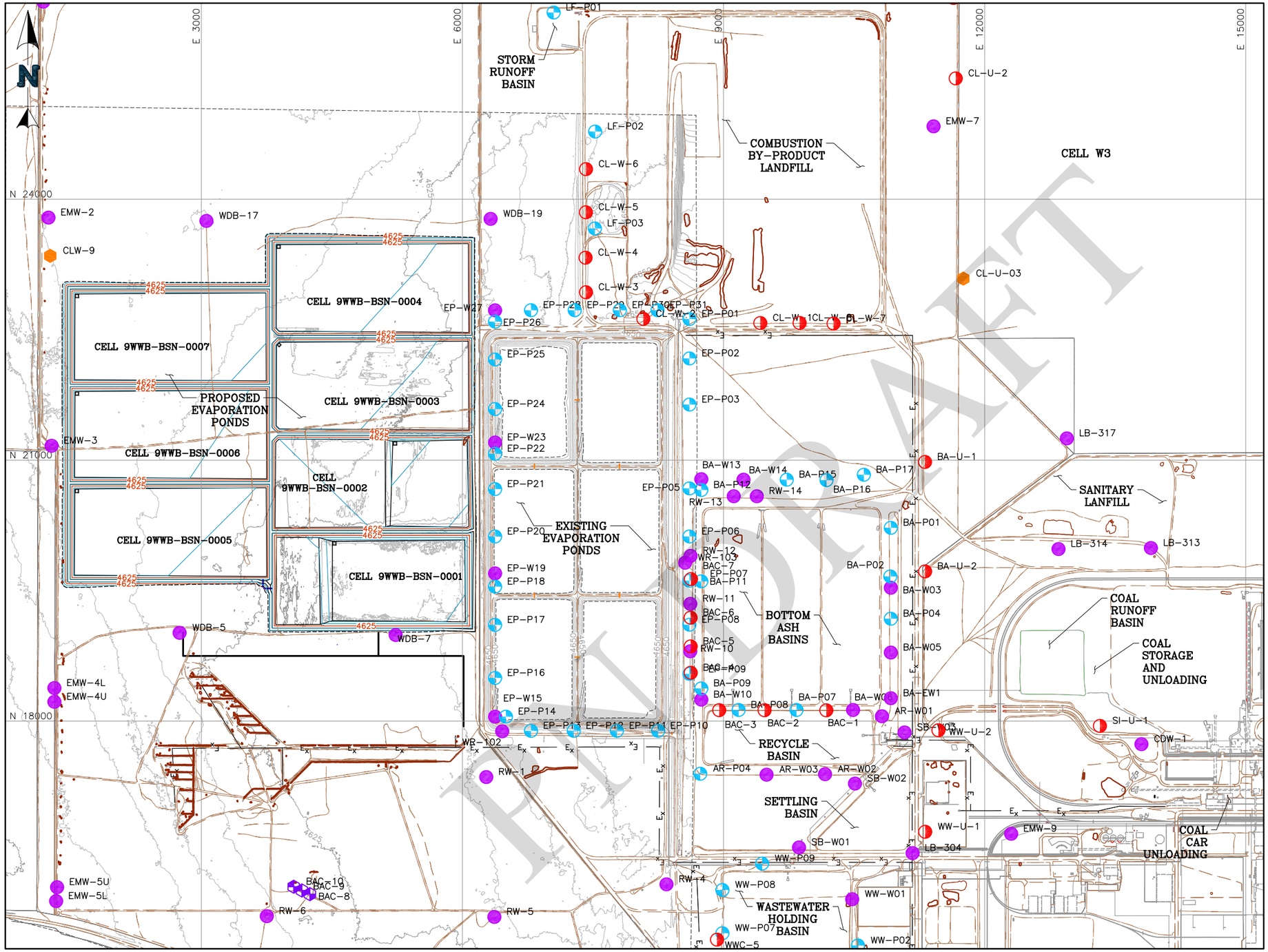
OWNER'S ACCEPTANCE OF THE DRAWINGS

NAME SIGNATURE DATE

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N.
JENNINGS
12/09/2022
STATE OF UTAH

Kiewit
KIEWIT
8900 RENNER BOULEVARD LENEXA, KS 66219
PHONE: 913-928-7887

NewFields
9400 Station Street, Suite 300, Lone Tree, CO 80124
Phone: (720) 508.3300 www.newfields.com



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- EXISTING ROADS/TRAILS
- EXISTING STOCKPILES
- EXISTING PIPE
- EXISTING POWER LINE
- TYPE I PERCHED WELL
- TYPE II MONITORING WELL (UNCONFINED AQUIFER)
- TYPE VII CCR MONITORING WELL (UPPER CONFINED AQUIFER)
- TYPE VIII CCR MONITORING WELL (UPPER CONFINED AQUIFER)
- TYPE IX CCR MONITORING WELL (UPPER CONFINED AQUIFER)

NOTES:

1. STAGE-STORAGE CURVE AND POND PROPERTIES TABLE ARE SHOWN ON DRAWING A020.

0 600 1200 FEET

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: GENERAL ARRANGEMENT

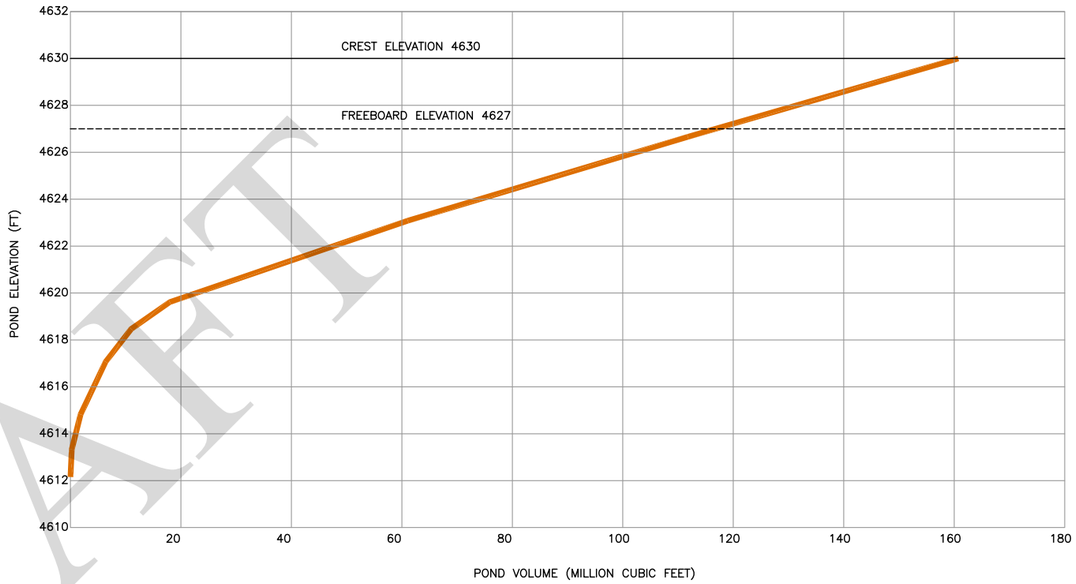
FILENAME: 505.000.002M
DRAWING NO.: A010
REVISION: 1

P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.002M.dwg-10/3/2022 12:03 PM

TABLE 1 – POND MATERIAL PROPERTIES AND TESTING FREQUENCY SUMMARY (SEE NOTE 4)							
ASTM TEST (DESCRIPTION)	CONTROL & RECORD TEST No.	TESTING FREQUENCIES (ONE PER – SEE NOTE 2)					
		RANDOM FILL	SELECT GRAVEL	PIPE BEDDING/BACKFILL	ROAD WEARING COURSE	EMBANKMENT FOUNDATION	BASIN FOUNDATION
D4318 (ATTERBERG LIMITS)	C1, R1	10,000 yd^3	1,000 yd^3	SOIL TYPE/5,000 yd^3 OR 1 PER STRUCTURE	2,000 yd^3	SOIL TYPE/100,000 ft^2	SOIL TYPE/200,000 ft^2
D2216 (MOISTURE CONTENT)	C2, R2	1 PER LIFT PER DAY OR 2,000 yd^3	–	PER NUCLEAR DENSITY REQUIREMENTS	–	50,000 ft^2	100,000 ft^2
D422 (PARTICLE SIZE DISTRIBUTION)	C3, R3	10,000 yd^3	1,000 yd^3 OR MINIMUM OF 2 TESTS	5,000 yd^3 OR 1 PER STRUCTURE	2,000 yd^3	100,000 ft^2	200,000 ft^2
D698 (STANDARD PROCTOR)	C4, R4	SOIL TYPE/ 1 PER 10 FIELD DENSITY TESTS	–	SOIL TYPE/5,000 yd^3	–	SOIL TYPE/250,000 ft^2	SOIL TYPE/500,000 ft^2
D2922 (NUCLEAR DENSITY)	R5d[NOTE1]	1 PER LIFT PER DAY OR 2,000 yd^3	–	GREATER OF 4 PER STRUCTURE OR 500 yd^3	–	50,000 ft^2	100,000 ft^2
REQUIRED COMPACTION VALUES AND RESULTS (SEE NOTE 1)	MOISTURE CONTENT	WITHIN 2% OF OPTIMUM MOISTURE CONTENT	–	SUFFICIENT TO OBTAIN ADEQUATE DENSITY	–	SUFFICIENT TO OBTAIN ADEQUATE DENSITY	SUFFICIENT TO OBTAIN ADEQUATE DENSITY
	MIN. COMPACTION PER ASTM D698	AT LEAST 95% OF MAX. DRY DENSITY	–	AT LEAST 95% OF MAXIMUM DRY DENSITY	–	95% M.D.D.	SEE NOTE 7
	MAXIMUM LOOSE LIFT THICKNESS	8"	–	8"	6"	SUFFICIENT TO ACHIEVE A SMOOTH AND COMPACT SURFACE	
	MAXIMUM PARTICLE SIZE	4"	–		–		
D1556 (SAND CONE) OR D5030 (WATER REPLACEMENT)	R5b, R5c	1 PER 10 NUCLEAR DENSITY TESTS	–	EVERY 10 NUCLEAR DENSITY TESTS	–	1 PER 10 NUCLEAR DENSITY TESTS	1 PER 10 NUCLEAR DENSITY TESTS
D3080 (DIRECT SHEAR STRENGTH – SEE NOTE 3)	C6, R6	1 PER 500,000 yd^3	–	–	–	–	–

TABLE 2 – PARTICLE SIZE DISTRIBUTION SUMMARY (SEE NOTE 4)												
SIEVE SIZE / MATERIAL	4"	3"	2"	1.5"	1"	0.75"	0.5"	.375"	#4	#16	#200	P.I.
SELECT GRAVEL			100	30–70	0–15		0–5					
ROAD WEARING COURSE				100	90–100	70–85	65–80	55–75	40–65	25–40	7–11	
PIPE BACKFILL	100	90–100									0–20	<= 10
PIPE BEDDING (NOTE 8)								100	85–100	50–90	5–30	

STAGE–STORAGE CURVE



NOTES:

1. IF 3 CONSECUTIVE TESTS FAIL FOR EITHER COMPACTION OR MOISTURE, THE TESTING FREQUENCY SHALL BE INCREASED TO 1 TEST PER 1,000 yd3/ UNTIL 6 CONSECUTIVE PASSING TESTS ARE RECORDED.
2. WHERE TWO CRITERIA ARE GIVEN, WHICHEVER CRITERIA RESULTS IN MORE FREQUENT TESTING SHALL BE OBSERVED.
3. D3080 (DIRECT SHEAR STRENGTH) REQUIREMENT IS A MINIMUM FRICTION ANGLE OF 32° AND A MINIMUM COHESION OF 0 PSF. IF RESULTS DO NOT ACHIEVE THESE MINIMUM CRITERIA, THE ENGINEER SHALL BE NOTIFIED TO RE–EVALUATE THE ANALYSIS.
4. THE INFORMATION PRESENTED ON THIS DRAWING IS AN INCOMPLETE SUMMARY OF THE TECHNICAL SPECIFICATIONS. THE FULL TECHNICAL SPECIFICATIONS ARE INCLUDED IN APPENDIX B OF THE FINAL DESIGN REPORT AND MUST BE REFERRED TO DURING CONSTRUCTION.
5. THE LEFT VERTICAL AXIS AND LABELS CORRESPOND TO POND CAPACITY VS POND ELEVATION.
6. IF FAT CLAY (CH) MATERIAL IS ENCOUNTERED WHILE BORROWING RANDOM FILL, IT SHALL BE BLENDED IN WITH OTHER NON–CH MATERIAL BY RIPPING OR DISKING TO PREVENT LOCALIZED CONCENTRATIONS OF CH MATERIAL BEING PLACED IN THE EMBANKMENT FILL.
7. CUT SURFACES AND/OR NATURAL GROUND SURFACES, ON WHICH FILL WILL NOT BE PLACED WITHIN THE BASIN AREA, SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES; MOISTURE CONDITIONED; AND COMPACTED TO FORM A FIRM NON–YIELDING SURFACE SUITABLE FOR PLACEMENT OF THE OVERLYING GEOMEMBRANE LINER.
8. SANDY NATIVE MATERIAL IS ANTICIPATED TO BE SUFFICIENT FOR USE AS PIPE BEDDING.

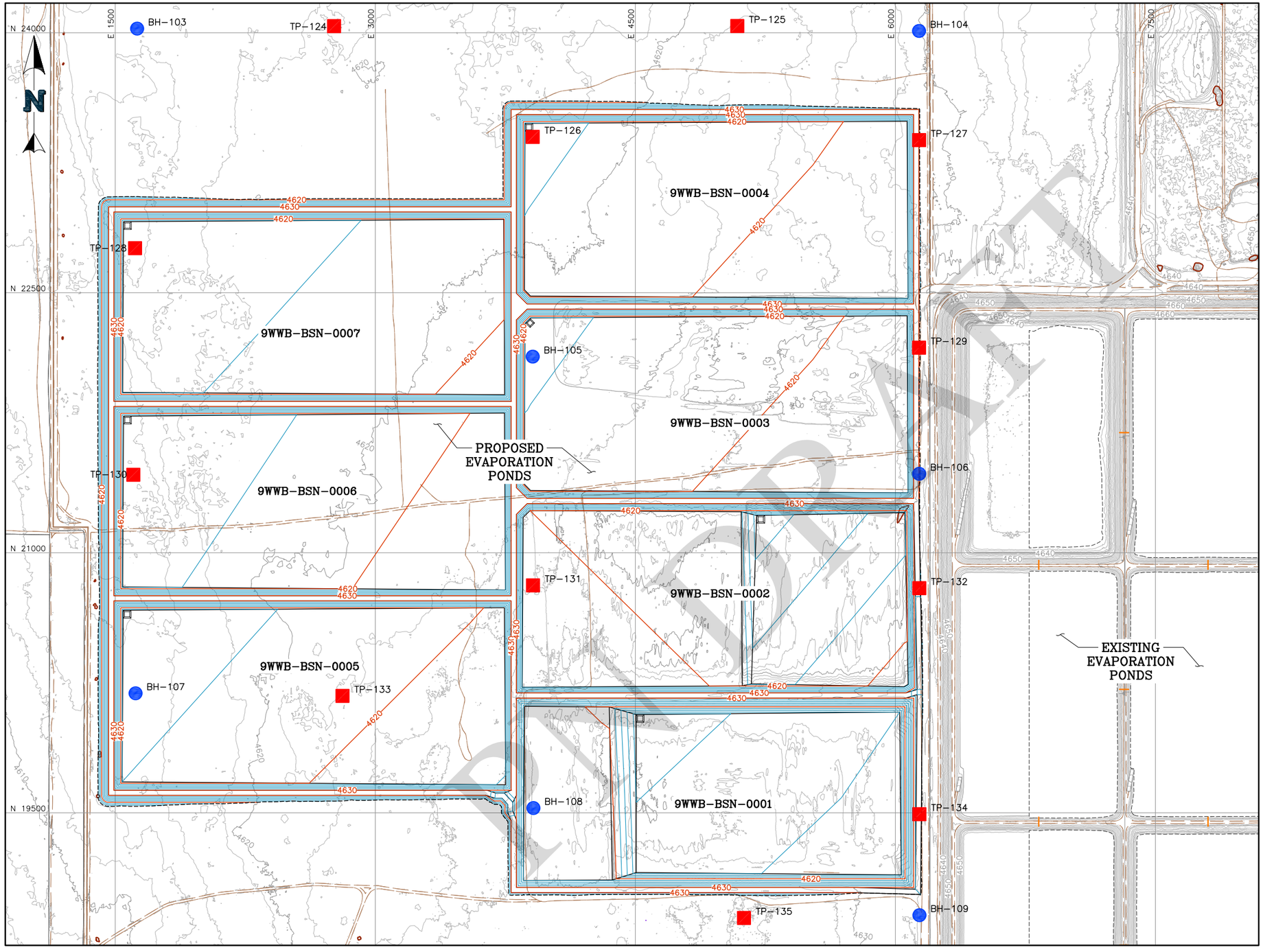
REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE–ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

