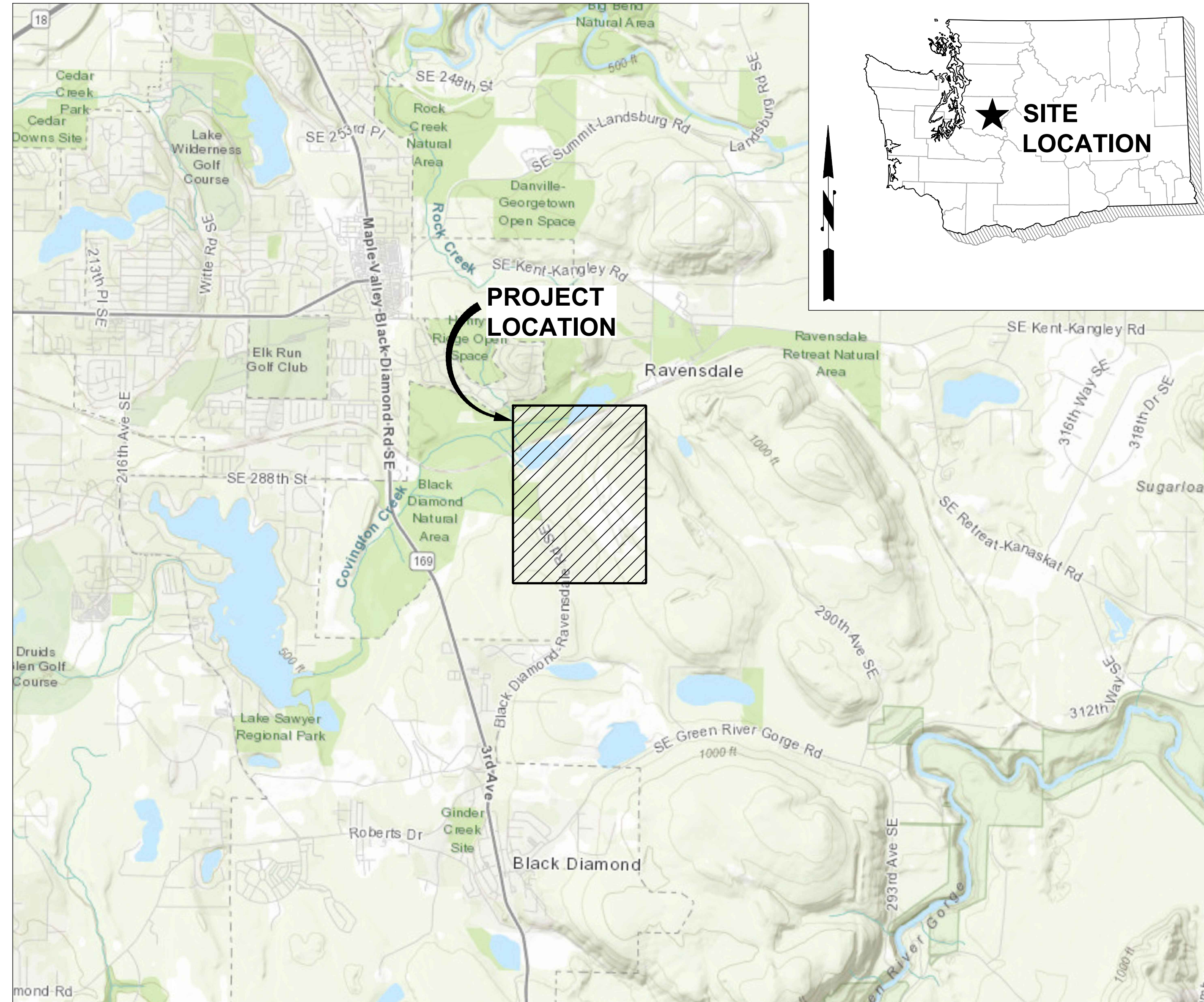


RESERVE SILICA RAVENSDALE FACILITY GRADING PERMIT NO. GRDE15-0011

KING COUNTY, WASHINGTON



VICINITY MAP

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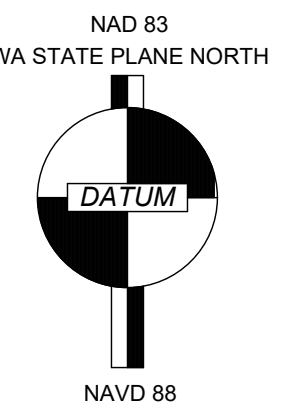
DRAWING SHEET INDEX		
SHEET NO.	TITLE	DESCRIPTION
1	G0.01	COVER SHEET
2	G0.02	GENERAL NOTES, LEGEND AND ABBREVIATIONS
3	G1.00	EXISTING TOPOGRAPHY AND KEY MAP
4	G1.01	ZONING AND CRITICAL AREAS
5	TEC1.01	EROSION AND SEDIMENT CONTROL PLAN - FILL SITE
6	TEC1.02	EROSION AND SEDIMENT CONTROL PLAN - PLANT SITE
7	TEC5.01	EROSION AND SEDIMENT CONTROL DETAILS
8	C1.01	GRADING PLAN - FILL SITE
9	C1.02	GRADING PLAN - PLANT SITE
10	C2.01	PROFILES AND SECTIONS - AREAS 5 AND 6
11	C2.02	PROFILES AND SECTIONS - AREAS 1 THROUGH 4
12	C2.03	PROFILES AND SECTIONS - PLANT SITE
13	C3.01	AREA 6 STORMWATER POND
14	C3.02	AREA 5 STORMWATER POND
15	C3.03	STORMWATER PIPE PROFILES
16	C4.01	DRAINAGE DETAILS 1
17	C4.02	DRAINAGE DETAILS 2
18	L1.01	RECLAMATION PLANTING PLAN - FILL SITE
19	L1.02	RECLAMATION PLANTING PLAN - PLANT SITE

OWNER:

RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA, 98051
PHONE:
EMAIL:
CONTACT:

ENGINEER:

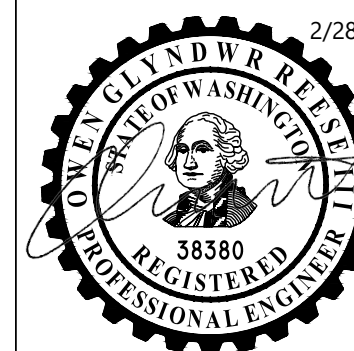
HERRERA ENVIRONMENTAL CONSULTANTS
2200 SIXTH AVENUE, SUITE 1100
SEATTLE, WA 98121
PHONE: (206) 441-9080
EMAIL: oreese@herrerainc.com
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RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051



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D. WERNER	D. WERNER
DESIGNED:	DRAWN:
	C. MARSTON
DESIGNED:	CHECKED:
	O. REESE
SCALE:	APPROVED:
1"=1/2 MILE	O. REESE

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

COVER SHEET

DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
G0.01	
SHEET NO:	OF
1	19

ABBREVIATIONS

APPROX	APPROXIMATE
AVG	AVERAGE
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICE
CB	CATCH BASIN
CG	CLEAR AND GRUB
C/L, CL	CENTERLINE
CONC	CONCRETE
CONST	CONSTRUCT, CONSTRUCTION
CP	CONTROL POINT
CPSSP	CORRUGATED POLYETHYLENE STORM SEWER PIPE
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
DIA	DIAMETER
E	EAST, EASTING
EA	EACH
ECA	ENVIRONMENTAL CRITICAL AREA
EG	EXISTING GROUND
EL	ELEVATION
EX	EXISTING
FG	FINISHED GROUND
FT	FEET/FOOT
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HT	HEIGHT
IE	INVERT ELEVATION
IN	INCH/INCHES
KC	KING COUNTY
KCRS	KING COUNTY ROAD STANDARDS
KSWDM	KING COUNTY SURFACE WATER DESIGN MANUAL
L	LENGTH
LDA	LOWER DISPOSAL AREA
LF	LINEAL FOOT/FEET
LT	LEFT
MAX	MAXIMUM
MH	MAINTENANCE HOLE/MANHOLE
MIN	MINIMUM
N	NORTH/NORTHING
NA	NOT APPLICABLE
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RD	ROAD
REF	REFERENCE
RT	RIGHT
S	SOUTH, SLOPE
SD	STORM DRAIN
SPEC	SPECIFICATION
ST	STREET
STA	STATION
STD	STANDARD
TEC	TEMPORARY EROSION CONTROL
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TYP	TYPICAL
W	WEST, WATER
WSE	WATER SURFACE ELEVATION

LEGEND - EXISTING

PARCEL LINE

APPROX BPA EASEMENT

FILL AREA BOUNDARY

TIRE WASH

CONSTRUCTION SEQUENCE

1.

PRE-CONSTRUCTION MEETING.

2.

STAKE CLEARING LIMITS.

3.

INSTALL CATCH BASIN PROTECTION AND FLOW CONTROL BMP AREA PROTECTION AS REQUIRED.

4.

INSTALL PERIMETER PROTECTION (E.G., BRUSH BARRIER, ETC.).

5.

CONSTRUCT AREA 5 AND 6 PONDS (WILL FUNCTION AS SEDIMENT PONDS DURING CONSTRUCTION).

6.

CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT. CONSTRUCT SWPPS CONTROLS IN ANTICIPATION OF SCHEDULED CONSTRUCTION ACTIVITY.

7.

MAINTAIN EROSION CONTROL AND SWPPS MEASURES IN ACCORDANCE WITH KING COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

8.

RELOCATE EROSION CONTROL AND SWPPS MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL, AND POLLUTANT PROTECTION IS ALWAYS IN ACCORDANCE WITH THE KING COUNTY CONSTRUCTION STORMWATER POLLUTION PREVENTION STANDARDS.

9.

COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, OR EQUIVALENT.

10.

STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.

11.

SEED ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

12.

UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE.

LEGEND - PROPOSED

BRUSH BARRIER

CLEAR AND GRUB LIMITS

ESC DITCH PER KCSWDM D2.1.6.4

GUIDE POSTS

DITCH

SILT FENCE

WATER SURFACE ELEVATION

ACCESS RAMP

CONSTRUCTION STAGING AREA

MAINTENANCE ROAD

ROCK PROTECTION

SEDIMENT POND

CONSTRUCTION ACCESS

GENERAL NOTES

1.

ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, THE KING COUNTY CODE (KCC), THE KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS), WASHINGTON STATE DOT (WSDOT) STANDARD SPECIFICATIONS AND THE CONDITIONS OF PRELIMINARY APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO KING COUNTY.

2.

THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THE KING COUNTY DEPARTMENT OF LOCAL SERVICES, PERMITTING DIVISION (DLS-PERMITTING) ENGINEERING REVIEW CHECKLIST. SOME ELEMENTS MAY HAVE BEEN OVERLOOKED OR MISSED BY THE DLS-PERMITTING PLAN REVIEWER. ANY VARIANCE FROM ADOPTED STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY KING COUNTY PRIOR TO CONSTRUCTION.

3.

APPROVAL OF THIS ROAD, GRADING, PARKING AND DRAINAGE PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G. DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.)

4.

BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE DLS-PERMITTING'S DEVELOPMENT INSPECTOR, THE APPLICANT, AND THE APPLICANT'S CONSTRUCTION REPRESENTATIVE.

5.

A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

6.

GRADING ACTIVITIES (SITE ALTERATION) ARE LIMITED TO THE HOURS OF 7 A.M. TO 7 P.M. MONDAY THROUGH SATURDAY AND 10 A.M. TO 5 P.M. ON SUNDAY, UNLESS OTHERWISE APPROVED WITH A WRITTEN DECISION BY THE REVIEWING AGENCY.

7.

IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS NECESSARY BEFORE INITIATING OFF-SITE WORK. EASEMENTS REQUIRE REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

8.

FRANCHISED UTILITIES OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS AN APPROVED SET OF PLANS THAT MEET ALL REQUIREMENTS OF KCRDCS CHAPTER 8 ARE SUBMITTED TO THE DLS-PERMITTING'S DEVELOPMENT INSPECTOR THREE DAYS PRIOR TO CONSTRUCTION.

9.

DATUM SHALL BE NAVD88 UNLESS OTHERWISE APPROVED BY DLS-PERMITTING.

10.

DEWATERING SYSTEM (UNDERDRAIN) CONSTRUCTION SHALL BE WITHIN A RIGHT-OF-WAY OR APPROPRIATE DRAINAGE EASEMENT, BUT NOT UNDERNEATH THE ROADWAY SECTION. ALL UNDERDRAIN SYSTEMS MUST BE CONSTRUCTED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS.

11.

ALL UTILITY TRENCHES AND ROADWAY SUBGRADE SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY PER WSDOT STANDARD SPECIFICATIONS 2-03.3(14)D, METHOD C.

12.

OPEN CUTTING OF EXISTING ROADWAYS FOR NON-FRANCHISED UTILITY OR STORM WORK IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY DLS-PERMITTING AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH KCRDCS.

13.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY. WORK IN RIGHT-OF-WAY IS NOT AUTHORIZED UNTIL A TRAFFIC CONTROL PLAN IS APPROVED BY KING COUNTY.

DETAIL (PROFILE)

SCALE: NTS

1

C3.01

REFERENCE NUMBER

SHEET WHERE REFERENCE APPEARS

1 (A)

C3.01

REFERENCE NUMBER (LETTER)

SHEET WHERE REFERENCE APPEARS

A

C2.01

REFERENCE LETTER

SHEET WHERE REFERENCE APPEARS

A

A

SECTION SHOWN ON SAME SHEET

" - " INDICATES THAT THE DETAIL IS SHOWN ON THE SAME SHEET OR IS A TYPICAL DETAIL

"VAR" SPECIFIES THAT DETAIL/SECTION WAS TAKEN FROM VARIOUS DRAWINGS

DETAIL/SECTION REFERENCING

ISSUED FOR COUNTY REVIEW

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BY

APP'D

DATE

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28131 RAVENSDALE - BLACK DIAMOND RD

RAVENSDALE, WA 98051

2/28/25

DESIGNED: D. WERNER

DESIGNED:

DESIGNED:

SCALE: N/A

DRAWN: D.WERNER

C. MARSTON

O. REESE

O. REESE

RESERVE SILICA RAVENSDALE FACILITY

GRADING PERMIT NO. GRDE15-0011

GENERAL NOTES, LEGEND AND ABBREVIATIONS

DATE: FEBRUARY 2025

PROJECT NO: 24-08370-000

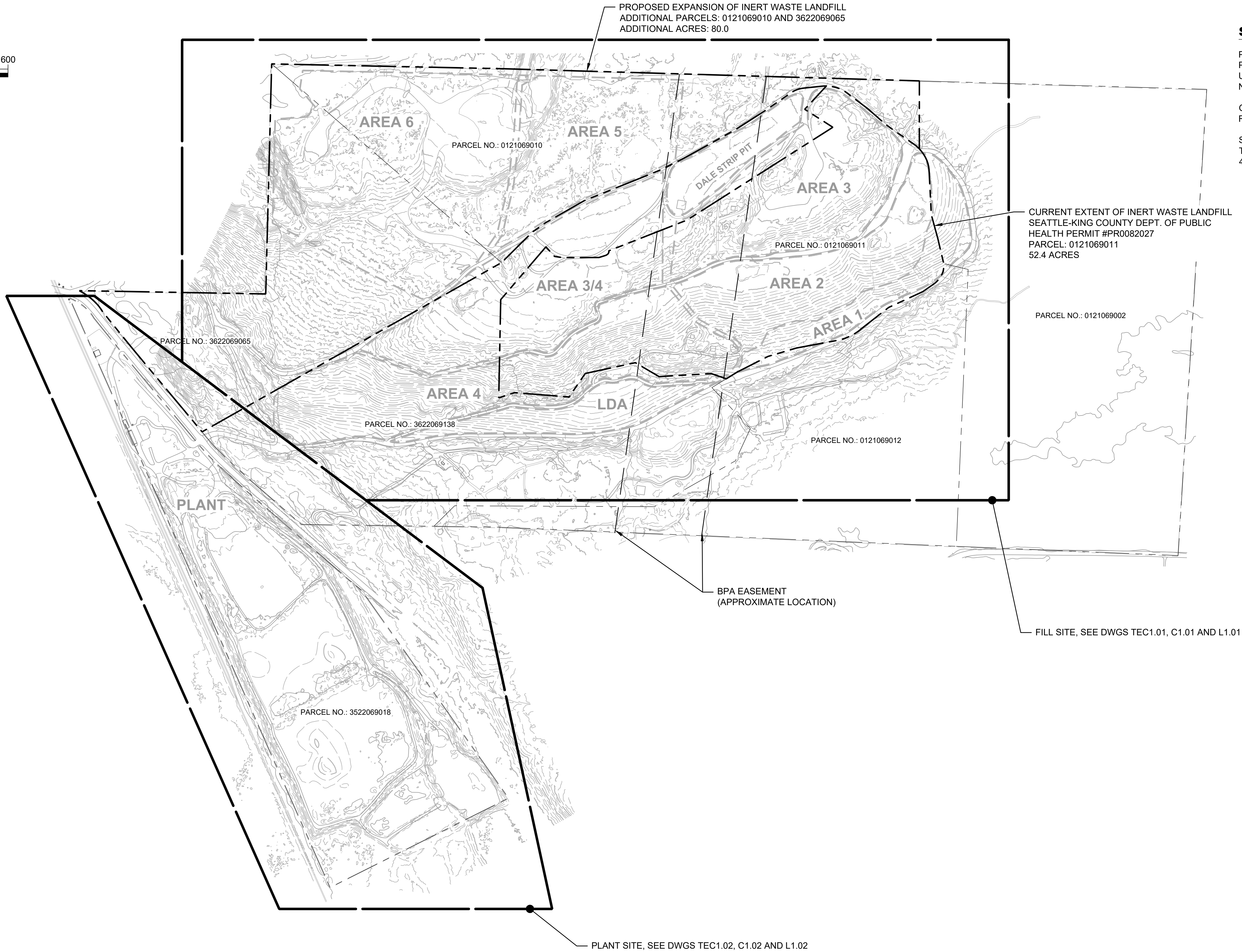
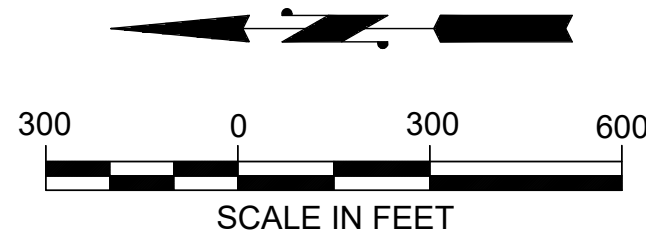
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SHEET NO: 2 OF 19

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SURVEY NOTE

PRIMARY SOURCE: AERIAL PHOTOGRAMMETRIC SURVEY
PERFORMED BY HERRERA ENVIRONMENTAL CONSULTANTS
USING A DJI MAVI 3E REMOTELY PILOTED AIRCRAFT ON
NOVEMBER 6-7, 2024.

GROUND CONTROL ESTABLISHED BY A TRIMBLE DA-2 CATALYST
RTK GNSS GPS.

SUPPLEMENTAL SOURCE (USED IN FORESTED AREAS): AERIAL
TOPOGRAPHIC SURVEY BY BENNETT CONSULTING, PLLC, DATED
4/11/2022.

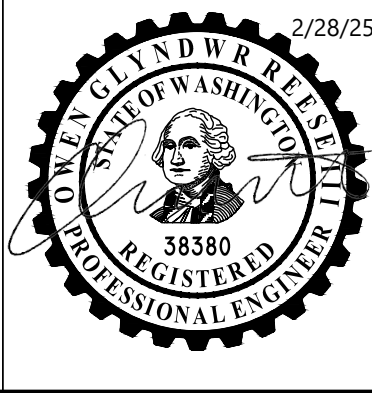
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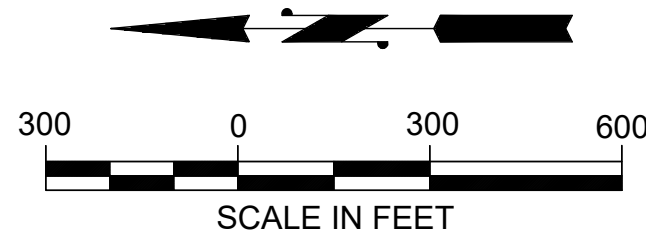


DESIGNED: D. WERNER	DRAWN: D. WERNER
DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: 1:300	APPROVED: O. REESE

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GRADING PERMIT NO. GRDE15-0011

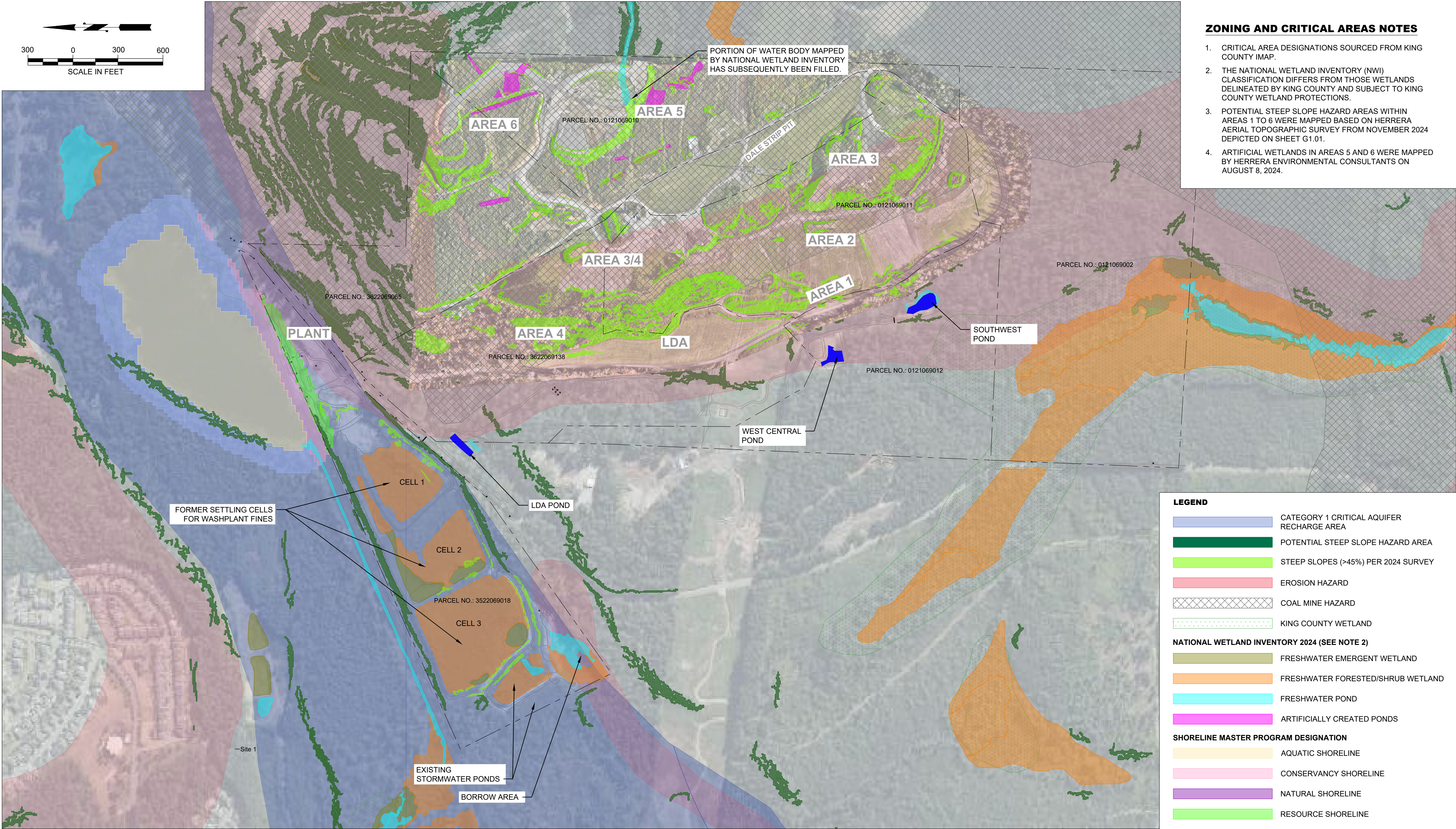
EXISTING TOPOGRAPHY AND KEY MAP

DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
G1.00	
SHEET NO:	OF
3	19



ZONING AND CRITICAL AREAS NOTES

- 1. CRITICAL AREA DESIGNATIONS SOURCED FROM KING COUNTY IMAP.
- 2. THE NATIONAL WETLAND INVENTORY (NWI) CLASSIFICATION DIFFERS FROM THOSE WETLANDS DELINEATED BY KING COUNTY AND SUBJECT TO KING COUNTY WETLAND PROTECTIONS.
- 3. POTENTIAL STEEP SLOPE HAZARD AREAS WITHIN AREAS 1 TO 6 WERE MAPPED BASED ON HERRERA AERIAL TOPOGRAPHIC SURVEY FROM NOVEMBER 2024 DEPICTED ON SHEET G1.01.
- 4. ARTIFICIAL WETLANDS IN AREAS 5 AND 6 WERE MAPPED BY HERRERA ENVIRONMENTAL CONSULTANTS ON AUGUST 8, 2024.