NewFields

CLIENT: KIEWIT
PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS
TITLE: STAGE–STORAGE CURVE AND POND PROPERTIES
FILENAME: 505.000.002D
DRAWING NO.: A020
REVISION: 1



0 300 600 FEET

LEGEND:

- EXISTING GROUND CONTOURS
- EXISTING ROADS/TRAILS
- EXISTING STOCKPILES
- EXISTING PIPE
- BH-103 — BOREHOLE (IGES, 2022)
- TP-127 — TEST PIT (IGES, 2022)

BOREHOLE AND TEST PIT LOCATIONS

POINT	NORTHING	EASTING	ELEVATION (FT)
BH-103	24,023.74	1,626.06	4,616.77
BH-104	24,010.22	6,136.42	4,630.01
BH-105	22,131.49	3,908.07	4,620.65
BH-106	21,455.58	6,137.64	4,631.06
BH-107	20,189.26	1,617.42	4,615.69
BH-108	19,527.28	3,912.16	4,624.78
BH-109	18,909.04	6,138.89	4,632.02
TP-124	24,038.23	2,762.09	4,618.39
TP-125	24,039.03	5,088.16	4,622.66
TP-126	23,399.19	3,907.95	4,618.77
TP-127	23,380.92	6,136.94	4,629.21
TP-128	22,757.05	1,614.33	4,616.07
TP-129	22,183.02	6,136.41	4,628.26
TP-130	21,449.89	1,604.10	4,616.01
TP-131	20,812.19	3,909.71	4,624.41
TP-132	20,795.93	6,138.14	4,631.98
TP-133	20,174.39	2,810.81	4,622.42
TP-134	19,491.80	6,138.35	4,633.01
TP-135	18,893.32	5,126.44	4,626.10

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REFERENCE:
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COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER
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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: GEOTECHNICAL INVESTIGATION LOCATIONS

FILENAME: 505.000.004M
DRAWING NO.: A050
REVISION: 1

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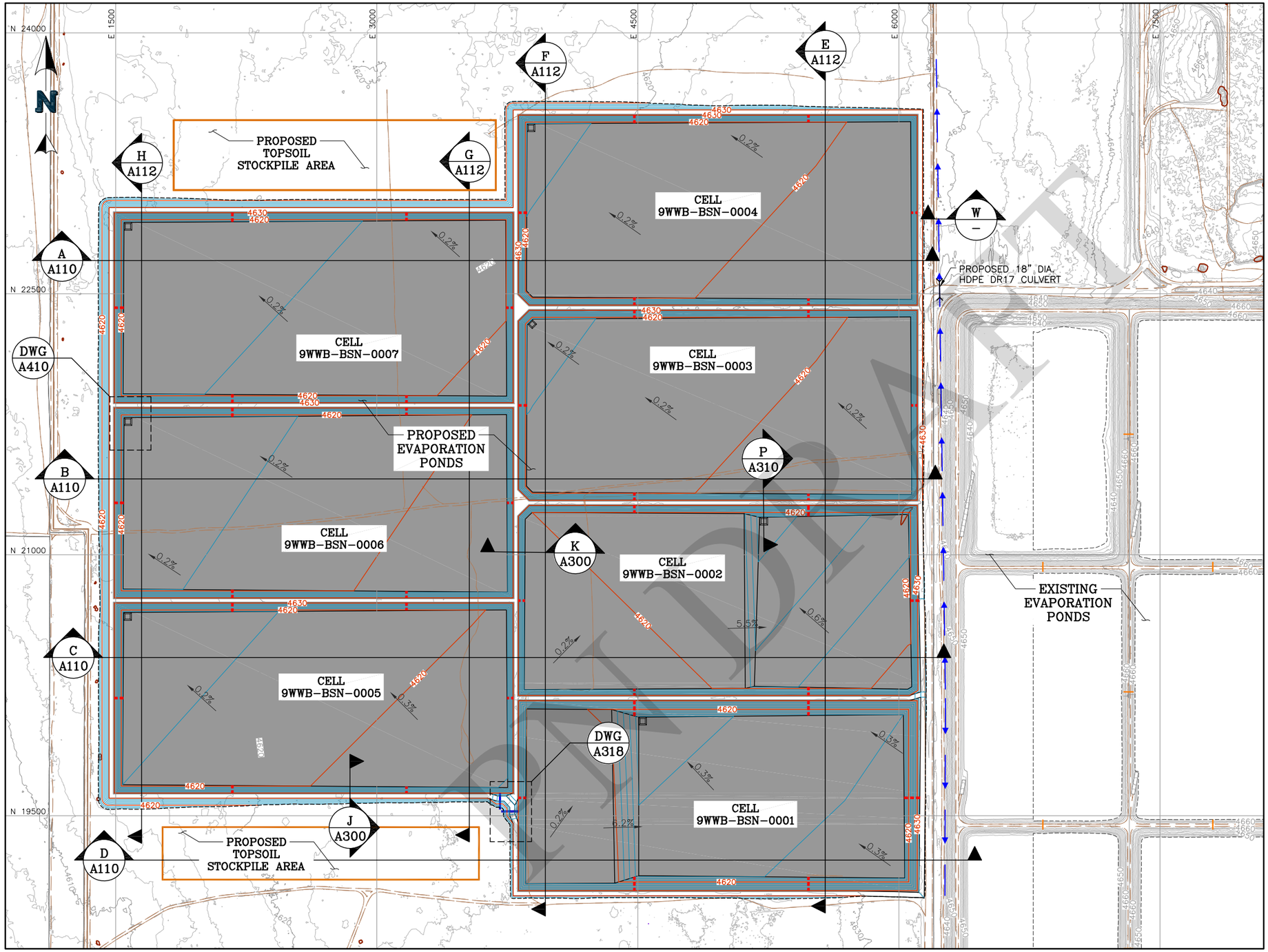
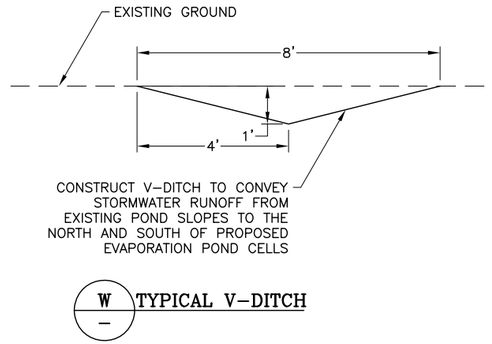


LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- EXISTING ROADS/TRAILS
- EXISTING STOCKPILES
- EXISTING PIPE
- STORMWATER DIVERSION FLOW DIRECTION
- PROPOSED GEOMEMBRANE
- PROPOSED HDPE ACCESS LADDERS
- PROPOSED CULVERT



CONSTRUCT V-DITCH TO CONVEY STORMWATER RUNOFF FROM EXISTING POND SLOPES TO THE NORTH AND SOUTH OF PROPOSED EVAPORATION POND CELLS

W — TYPICAL V-DITCH

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: OVERALL GRADING PLAN

FILENAME: 505.000.006M
DRAWING NO.: A100
REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

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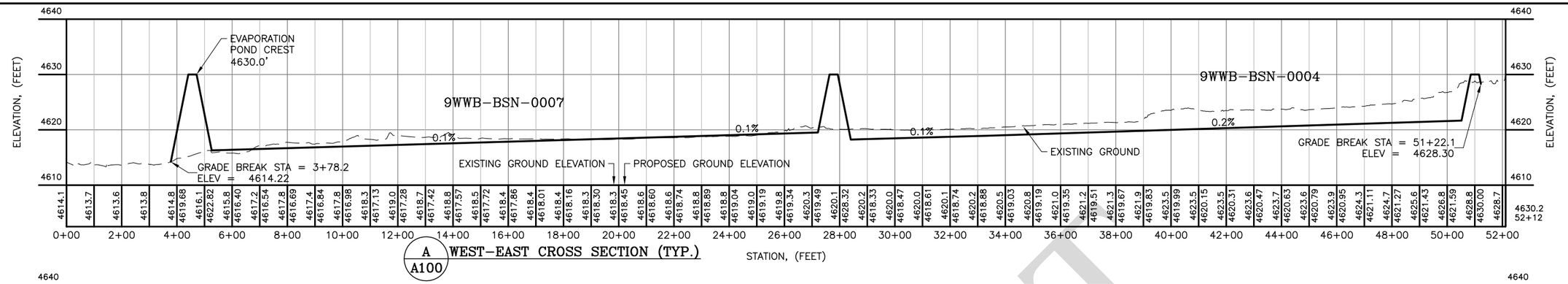
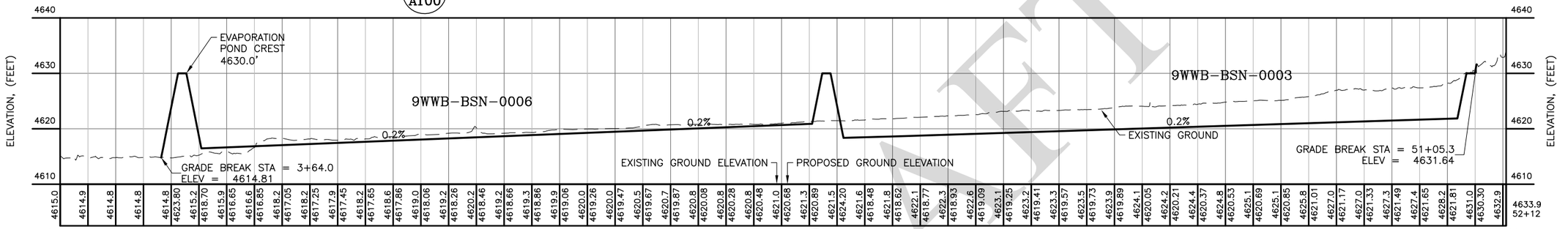
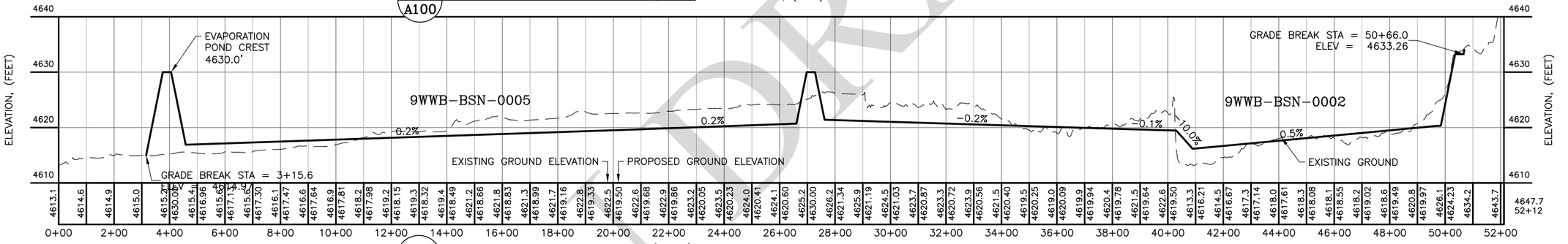


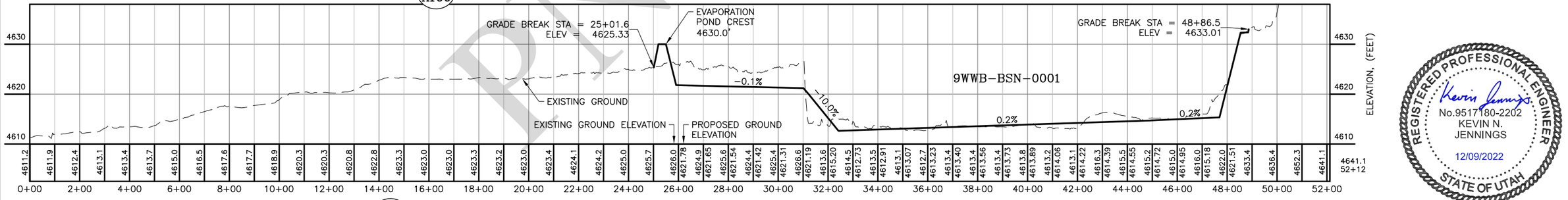
A A100 WEST-EAST CROSS SECTION (TYP.)



B A100 WEST-EAST CROSS SECTION (TYP.)



C A100 WEST-EAST CROSS SECTION (TYP.)



D A100 WEST-EAST CROSS SECTION (TYP.)

0 200 400 FEET
HORIZONTAL

0 10 20 FEET
VERTICAL

20X EXAGGERATION

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

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NewFields

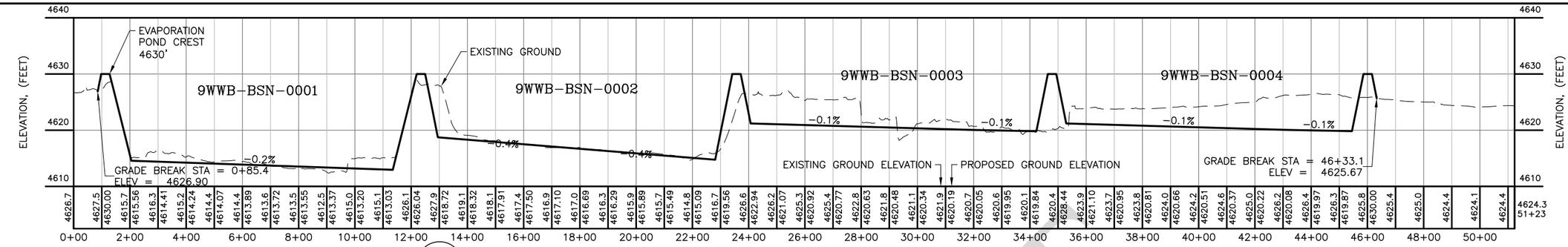
CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: OVERALL POND SECTIONS (1 OF 2)

FILENAME: 505.000.004D
DRAWING NO.: A110
REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH



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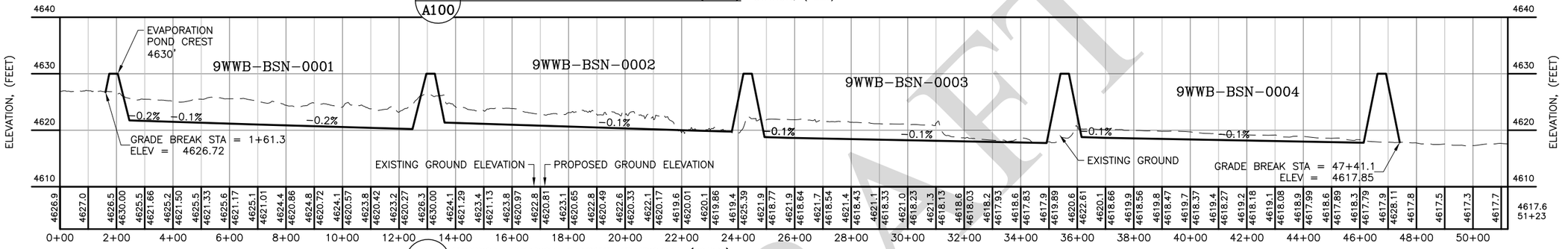

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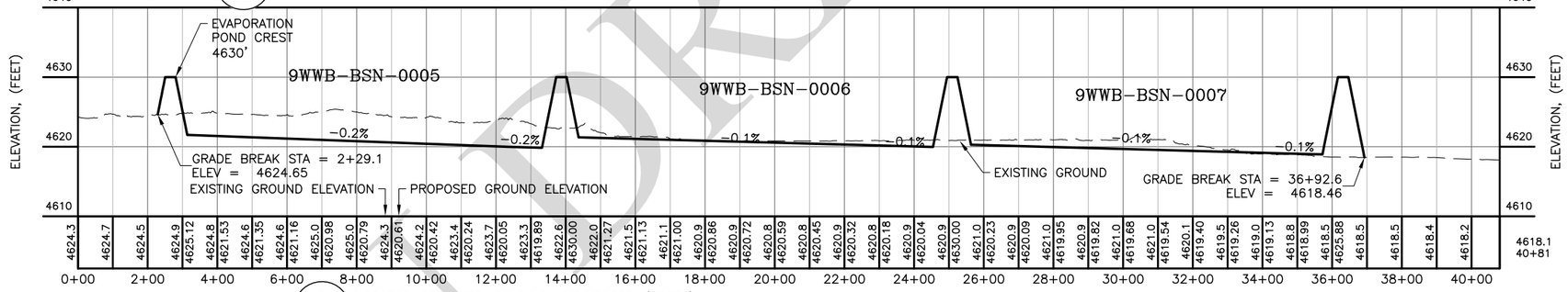
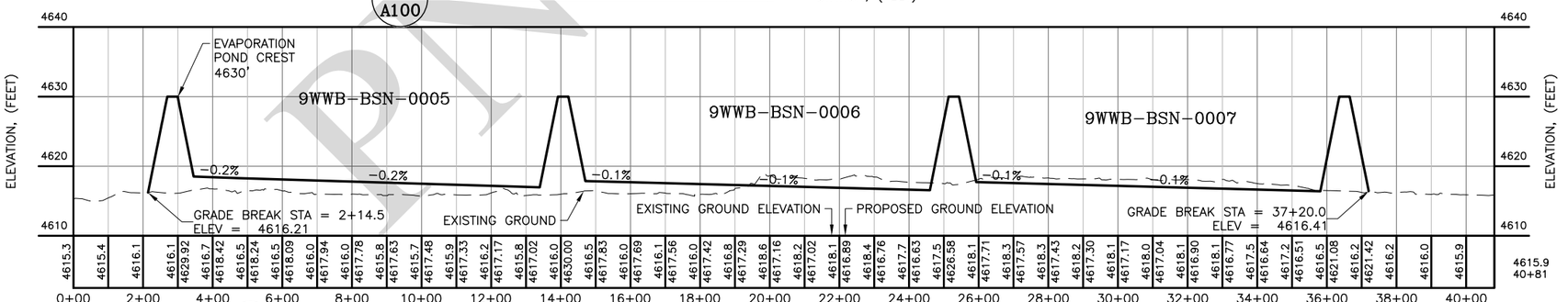


G A100 SOUTH-NORTH CROSS SECTION (TYP.)