LEGEND

- CATEGORY 1 CRITICAL AQUIFER RECHARGE AREA
- POTENTIAL STEEP SLOPE HAZARD AREA
- STEEP SLOPES (>45%) PER 2024 SURVEY
- EROSION HAZARD
- COAL MINE HAZARD
- KING COUNTY WETLAND
- NATIONAL WETLAND INVENTORY 2024 (SEE NOTE 2)
 - FRESHWATER EMERGENT WETLAND
 - FRESHWATER FORESTED/SHRUB WETLAND
 - FRESHWATER POND
 - ARTIFICIALLY CREATED PONDS
- SHORELINE MASTER PROGRAM DESIGNATION
 - AQUATIC SHORELINE
 - CONSERVANCY SHORELINE
 - NATURAL SHORELINE
 - RESOURCE SHORELINE

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SCALE: 1:300	APPROVED: O. REESE

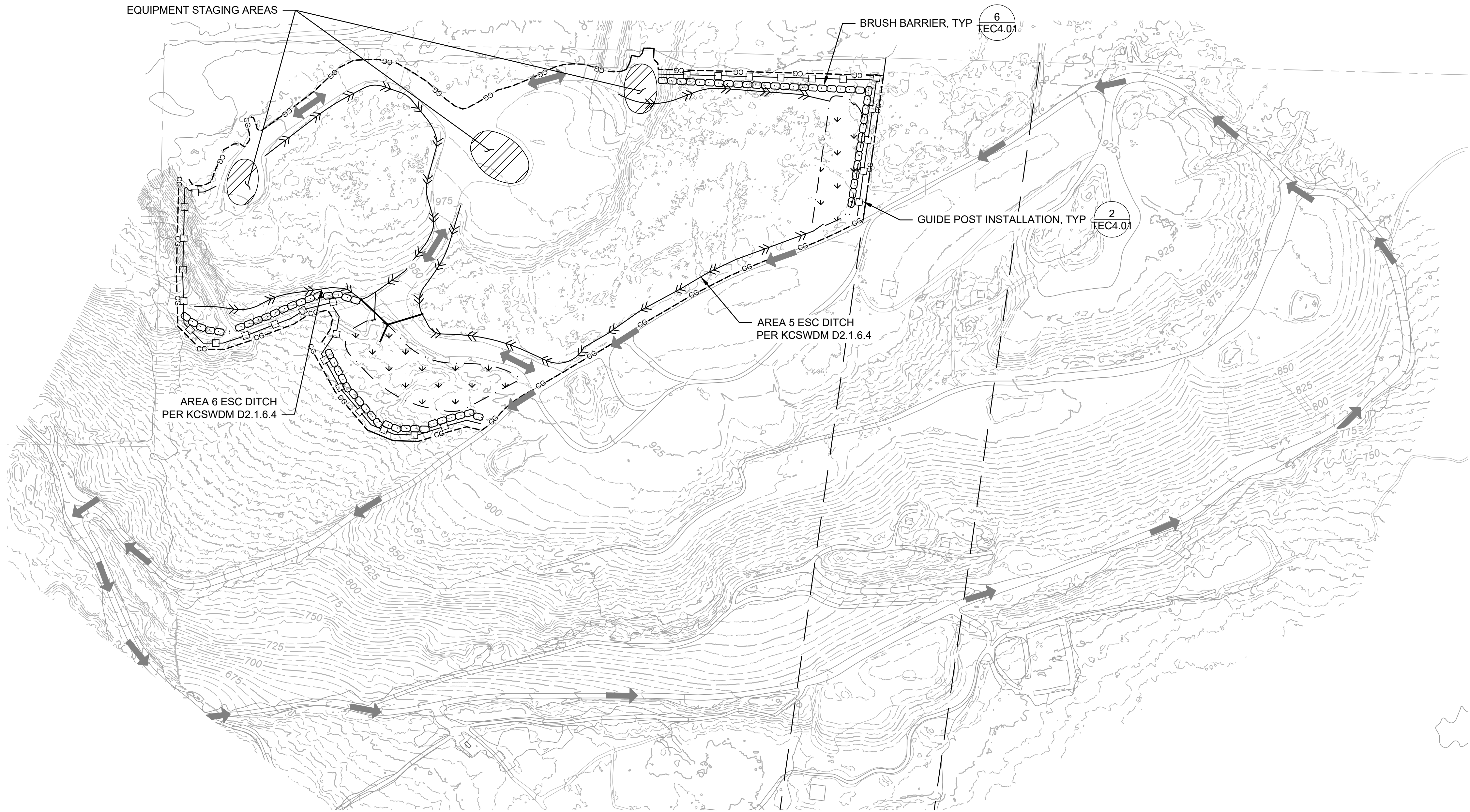
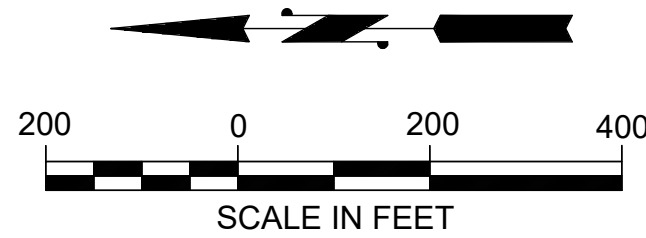
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ZONING AND CRITICAL AREAS

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: G1.01
SHEET NO: 4 OF 19

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EROSION AND SEDIMENT CONTROL (ESC) NOTES

1. THE ESC FACILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND DO NOT CONSTITUTE APPROVAL OF THE CONTRACTOR'S TEMPORARY ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES).
2. THE IMPLEMENTATION OF THE ESC FACILITIES SHOWN ON THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR'S CESCL AND ESC SUPERVISOR UNTIL ALL VEGETATION IS ESTABLISHED AND FINAL COMPLETION IS ACHIEVED AS DETERMINED BY THE PROJECT REPRESENTATIVE.
3. THE ESC FACILITIES SHOWN ON THESE PLANS MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO MINIMIZE THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES.
4. THE ESC FACILITIES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING THE CONTRACT PERIOD, THESE ESC FACILITIES MUST BE UPGRADED AS NEEDED OR REQUESTED BY THE PROJECT REPRESENTATIVE FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES).
5. EROSION CONTROL MEASURES IDENTIFIED REPRESENT THOSE SUGGESTED FOR INITIAL SITE CONDITIONS. THE CONTRACTOR MUST MODIFY AND UPDATE AS NECESSARY DURING THE COURSE OF THE PROJECT TO MEET CONTRACT REQUIREMENTS.
6. MAINTAIN EROSION CONTROL FACILITIES UNTIL REMOVAL OR RELOCATION IS REQUIRED DURING THE WORK.
7. THE ESC FACILITIES MUST BE INSPECTED BY THE CONTRACTOR'S ESC SUPERVISOR DAILY AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. THE CONTRACTOR'S ESC SUPERVISOR AND THE PROJECT REPRESENTATIVE'S CESCL MUST INSPECT ESC FACILITIES TOGETHER ONCE A WEEK AND AFTER EVENTS OF 0.1 INCH OR MORE. PROJECT REPRESENTATIVE'S CESCL WILL KEEP WRITTEN RECORDS OF THOSE INSPECTIONS.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING EXCAVATIONS AND STOCKPILES, THAT WILL NOT BE DISTURBED OVER A TWO-DAY PERIOD DURING THE WET SEASON OR OVER A SEVEN-DAY PERIOD DURING THE DRY SEASON MUST BE IMMEDIATELY STABILIZED WITH APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING).
9. AT NO TIME MUST MORE THAN SIX (6) INCHES OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN PROJECT RELATED DITCHES, INLETS, CATCH BASINS, STRUCTURES, AND ENERGY DISSIPATOR OR CONVEYANCE PIPES. ALL CONVEYANCE LINES MUST BE CLEANED AT THE BEGINNING OF THE CONTRACT AND PRIOR TO FINAL CONSTRUCTION CLOSEOUT. THE CLEANING OPERATION MUST NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM. VERIFICATION OF CLEAN CONVEYANCE LINES MUST BE PROVIDED TO THE PROJECT REPRESENTATIVE WITHIN 10 DAYS AFTER MOBILIZATION AND WITHIN 10 DAYS PRIOR TO FINAL COMPLETION.
10. STABILIZED CONSTRUCTION ENTRANCES AND ROADS MUST BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AT ALL POINTS OF INGRESS/EGRESS FROM NON-PAVED AREAS OF WORK AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
11. ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN MUST BE MODIFIED WITH THE NECESSARY ESC MEASURES AND MUST PROVIDE ADEQUATE STORAGE CAPACITY AND MUST BE THOROUGHLY CLEANED OF SEDIMENT WHEN TEMPORARY USE IS DISCONTINUED.
12. WHEN STRAW MULCH IS USED FOR TEMPORARY EROSION CONTROL, PREVENT STRAW MULCH FROM ENTERING CONVEYANCE AND DETENTION FACILITIES.
13. TEN (10) DAYS PRIOR TO THE BEGINNING OF THE WET SEASON (OCTOBER 1), ALL DISTURBED AREAS SHALL BE REVIEWED BY THE PROJECT REPRESENTATIVE TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE (1) WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCHED MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PROJECT REPRESENTATIVE. THE PROJECT REPRESENTATIVE MAY REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATER, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES AT NO ADDITIONAL COST TO KING COUNTY.
14. MAINTAIN ALL EXISTING STORM DRAINS, CHANNELS, CULVERTS, AND STRUCTURES THAT RECEIVE FLOW UNTIL WORK IS COMPLETE. WHENEVER EXISTING STORM DRAINS, CHANNELS, CULVERTS, OR STRUCTURES ARE DISTURBED; PROVIDE SUITABLE MEANS FOR DIVERTING AND MAINTAINING ALL FLOWS AT THE CONTRACTOR'S EXPENSE.
15. CONTRACTOR SHALL MONITOR RUNOFF, AT THE LOCATIONS IDENTIFIED, IN ACCORDANCE WITH THE CONSTRUCTION GENERAL STORMWATER PERMIT.

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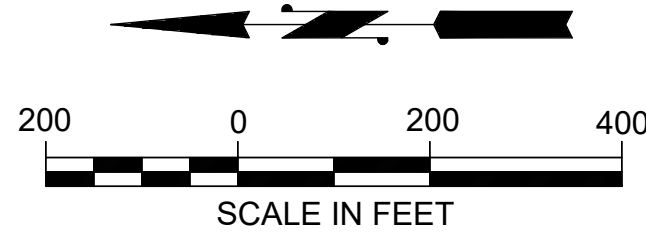


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SCALE: AS NOTED	APPROVED: O. REESE

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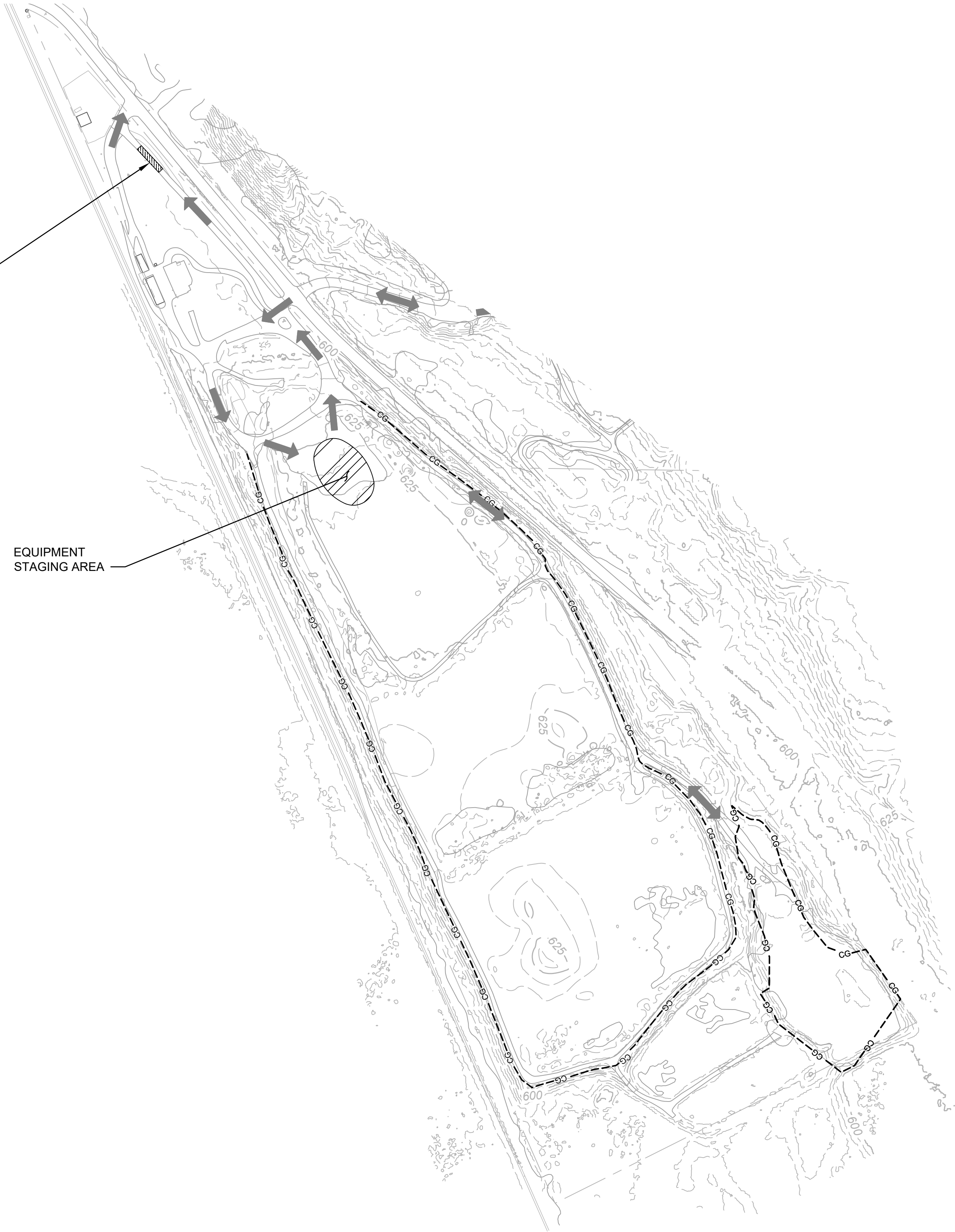
EROSION AND SEDIMENT CONTROL PLAN - FILL SITE

DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
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SHEET NO:	OF
5	19



EXISTING WHEEL WASH

EQUIPMENT
STAGING AREA



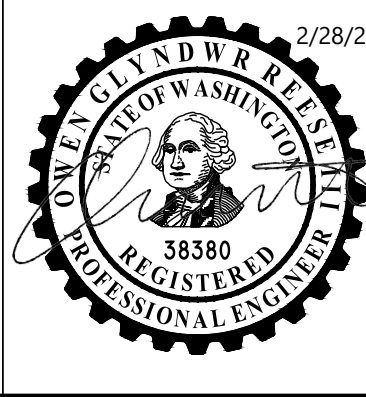
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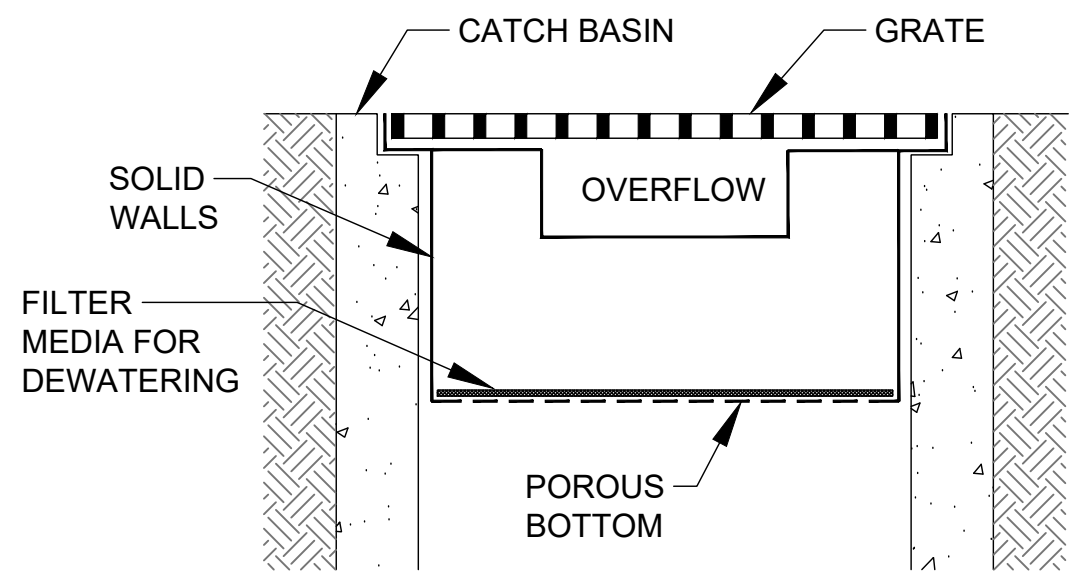


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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

EROSION AND SEDIMENT CONTROL PLAN - PLANT SITE

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: TEC1.02
SHEET NO: 6 OF 19

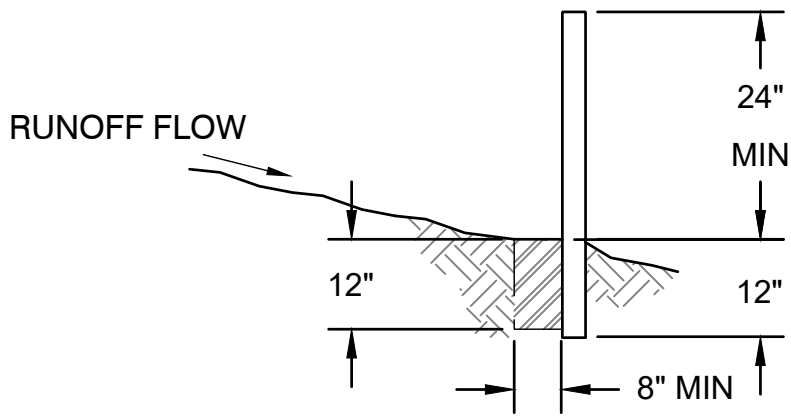


NOTE: THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS:

- A MIN. 0.5 C.F. OF STORAGE,
- THE MEANS TO DEWATER THE STORED SEDIMENT,
- AN OVERFLOW, AND
- CAN BE EASILY MAINTAINED.

DETAIL - CATCH BASIN INSERT

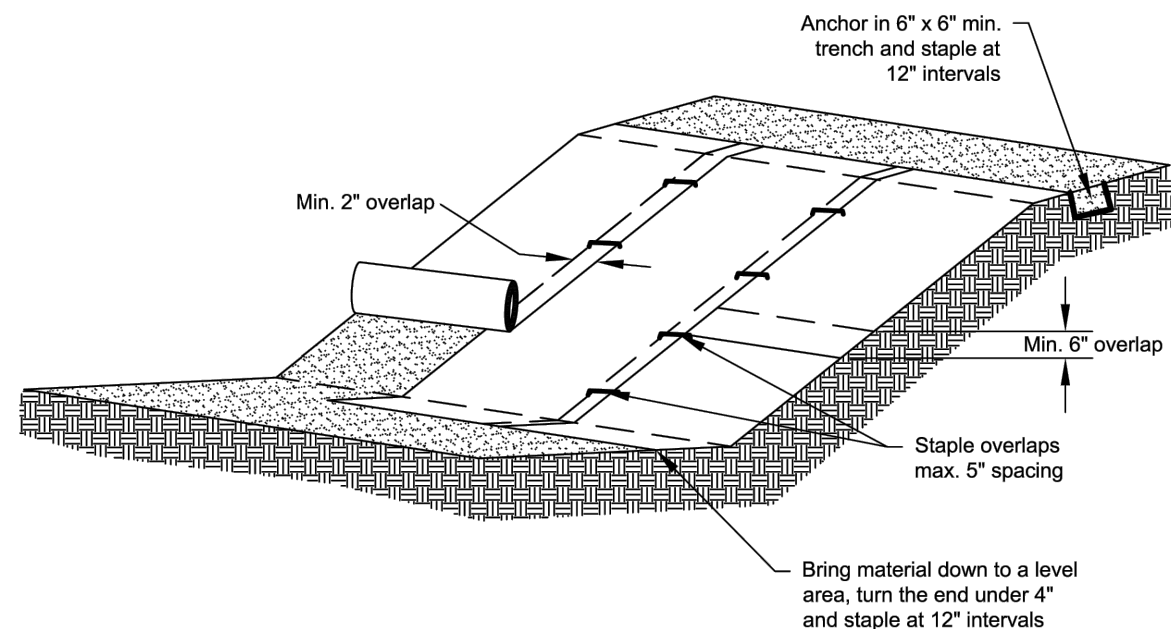
SCALE: NTS



DETAIL - GUIDE POST INSTALLATION

SCALE: NTS

TEC1.01, TEC1.02

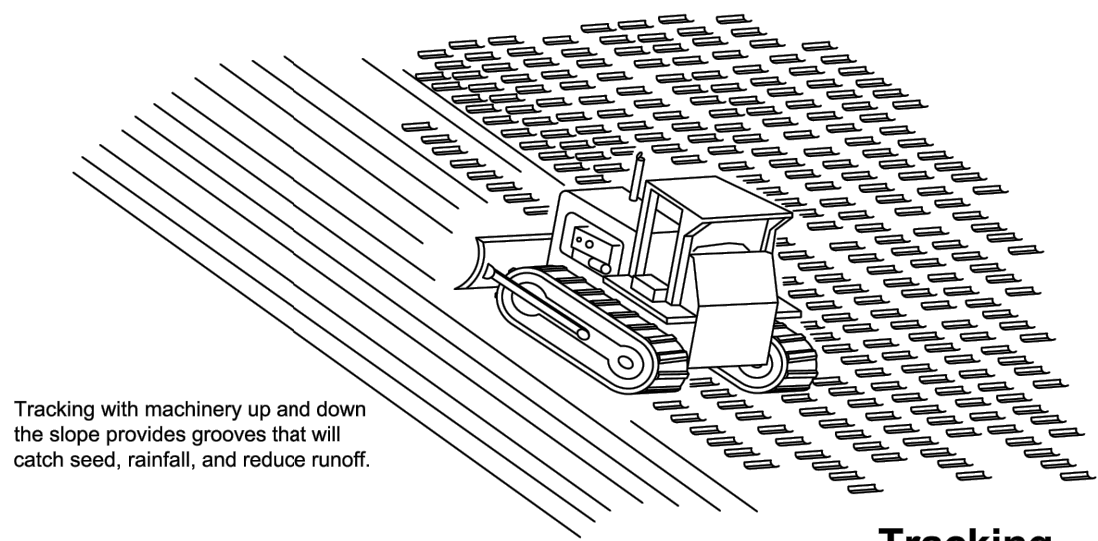


- Notes:
1. Slope surface shall be smooth before placement for proper soil contact.
 2. Stapling pattern as per manufacturer's recommendations.
 3. Do not stretch blankets/matting tight - allow the rolls to mold to any irregularities.
 4. For slopes less than 3H:1V, rolls may be placed in horizontal strips.
 5. If there is a berm at the top of the slope, anchor upslope of the berm.
 6. Lime, fertilize, and seed before installation. Planting of shrubs, trees, etc. should occur after installation.