H A100 SOUTH-NORTH CROSS SECTION (TYP.)

0 200 400 FEET — HORIZONTAL
0 10 20 FEET — VERTICAL
20X EXAGGERATION

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

NEWFIELDS PRODUCED THE INFORMATION PRESENTED ON THIS DRAWING THROUGH THE USE OF AVAILABLE TECHNICAL INFORMATION AND EXPERIENCE. RECEIVING THIS DRAWING DOES NOT GUARANTEE ANY RIGHTS TO EITHER SUCH TECHNICAL INFORMATION OR EXPERIENCE. ANY MODIFICATION OR ADAPTATION OF THE DATA OR DRAWING SHALL BE AT USER'S RISK AND WITHOUT ANY LIABILITY OR LEGAL RESPONSIBILITY TO NEWFIELDS.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

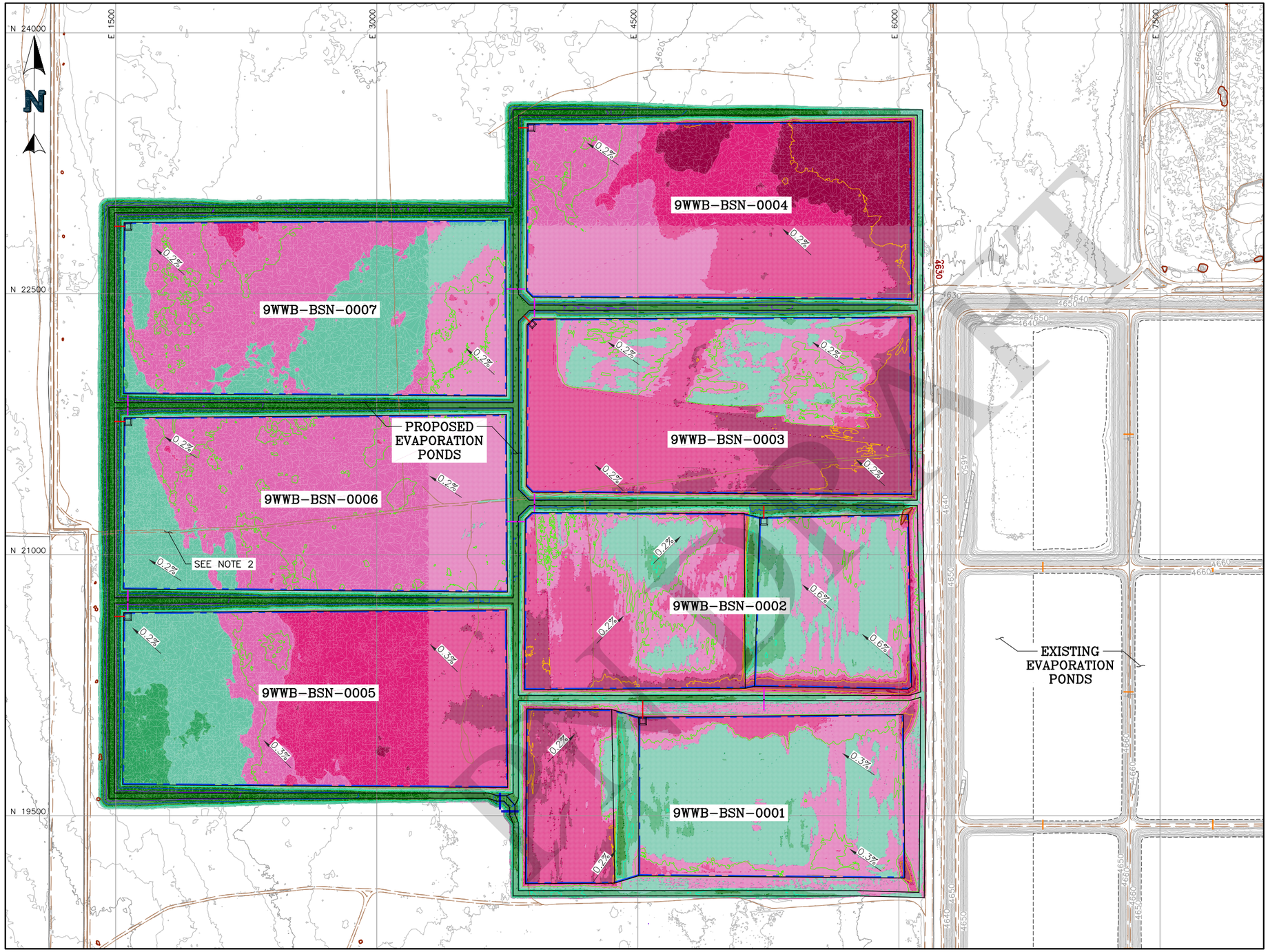
NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: OVERALL POND SECTIONS (2 OF 2)

FILENAME: 505.000.030D
DRAWING NO.: A112
REVISION: 1



0 300 600 FEET

LEGEND:

- EXISTING GROUND CONTOURS
- EXISTING ROADS/TRAILS
- EXISTING STOCKPILES
- EXISTING PIPE
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- CUT DEPTH >4'
- CUT DEPTH 2'–4'
- CUT DEPTH 0'–2'
- FILL DEPTH 0'–2'
- FILL DEPTH 2'–4'
- FILL DEPTH >4'

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

NewFields

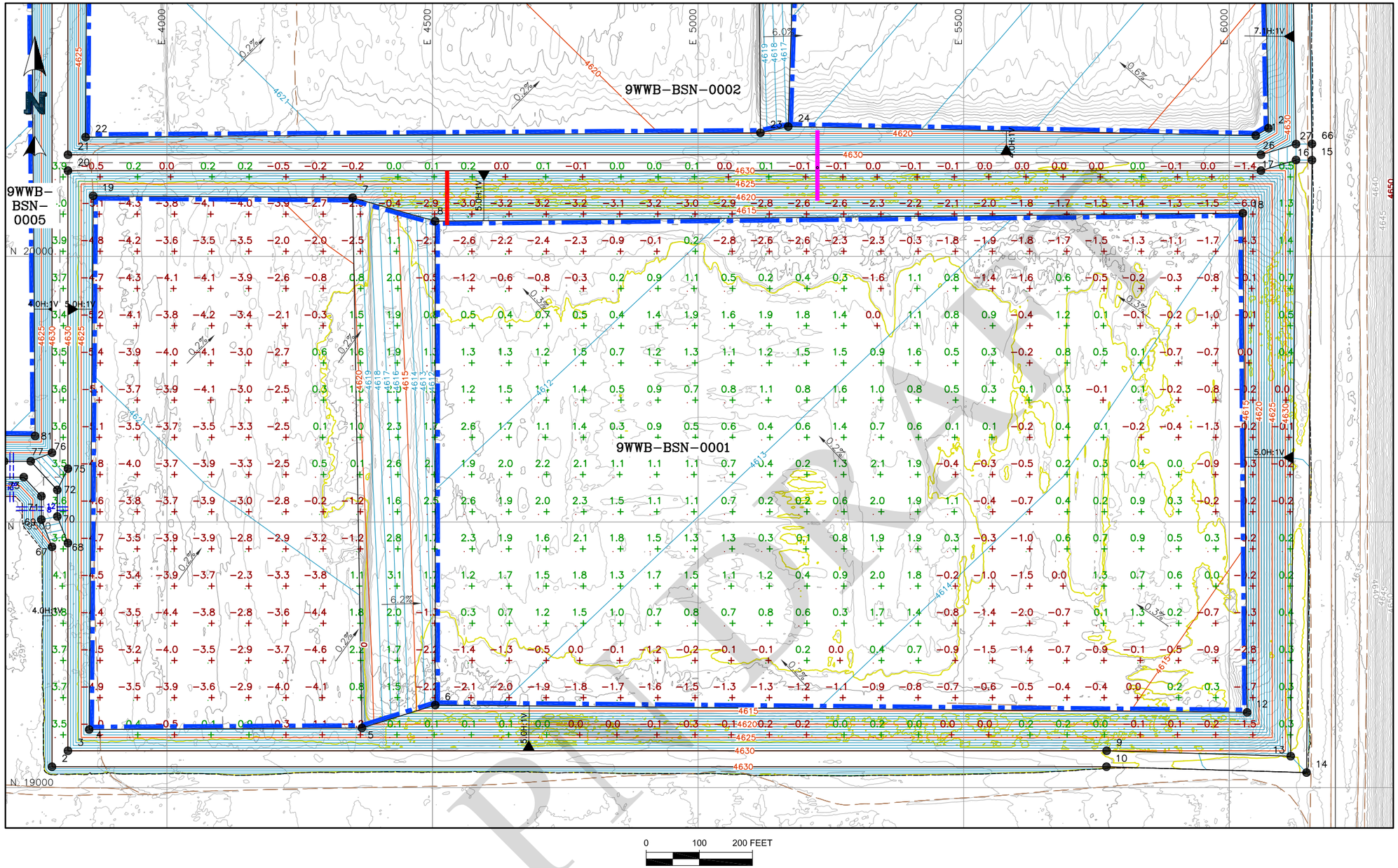
CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: OVERALL GRADING ISOPACH

FILENAME: 505.000.008M
DRAWING NO.: A200
REVISION: 1

P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.008M.dwg–12/8/2022 12:39 PM



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 / 0.61 — CUT DEPTH SPOT ELEVATION / FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 — SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

NewFields

CLIENT: KIEWIT

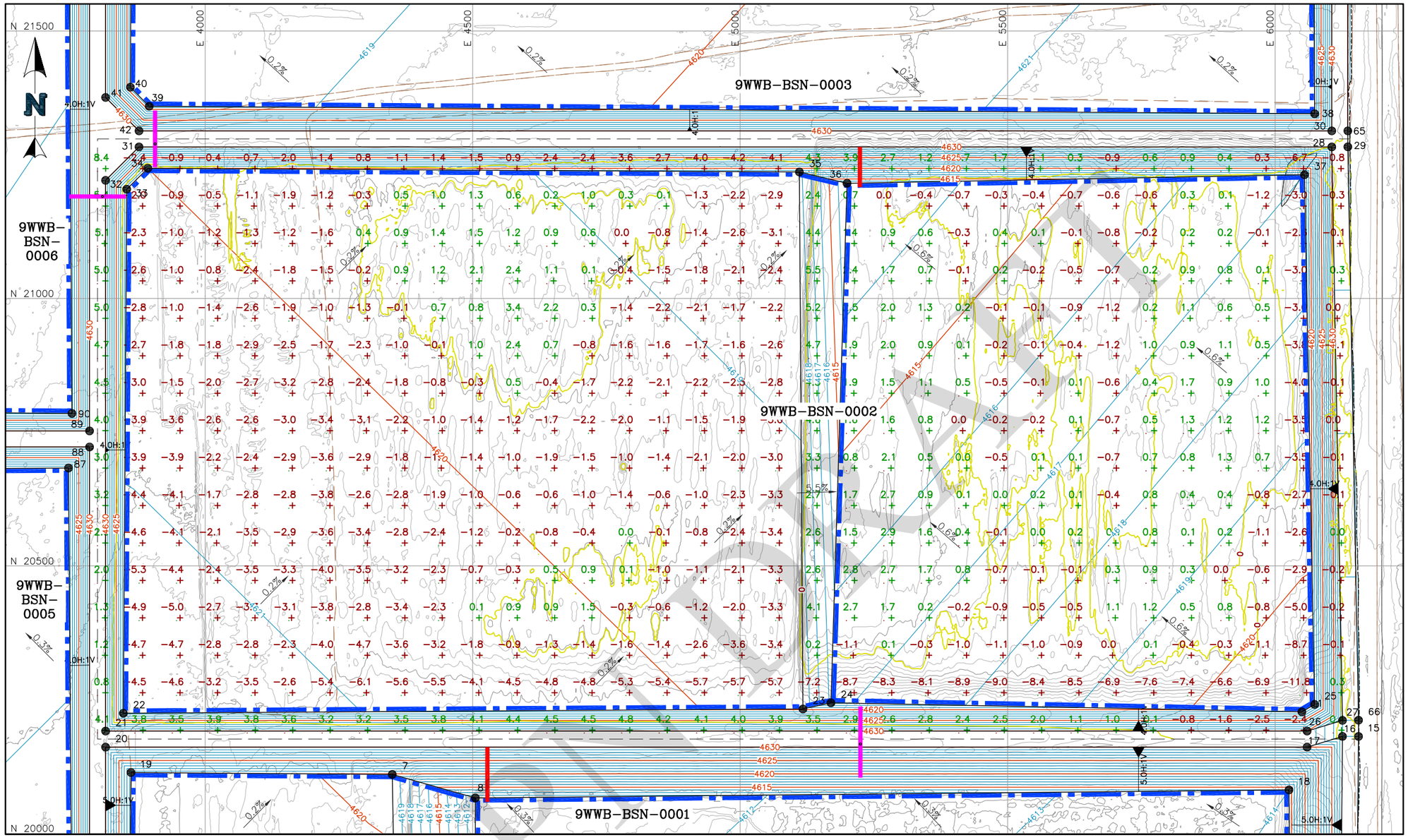
PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: 9WWB-BSN-0001 GRADING ISOPACH

FILENAME: 505.000.031M

DRAWING NO.: A202

REVISION: 1



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 CUT DEPTH SPOT ELEVATION
- 0.61 FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: 9WWB-BSN-0002 GRADING ISOPACH

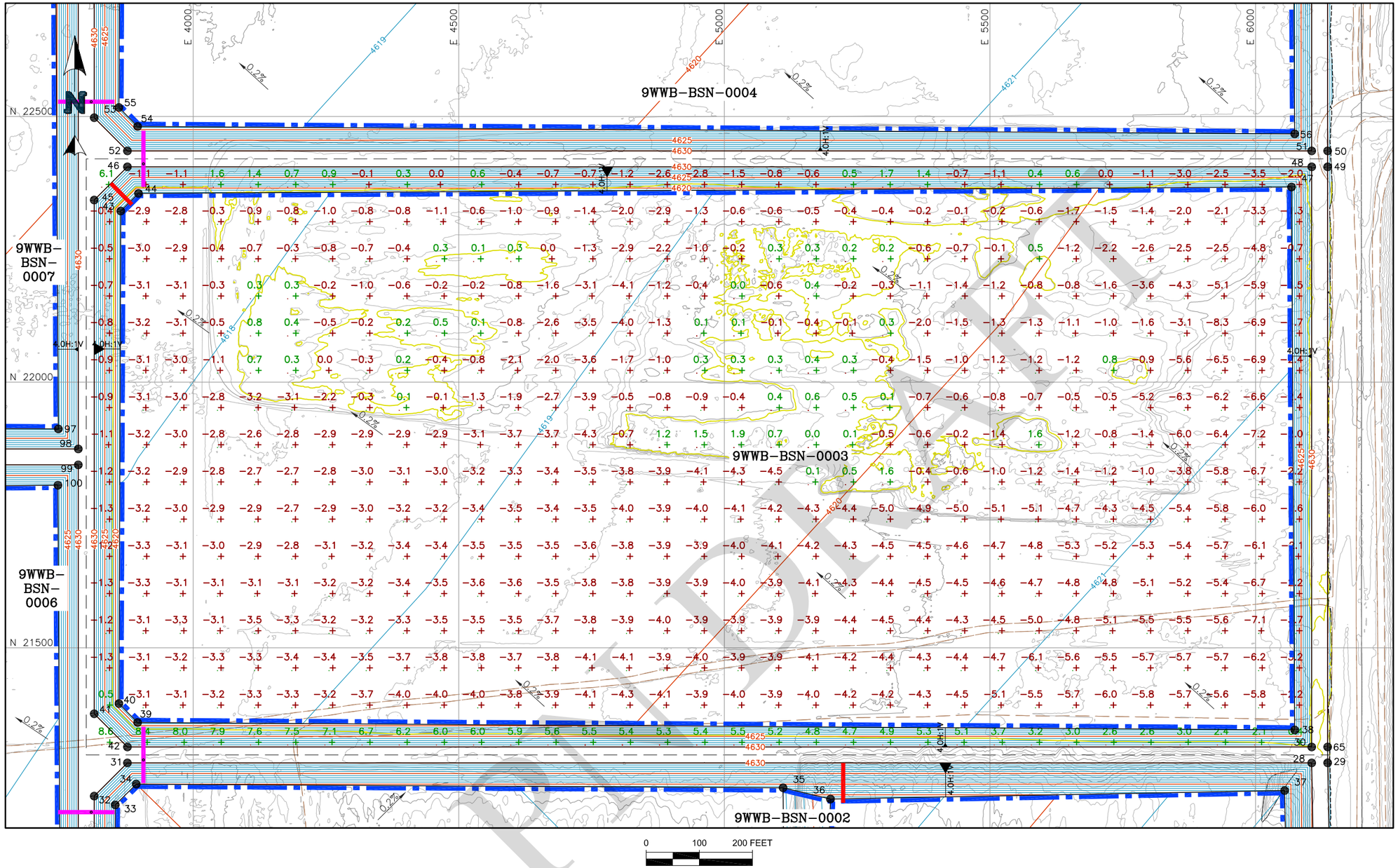
FILENAME: 505.000.032M

DRAWING NO.: A204

REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.032M.dwg-12/8/2022 12:41 PM



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 CUT DEPTH SPOT ELEVATION
- 0.61 FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REFERENCE:

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COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

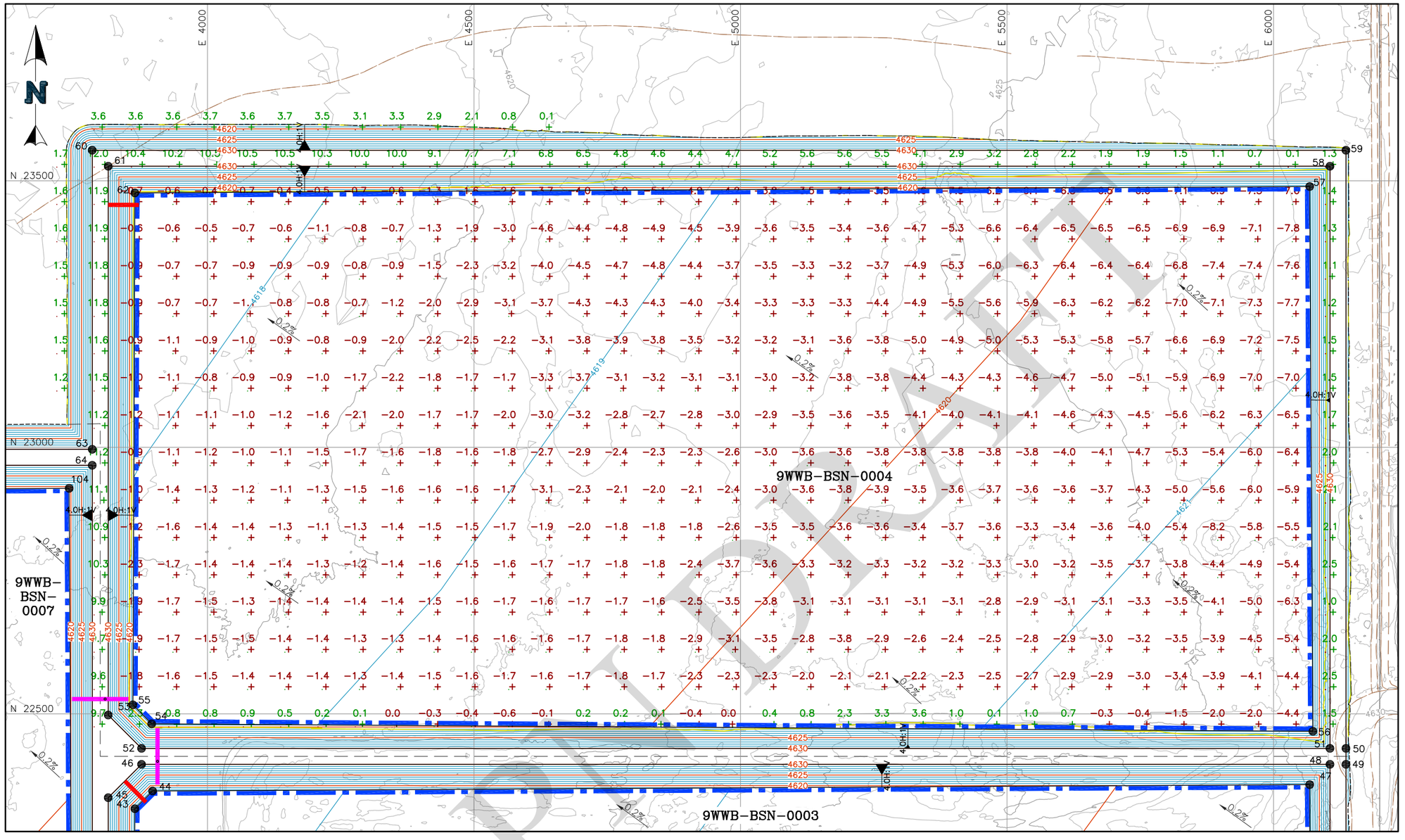
TITLE: 9WWB-BSN-0003 GRADING ISOPACH

FILENAME: 505.000.033M

DRAWING NO.: A206

REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 CUT DEPTH SPOT ELEVATION
- 0.61 FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REFERENCE:
EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"
COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER
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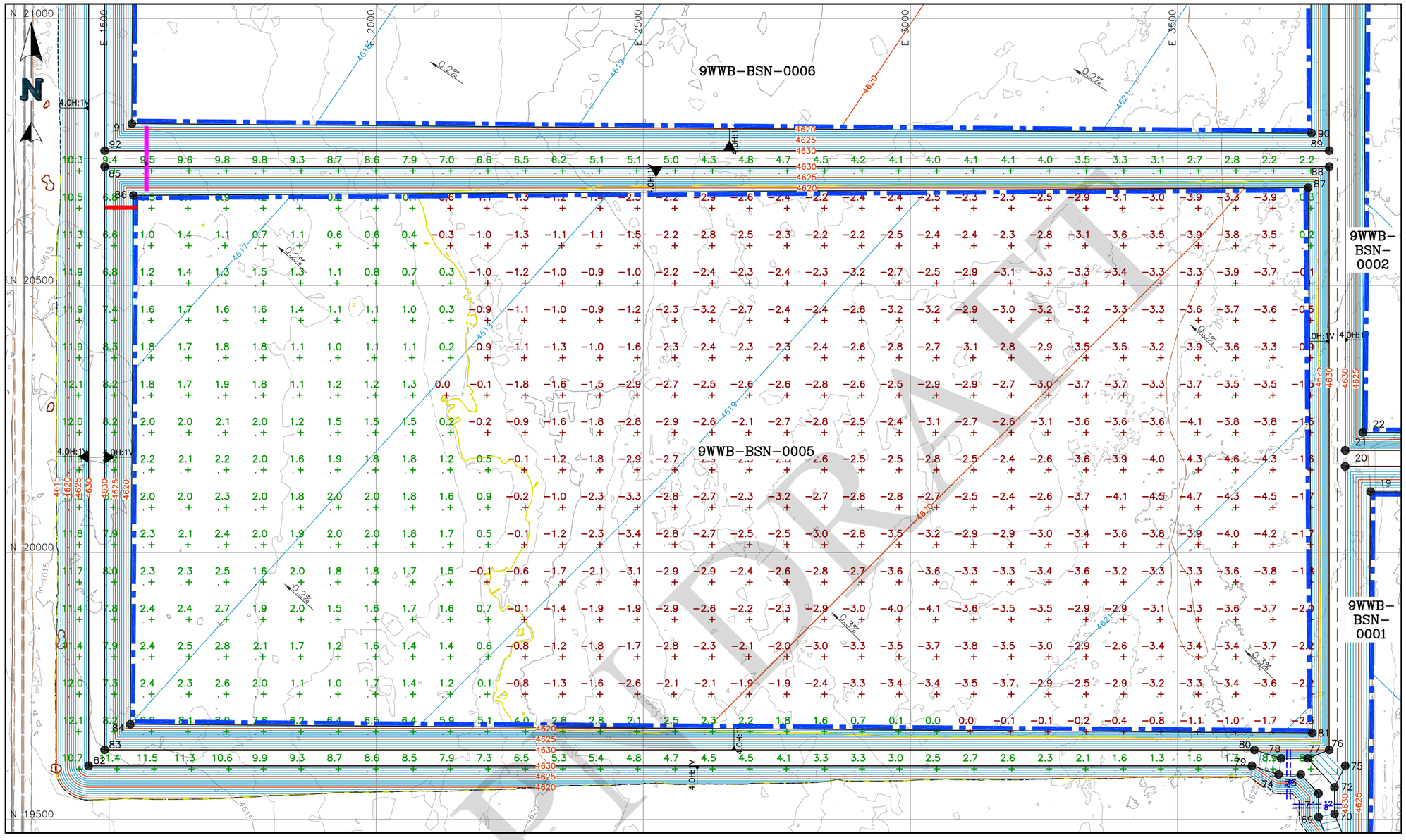
NewFields

CLIENT: KIEWIT
PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS
TITLE: 9WWB–BSN–0004 GRADING ISOPACH
FILENAME: 505.000.034M
DRAWING NO.: A208
REVISION: 1



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 / 0.61 — CUT DEPTH SPOT ELEVATION / FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 — SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REFERENCE:
EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"
COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

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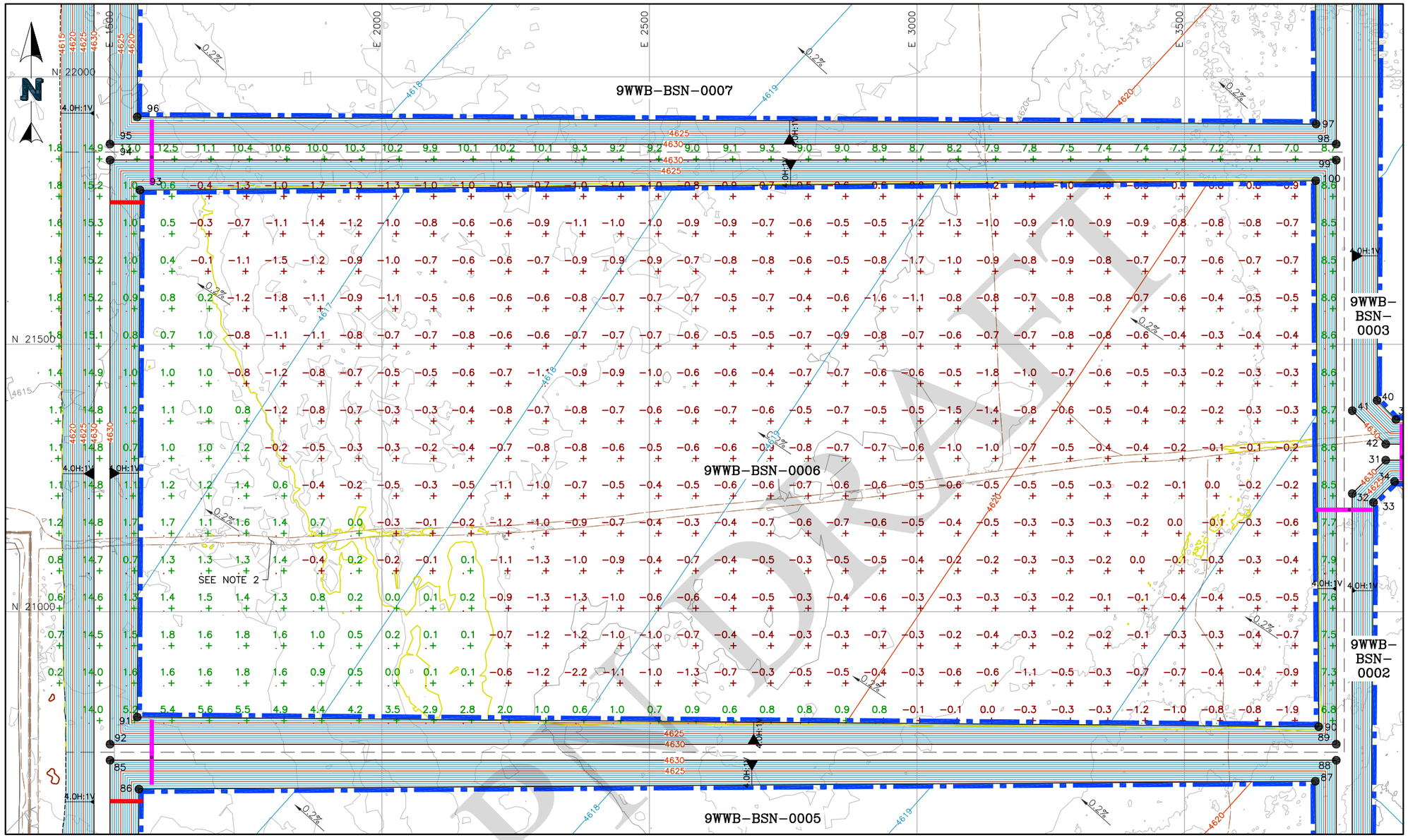
NewFields

CLIENT: KIEWIT
PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS
TITLE: 9WWB-BSN-0005 GRADING ISOPACH
FILENAME: 505.000.035M
DRAWING NO.: A210
REVISION: 1



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 / 0.61 — CUT DEPTH SPOT ELEVATION / FILL DEPTH SPOT ELEVATION
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- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 — SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
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REFERENCE:

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COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE–ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: 9WWB–BSN–0006 GRADING ISOPACH

FILENAME: 505.000.036M

DRAWING NO.: A212

REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

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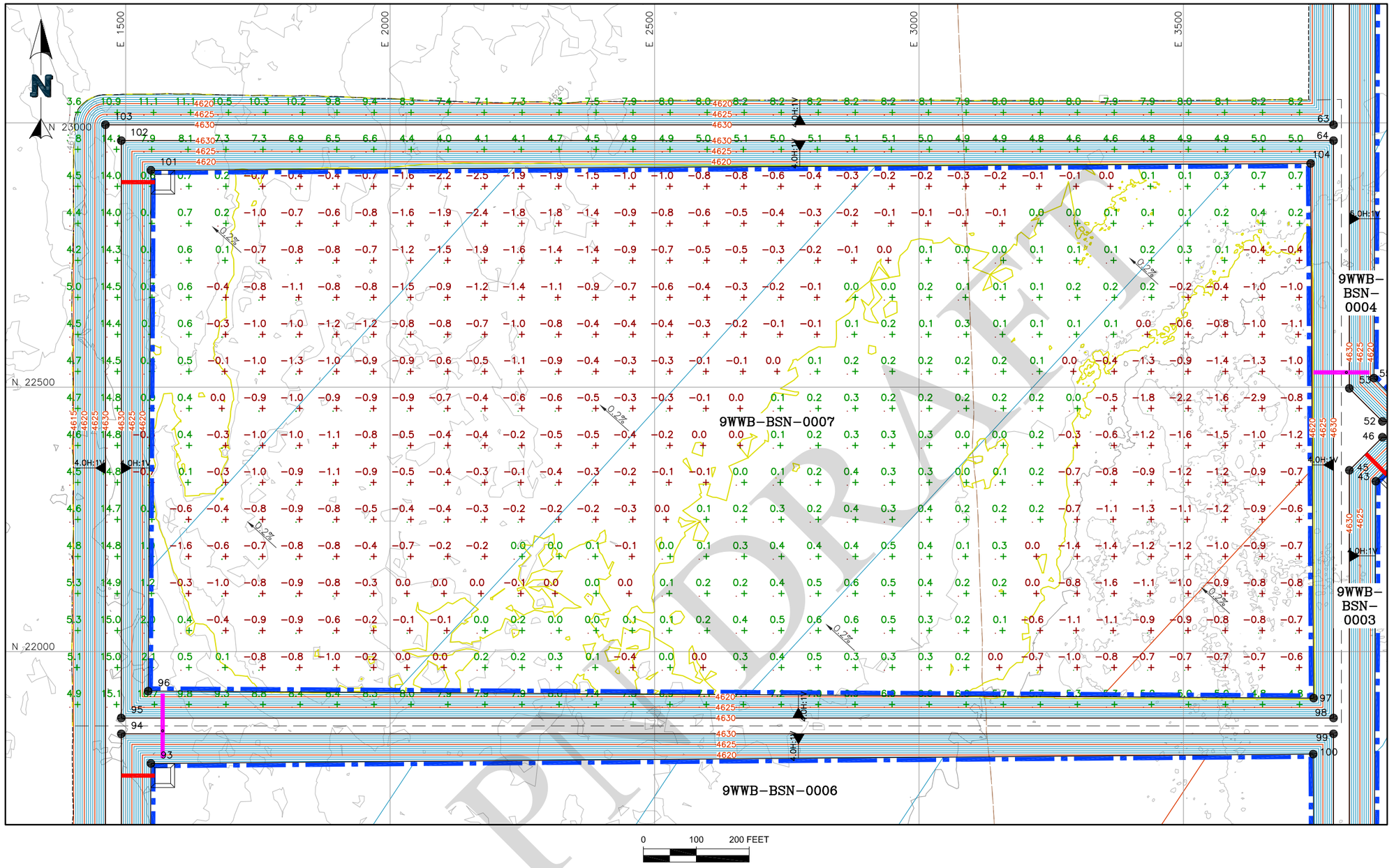

LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- ISOPACH ZERO CONTOUR
- EXISTING ROADS/TRAILS
- −1.05 CUT DEPTH SPOT ELEVATION
- 0.61 FILL DEPTH SPOT ELEVATION
- PROPOSED 18" DIA. TRANSFER PIPE (SEE DETAIL P ON DRAWING A310)
- PROPOSED 4" PERFORATED CPeP TOE DRAIN (SEE DETAIL R ON A310)
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE (SEE DETAIL S ON A410)
- 68 SETTING OUT POINTS (SEE DRAWING A216)

NOTES:

1. THE AVERAGE DEPTH OF TOPSOIL IS ASSUMED TO BE 5 INCHES FOR THE EARTHWORK BALANCE.
2. EXISTING ROAD WEARING COURSE MATERIAL TO BE REMOVED AND ROAD SURFACE TO BE SCARIFIED PRIOR TO PLACEMENT OF EMBANKMENT FILL. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE–ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: 9WWB–BSN–0007 GRADING ISOPACH

FILENAME: 505.000.037M

DRAWING NO.: A214

REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

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SETTING OUT DATA			
POINT	NORTHING	EASTING	ELEVATION
2	19,039.32	3,783.73	4,630.00
3	19,069.32	3,813.73	4,630.00
4	19,109.32	3,853.73	4,622.00
5	19,112.32	4,367.20	4,621.40
6	19,155.32	4,505.24	4,612.80
7	20,110.32	4,349.69	4,619.80
8	20,066.32	4,504.99	4,611.00
9	19,069.32	5,769.24	4,630.00
10	19,039.32	5,768.80	4,630.00
11	20,227.32	6,049.94	4,621.00
12	19,141.67	6,033.47	4,615.50
13	19,059.17	6,115.73	4,632.00
14	19,028.29	6,145.46	4,632.00
15	20,181.18	6,155.73	4,634.00
16	20,181.32	6,125.73	4,634.00
17	20,161.32	6,059.67	4,630.00
18	20,081.33	6,025.75	4,614.00
19	20,113.82	3,861.23	4,620.50
20	20,161.32	3,813.73	4,630.00
21	20,191.32	3,813.73	4,630.00
22	20,224.52	3,846.93	4,621.70
23	20,232.52	5,117.36	4,619.70
24	20,244.12	5,169.67	4,616.80
25	20,241.12	6,073.62	4,621.00
26	20,191.32	6,059.67	4,630.00
27	20,211.32	6,125.73	4,634.00
28	21,283.32	6,105.73	4,630.00
29	21,283.60	6,135.73	4,630.00
30	21,313.32	6,105.73	4,630.00
31	21,283.32	3,876.23	4,630.00

SETTING OUT DATA			
POINT	NORTHING	EASTING	ELEVATION
32	21,220.82	3,813.73	4,630.00
33	21,204.41	3,853.33	4,620.10
34	21,243.32	3,892.80	4,620.00
35	21,236.52	5,110.59	4,618.30
36	21,215.32	5,199.77	4,613.00
37	21,231.32	6,054.69	4,617.00
38	21,345.32	6,073.73	4,622.00
39	21,359.32	3,895.29	4,618.50
40	21,395.04	3,860.13	4,618.40
41	21,375.82	3,813.73	4,630.00
42	21,313.32	3,876.23	4,630.00
43	22,322.11	3,863.73	4,617.50
44	22,355.32	3,896.94	4,617.50
45	22,342.82	3,813.73	4,630.00
46	22,405.32	3,876.23	4,630.00
47	22,367.32	6,067.73	4,620.50
48	22,405.32	6,105.73	4,630.00
49	22,405.32	6,135.73	4,630.00
50	22,435.32	6,135.73	4,630.00
51	22,435.32	6,105.73	4,630.00
52	22,435.32	3,876.23	4,630.00
53	22,497.82	3,813.73	4,630.00
54	22,481.32	3,895.29	4,618.50
55	22,517.04	3,860.13	4,618.40
56	22,467.32	6,073.73	4,622.00
57	23,489.32	6,067.73	4,620.50
58	23,527.32	6,105.73	4,630.00
59	23,557.32	6,135.73	4,630.00
60	23,557.32	3,783.73	4,630.00
61	23,527.32	3,813.73	4,630.00

SETTING OUT DATA			
POINT	NORTHING	EASTING	ELEVATION
62	23,477.32	3,863.73	4,617.50
63	22,996.32	3,783.73	4,630.00
64	22,966.32	3,783.73	4,630.00
65	21,313.32	6,135.73	4,630.00
66	20,211.60	6,155.73	4,634.00
67	19,453.23	3,783.73	4,630.00
68	19,460.32	3,813.73	4,630.00
69	19,504.54	3,763.73	4,634.00
70	19,510.32	3,793.73	4,634.00
71	19,548.56	3,763.73	4,634.00
72	19,560.32	3,793.73	4,634.00
73	19,584.32	3,730.62	4,634.00
74	19,584.32	3,689.05	4,634.00
75	19,600.32	3,813.73	4,630.00
76	19,630.32	3,783.73	4,630.00
77	19,614.32	3,743.73	4,634.00
78	19,614.32	3,693.73	4,634.00
79	19,600.32	3,639.05	4,630.00
80	19,630.32	3,643.73	4,630.00
81	19,661.92	3,752.13	4,622.10
82	19,600.32	1,461.73	4,630.00
83	19,630.32	1,491.73	4,630.00
84	19,678.32	1,539.73	4,618.00
85	20,722.32	1,491.73	4,630.00
86	20,668.32	1,545.73	4,616.50
87	20,683.12	3,744.53	4,620.20
88	20,722.32	3,783.73	4,630.00
89	20,752.32	3,783.73	4,630.00
90	20,785.12	3,750.93	4,621.80
91	20,803.12	1,542.53	4,617.30

SETTING OUT DATA			
POINT	NORTHING	EASTING	ELEVATION
92	20,752.32	1,491.73	4,630.00
93	21,788.32	1,547.73	4,616.00
94	21,844.32	1,491.73	4,630.00
95	21,874.32	1,491.73	4,630.00
96	21,925.12	1,542.53	4,617.30
97	21,911.92	3,746.13	4,620.60
98	21,874.32	3,783.73	4,630.00
99	21,844.32	3,783.73	4,630.00
100	21,805.92	3,745.33	4,620.40
101	22,910.32	1,547.73	4,616.00
102	22,966.32	1,491.73	4,630.00
103	22,996.32	1,461.73	4,630.00
104	22,923.12	3,740.53	4,619.20

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

NOTES:

1. SEE DRAWINGS A202, A204, A206, A208, A210, A212 AND A214 FOR SETTING DATA POINTS SHOWN IN PLAN VIEW.
2. ALL COORDINATES SHOWN ON THIS PAGE AND WITHIN THIS DRAWING SET ARE PLANT COORDINATE SYSTEM.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

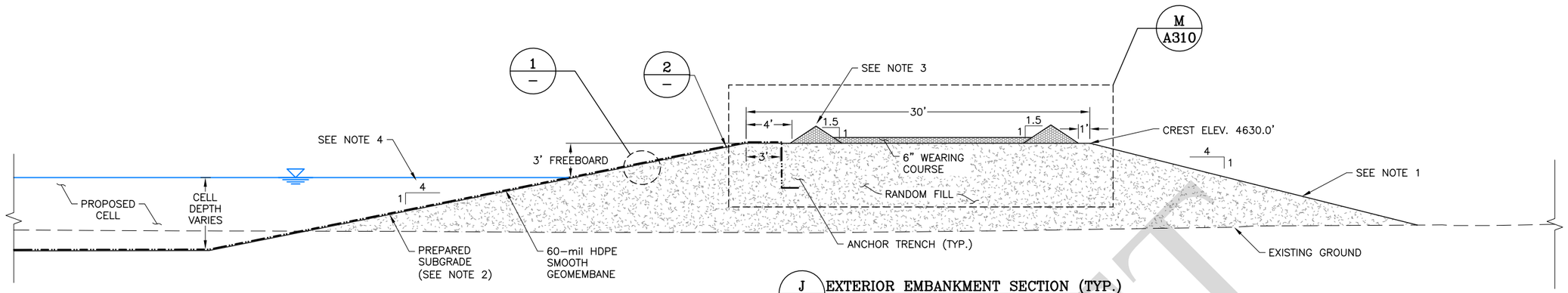
NewFields

CLIENT: KIEWIT

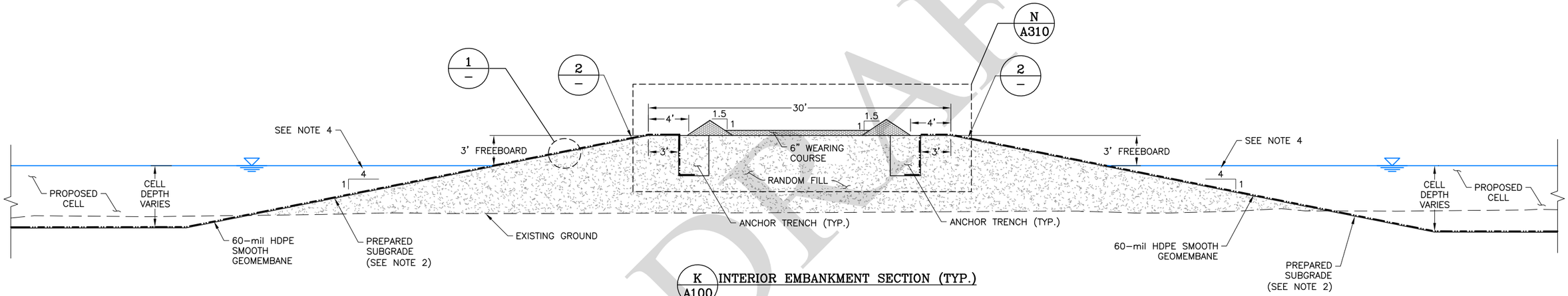
PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: SETTING OUT POINTS

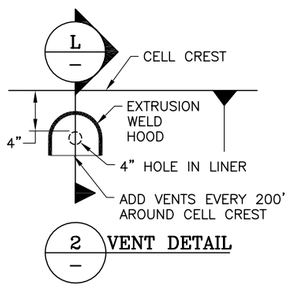
FILENAME: 505.000.040D
DRAWING NO.: A216
REVISION: 1



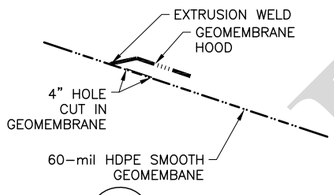
J / A100 EXTERIOR EMBANKMENT SECTION (TYP.)



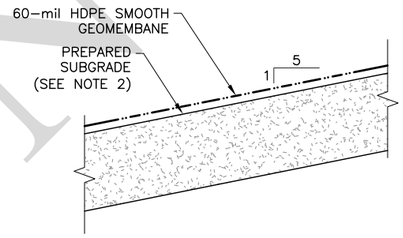
K / A100 INTERIOR EMBANKMENT SECTION (TYP.)



2 / – VENT DETAIL



L / – VENT SECTION



1 / – GEOMEMBRANE LINED SLOPE (TYP.)

NOTES:

1. THE DOWNSTREAM EMBANKMENT SLOPES SHALL BE TRACKED VERTICALLY AND NOT SEEDED. SLOPES SHALL BE MONITORED REGULARLY (ANNUALLY) FOR EROSION. IF EROSION RILLS 12" OR LARGER DEVELOP, THE SURFACE OF THE EMBANKMENT SHALL BE GRADED TO FILL IN RILLS. ALTERNATIVELY, EROSION PROTECTION MEASURES SUCH AS GRAVEL PLATING OR SEEDING THE SLOPES MAY BE USED AS APPROVED BY THE ENGINEER OF RECORD.
2. SEE EARTHWORKS TECHNICAL SPECIFICATIONS FOR PREPARING SURFACES TO RECEIVE GEOMEMBRANE.
3. PROVIDE A 1 FOOT WIDE BREAK IN THE INSIDE BERM EVERY 50 FEET FOR SURFACE WATER DRAINAGE.
4. 5H:1V INSIDE SLOPES IN CELL 9WWB-BSN-0001. 4H:1V INSIDE SLOPES IN ALL OTHER CELLS.

REGISTERED PROFESSIONAL ENGINEER
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12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

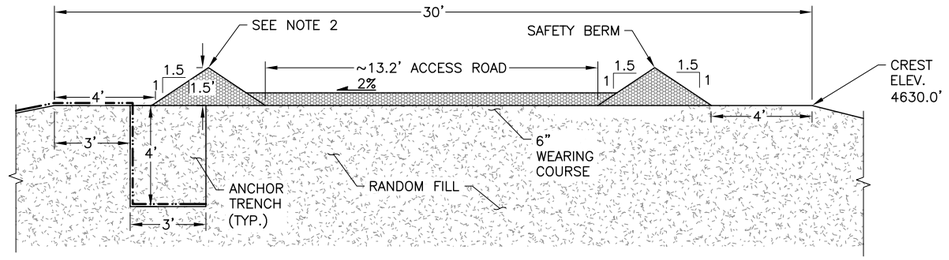
PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: TYPICAL EMBANKMENT SECTIONS AND DETAILS (1 OF 3)

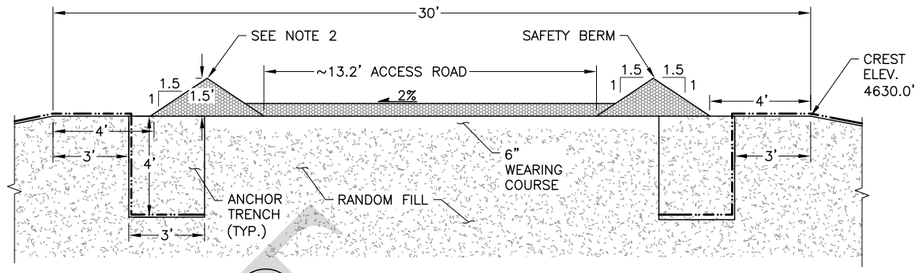
FILENAME: 505.000.020D

DRAWING NO.: A300

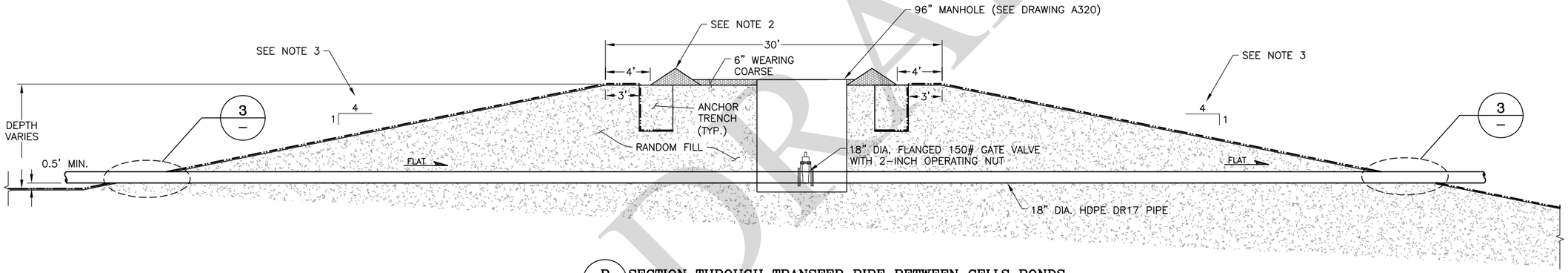
REVISION: 1



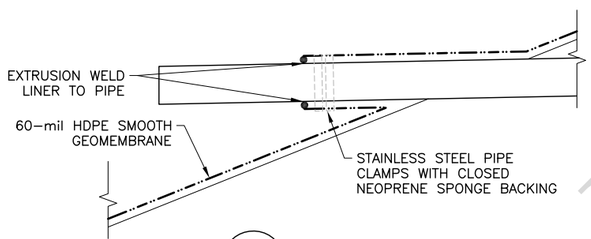
M A300 PERIMETER EMBANKMENT SECTION (TYP.)



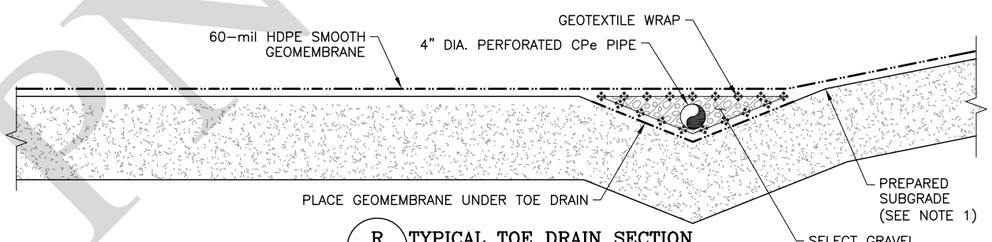
N A300 SHARED CELL EMBANKMENT SECTION (TYP.)