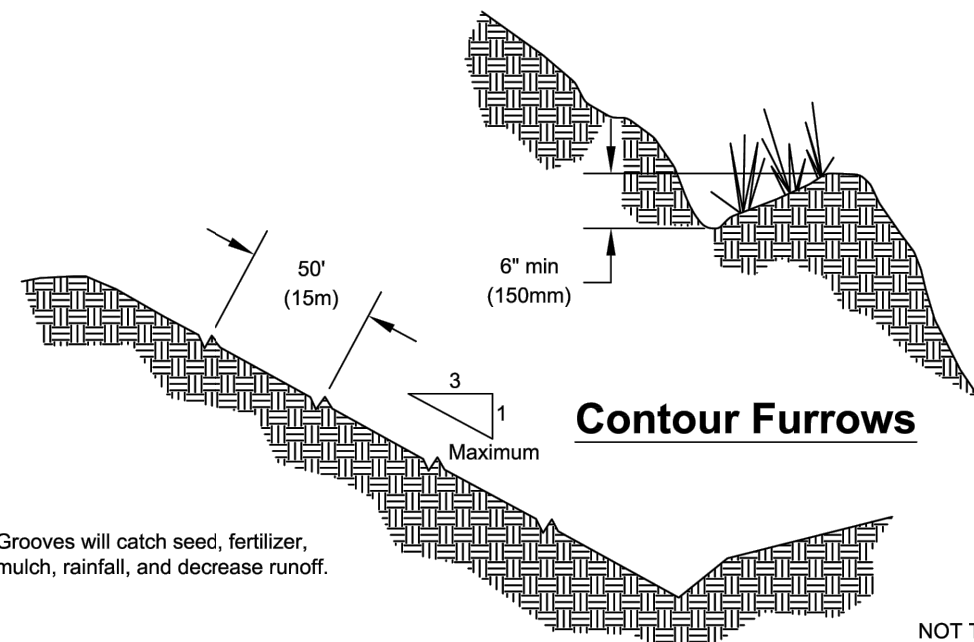
NOT TO SCALE

DETAIL - SLOPE INSTALLATION

SCALE: NTS



Tracking



Contour Furrows

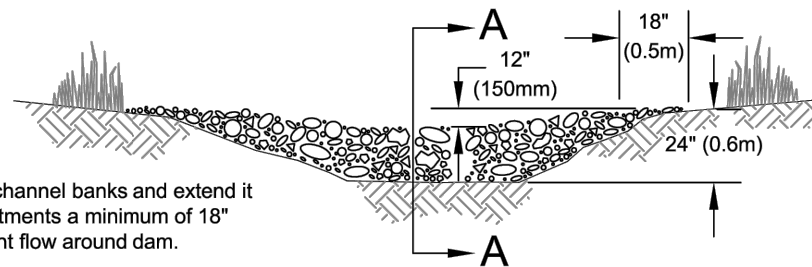
Grooves will catch seed, fertilizer, mulch, rainfall, and decrease runoff.

NOT TO SCALE

DETAIL - SURFACE ROUGHENING BY TRACKING AND CONTOUR FURROWS

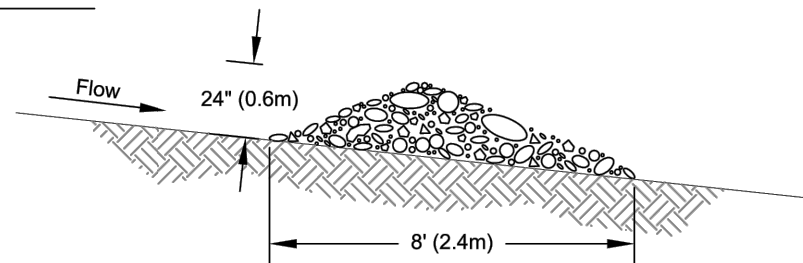
SCALE: NTS

View Looking Upstream

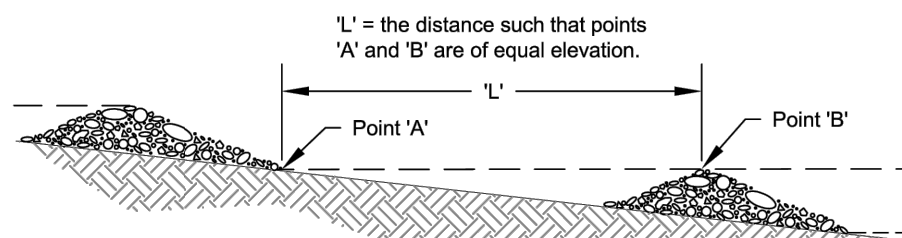


Note:
Key stone into channel banks and extend it beyond the abutments a minimum of 18" (0.5m) to prevent flow around dam.

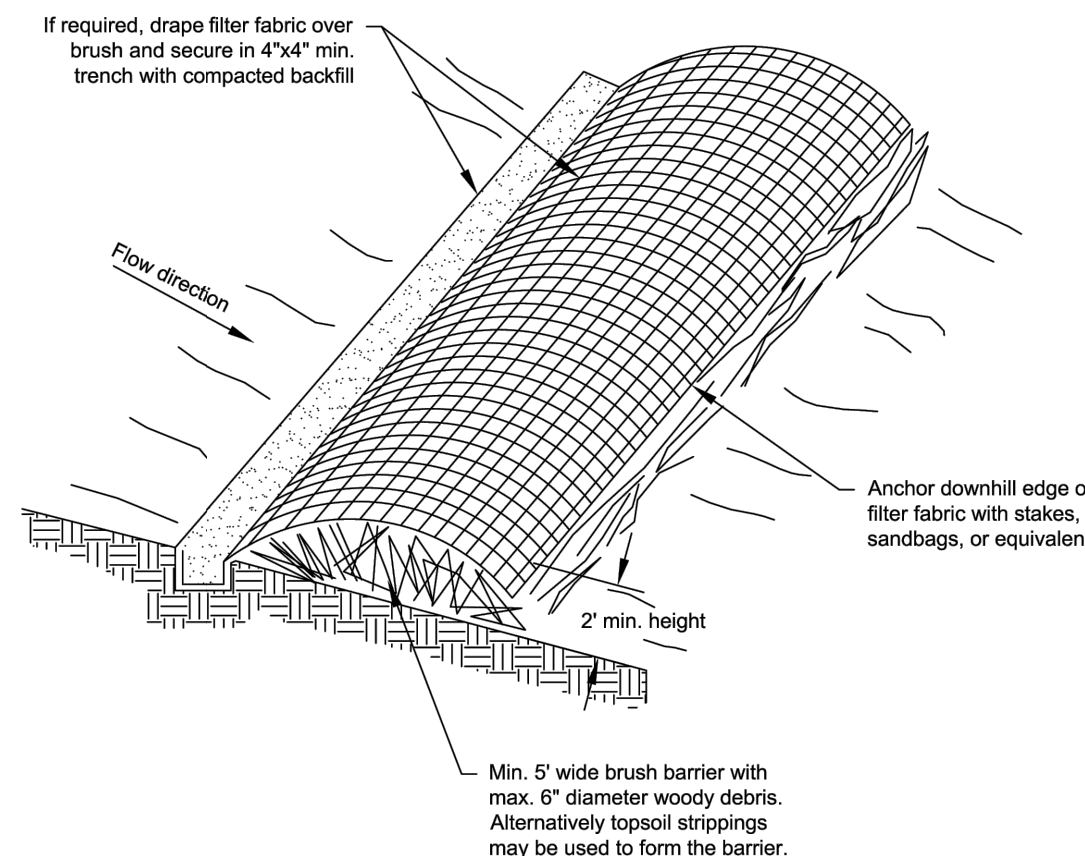
Section A-A



Spacing Between Check Dams



NOT TO SCALE



NOT TO SCALE

DETAIL - BRUSH BARRIER

SCALE: NTS

DETAIL - ROCK CHECK DAM

SCALE: NTS

SheetTitle

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

EROSION AND SEDIMENT CONTROL DETAILS

ISSUED FOR COUNTY REVIEW				
No.	REVISION	BY	APP'D	DATE

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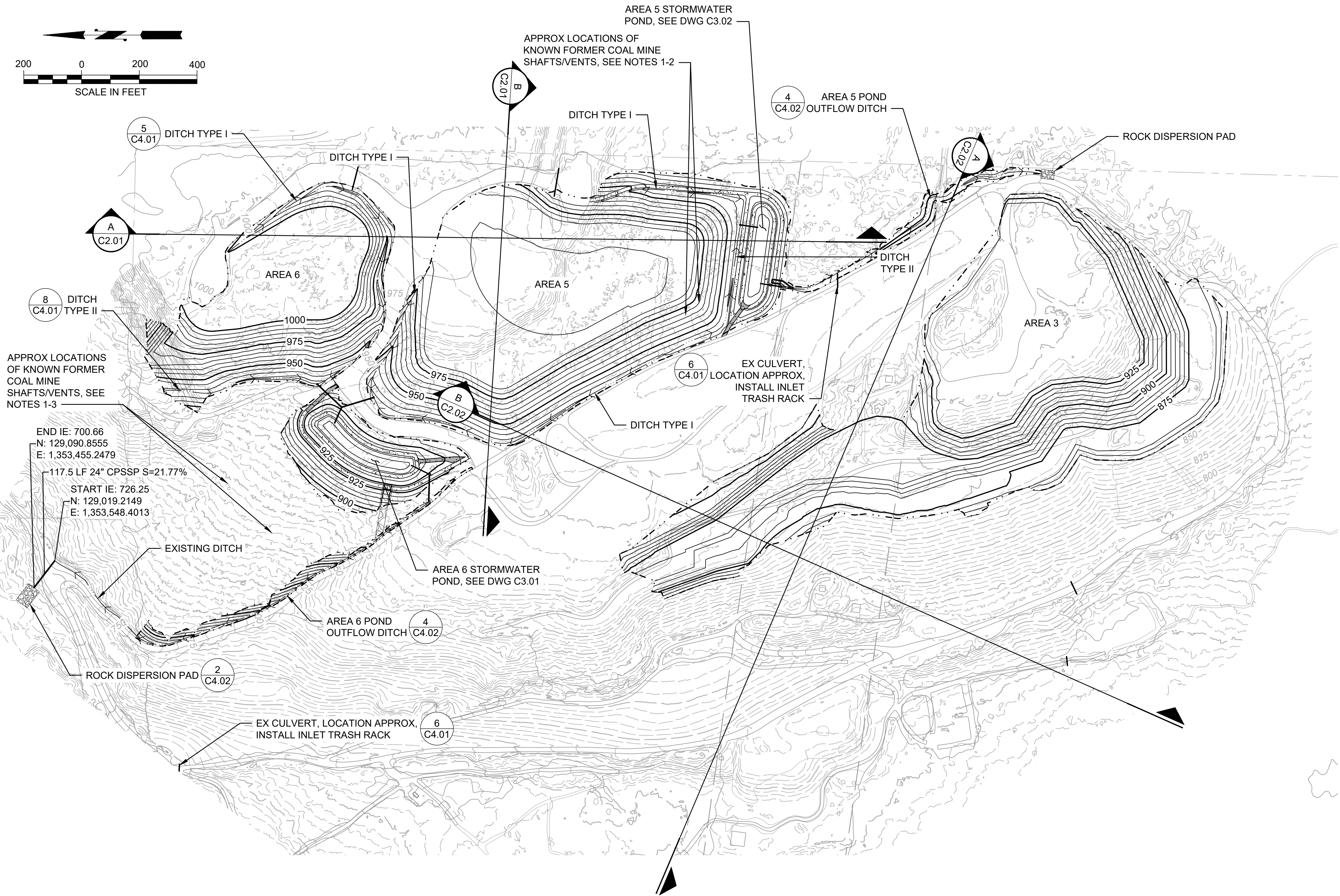
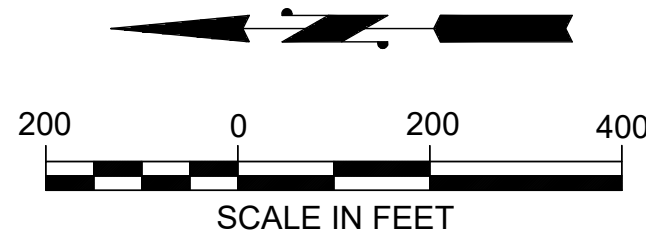


RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051



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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: TEC4.01
SHEET NO: 7 OF 19



NOTES

- 1. APPROXIMATE LOCATIONS OF KNOWN COAL MINE SHAFTS AND VENTS IN AREAS 5 AND 6 ARE IDENTIFIED ON THIS SHEET. ADDITIONAL COAL MINE SHAFTS MAY EXIST AT THE SITE. IDENTIFY ALL SHAFTS AND VENTS PRIOR TO PLACEMENT OF FILL IN THAT AREA.
- 2. FORMER COAL MINE SHAFTS AND VENTS IN AREAS SLATED FOR FILL PLACEMENT REQUIRE SUITABLE PLUG OR STRUCTURAL CAP TO BE DESIGNED BY OTHERS PRIOR TO PLACEMENT OF FILL.
- 3. FORMER COAL MINE SHAFTS IN AREAS NOT SLATED FOR FILL PLACEMENT SHALL BE FENCED OR GRATED AS DESCRIBED IN ASPECT CONSULTING'S 2023 GEOTECHNICAL EVALUATION FOR SECURING MINE OPENINGS.

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INCH SCALE ACCORDINGLY
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RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051

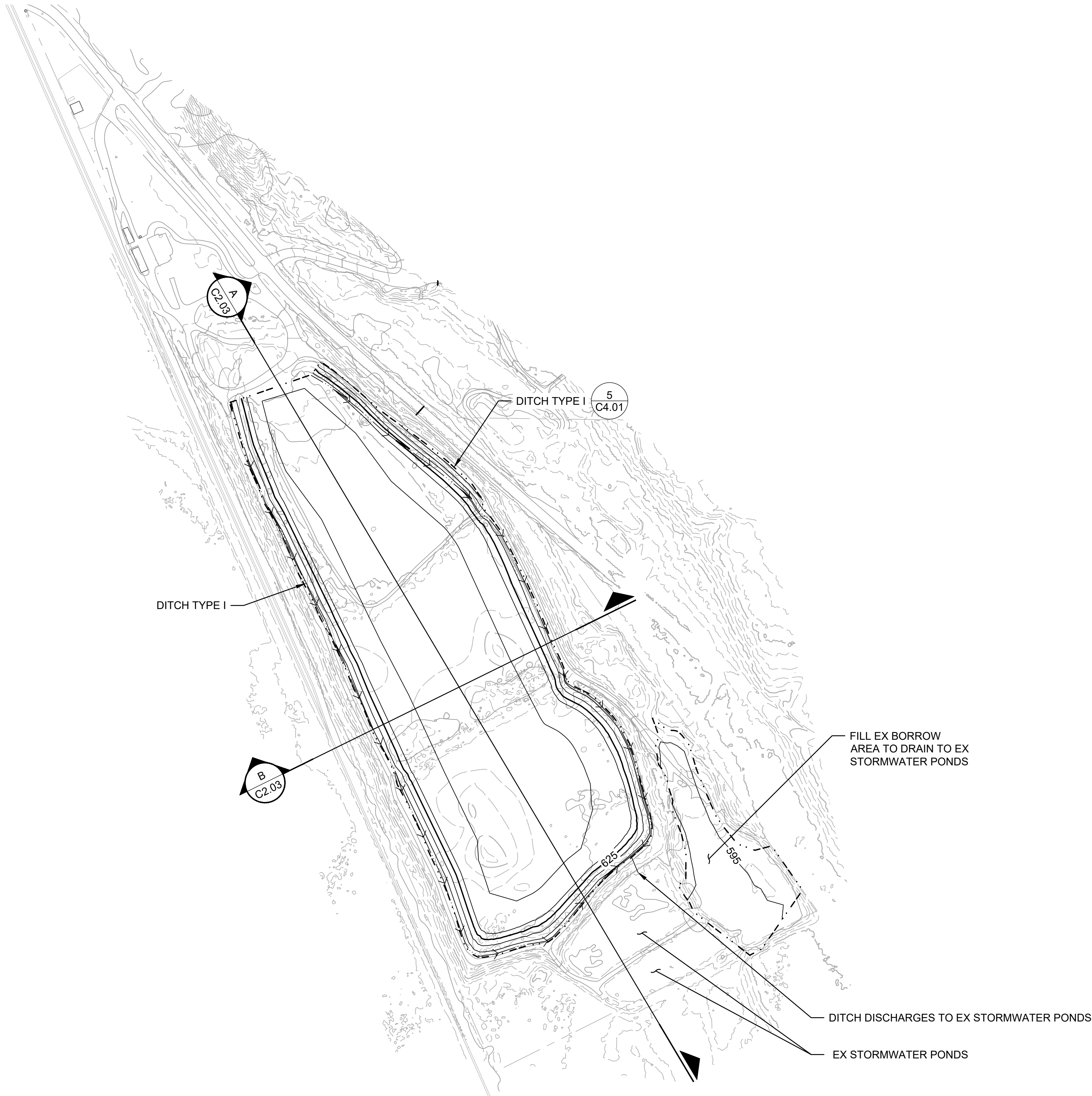


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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: 1:200	APPROVED: O. REESE

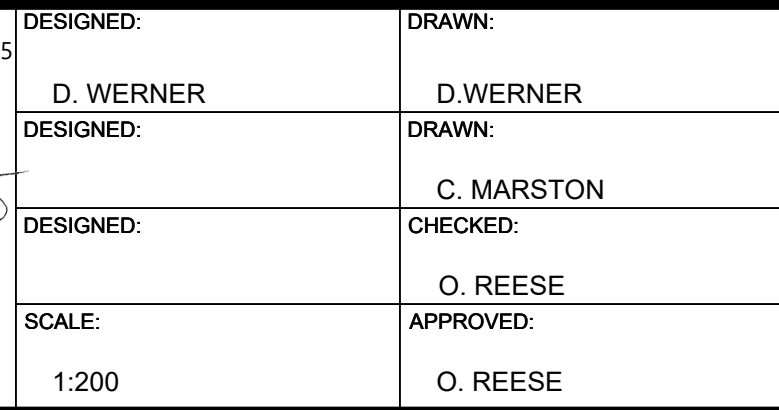
RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

GRADING PLAN - FILL SITE

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C1.01
SHEET NO: 8 OF 19

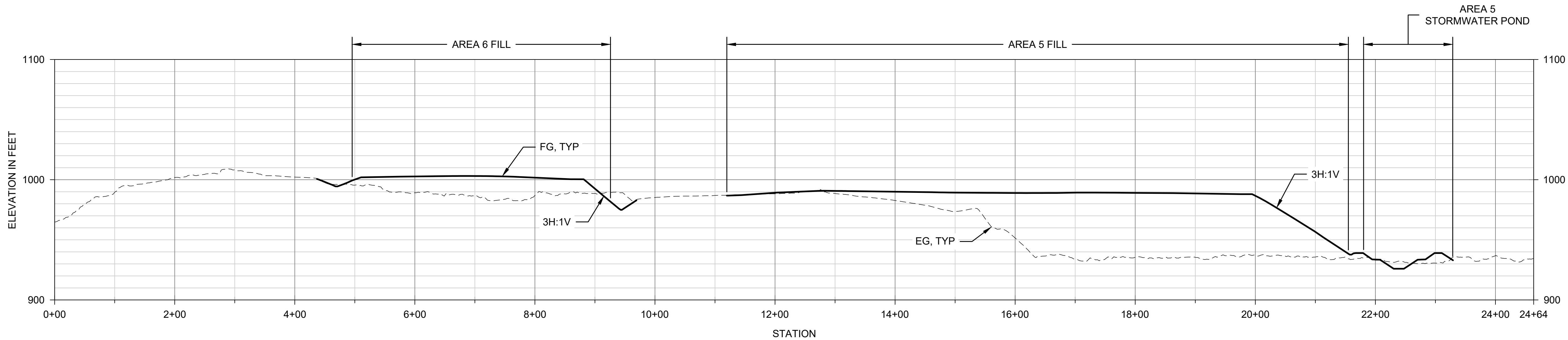


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No.	REVISION
BY	APP'D
DATE	

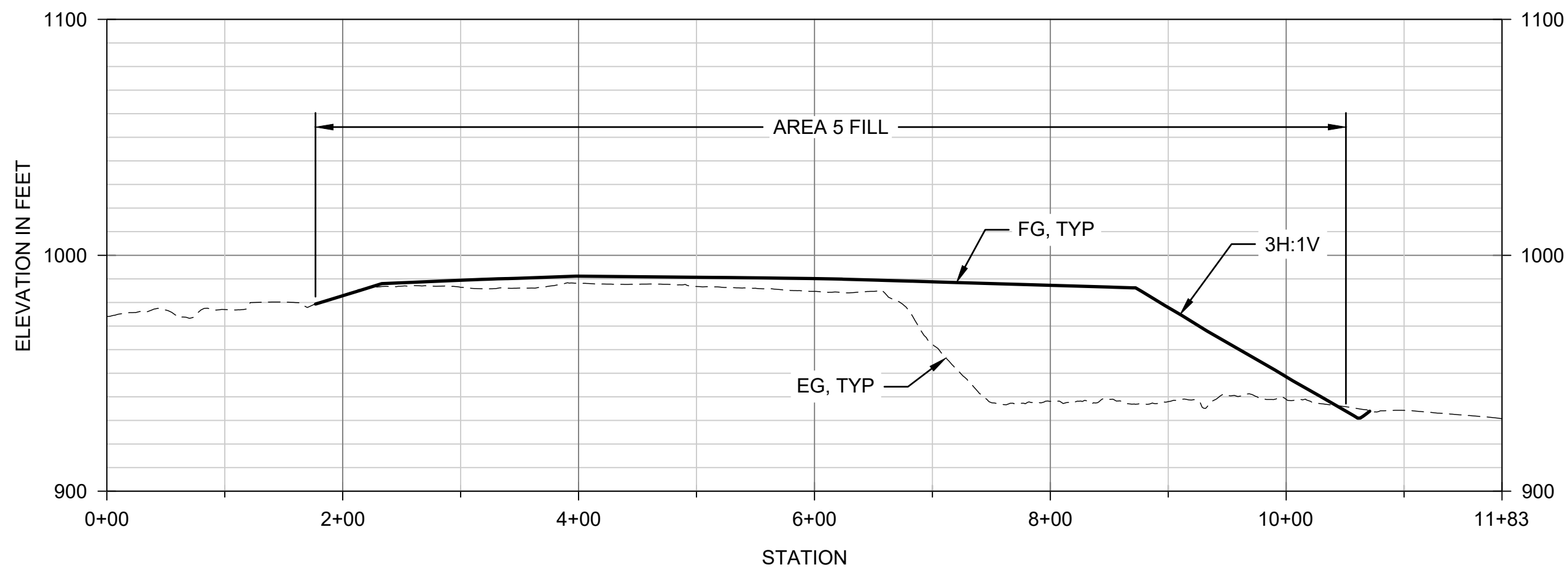
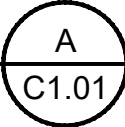