P A100 SECTION THROUGH TRANSFER PIPE BETWEEN CELLS PONDS



3 – PIPE BOOT DETAIL



R A400 TYPICAL TOE DRAIN SECTION

NOTES:

1. SEE EARTHWORKS TECHNICAL SPECIFICATIONS FOR PREPARING SURFACES TO RECEIVE GEOMEMBRANE.
2. SAFETY BERMS TO BE COMPACTED TO A FIRM, DENSE MASS PER THE EARTHWORKS TECHNICAL SPECIFICATIONS. PROVIDE A 1 FOOT WIDE BREAK IN THE INSIDE BERM EVERY 50 FEET FOR SURFACE WATER DRAINAGE.
3. 5H:1V INSIDE SLOPES IN CELL 9WWB-BSN-0001. 4H:1V INSIDE SLOPES IN ALL OTHER CELLS.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: TYPICAL EMBANKMENT SECTIONS AND DETAILS (2 OF 3)

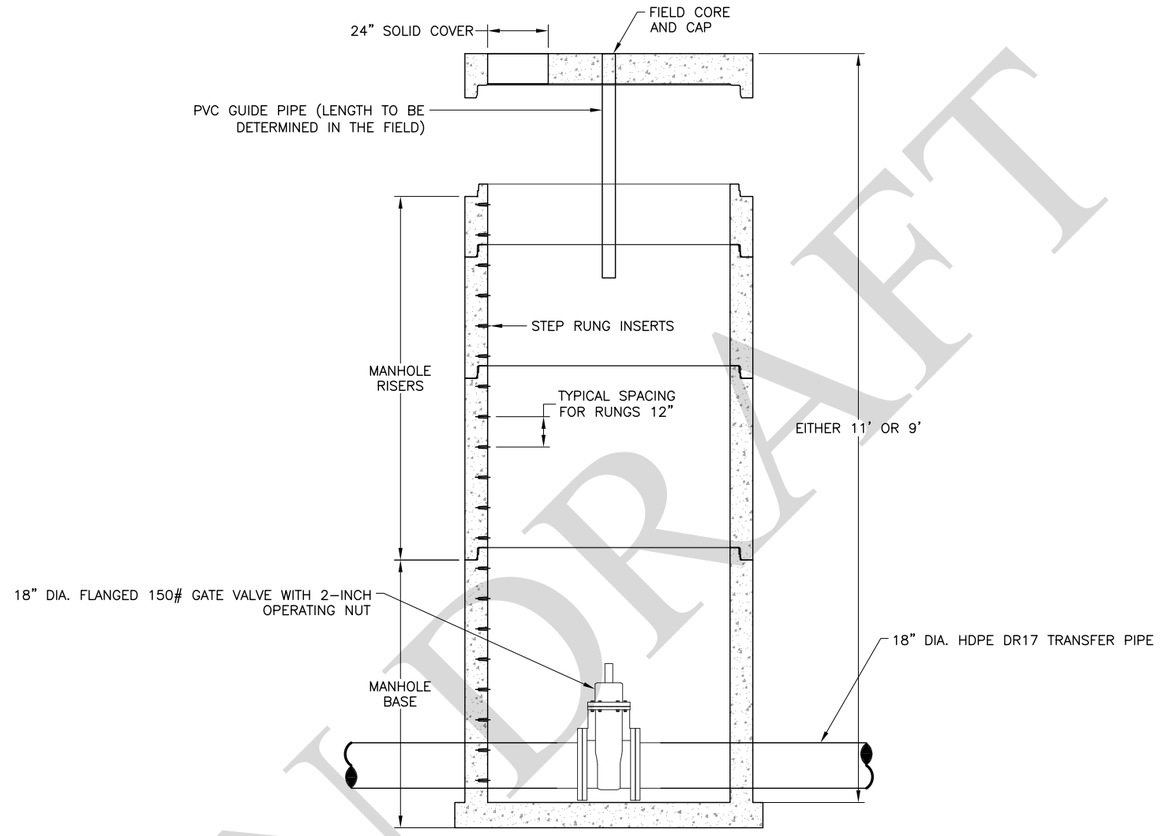
FILENAME: 505.000.006D

DRAWING NO.: A310

REVISION: 1

P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.006D.dwg-9/29/2022 1:22 PM

96" I.D. MANHOLE COMPONENTS



MANHOLE COMPONENTS CONFORM TO ASTM C-478 AND AASHTO M-199. FLAT TOPS AND BASE SLABS ARE DESIGNED FOR H-20 TRAFFIC TO 30' STACK HEIGHT.

THIS PRODUCT IS AN OVER SIZED LOAD AND REQUIRES ADVANCED NOTICE FOR SHIPPING.

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION - UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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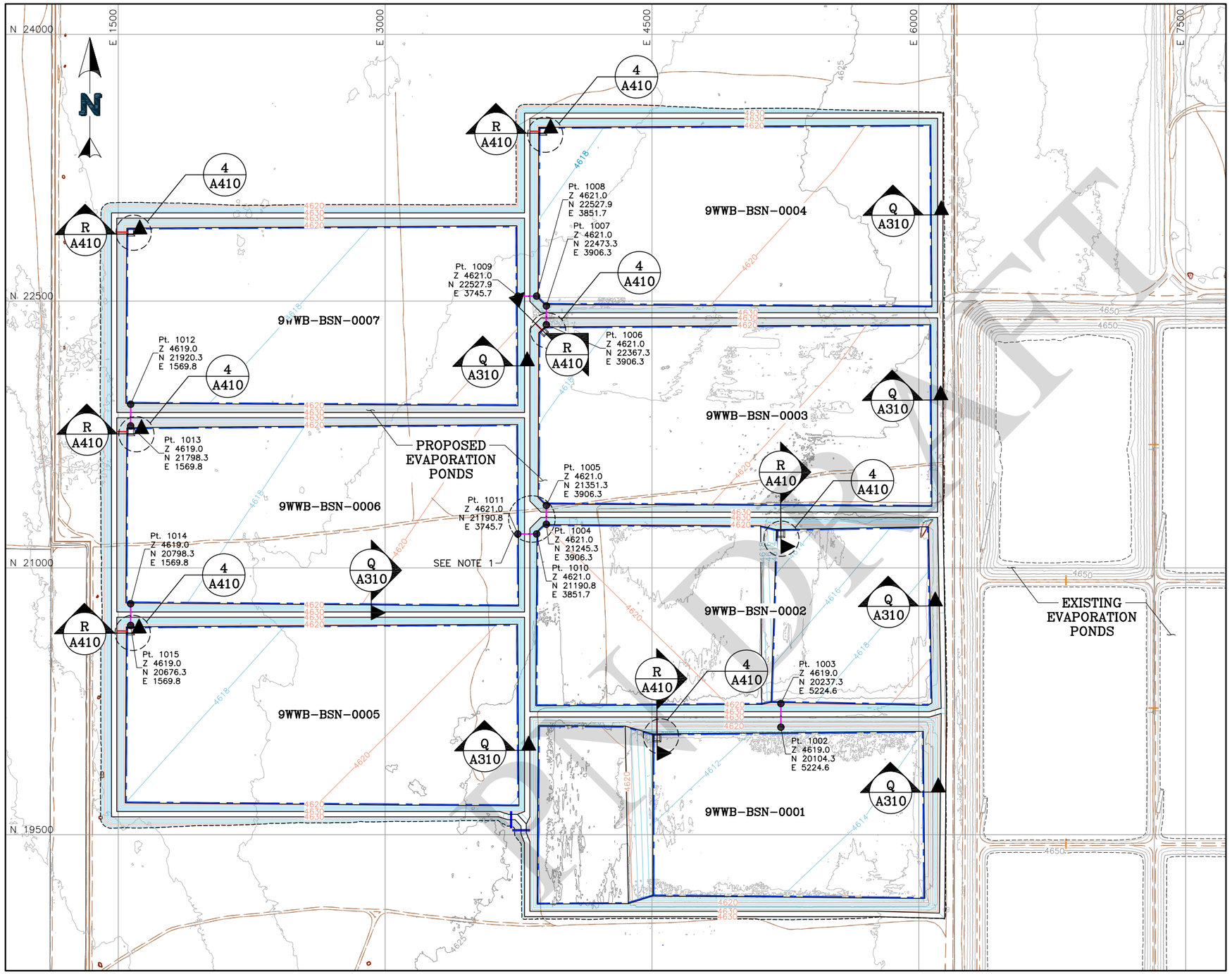
NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: TYPICAL EMBANKMENT SECTIONS AND DETAILS (3 OF 3)

FILENAME: 505.000.041D
DRAWING NO.: A320
REVISION: 1



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- EXISTING ROADS/TRAILS
- EXISTING STOCKPILES
- EXISTING PIPE
- PROPOSED 18" TRANSFER PIPE
- PROPOSED 4" DIA. PERFORATED CPeP TOE DRAIN
- PROPOSED 18" OBSERVATION SLEEVE PIPE
- 12 PROPOSED INFLUENT PIPE FROM PLANT
- 8 PROPOSED INFLUENT PIPE FROM MONITORING WELLS
- Pt. 1002 Z 4619.0 N 20194.0 E 6621.8 TRANSFER PIPE INVERT SETTING OUT POINTS

NOTES:

1. EXCAVATION OF A SMALL SUMP AROUND POINTS 1004, 1005, 1010, AND 1011 MAY BE REQUIRED TO ALLOW CLEARANCE FOR PIPE BOOT INSTALLATION AND WELDING.

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: POND PIPING PLAN

FILENAME: 505.000.010M

DRAWING NO.: A400

REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

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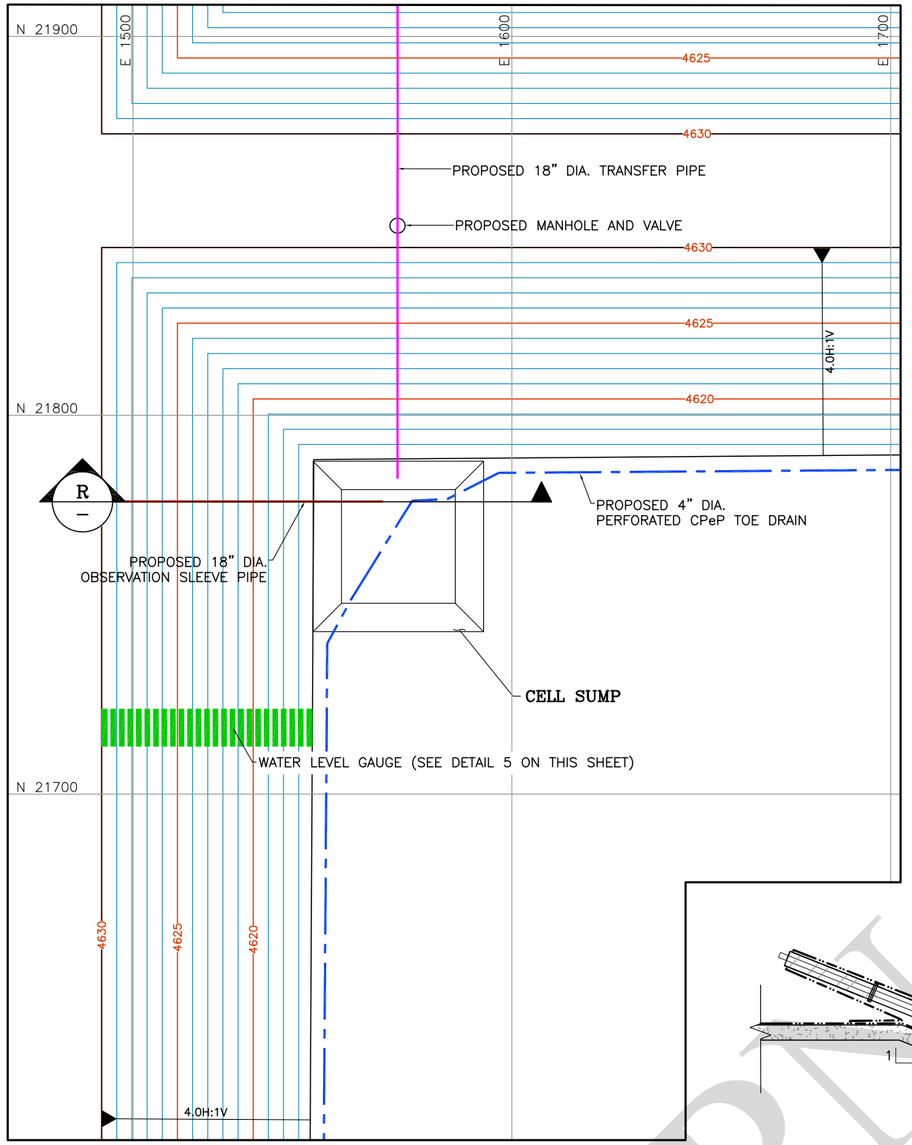
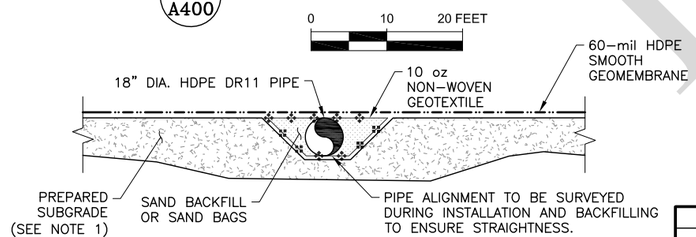


4 / A400 OBSERVATION SLEEVE PIPING AND SUMP (TYP.)



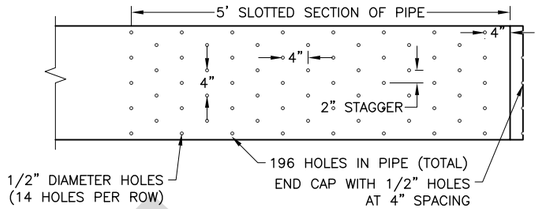
S / – OBSERVATION SLEEVE

LEGEND:

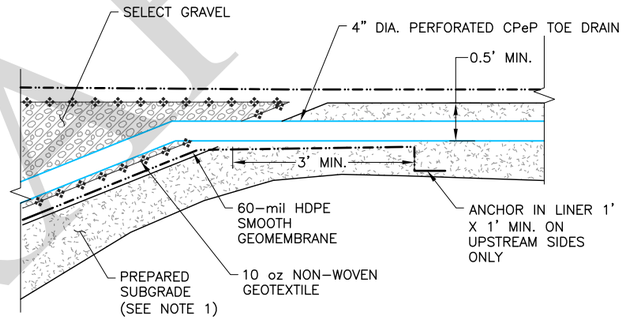
- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- EXISTING ROADS/TRAILS
- PROPOSED 18" DIA. TRANSFER PIPE
- PROPOSED 18" DIA. OBSERVATION SLEEVE PIPE
- PROPOSED 4" DIA. PERFORATED CPeP TOE DRAIN
- PROPOSED WATER LEVEL GAUGE

NOTES:

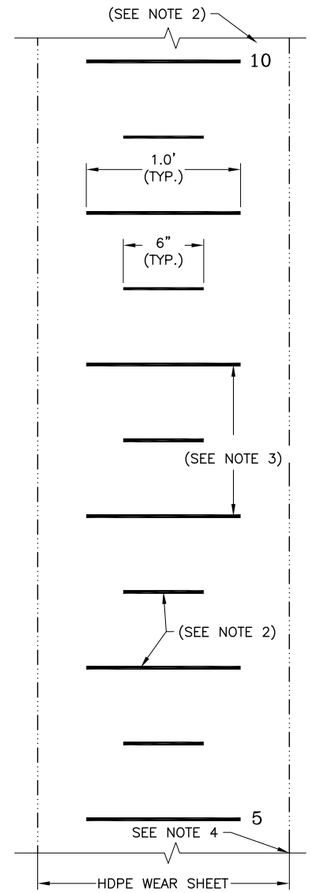
1. SEE EARTHWORKS MATERIALS AND CONSTRUCTION TECHNICAL SPECIFICATIONS FOR PREPARING SURFACES TO RECEIVE GEOMEMBRANE.
2. EXTRUDE INCREMENTS ONTO HDPE WEARSHEET AND APPLY FLUORESCENT COLOR PAINT TO ALL INCREMENTS AND LABEL EVERY 5 FEET.
3. 1.00' VERTICAL INCREMENTS CORRESPOND TO SLOPE LENGTHS OF 5.10' FOR A 5H:1V SLOPE AND 4.12' FOR A 4H:1V SLOPE (TO BE FIELD VERIFIED BY SURVEY).
4. LEAVE A GAP IN THE EXTRUSION WELD AT THE BOTTOM OF THE STAFF GAUGE TO ALLOW TRAPPED BRINE TO DRAIN.