GRADING PLAN - PLANT SITE

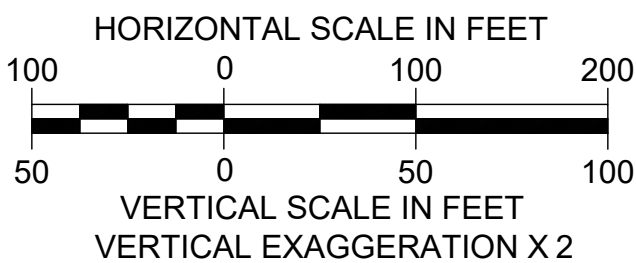
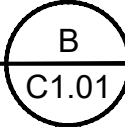
DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
C1.02	
SHEET NO:	OF
9	19



PROFILE - AREAS 5 AND 6 N TO S
HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



PROFILE - AREAS 5 AND 6 E TO W
HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



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ONE INCH
↑
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INCH SCALE ACCORDINGLY
↓



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28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051

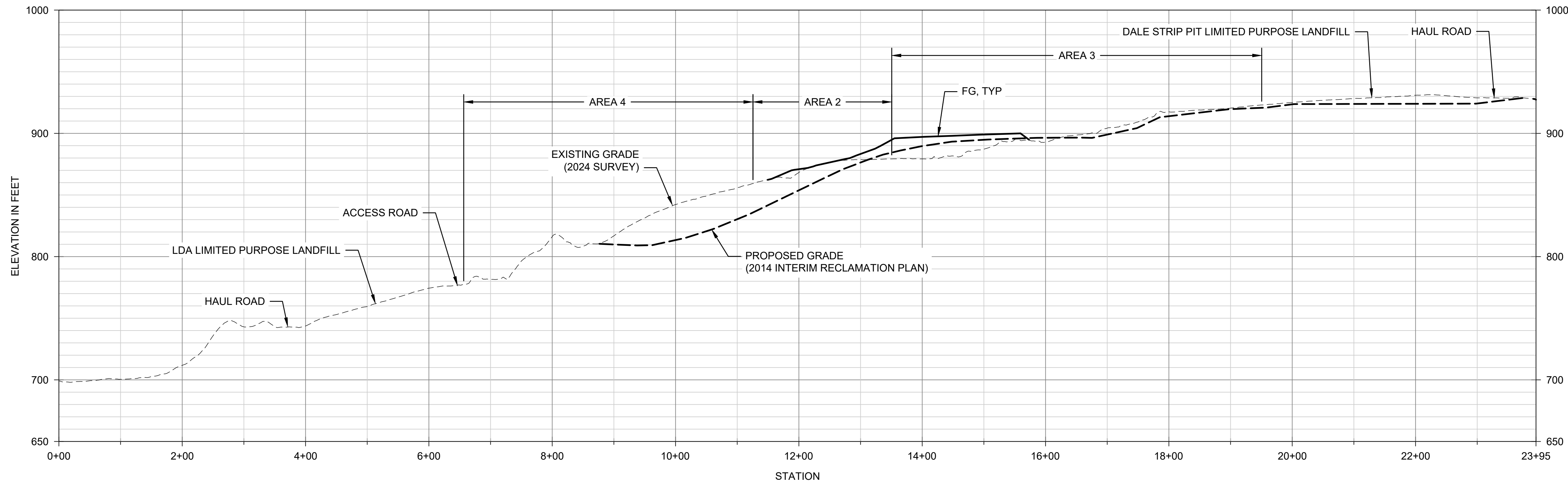


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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: H: 1:100, V: 1:50	APPROVED: O. REESE

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GRADING PERMIT NO. GRDE15-0011

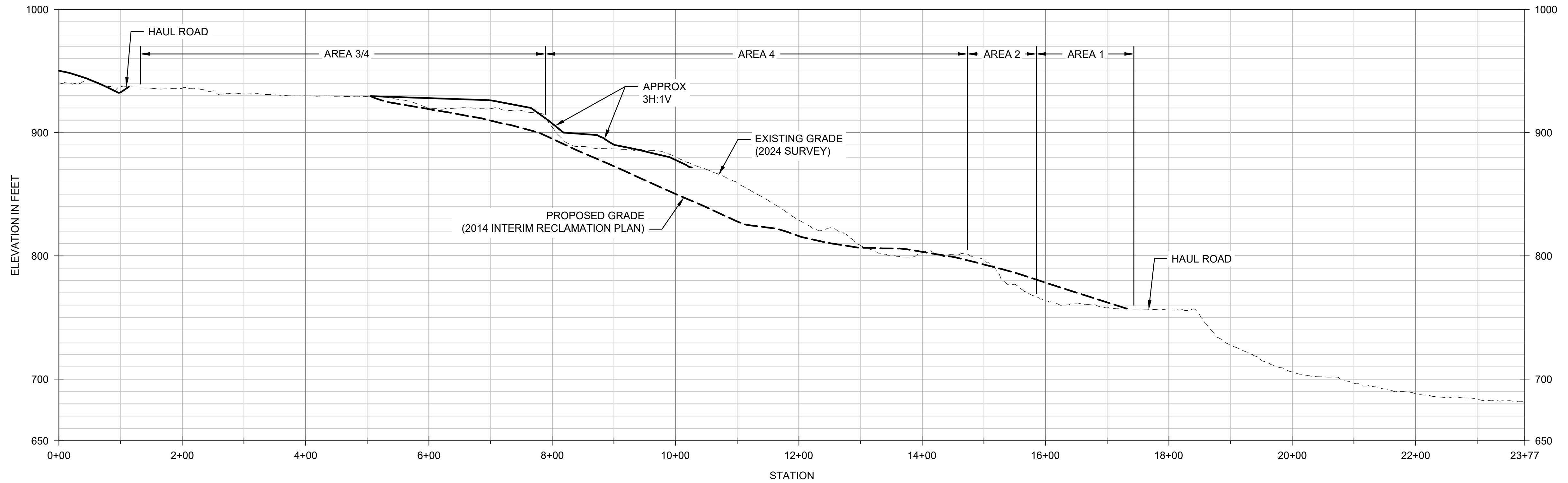
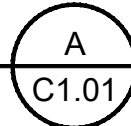
PROFILES AND SECTIONS - AREAS 5 AND 6

DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
C2.01	
SHEET NO:	OF
10	19



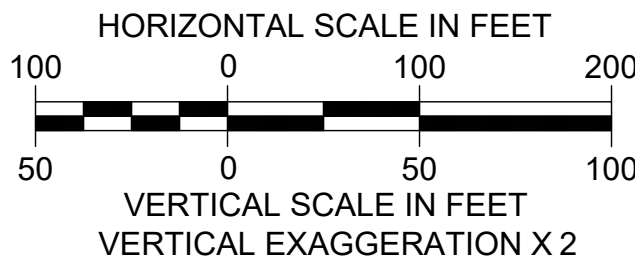
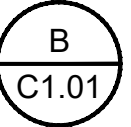
PROFILE - AREAS 1 THROUGH 4 SE TO NW

HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



PROFILE - AREAS 1 THROUGH 4 NE TO SW

HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



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DESIGNED:	CHECKED: O. REESE
SCALE: H: 1:100, V: 1:50	APPROVED: O. REESE

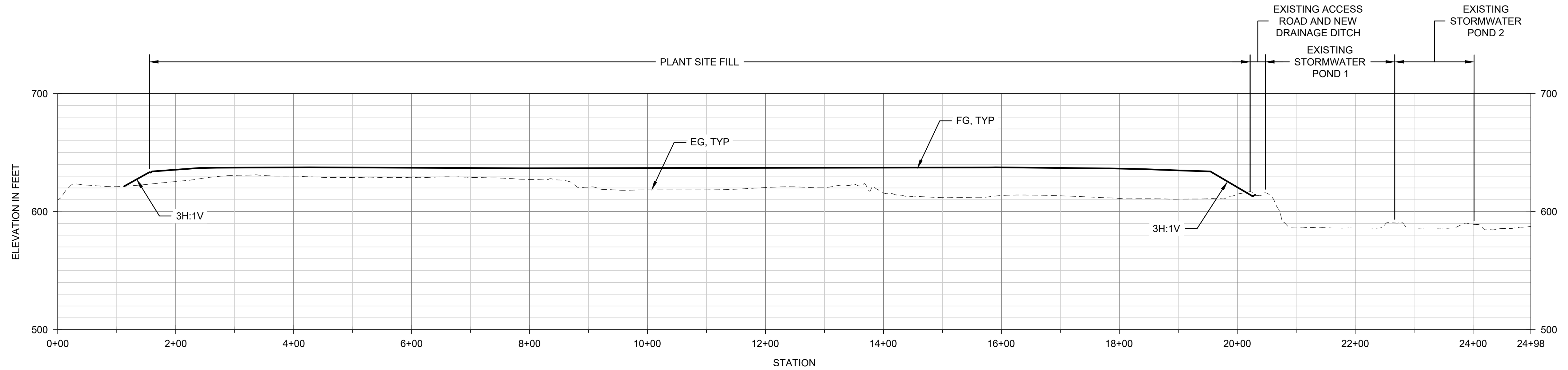
RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

PROFILES AND SECTIONS - AREAS 1 THROUGH 4

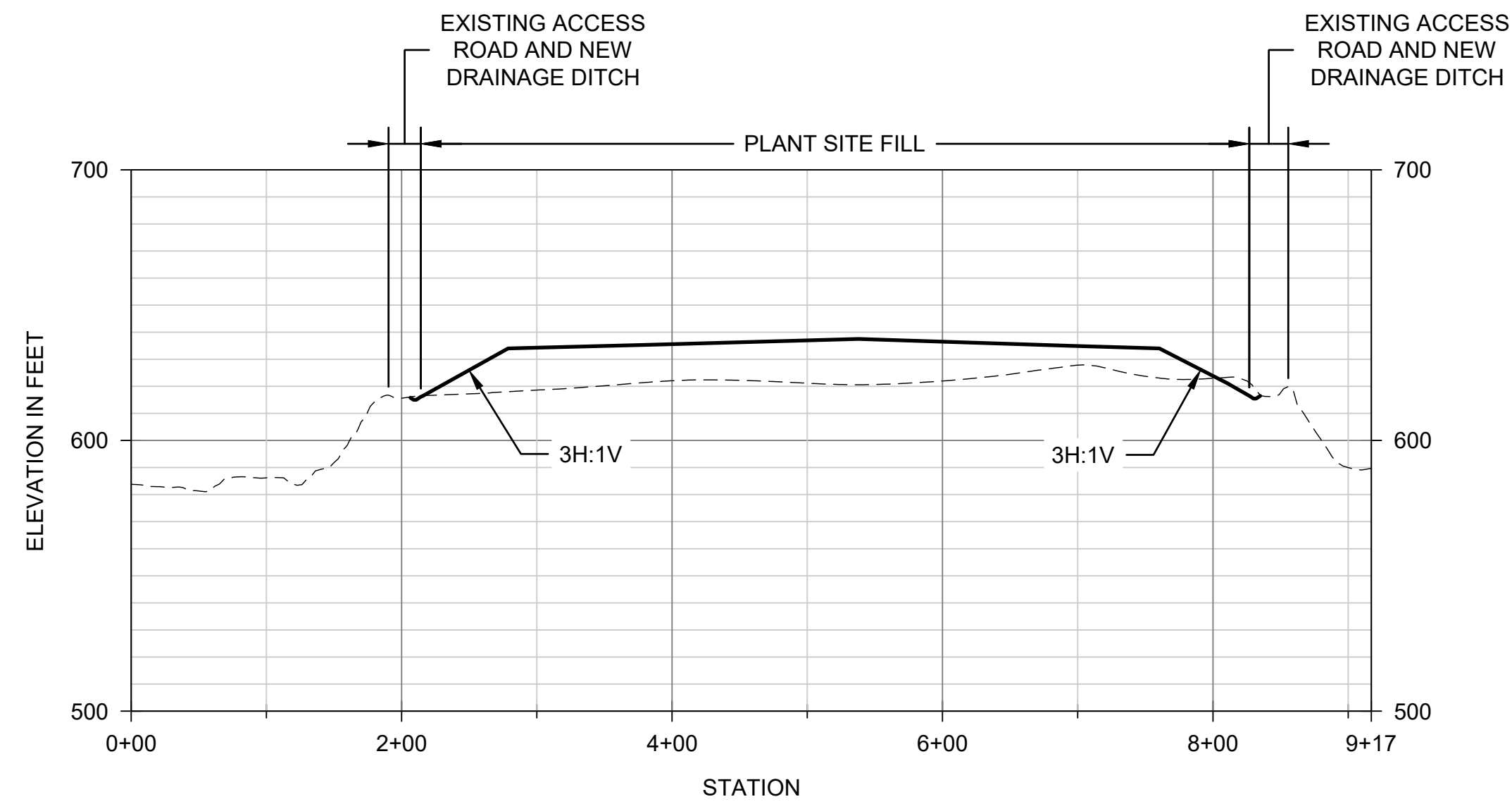
DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C2.02
SHEET NO: 11
OF 19

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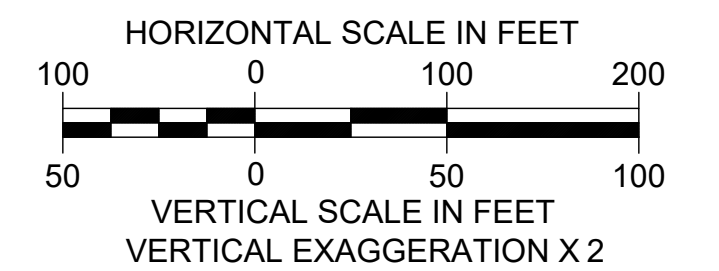
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PROFILE - PLANT SITE NE TO SW A
C1.02
HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



PROFILE - PLANT SITE NW TO SE B
C1.02
HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'



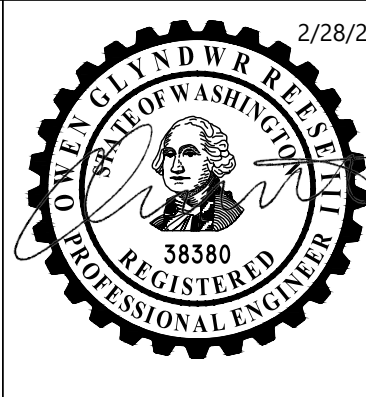
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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: H: 1:100, V:1:50	APPROVED: O. REESE

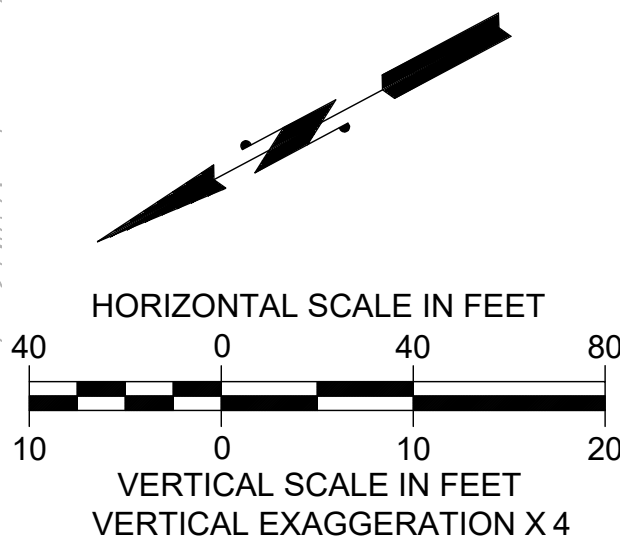
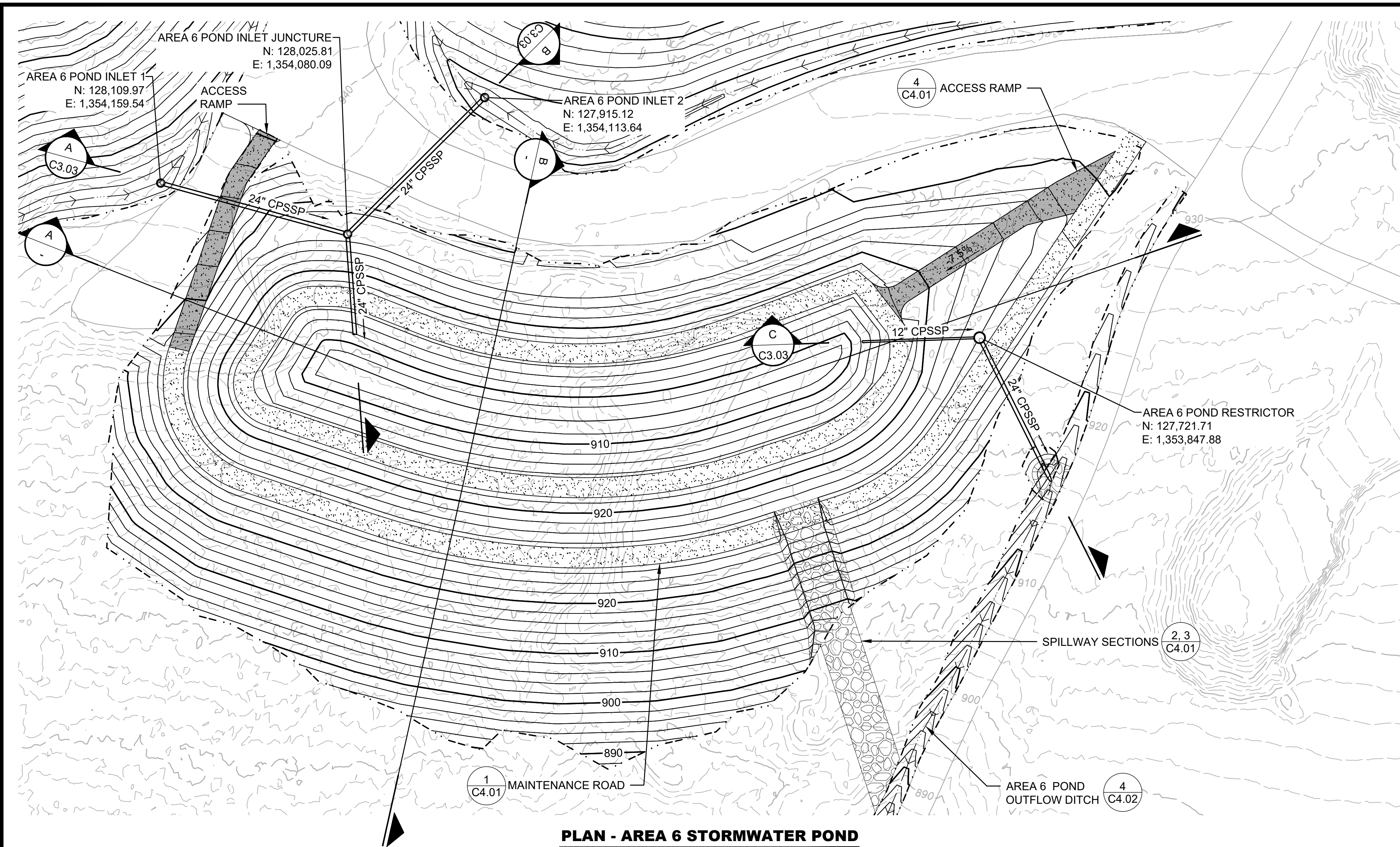
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GRADING PERMIT NO. GRDE15-0011

PROFILES AND SECTIONS - PLANT SITE

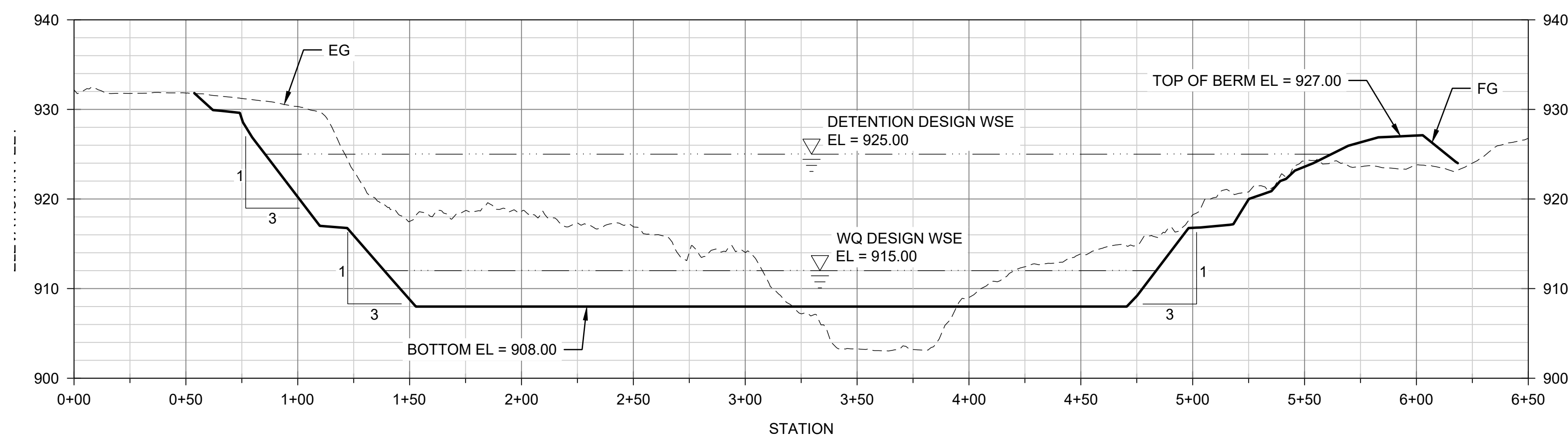
DATE: FEBRUARY 2025	
PROJECT NO: 24-08370-000	
DRAWING NO: C2.03	
SHEET NO: 12	OF 19