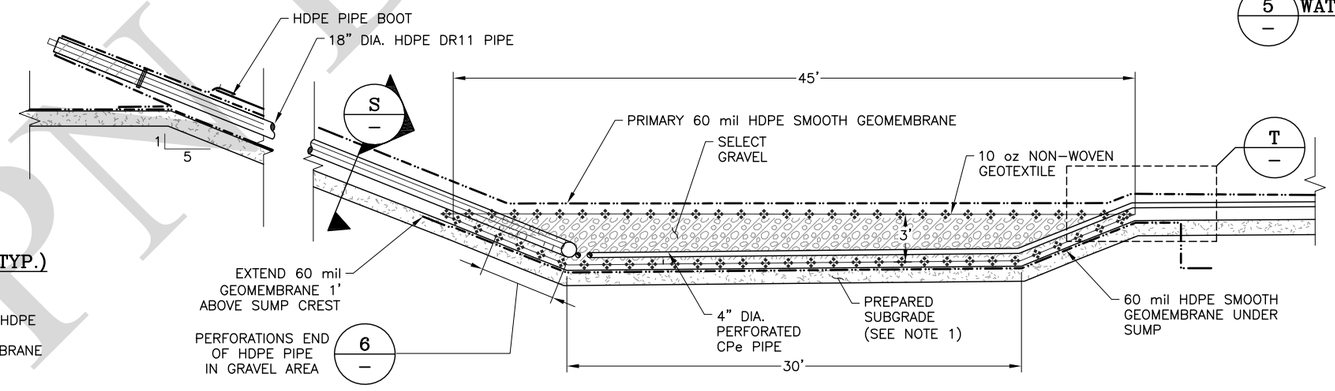
6 / – OBSERVATION SLEEVE PERFORATED PIPE DETAIL



T / – GEOSYNTHETICS DETAIL



5 / – WATER LEVEL GAUGE DETAIL



R / A400 R / – TYPICAL SECTION

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

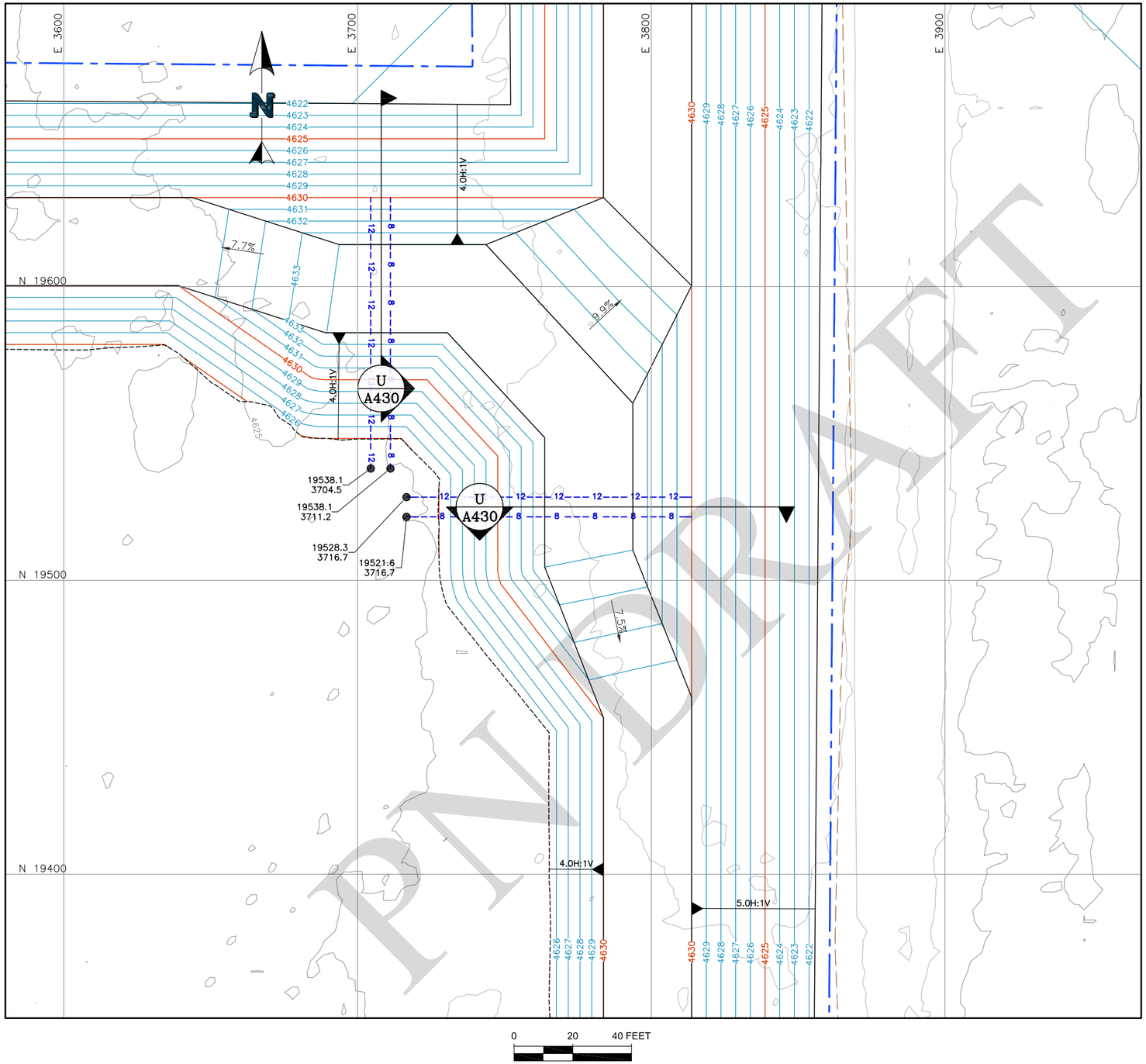
NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: OBSERVATION SLEEVE SECTIONS AND DETAILS

FILENAME: 505.000.024D
DRAWING NO.: A410
REVISION: 1



LEGEND:

- EXISTING GROUND CONTOURS
- PROPOSED GROUND CONTOURS
- EXISTING ROADS/TRAILS
- PROPOSED 4" DIA. PERFORATED CPeP TOE DRAIN
- 12 PROPOSED INFLUENT PIPE FROM PLANT
- 8 PROPOSED INFLUENT PIPE FROM MONITORING WELLS
- 19469.6 / 3683.0 TIE IN LOCATIONS OF INFLUENT PIPES

REFERENCE:

EXISTING GROUND TOPOGRAPHY PROVIDED TO NEWFIELDS FROM KIEWIT ON NOVEMBER 8, 2022 IN A FILE NAMED "222015DEM.dxf"

COORDINATES SHOWN ARE IPP PLANT COORDINATES.

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

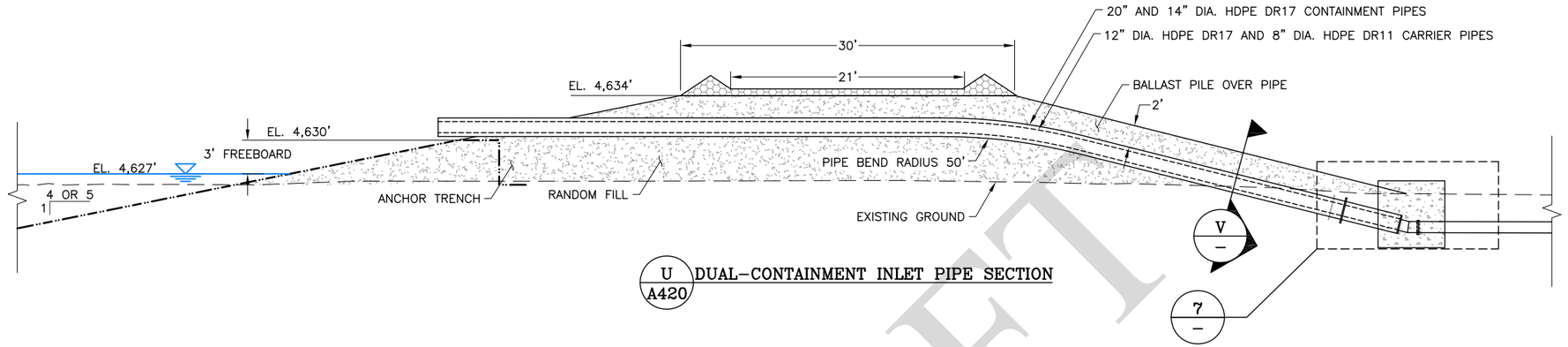
PROJECT: INTERMOUNTAIN POWER PLANT
RENEWED EVAPORATION PONDS

TITLE: POND INLET PLAN

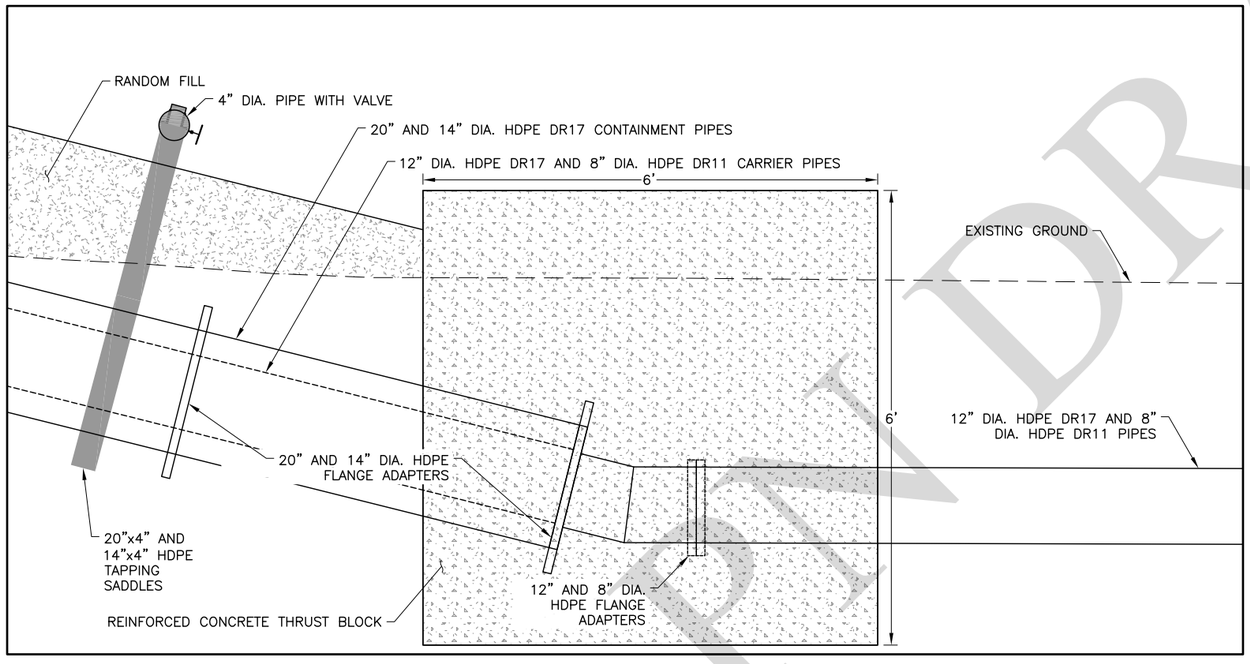
FILENAME: 505.000.038M
DRAWING NO.: A420
REVISION: 1

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

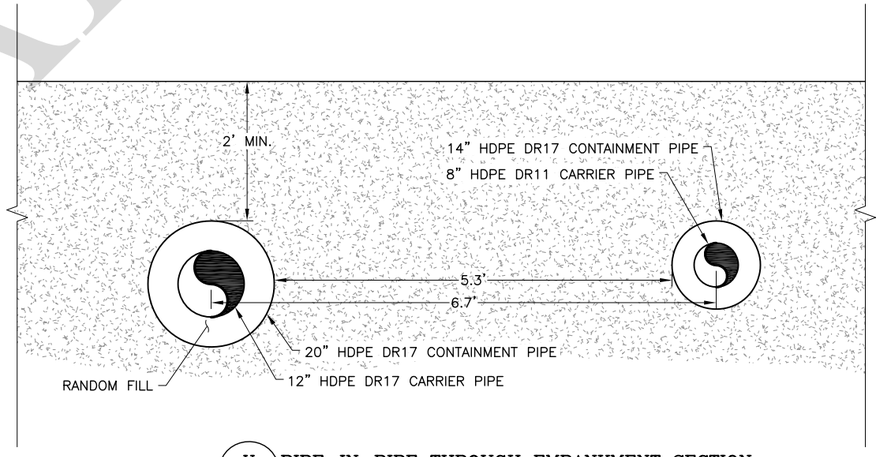
P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.038M.dwg-10/3/2022 12:07 PM



U / A420 DUAL-CONTAINMENT INLET PIPE SECTION



7 / – REINFORCED CONCRETE THRUST BLOCK DETAIL



V / – PIPE-IN-PIPE THROUGH EMBANKMENT SECTION

REGISTERED PROFESSIONAL ENGINEER
No.9517180-2202
KEVIN N. JENNINGS
12/09/2022
STATE OF UTAH

REV	DATE	DESCRIPTION	TECH	ENG
1	12/9/22	RE-ISSUED FOR CONSTRUCTION – UPDATED TOPOGRAPHY	JLW	KNJ
0	09/28/22	ISSUED FOR CONSTRUCTION	NB	KNJ

APPROVED BY: KNJ
CHECKED BY: JLW
DESIGNED BY: JLW
DRAWN BY: NB

DISCLAIMER

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NewFields

CLIENT: KIEWIT

PROJECT: INTERMOUNTAIN POWER PLANT RENEWED EVAPORATION PONDS

TITLE: POND INLET SECTION

FILENAME: 505.000.039D

DRAWING NO.: A430

REVISION: 1

P:\Projects\0505.000 IPP Renewed Evaporation Pond Engineering & Design\A-CAD\DWGS\505.000.039D.dwg-10/3/2022 12:01 PM

Ed Hickey

INTERMOUNTAIN POWER SERVICE CORPORATION

February 9, 2011

Walter L. Baker, Director
Utah Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Attention: Mr. Ed Hickey, Ground Water Quality Compliance Program

Dear Director Baker:

Sampling & Contingency Plan for Permit No. UGW270004

In accordance with requirement I.I.3 of the above referenced permit, IPSC is enclosing the Sampling and Analysis Plan to be appended as Appendix A to groundwater Permit No. UGW270004. Said permit was issued to the Intermountain Power Service Corporation on February 2, 2011.

If you have questions regarding this submittal, please contact Blaine Ipson at (435) 864-6484, or blaine-i@ipsc.com.

In accordance with requirement IV.G.4, 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 gather and evaluate 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Cordially,

Jon A. Finlinson
President and Chief Operations Officer
spc
RJC/BP:jmj

Enclosure: Appendix A - Sampling & Analysis Plan

cc: Brian Buck, JBR Environmental
Blaine Ipson, IPSC
Nick C. Kezman, LADWP

850 West Brush Wellman Road, Delta, Utah 84624 / Telephone: (435) 864-4414 / FAX: (435) 864-6670 / Fed. I.D. #87-0388573

APPENDIX A
To Permit UGW270004

Intermountain Power Service Corporation
Sampling and Contingency Plan

Introduction:

Intermountain Power Service Corporation (IPSC) has been granted a Ground Water Discharge Permit (Permit No. UGW270004) by the State of Utah. This permit details the construction, operation and monitoring requirements for the facilities at Intermountain Power that have the potential of releasing process water to the ground water. Monitoring of ground water is used to demonstrate that compliance and permit limits have not been exceeded.

The permit lists six (6) compliance wells with the applicable permit limits and three (3) non-compliance recovery wells in Table 1A. These wells are to be sampled a minimum of semi-annually.

Table 1B of the permit lists fifteen (15) perched wells to be measured semi-annually, and twenty-seven (27) perched wells to be measured annually.
Prior to the next permit renewal, monitoring wells RW-1 through RW-8 and process waters from ponds and basins will be sampled in a non-compliance capacity.

Permit condition I.E.3 requires wells at the Bottom Ash Basins to be sampled semi-annually. It is understood that samples obtained from recovery well WR-103 located at the base of Bottom Ash Basin 3 will satisfy this requirement.

The permit requires that a "Sampling and Contingency Plan" be prepared and followed for all of the required compliance and perched wells. This document will serve as the required "Sampling and Contingency Plan". IPSC will use data sheets and forms to document compliance with permit conditions. All permit documentation will be kept by the IPSC environmental group. Example forms are attached and will be modified by IPSC as needed.

Sampling Plan for Compliance Wells:

IPSC will sample the compliance wells listed in Table 1A of IPSC's Groundwater Discharge Permit UGW270004 (permit) in accordance with the following procedure. The six (6) compliance wells will be sampled a minimum of two times per year throughout the term of this permit. The sampling and monitoring will occur as follows:

1. Clean and calibrate the sampling equipment and field instruments prior to use.

2. Visually inspect the exterior of the wells for any damage since they were last sampled.

3. Unlock the monitoring well cover on the steel casing (each well is locked to prevent unauthorized access). Prior to sampling, the vented plastic cap on the monitoring well is removed and the PVC casing is visually inspected for damage or any sign of foreign substances.

4. Measure water level in the monitor well to the nearest 0.01 foot measured from the reference point at the top of the well casing. This is to be done prior to removal of any water from the well bore.

5. Ensure that the pump and discharge hose have been cleaned to prevent sample contamination.

6. Lower the pump to the appropriate level for the monitoring well. This will usually be near the top portion of the monitoring well screen.

7. Begin pumping and purge the monitoring well until the conductivity of the pumped water becomes stable. Stability will be defined as less than a five percent change in the conductivity between parameter sets. Parameters would be taken at approximately five minute intervals while pumping the well. If stability has not been achieved and at least one volume of the well has been pumped[1], the sample will be taken and data will be recorded. This is to avoid formation water disruption.