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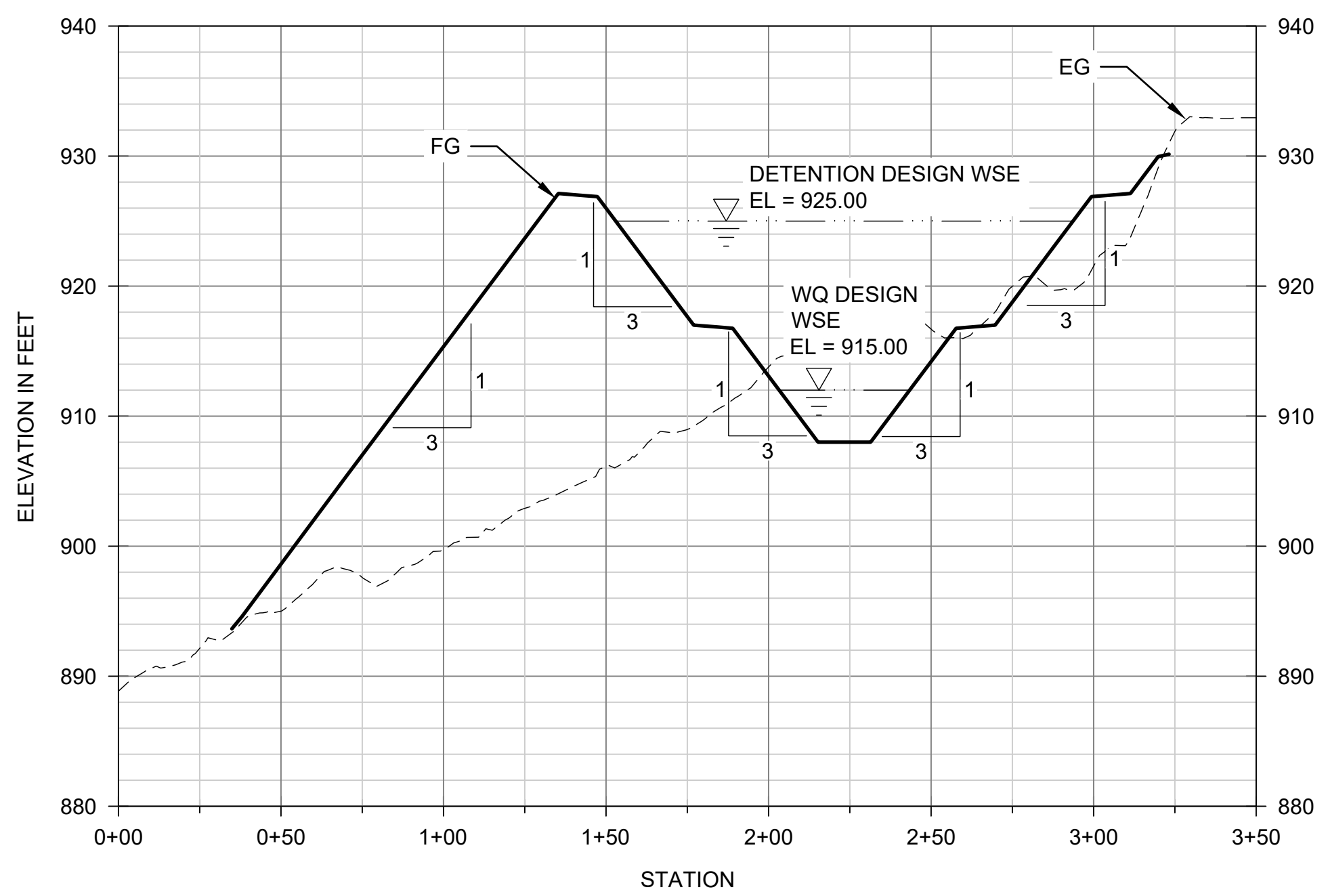


PLAN - AREA 6 STORMWATER POND
SCALE: 1"=40'



PROFILE - AREA 6 STORMWATER POND

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=10'



PROFILE - AREA 6 STORMWATER POND

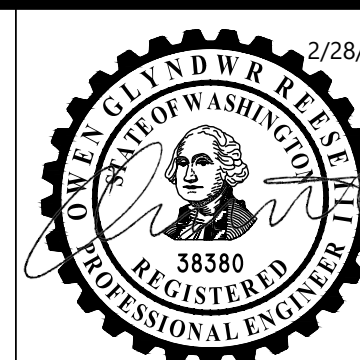
HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=10'

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ONE INCH
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INCH SCALE ACCORDINGLY



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RAVENSDALE, WA 98051



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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: H=1:40, V=1:10	APPROVED: O. REESE

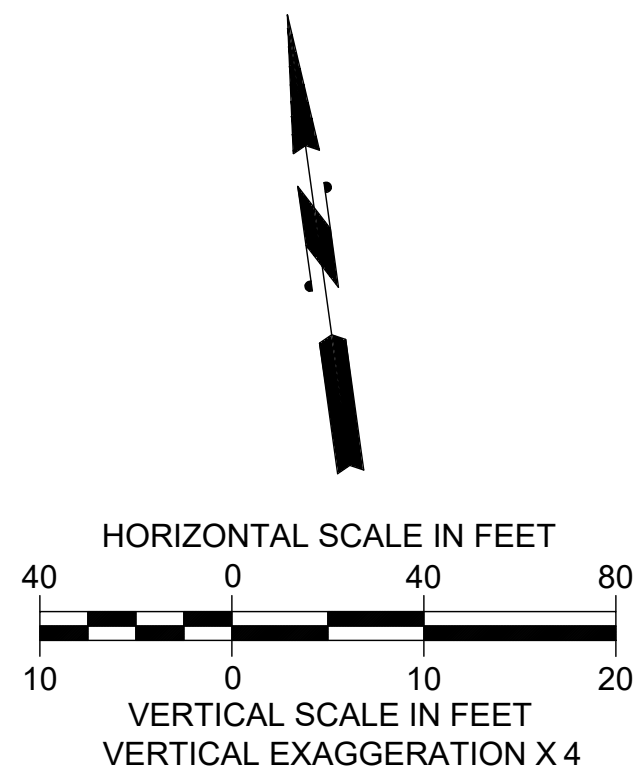
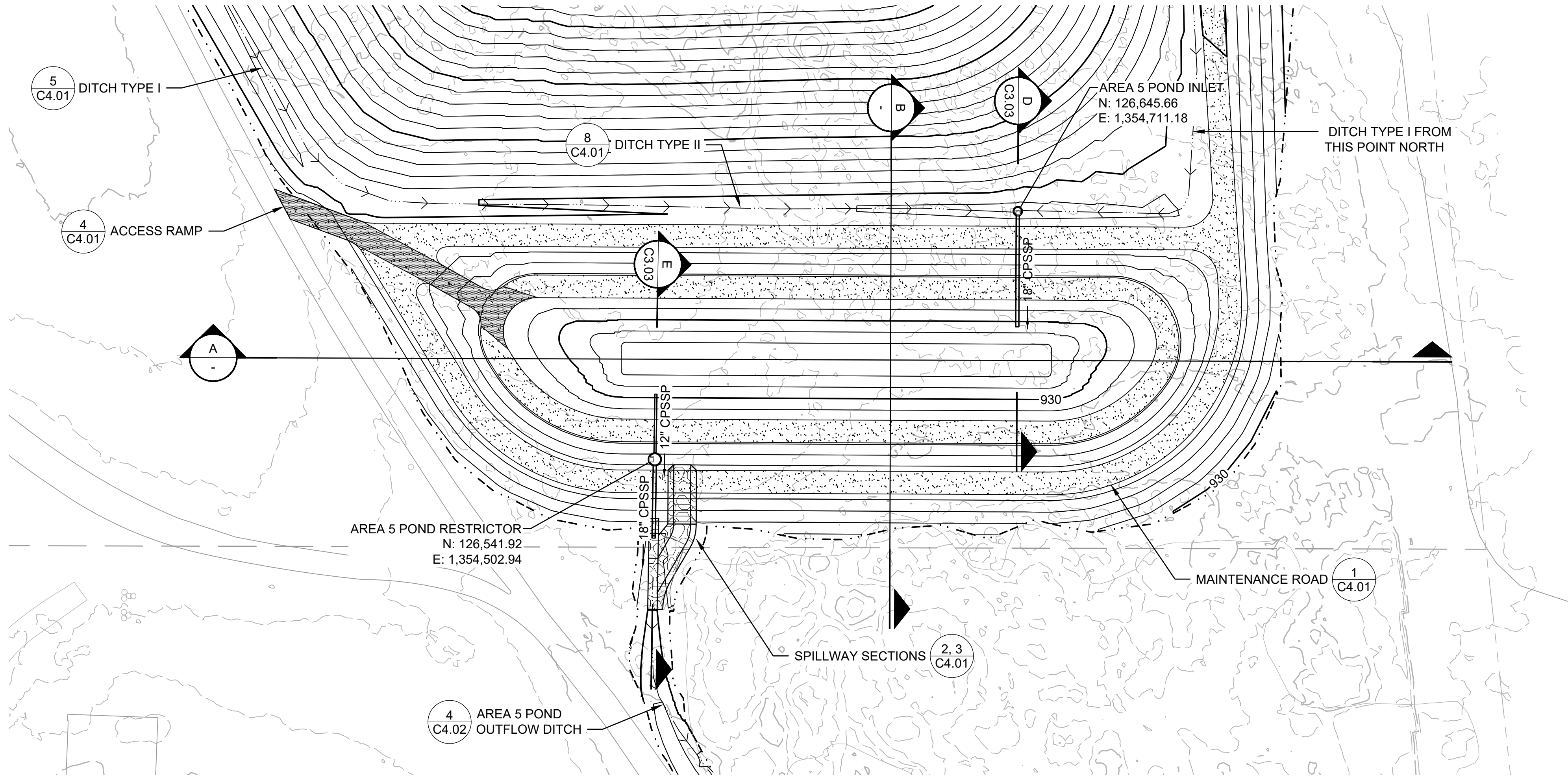
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GRADING PERMIT NO. GRDE15-0011

AREA 6 STORMWATER POND

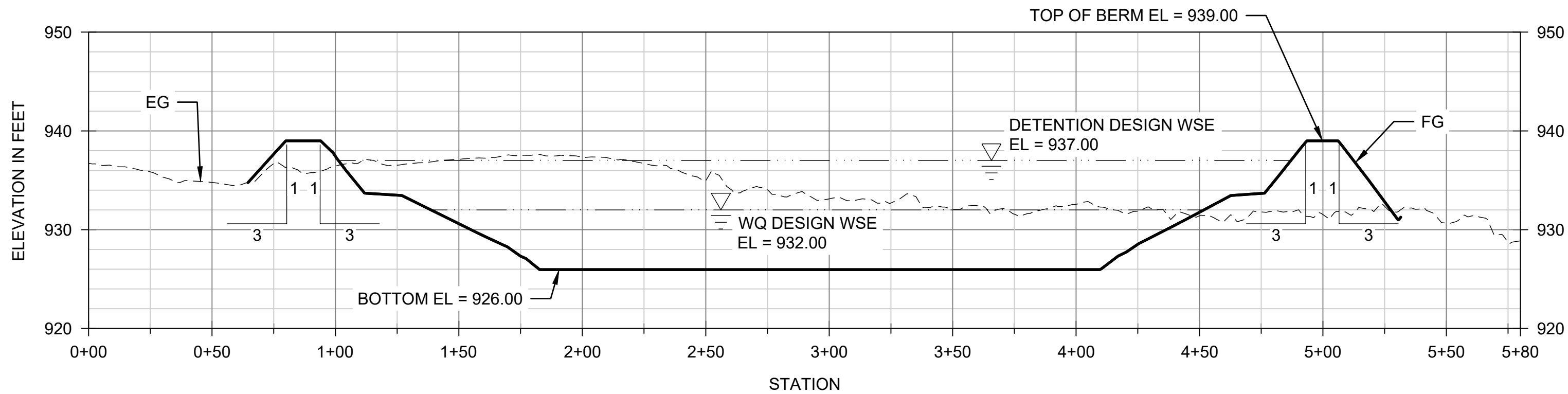
DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C3.01
SHEET NO: 13
OF 19

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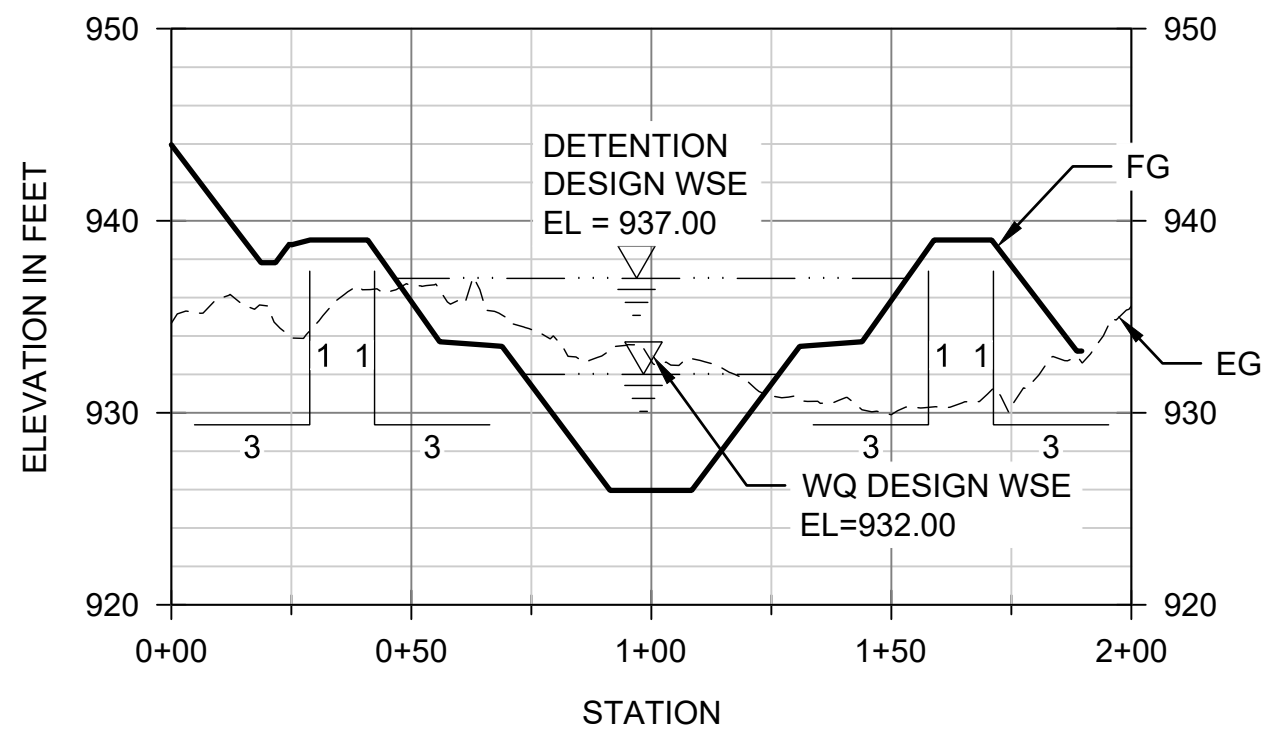
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PLAN - AREA 5 STORMWATER POND
SCALE: 1"=40'



SECTION - AREA 5 STORMWATER POND
HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=10'



SECTION - AREA 5 STORMWATER POND
HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=10'

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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: H=1:40, V=1:10	APPROVED: O. REESE

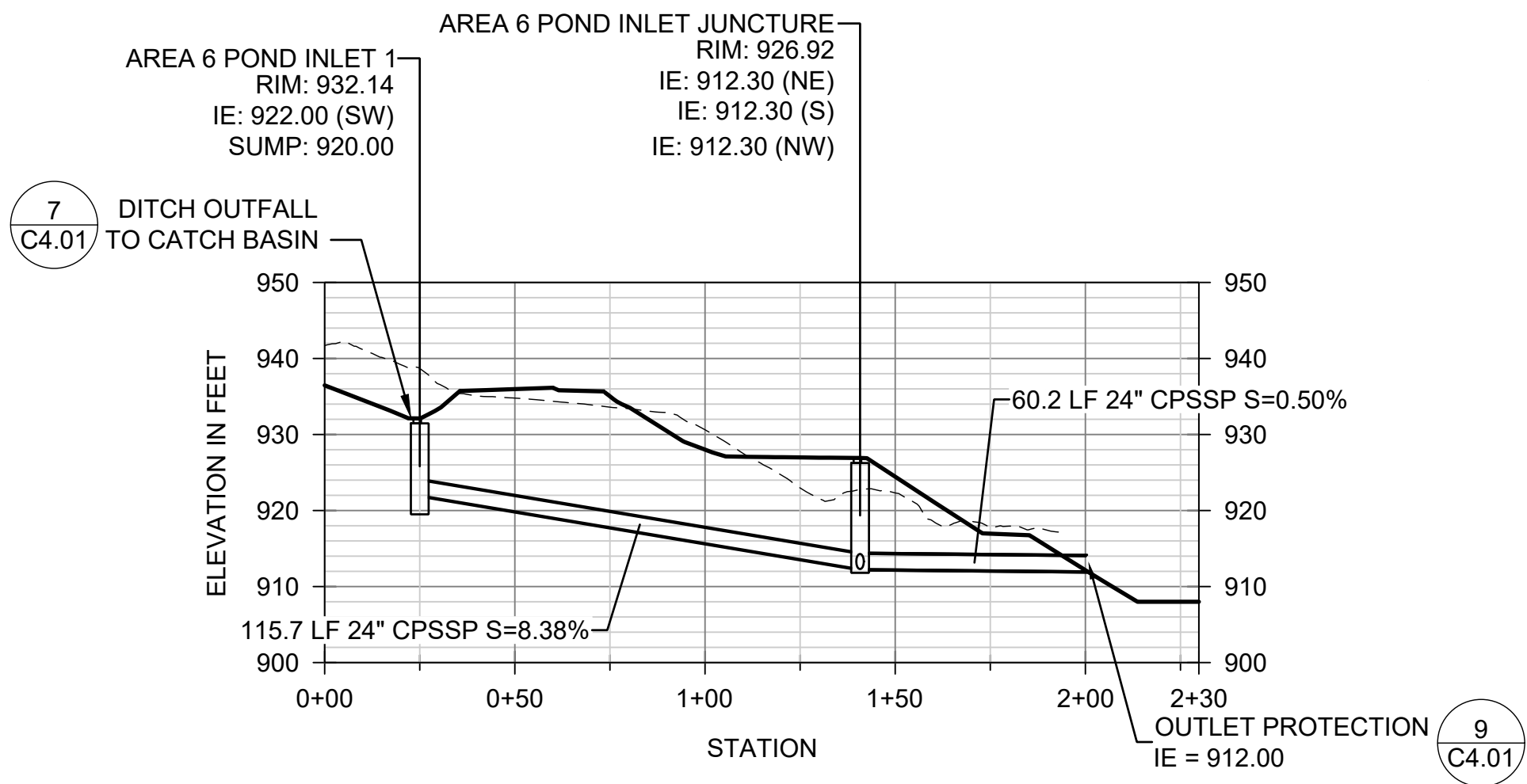
RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

AREA 5 STORMWATER POND

DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
C3.02	
SHEET NO:	OF
14	19

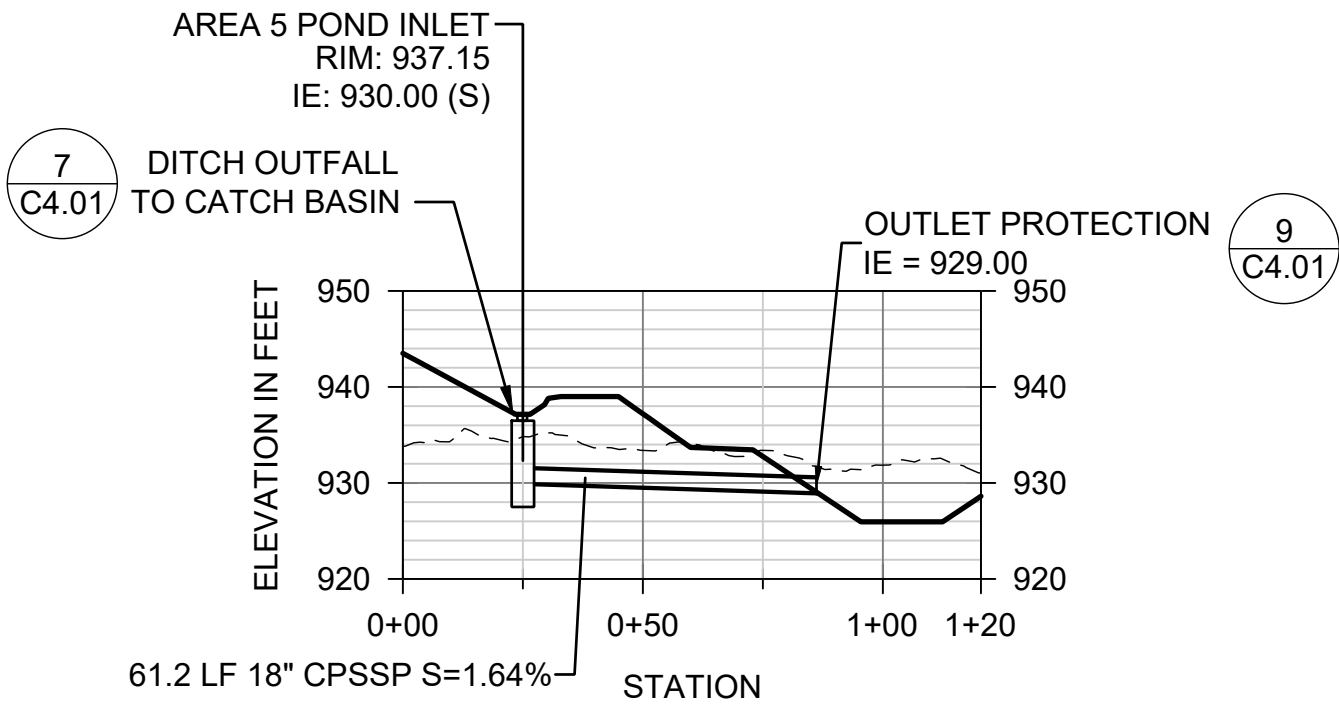
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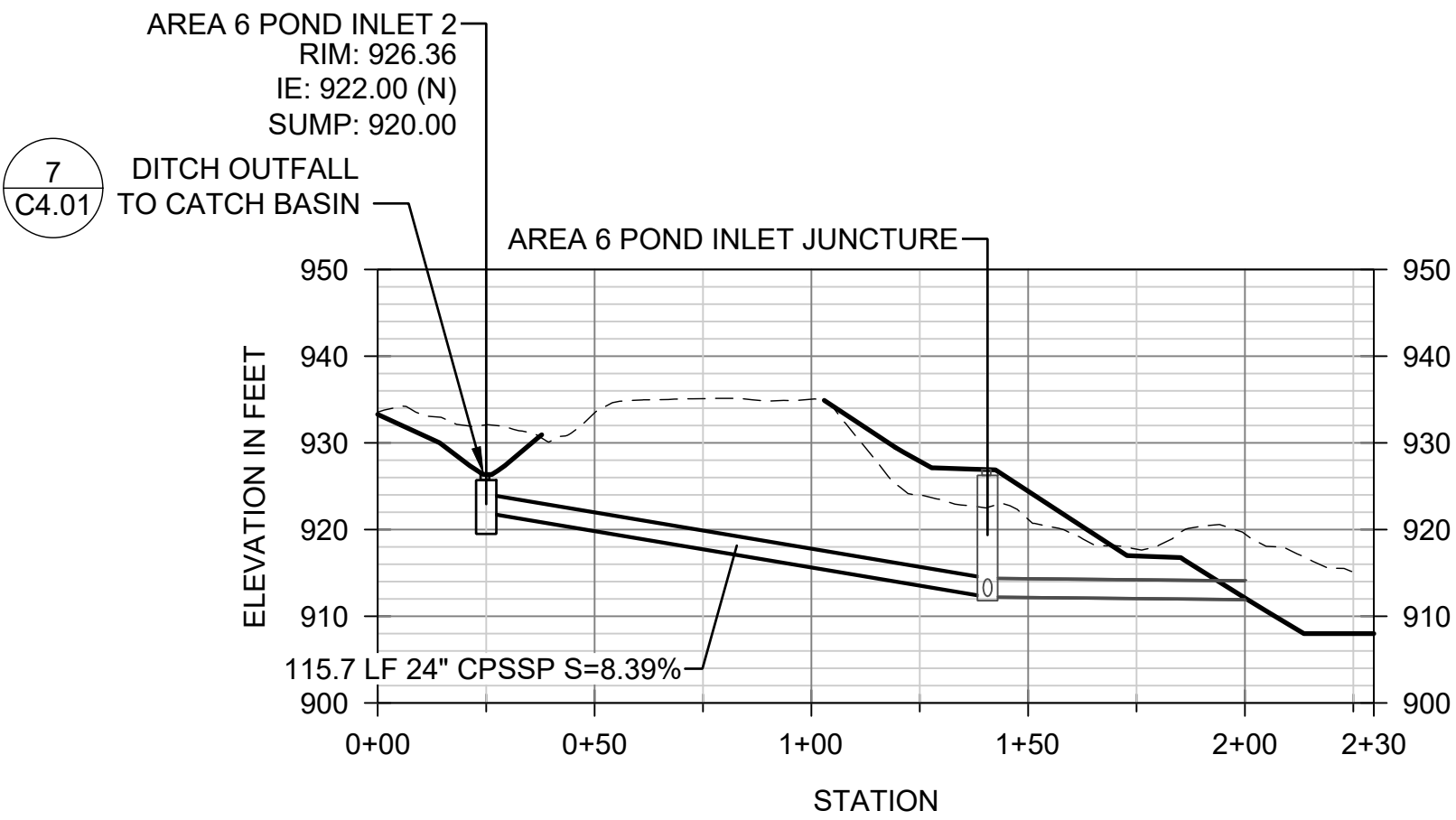
PROFILE - AREA 6 POND INLET 1

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'



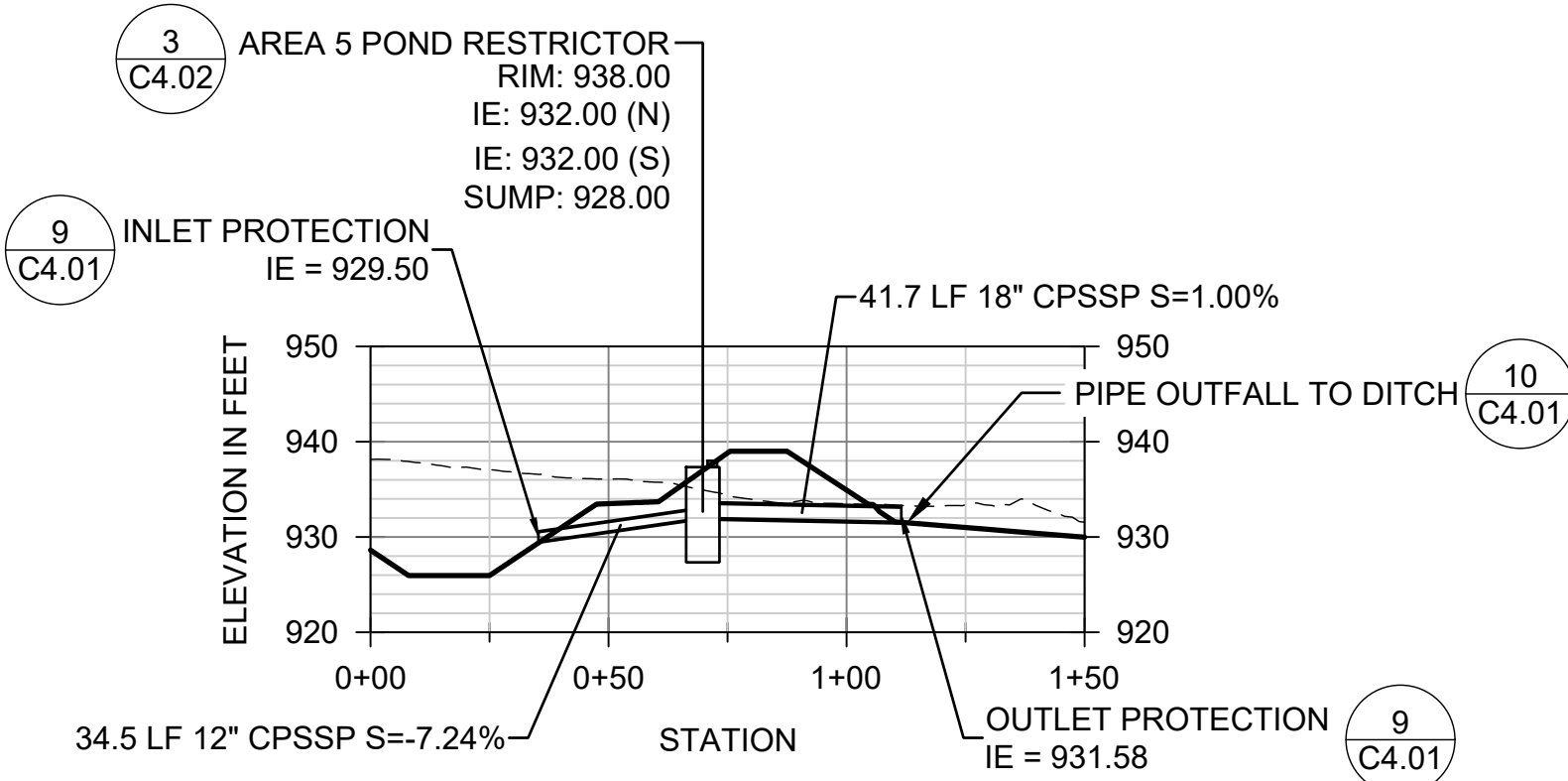
PROFILE - AREA 5 POND INLET

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'



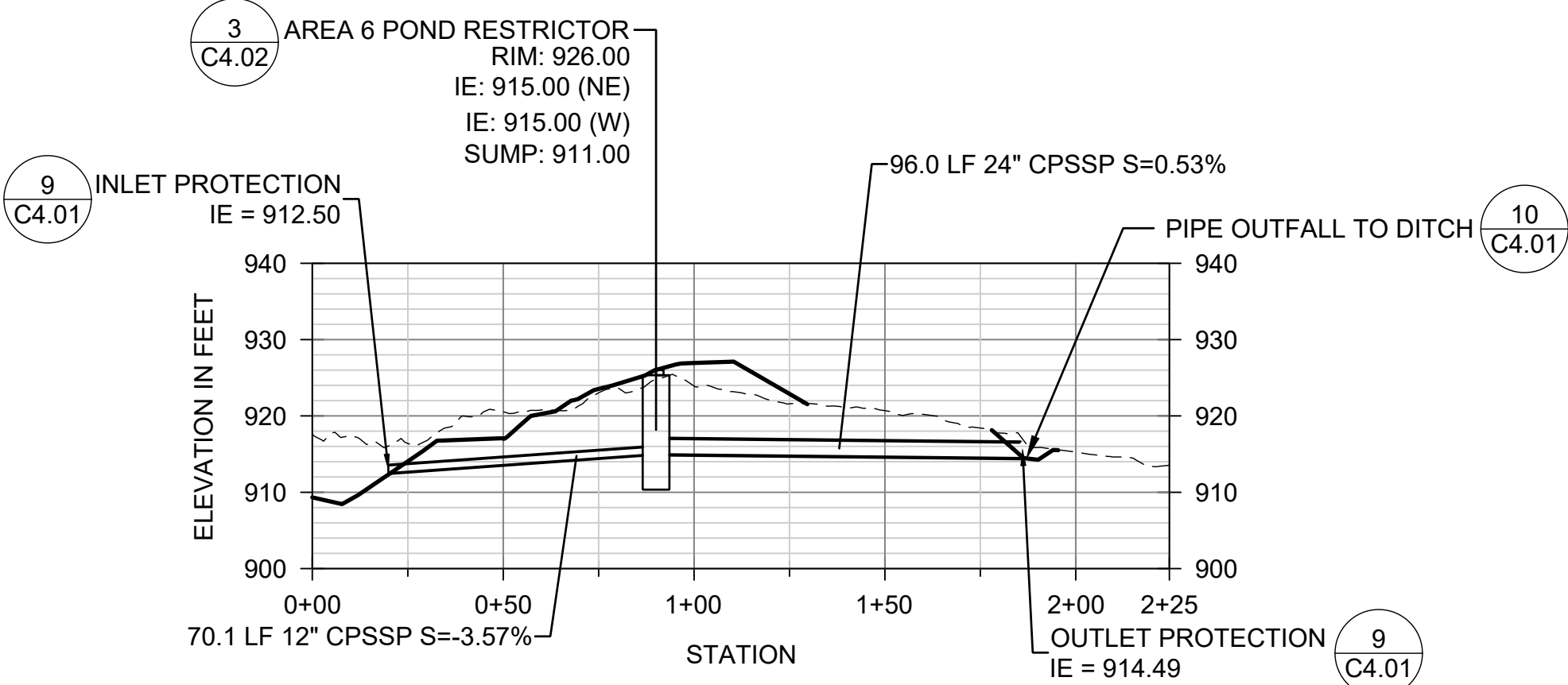
PROFILE - AREA 6 POND INLET 2

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'



PROFILE - AREA 5 POND OUTLET

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'



PROFILE - AREA 6 POND OUTLET

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'

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ONE INCH
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INCH SCALE ACCORDINGLY



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28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051



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DESIGNED:	DRAWN: C. MARSTON
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

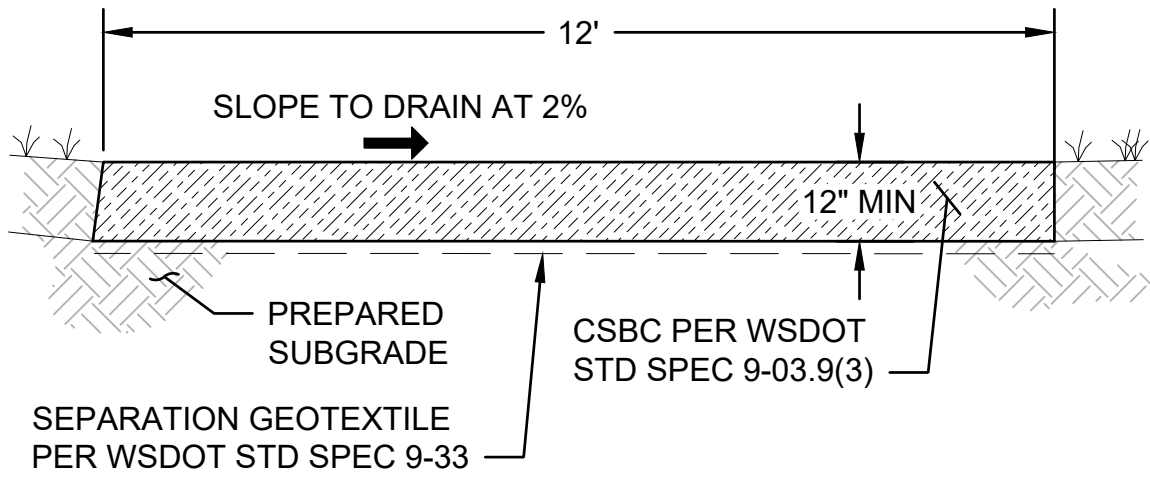
RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

STORMWATER PIPE PROFILES

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C3.03
SHEET NO: 15 OF 19

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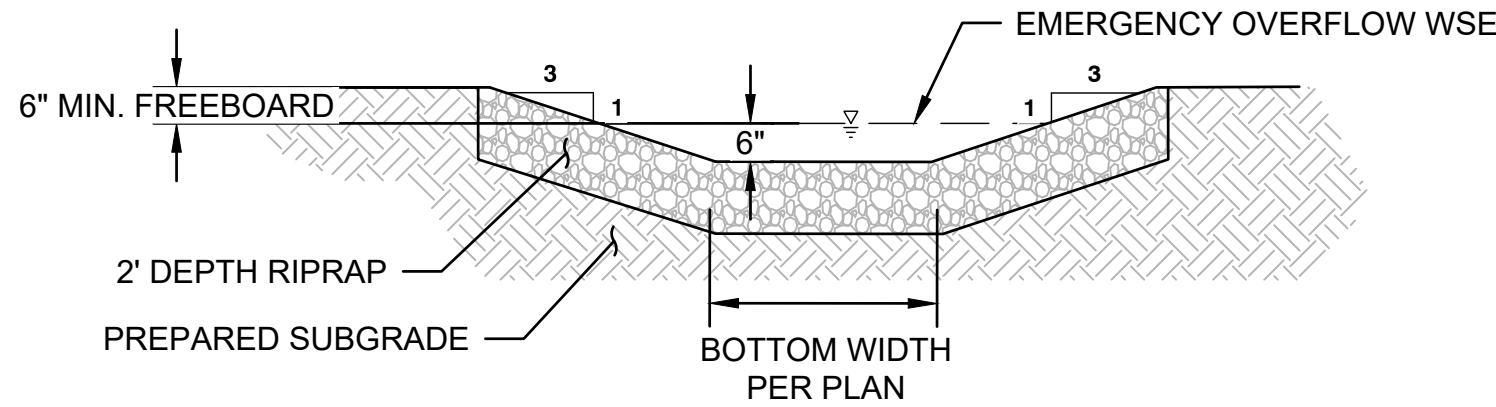
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DETAIL - MAINTENANCE ROAD

SCALE: NTS

1
VAR



NOTES:

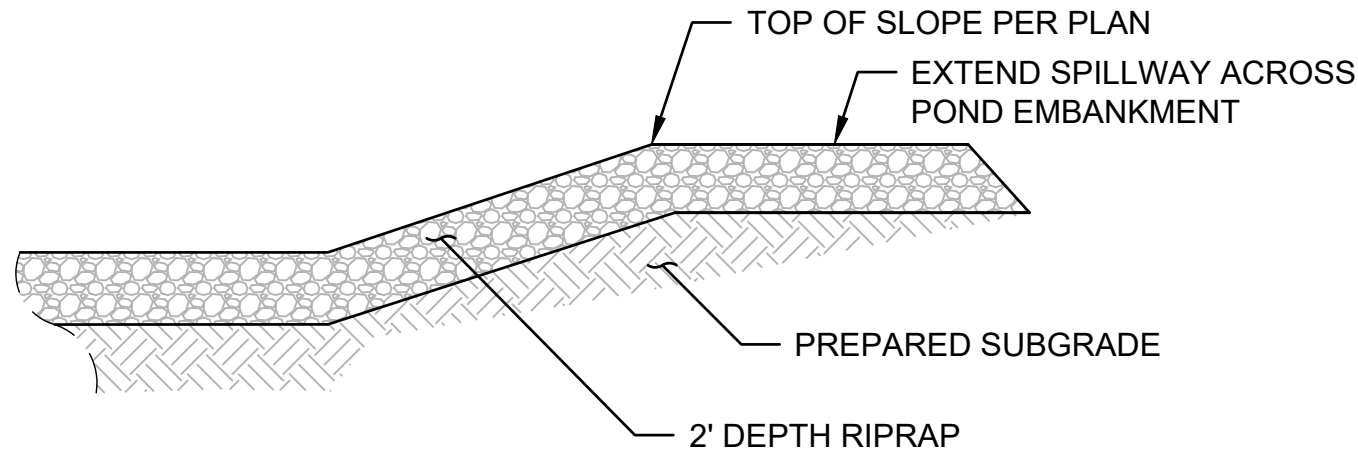
1. RIPRAP GRADATION AS FOLLOWS:

MAXIMUM STONE SIZE: 24 INCHES (NOMINAL DIAMETER)
MEDIAN STONE SIZE: 16 INCHES
MINIMUM STONE SIZE: 4 INCHES

DETAIL - SPILLWAY

SCALE: NTS

2
-



NOTES:

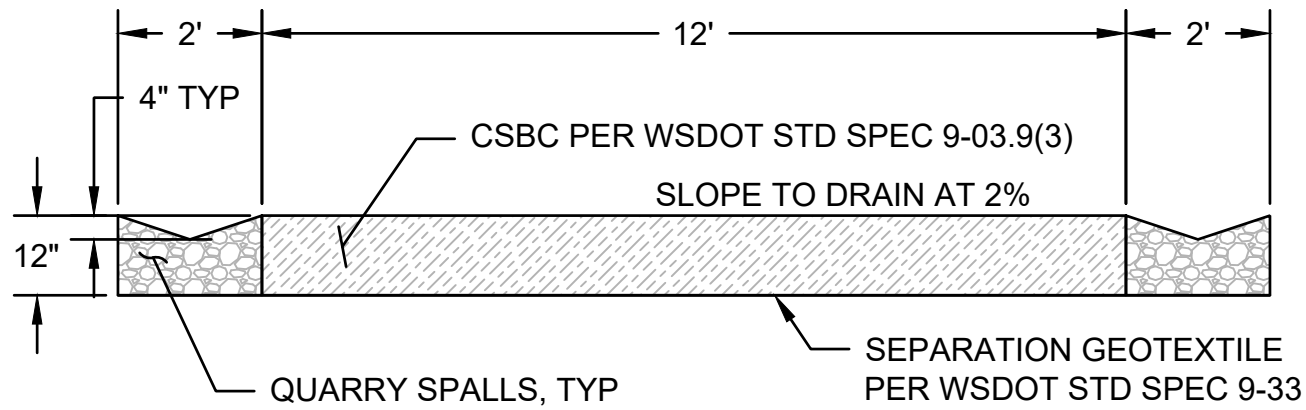
1. RIPRAP GRADATION AS FOLLOWS:

MAXIMUM STONE SIZE: 24 INCHES (NOMINAL DIAMETER)
MEDIAN STONE SIZE: 16 INCHES
MINIMUM STONE SIZE: 4 INCHES

DETAIL - SPILLWAY ENERGY DISSIPATOR

SCALE: NTS

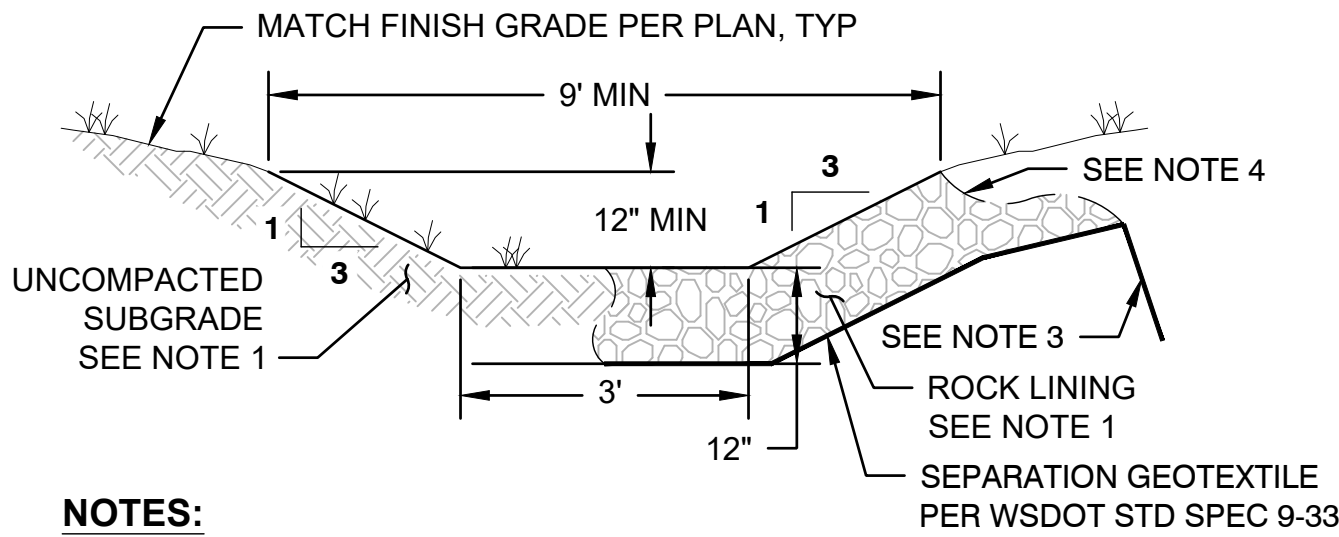
3
VAR



DETAIL - ACCESS RAMP

SCALE: NTS

4
VAR



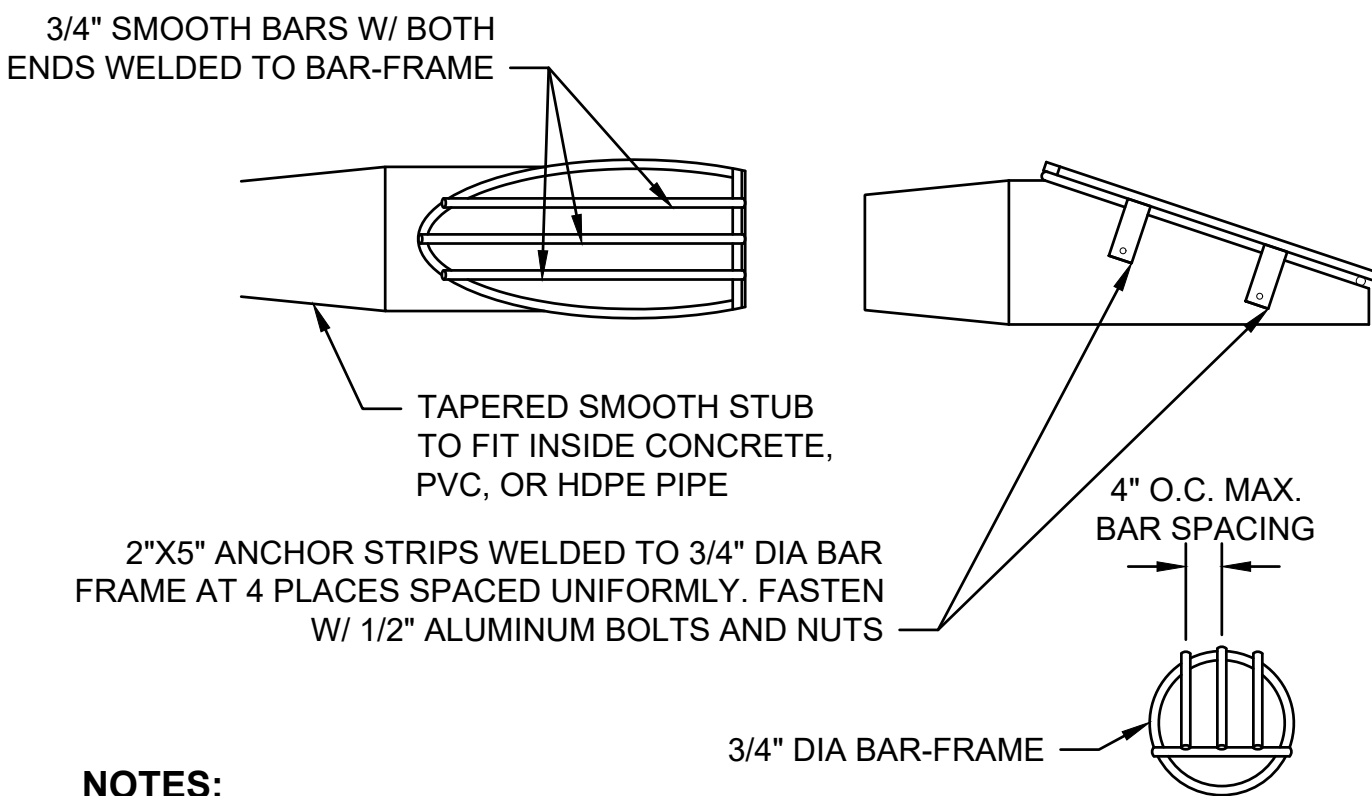
NOTES:

- DITCH LINING TO BE UNCOMPACTED SUBGRADE WITH VEGETATION IF SLOPE IS <10%. IF SLOPE IS > 10%, ROCK LINING IS REQUIRED. SEE NOTE 2 FOR ROCK LINING REQUIREMENTS.
- ROCK LINING SHALL BE REASONABLY WELL GRADED QUARRY SPALLS AS FOLLOWS:
MAXIMUM STONE SIZE: 12 INCHES
MEDIAN STONE SIZE: 8 INCHES
MINIMUM STONE SIZE: 2 INCHES
- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- WIDTH OF QUARRY SPALLS SHALL EXTEND ALONG DITCH BOTTOM AND TO 1.25' ABOVE DITCH BOTTOM.
- INSTALL ROCK CHECK DAMS PER 5/C4.02 IF SLOPE IS BETWEEN 5% AND 10%.