8. Take the monitoring well sample. For metal analysis, IPSC may, at its discretion, filter the water. Run a field analysis on the temperature, pH, and specific conductance of the sample. Records should be made during the field analysis which include the date, location, time of sampling or measurements; the individual(s) who performed the sampling or measurements; the analytical techniques or methods used; and the results. These records, along with the calibration and other required records will be kept on file with the environmental group.

9. The sample bottle will generally have field data such as date, time, location, and sampling person's initials written on it. This field data plus pH, temperature, and conductivity will also be recorded in a field journal and/or report forms.

10. The well pump is then removed, and decontaminated with deionized water during withdrawal in preparation for the next well. The caps and locks are put back on the

[1] As per discussion with Joe Rockwell of the Utah Division of Water Quality.

monitoring well casings.

11. The samples are then stored in a refrigerator located in a secured room until they are sent to the laboratory. The standard chain of custody format used by the contract laboratory will be used.

12. Laboratory analysis is completed by a State certified contract laboratory.

13. The required laboratory analyses on wells in compliance with permit limits include total dissolved solids and boron. If any samples from the monitoring wells exceed the permit limits, the following ions are also required to be analyzed by a laboratory: chloride, sulfate, alkalinity, sodium, magnesium, potassium, and calcium. Water sample analysis will be conducted by the laboratory according to test procedures specified under UCA R317-6-6.3L.

14. If any of the permit limits are exceeded after laboratory analysis, the applicable Sampling and Contingency Plan components are to be implemented to determine if there is a pond leaking and the source of it.

Sampling Plan for Non-Compliance Wells

The three (3) non-compliance, recovery wells WR-101, WR-102, and WR-103 will be sampled on a semi-annual basis. A water sample will be collected directly from the dedicated, sampling port that exists in each respective well-house located near each wellhead. As detailed in IPSC's May 2010 "Ground Water Recovery Well Installation Report Related to Bottom Ash Basins" report, each of the three wells is constructed such that individual water samples may be collected from each respective well prior to pumping to the Recycling Basin.

During March 2009, IPSC installed a 4-inch diameter, *STA-RITE* 230 V, 1 HP, submersible pump (with *Pentek* motor) within each of the three ground water recovery wells WR-101, WR-102, and WR-103. Down-hole, pressure transducers were also installed within each recovery well, to provide a means by which water levels can be monitored and used to control the operation of the submersible pumps. Each pressure transducer was installed within a 1.25-inch diameter, PVC drop-tube, equipped with a 10-ft. screened interval.

Each submersible pump and pressure transducer system is electronically connected to a dedicated, supervisory control and data acquisition (SCADA) system located within a nearby above-grade building. Each SCADA control building is located in relatively close proximity to its respective wellhead, is temperature-controlled, and can be remotely-monitored by IPSC personnel.

Each control building is equipped with electrical relays, variable-frequency drive (VFD) and Momentum™ controls, an in-line, totalizing water flow meter, conductivity meter, manual flow-

control, ball-valve, and water sampling port. Each independent SCADA system permits continuous or routine monitoring and recording of data.

The intent of collecting water samples for quantitative analysis at each of the three recovery wells is to generate real-time data reflective of continuous ground water recovery conditions and ground water quality at each point of generation. Since the three recovery wells are in continuous operation, each well is considered appropriately and adequately purged and ready for collection of individual water samples at each dedicated, sampling port located within each respective well-house. The sampling will occur as follows:

1. Field parameters of temperature, pH, and conductivity will be measured/recorded at the time of water sample collection. The pump house instrument readings will also be recorded, including flow rate and conductivity.

2. Records should be made during the field analysis which include the date, location, time of sampling or measurements; the individual(s) who performed the sampling or measurements; the analytical techniques or methods used; and the results. These records, along the calibration and other required records will be kept on file with the environmental group.

3. The sample bottle will generally have field data such as date, time, location, pH, temperature, conductivity, and sampling person's initials written on it.

4. The samples are then stored in a refrigerator located in a secured room until they are sent to the laboratory. The standard chain of custody format used by the contract laboratory will be used.

5. Laboratory analysis is completed by a State certified contract laboratory.

6. The non-compliance wells will be analyzed for total dissolved solids, boron, chloride, sulfate, alkalinity, sodium, magnesium, potassium, and calcium. Water sample analysis will be conducted by the laboratory according to test procedures specified under UCA R317-6-6.3L.

Sampling Plan for Perched Wells:

IPSC will monitor the perched wells listed in Table 1B of IPSC's permit in accordance with the following procedure. These perched wells will be measured following the schedule outlined in Table 1B (i.e., either annually or semi-annually) throughout the term of this permit. These perched wells were all constructed with the bottom part of the screen being partially inset into the clay layer and with a sump below the screen. The purpose of the sump is to collect condensation and water of meteoric origin, and any dirt or material so that the screen does not plug off. The permit recognizes the nature and purposes of the sumps. Accordingly, the permit requires IPSC to monitor the fluid levels "at or above the screen level". Eventually the sumps

may accumulate enough material that they need to be cleaned out, which IPSC will do if needed. The perched well monitoring procedure will occur as follows.

1. Conduct a visual inspection of the exterior of the perched wells for any damage since they were last monitored

2. Unlock the perched well cover on the steel casing (each well is locked to prevent unauthorized access). Prior to monitoring, the vented plastic cap on the well is removed and the PVC casing is visually inspected for damage or any sign of foreign substances.

3. Clean the probe to prevent contamination from previous well sampling from entering the perched well.

4. The level of fluid (if present at or above the screen) is then measured from the reference point on the well casing and recorded in the field. The records are kept on file with the environmental group.

5. If fluid is measured at or above the screen level, the applicable Sampling and Contingency Plan for perched well components will then be implemented.

6. The caps and locks are put back on the perched well casings. It is a common matter of practice to bail out any fluids in the perched wells after measuring and sampling are complete.

Contingency Plan for Monitoring Wells:

IPSC will use monitoring wells for ground water compliance. IPSC will sample the monitoring wells semi-annually, once in the first six months and once in the second six months of the calendar year. The samples are sent to a State certified laboratory for analysis. Table 1A of IPSC's Ground Water Discharge Permit UGW170004 (permit) lists permit limits for each of the compliance wells. If not already implemented, the following Contingency Plan would go into effect should any parameter from any of the monitoring wells exceed the applicable permit limit.

1. Within 30 days upon receipt of any analysis showing a probable exceedance of permit limits, a written letter notifying the Executive Secretary of the probable exceedance will be sent in accordance with permit condition I.G.1.a. A monthly sampling schedule will be initiated for a period of two months or until the actual status can be determined in accordance with permit condition I.G.1.b.

2. A non-compliance condition exists when two consecutive samples exceed the permit limits. Upon determining that a non-compliance condition exists, the State shall be notified within 24 hours and with a written notification within 5 days in accordance with

permit condition I.G.2.c. Monthly sampling will continue and a Source Assessment and Compliance Schedule will be submitted in accordance to permit condition I.G.2.c and the corrective action portion of the contingency plan will be initiated.

Investigative and Corrective Action portion of the Contingency Plan for Monitoring Wells:
The following section of the contingency plan addresses the action IPSC will take to restore and maintain the groundwater quality in a manner similar to R317-6-6.17A(3). An exceedance of the permit limits set for the monitoring wells may be an indicator that a pond is leaking. To correct the problem IPSC will generally first focus on the ponds as the source of the water causing the monitoring well to exceed its permit limits. One likely cause may be the failure of the pond liners caused by tears in the liners. To determine where the tears in the liners are, existing perched wells around the ponds will be inspected. These perched wells are normally dry at or above the well screen level. If there is a leak in the liner, water will likely flow into these perched wells. Since these wells are more closely spaced around the ponds, they will help locate the most probable location for the liner tear. Should a monitoring well exceed its permit limit(s), the following steps will be taken.

1. The perched wells in the area will be checked to determine where to start looking for a possible pond liner tear.

2. An inspection of the most likely pond to be leaking will be done. Any liner tear found at or above the water line will be repaired.

3. Monthly sampling will then continue until the monitoring well is below its permit limit.

4. If the parameter exceeding the performance standard does not decline or no tears are found, other ponds in their order of probability of leaking may be inspected and repaired.

5. If no tears are found, the most likely leaking pond will be lowered in level as much as practical to look for liner tears below the present water line. Once the liner tears are found and repaired, the monitoring well will be sampled monthly until it returns to below its permit limit.

6. In the case where no tears are found by lowering the level of the most likely pond to be leaking another course of action will need to be taken. Lowering the water level in a 30 acre pond is very slow and costly. For these reasons, it is important to make sure the right pond is being lowered. Other options or methods such as resistivity and conductance might be used to determine the location of the leak. These methods would be reviewed with the State of Utah Division of Water Quality. A course of action then would be proposed to investigate and locate the source of the leak in the pond.

Contingency Plan for Perched Wells:

IPSC uses perched wells for verifying compliance with Best Available Technology (BAT). IPSC will monitor the fluid level in the perched wells a minimum frequency of semi-annually, once in the first six months and once in the second six months of the calendar year. Table 1B of IPSC's permit lists the perched wells that are part of the monitoring program. If not already implemented, the following Contingency Plan would go into effect should any fluids appear at or above the screen in one or more of these perched wells.

1. If fluids accumulate at or above the screen level in any of the monitored perched wells, a sample of that fluid would be analyzed to determine the source of the fluid (permit condition I.G.3.b). If it has a chemistry similar to meteoric origin for total dissolved solids and boron, no further action will need to be taken since it is not from the ponds. If the chemistry is similar to the pond water, it may be an indication that the fluid is from the ponds and the Contingency Plan components will be implemented to determine the source of the leak. After the sample has been taken from the perched well, the remaining fluids in the well will be bailed out.

2. If analysis of accumulated fluids show a possible pond water release, IPSC would be in a "Probable Out of Compliance for Best Available Technology (BAT)" status. Accordingly, IPSC will notify the Executive Secretary in writing within 30 days upon receipt of the data in accordance with permit condition I.G.3.a.

Investigative and Corrective Action portion of the Contingency Plan for Perched Wells:
The following section of the contingency plan addresses the action IPSC will take to restore and maintain the groundwater quality in a manner similar to R317-6-6.17A(3). If samples show total dissolved solids and boron at levels substantially higher than the meteoric levels, it is possible that a pond is leaking. The following steps will be taken to determine if a pond is leaking.

1. Conduct a visual inspection of the exterior of the perched well casing above ground for any indication of damage to the well or contamination from the surface.

2. If no damage to the well can be seen, IPSC will then focus on the ponds as the source of the water causing the perched well to have water in it at or above the screen level. The most likely cause would be the failure of the pond liners caused by tears in the liners.

3. Should a perched well have process water at or above the screen, the pond liner on the pond(s) adjacent to the perched well in the order of probability of leaking will be carefully inspected and any tears found will be repaired.

4. If no tears are found, the pond suspected to be leaking will be lowered in level as much as practical to look for liner tears below the present water line and any tears found repaired.

5. Once the liner tears are found and repaired, the perched well(s) will be measured monthly until fluids no longer are at or above its screen.

6. In the case where no tears are found by lowering the level of the most likely pond to be leaking, another course of action will need to be taken. Lowering the water level in a 30 to 50 acre pond is very slow and costly. For these reasons, it is important to make sure the right pond is being lowered. Other options or methods such as resistivity and conductance might be used to determine the location of the leak. These methods would be reviewed with the State of Utah Division of Water Quality. A course of action then would be proposed to investigate and locate the source of the leak in the pond.

Discussion on QA/QC of Laboratories:

IPSC will not conduct any of the required laboratory analysis. However, IPSC does conduct the required field analysis as outlined above in the Sampling Plan. IPSC will only use State certified laboratories for the required laboratory analysis. Each of these laboratories are required by the State as part of the certification process to have and follow QA/QC plans. Laboratories used by IPSC will be informed that these analyses are for compliance with the State's groundwater protection rules, and will be required to use the appropriate drinking water test methods and MDL's.

Intermountain Power Service Corporation's
Best Management Practices Plan

Introduction:

Intermountain Power Service Corporation (IPSC) has been granted a Ground Water Discharge Permit (Permit No. UGW270004) by the State of Utah. This permit details the construction, operation, and monitoring requirements for the facilities at Intermountain Power that have the potential of releasing process fluids to the ground water. This permit specifies that Best Available Technology (BAT) be used in the construction of all facilities, and that facilities be operated according to Best Management Practices (BMP).

Table 2 of IPSC's permit lists seven (7) categories of facilities that have BAT associated with them. This document addresses the facilities which require a BMP plan. These facilities are the Settling Basin, Coal Pile Runoff Basin, Bottom Ash Ponds, Waste Water Holding Basin, Evaporation Ponds, Recycle Basin, and Process Water Pipelines to ponds. The Settling Basin and Coal Pile Runoff Basin are clay-lined ponds. The Bottom Ash Ponds, Waste Water Holding Basin, Evaporation Ponds, and Recycle Basin are single-lined with 80-mil HDPE liners. Some of the process pipelines to the ponds are above-ground, some are below-ground.

This BMP describes the Inspection, Spill Reporting, Record Keeping, and Leak Detection/Repair procedures used by IPSC. IPSC will use data sheets and forms to document compliance with permit conditions. All permit documentation will be kept by the IPSC environmental group. Example forms are attached and will be modified by IPSC as needed.

Inspections:

Each of the ponds are inspected at least once during each calendar year. The inspections consist of observing pond-side embankments for unusual or excessive slumps; observing areas for abnormal changes in the rip-rap configuration in the case of the Settling Basin; inspecting the liners for tears in the cases of the Bottom Ash Ponds, Waste Water Holding Basin, Evaporation Ponds, the Recycle Basin; and monitoring the level of fluids in each pond. If any excessive rip-rap problems or tears in the liners are found during the course of the inspections, they are repaired as soon as possible.

The process water pipelines are inspected at least once during each calendar year. As noted above, some of the process water pipelines conveying process water to the ponds are above-

ground and some are below-ground. The above-ground pipelines are inspected by walking or driving alongside the pipelines to check for visible leaks. The ground located underneath the above-ground pipelines is checked for signs of moisture and erosion. The above-ground pipelines are also inspected visually for any external signs of damage. The route of the pipelines located below the ground are inspected by looking for signs of wet soil. Any unusually wet areas not caused by rain or snow are excavated to inspect for broken pipelines. Leaks or breaks in the pipelines which are found are repaired as soon as possible.

It should be noted that while the formal inspections are done on an annual basis, personnel from IPSC are often passing by areas where the ponds and pipelines are located, and should report any leaks or problems which they may see with any of the ponds or process water pipelines.

Spill Reporting:

Spills which may pollute the ground water or may endanger public health shall be reported to the State as soon as possible, but no later than twenty-four (24) hours from the time IPSC first became aware of the spill. The report shall be made to the Utah Division of Water quality, Ground Water Protection Section at (801) 538-6146 during normal business hours (8:00 am - 5:00 pm) on weekdays; and to the Utah Department of Environmental Quality 24 hour number during all other times at (801) 536-4123.

A written report shall also be submitted to the Executive Secretary within five (5) days of the time IPSC becomes aware of the circumstances. The written report shall contain a description of the spill and its cause; the period of the spill, including exact dates and times; the estimated time the spill is expected to continue if it has not been corrected; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the spill. The reports shall be submitted to the Division of Water Quality at the address contained in II.D of IPSC's permit.

Recordkeeping:

IPSC shall retain records which document compliance with the elements required in the BMP for a minimum of three (3) years. This period may be extended by request of the Executive Secretary of the Division of Water Quality at any time.

Leak Detection and Repair Plan:

As noted above, the Settling Basin, Coal Pile Runoff Basin, Bottom Ash Ponds, Waste Water Holding Basin, Evaporation Ponds, Recycle Basin and process water pipelines to the ponds are inspected at least once each calendar year. In addition, some of the ponds have perched wells around them which serve as the leak detection system for the pond liners. The permit requires

some of the perched wells to be monitored semi-annually. The sampling of these perched wells is covered in Appendix A of this permit as the Sampling and Contingency Plan.

Pond Liners

The methodology of inspecting the ponds includes marking and repairing any tears or holes in the liner at or above the water level as promptly as possible after inspection. All tears or holes in the liner are repaired, but priority is generally given to those that are below the high water line. The location of the tears will be logged by the quadrant of the pond where they are located (ie. northen, southern, eastern, or western).

The Sampling and Contingency Plan in Appendix A of this permit also states that if process water is measured at or above the screen level of the monitored perched wells, the pond(s) adjacent to the perched well will be inspected for tears as soon as possible. The provisions of the Sampling and Contingency Plan will be followed in this case.

IPSC generally brings in outside contractors to perform this work. IPSC has equipment to repair pond liners and on occasion does these repairs in-house. The liners are generally repaired utilizing a fusion welder to apply fusion welds or patches to any tears. This is the method that has been used to repair tears in the liners since the ponds were constructed.

Pipelines

As noted above, the pipelines are inspected annually for leaks. The inspection program serves as the leak detection. Any leaks found are promptly repaired.