DETAIL - DITCH TYPE I

SCALE: NTS

5
VAR



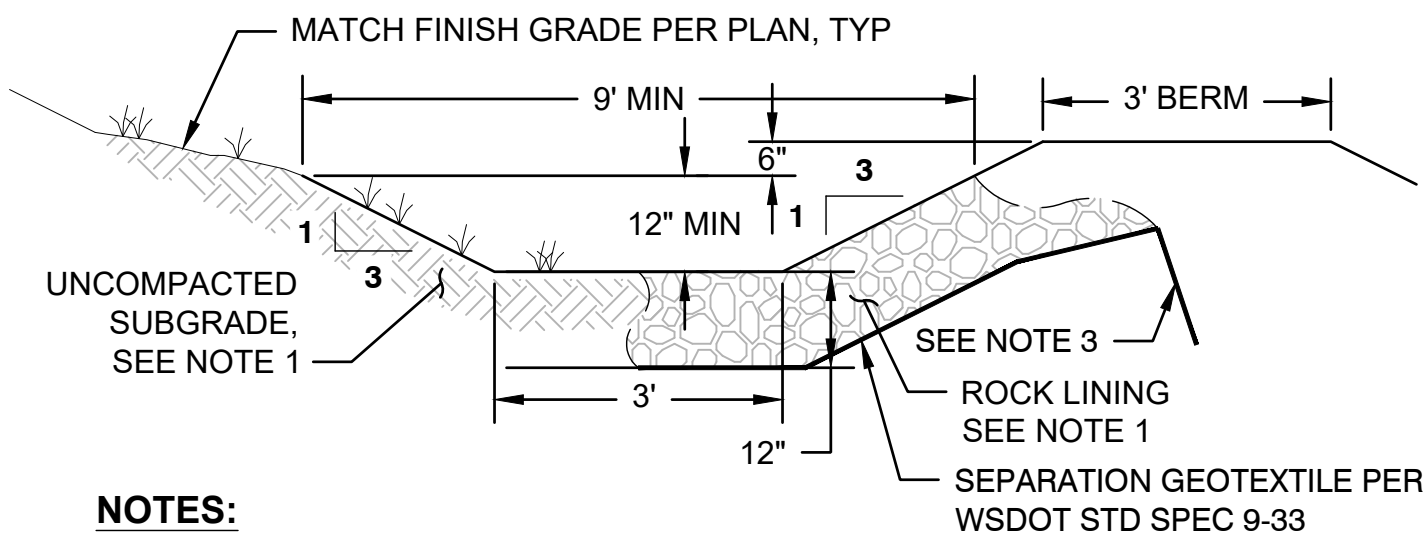
NOTES:

- TRASH RACK SHALL BE FABRICATED WITH ALUMINUM 6061 IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 9-28.14(3).

DETAIL - TRASH RACK

SCALE: NTS

6
VAR



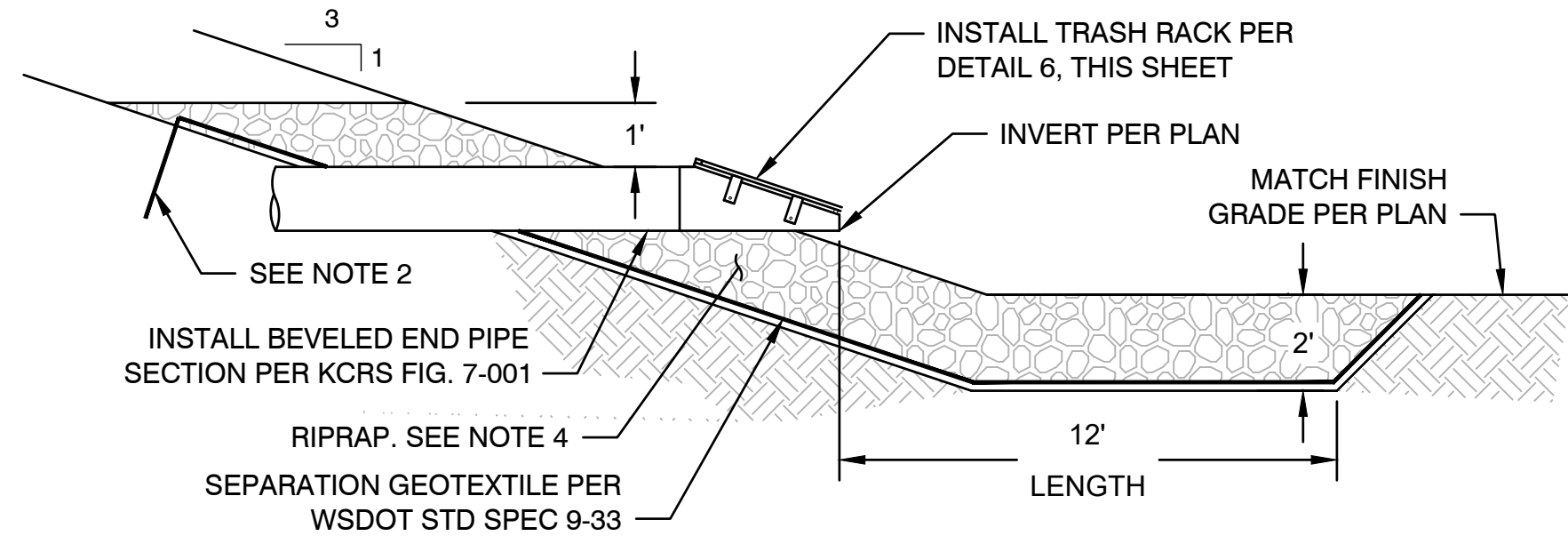
NOTES:

- DITCH LINING TO BE UNCOMPACTED SUBGRADE WITH VEGETATION IF SLOPE IS <10%. IF SLOPE IS > 10%, ROCK LINING IS REQUIRED. SEE NOTE 2 FOR ROCK LINING REQUIREMENTS.
- ROCK LINING SHALL BE REASONABLY WELL GRADED QUARRY SPALLS AS FOLLOWS:
MAXIMUM STONE SIZE: 12 INCHES
MEDIAN STONE SIZE: 8 INCHES
MINIMUM STONE SIZE: 2 INCHES
- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- WIDTH OF QUARRY SPALLS SHALL EXTEND ALONG DITCH BOTTOM AND TO 1.25' ABOVE DITCH BOTTOM.
- INSTALL ROCK CHECK DAMS PER 5/C4.02 IF SLOPE IS BETWEEN 5% AND 10%.

DETAIL - DITCH TYPE II

SCALE: NTS

8
VAR



NOTES:

- INSTALL RIPRAP AT CULVERT OUTLETS UNLESS OTHERWISE NOTED IN DRAWINGS.
- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- WIDTH OF RIP RAP IS 8.0'.
- RIPRAP GRADATION AS FOLLOWS:

MAXIMUM STONE SIZE: 24 INCHES (NOMINAL DIAMETER)
MEDIAN STONE SIZE: 16 INCHES
MINIMUM STONE SIZE: 4 INCHES

DETAIL - POND INLET PROTECTION

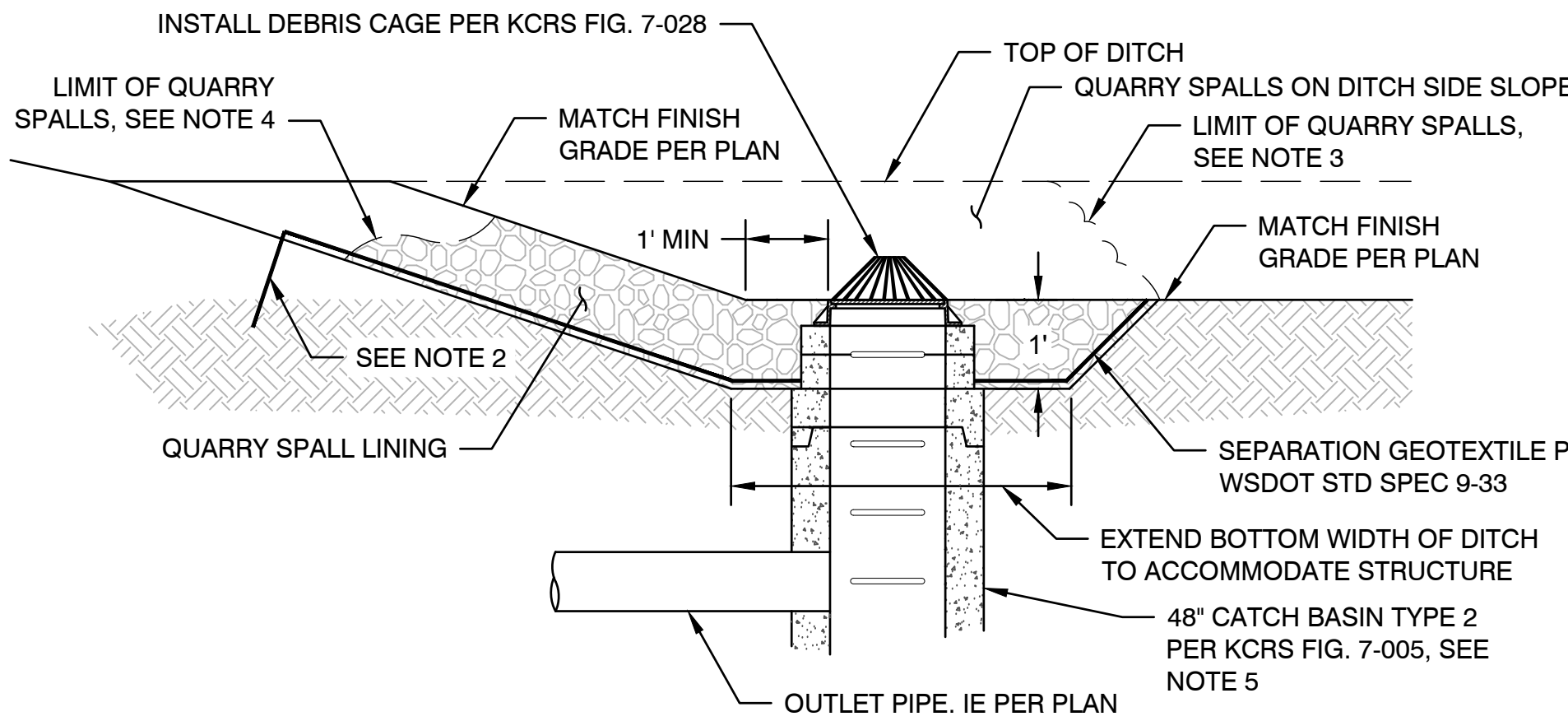
SCALE: NTS

9
VAR

DETAIL - DITCH OUTFALL TO CATCH BASIN

SCALE: NTS

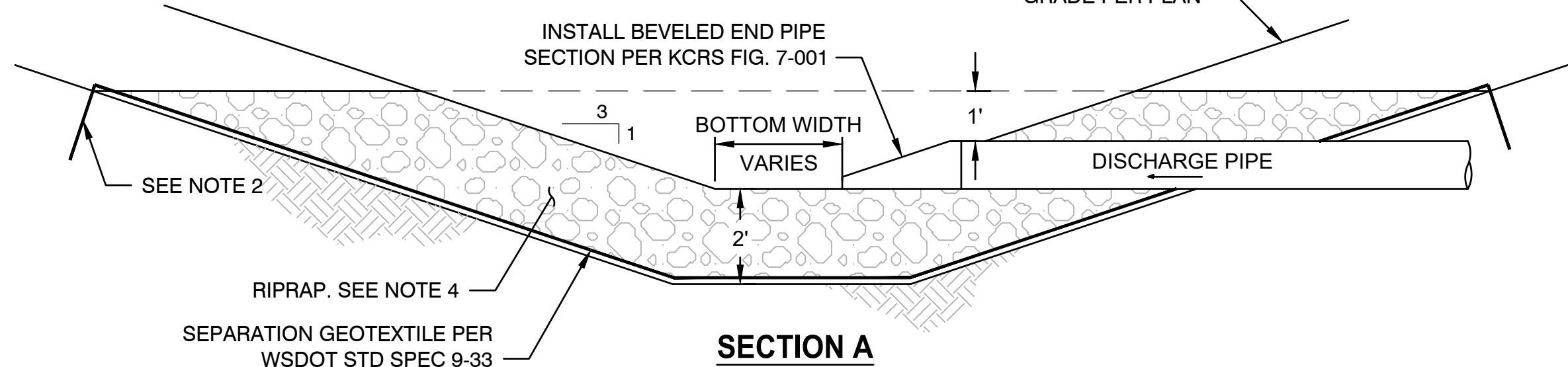
7
VAR



NOTES:

- INSTALL QUARRY SPALLS AT DITCH OUTLETS UNLESS OTHERWISE NOTED IN DRAWINGS.
- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- WIDTH OF QUARRY SPALLS SHALL EXTEND ALONG DITCH BOTTOM AND TO 1.25' ABOVE CATCH BASIN RIM.
- LENGTH OF QUARRY SPALLS SHALL EXTEND ALONG RUNNING SLOPE OF DITCH TO 8' FROM CATCH BASIN.
- CATCH BASIN RIM PER PLAN. SET RIM TO MATCH FINISH GRADE.
- ROCK LINING SHALL BE QUARRY SPALLS WITH GRADATION AS FOLLOWS:

PASSING 8-INCH SQUARE SEIVE: 100%
PASSING 3-INCH SQUARE SIEVE: 40-60% MAX
PASSING 3/4-INCH SQUARE SIEVE: 0-10% MAX



NOTES:

- INSTALL RIPRAP AT CULVERT OUTLETS UNLESS OTHERWISE NOTED IN DRAWINGS.
- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- LENGTH OF RIPRAP SHALL EXTEND ALONG RUNNING SLOPE OF DITCH TO 12' FROM PIPE OUTFALL.
- RIPRAP GRADATION AS FOLLOWS:
MAXIMUM STONE SIZE: 24 INCHES (NOMINAL DIAMETER)
MEDIAN STONE SIZE: 16 INCHES
MINIMUM STONE SIZE: 4 INCHES

DETAIL - PIPE OUTFALL TO DITCH

SCALE: NTS

10
VAR

ISSUED FOR COUNTY REVIEW

ONE INCH
↑
AT FULL SIZE IF NOT ONE
INCH SCALE ACCORDINGLY



RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051



DESIGNED: D. WERNER	DRAWN: D. WERNER
DESIGNED:	DRAWN: I. RUMMELL
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

DRAINAGE DETAILS 1

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C4.01
SHEET NO: 16
OF 19

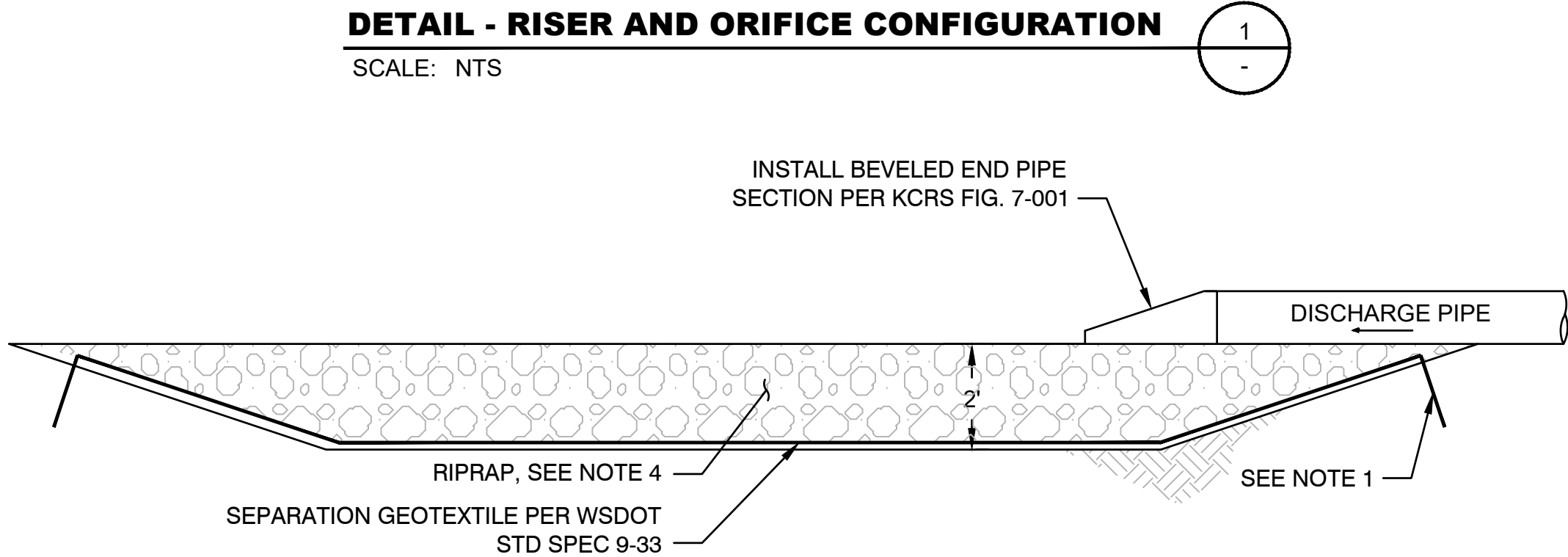
STRUCTURE #	RISER OR ORIFICE #	TYPE	ELEVATION (FT)	DIAMETER (IN)
AREA 5 POND OUTLET	ORIFICE #1	HORIZONTAL; NO ELBOW	930.00 (BOTTOM)	0.875
AREA 5 POND OUTLET	ORIFICE #2	HORIZONTAL; ELBOW	932.50	2.50
AREA 5 POND OUTLET	ORIFICE #3	HORIZONTAL; ELBOW	934.75	2.50
AREA 5 POND OUTLET	RISER	RISER	937.00	30.00
AREA 6 POND OUTLET	ORIFICE #1	HORIZONTAL; NO ELBOW	913.00 (BOTTOM)	1.00
AREA 6 POND OUTLET	ORIFICE #2	HORIZONTAL; ELBOW	915.25	1.00
AREA 6 POND OUTLET	ORIFICE #3	HORIZONTAL; ELBOW	916.00	2.75
AREA 6 POND OUTLET	RISER	RISER	925.00	30.00

NOTES:

- CONSTRUCT FLOW RESTRICTOR PER KCRS FIG. 7-025 AS MODIFIED IN THESE PLANS.
- SET RISER, ORIFICE SIZES AND ELEVATIONS PER THE TABLE ABOVE.
- ALL ORIFICES ARE CIRCULAR WITH HORIZONTAL ORIENTATION EITHER ON BOTTOM OF RISER PLATE OR ON BOTTOM OF DOWNTURNED ELBOW.
- ORIFICE ELEVATION NUMBER INDICATES INVERT ELEVATION FOR ELBOW RESTRICTOR.
- ORIFICE ELEVATION OF 'BOTTOM' INDICATES ORIFICE IS ON BOTTOM OF FLOW CONTROL TEE.

DETAIL - RISER AND ORIFICE CONFIGURATION

SCALE: NTS



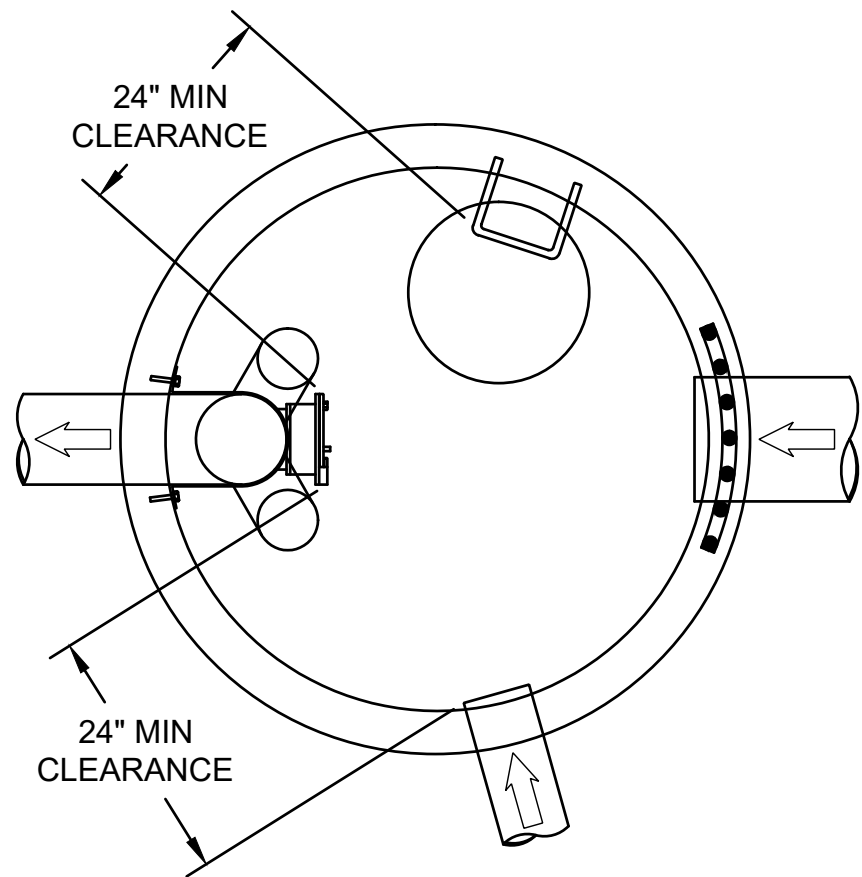
NOTES:

- ANCHOR SEPARATION GEOTEXTILE TO A MINIMUM DEPTH OF 12 INCHES.
- LENGTH AND WIDTH OF RIPRAP PER PLAN
- RIPRAP TO EXTEND 2' UPSTREAM OF OUTLET PIPE
- RIPRAP GRADATION AS FOLLOWS:

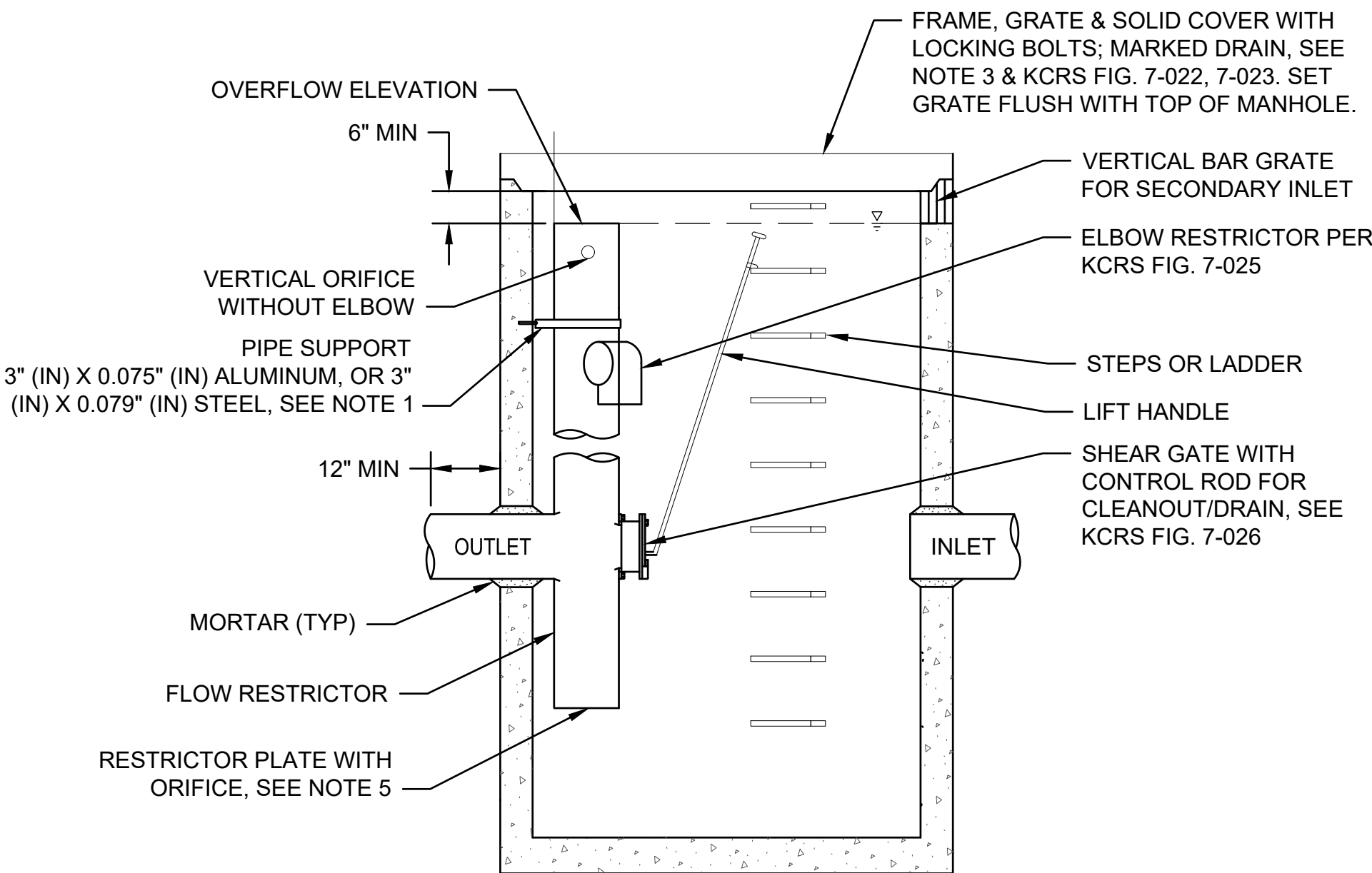
MAXIMUM STONE SIZE: 24 INCHES (NOMINAL DIAMETER)
MEDIAN STONE SIZE: 16 INCHES
MINIMUM STONE SIZE: 4 INCHES

DETAIL - ROCK DISPERSION PAD

SCALE: NTS



PLAN VIEW



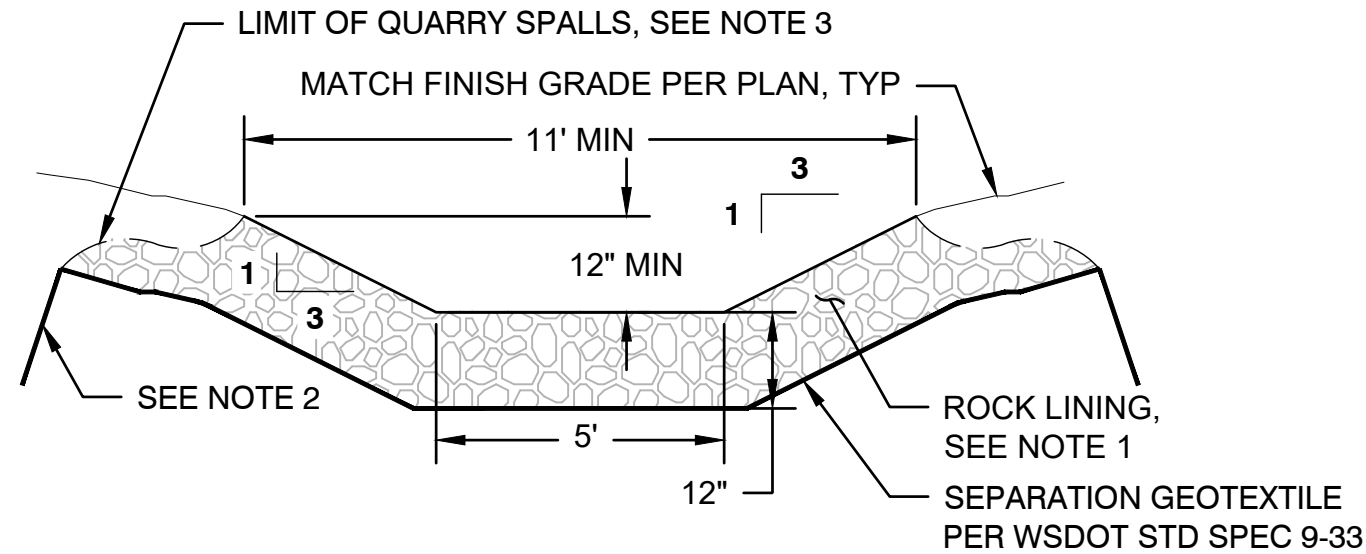
SECTION A

NOTES:

- THE PIPE SUPPORTS AND THE FLOW RESTRICTOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36" (IN). ATTACH THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8" (IN) STAINLESS STEEL EXPANSION BOLTS OR EMBE THE SUPPORTS INTO THE MANHOLE WALL 2" (IN).
- THE FLOW RESTRICTOR SHALL BE FABRICATED FROM ONE OF THE FOLLOWING MATERIALS:
0.060" (IN) CORRUGATED ALUMINUM ALLOY DRAIN PIPE
0.064" (IN) CORRUGATED GALVANIZED STEEL DRAIN PIPE WITH TREATMENT 1
0.064" (IN) CORRUGATED ALUMINIZED STEEL DRAIN PIPE
0.060" (IN) ALUMINUM ALLOY FLAT SHEET, IN ACCORDANCE WITH ASTM B 209, 5052 H32 OR EPS
HIGH DENSITY POLYETHYLENE STORM SEWER PIPE
- THE FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT: THE SHEAR GATE IS VISIBLE FROM THE TOP; THE CLIMB-DOWN SPACE IS CLEAR OF THE RISER AND GATE; THE FRAME IS CLEAR OF THE CURB.
- THE MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN, OR ALL PLACED ON ONE SIDE OF THE RISER TO ASSURE LADDER CLEARANCE. THE SIZE OF THE ELBOWS AND THEIR PLACEMENT SHALL BE SPECIFIED IN DETAIL 1 THIS SHEET.
- RESTRICTOR PLATE WITH ORIFICE AS SPECIFIED IN DETAIL 1 THIS SHEET. THE OPENING IS TO BE CUT ROUND AND SMOOTH AND CENTERED IN THE RESTRICTOR PLATE.
- RESTRICTOR TO BE CONSTRUCTED PER KCRS FIG. 7-025. FIGURE PRESENTED ABOVE IS FOR REFERENCE ONLY.

DETAIL - RESTRICTOR

SCALE: NTS

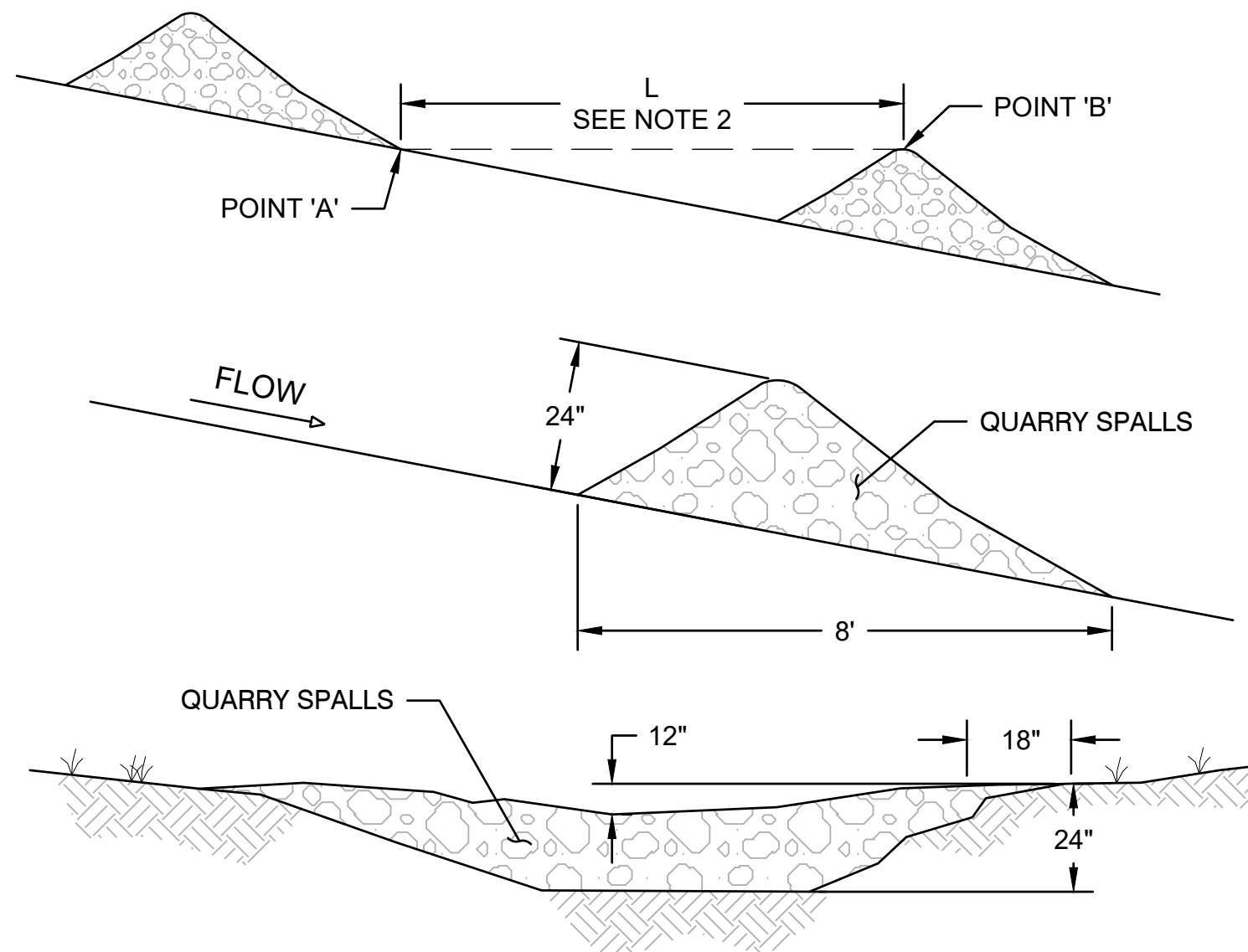


NOTES:

- ROCK LINING SHALL BE REASONABLY WELL GRADED QUARRY SPALL AS FOLLOWS:
MAXIMUM STONE SIZE: 12 INCHES
MEDIAN STONE SIZE: 8 INCHES
MINIMUM STONE SIZE: 2 INCHES
- ANCHOR GEOTEXTILE-TYPE 2 TO A MINIMUM DEPTH OF 12 INCHES.
- WIDTH OF QUARRY SPALLS SHALL EXTEND ALONG DITCH BOTTOM AND TO 1.25' ABOVE CATCH BASIN RIM.
- INSTALL ROCK CHECK DAMS PER 5/C4.02 IF SLOPE IS BETWEEN 5% AND 10%.

DETAIL - POND OUTFLOW DITCH

SCALE: NTS



NOTES:

- KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW AROUND DAM.
- SPACING BETWEEN CHECK DAMS 'L' IS TO BE THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.

DETAIL - ROCK CHECK DAM

SCALE: NTS

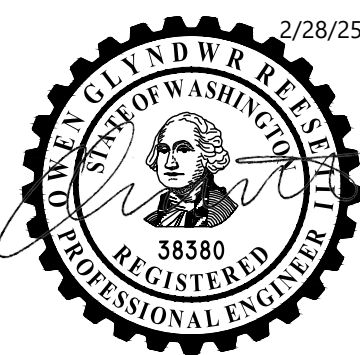
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No.	REVISION	BY	APP'D	DATE

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INCH SCALE ACCORDINGLY
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VAR



RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051



DESIGNED: D. WERNER	DRAWN: D. WERNER
DESIGNED:	DRAWN: I. RUMMELL
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

DRAINAGE DETAILS 2

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: C4.02
SHEET NO: 17 OF 19



PLANT SCHEDULE FILL SITE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		4,221,643 SF	RECLAMATION PLANTING - FOREST		
	ACE CIR	7,311	ACER CIRCINATUM	VINE MAPLE	1 GAL.
	ACE MAC	2,438	ACER MACROPHYLLUM	BIG LEAF MAPLE	1 GAL.
	PRU EMA	5,078	PRUNUS EMARGINATA	BITTER CHERRY	1 GAL.
	PSE DOU	4,334	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	1 GAL.
	QUE GAR	2,167	QUERCUS GARRYANA	OREGON WHITE OAK	1 GAL.
	TSU HET	2,438	TSUGA HETEROPHYLLA	WESTERN HEMLOCK	1 GAL.
	AME SER	4,876	AMELANCHIER ALNIFOLIA	SERVICEBERRY	1 GAL.
	HOL DIS	15,235	HOLODISCUS DISCOLOR	OCEANSPRAY	1 GAL.
	MAH NER	20,314	MAHONIA NERVOSA	OREGON GRAPE	1 GAL.
	MAH REP	20,314	MAHONIA REPENS	CREEPING MAHONIA	1 GAL.
	RIB SAN	7,619	RIBES SANGUINEUM	RED FLOWERING CURRANT	1 GAL.
	SAM RAC	7,619	SAMBUCUS RACEMOSA	RED ELDERBERRY	1 GAL.
	SYM ALB	27,086	SYMPHORICARPOS ALBUS	COMMON WHITE SNOWBERRY	1 GAL.
		487,860 SF	RECLAMATION PLANTING - SHRUBS		
	AME SER	564	AMELANCHIER ALNIFOLIA	SERVICEBERRY	1 GAL.
	HOL DIS	1,761	HOLODISCUS DISCOLOR	OCEANSPRAY	1 GAL.
	MAH NER	2,347	MAHONIA NERVOSA	OREGON GRAPE	1 GAL.
	MAH REP	2,347	MAHONIA REPENS	CREEPING MAHONIA	1 GAL.
	RIB SAN	880	RIBES SANGUINEUM	RED FLOWERING CURRANT	1 GAL.
	SAM RAC	880	SAMBUCUS RACEMOSA	RED ELDERBERRY	1 GAL.
	SYM ALB	3,130	SYMPHORICARPOS ALBUS	COMMON WHITE SNOWBERRY	1 GAL.
		162,071 SF	RECLAMATION SEEDING MIX		
		1,599,070 SF	EXISTING VEGETATION TO REMAIN		

RECLAMATION SEEDING MIX

BOTANICAL NAME	COMMON NAME	% PLS OF MIX	PLS LB PER ACRE
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	25	13.4
BROMUS CARINATUS	CALIFORNIA BROME	5	2.08
FESTUCA RUBRA	RED FESCUE	20	1.84
TRITICUM AESTIVUM X ELYTRIGIA ELONGATA	REGREEN	20	1.84
LUPINUS BICOLOR	MINIATURE LUPINE	10	17.68
ELYMUS GLAUCUS	BLUE WILDRYE	20	0.46
AGROSTIS ALBA	REDTOP	5	0.06

APPLICATION RATE: 100.27 PLS LB PER ACRE

RECLAMATION PLANTING NOTES

- SEE L1.02 FOR RECLAMATION PLANTING DETAILS.
- SEEDING AND PLANTING SHALL OCCUR AFTER GRADING HAS BEEN APPROVED BY ENGINEER.
- BOUNDARIES BETWEEN PLANTING ZONES SHALL BE STAKED OR FLAGGED BY CONTRACTOR, PRIOR TO PLANT LAYOUT.
- PROJECT REPRESENTATIVE SHALL APPROVE PLANT BOUNDARIES AND LAYOUT PRIOR TO PLANTING.
- ALL PLANTS SHALL CONFORM TO THE STANDARDS OF THE CURRENT EDITION OF AMERICAN STANDARD FOR NURSERY STOCK AS APPROVED BY THE AMERICAN STANDARDS INSTITUTE (ANSI Z60.1-2014)
- PLANT SUBSTITUTIONS ARE SUBJECT TO PRE-APPROVAL BY PROJECT REPRESENTATIVE. PLANT SUBSTITUTIONS MUST BE SUBMITTED FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO PLANT INSTALLATION.
- PLANTS SHALL BE TAGGED OR MARKED FOR IDENTIFICATION WHEN DELIVERED.
- PROJECT REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL UPON EACH DAY OF DELIVERY. PROVIDE HEALTHY STOCK, GROWN IN NURSERY, AND FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY, AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT. ALL PLANTS WITH DAMAGED ROOTS, LEADERS, OR BRANCHES SHALL BE REJECTED. ROOTBOUND AND J-ROOTED OR PLANTS WILL BE REJECTED.
- KEEP PLANTS SHADED UNTIL THE ACTUAL TIME OF PLANTING. DO NOT LET THE PLANT MATERIAL SIT IN THE SUN OR DRY OUT BEFORE PLANTING.
- REMOVE ALL CONTAINERS, FABRIC, FASTENERS, PLANT TYING MATERIAL, AND MARKING TAPES AT TIME OF PLANTING.
- NO PLANTING SHALL OCCUR WHEN GROUND IS FROZEN, DURING SNOW, EXTREME WIND, FLOODING, OR OTHER ADVERSE CONDITIONS THAT WILL AFFECT LONG-TERM PLANT HEALTH.
- THOROUGHLY WATER ALL PLANTED AREAS, UNLESS PLANTED IN SATURATED OR INUNDATED AREAS, IMMEDIATELY AFTER PLANTING. WATER FOR OPTIMAL SOIL MOISTURE IN DRY PERIODS DURING PLANT ESTABLISHMENT.

ISSUED FOR COUNTY REVIEW				
No.	REVISION	BY	APP'D	DATE

ONE INCH
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INCH SCALE ACCORDINGLY
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RESERVE SILICA CORPORATION
28131 RAVENSDALE - BLACK DIAMOND RD
RAVENSDALE, WA 98051

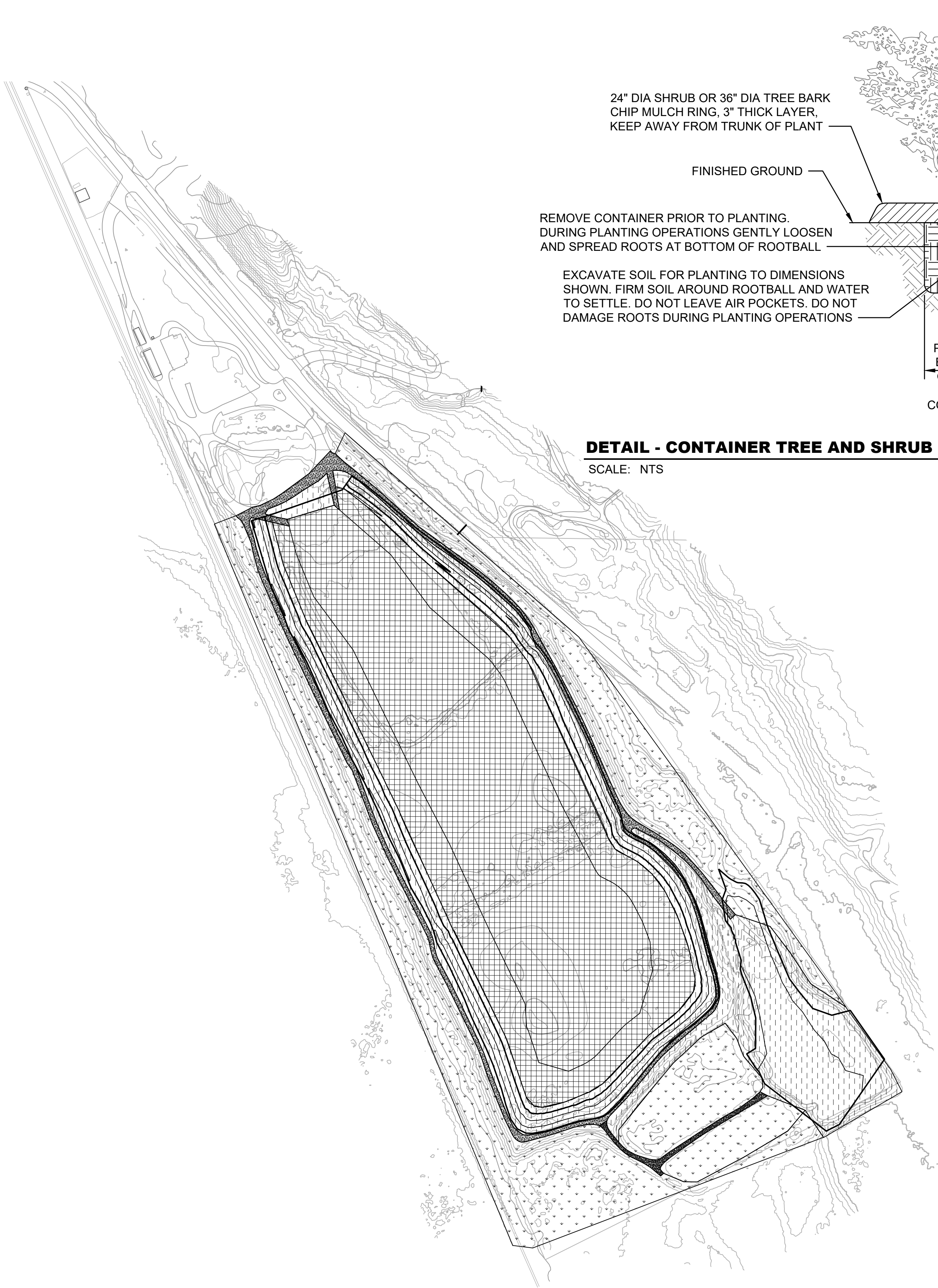
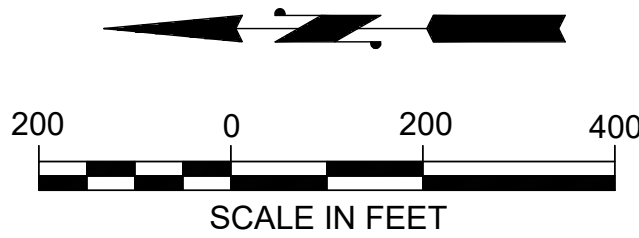


DESIGNED: D. ANSLOW	DRAWN: D. ANSLOW
DESIGNED:	DRAWN:
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

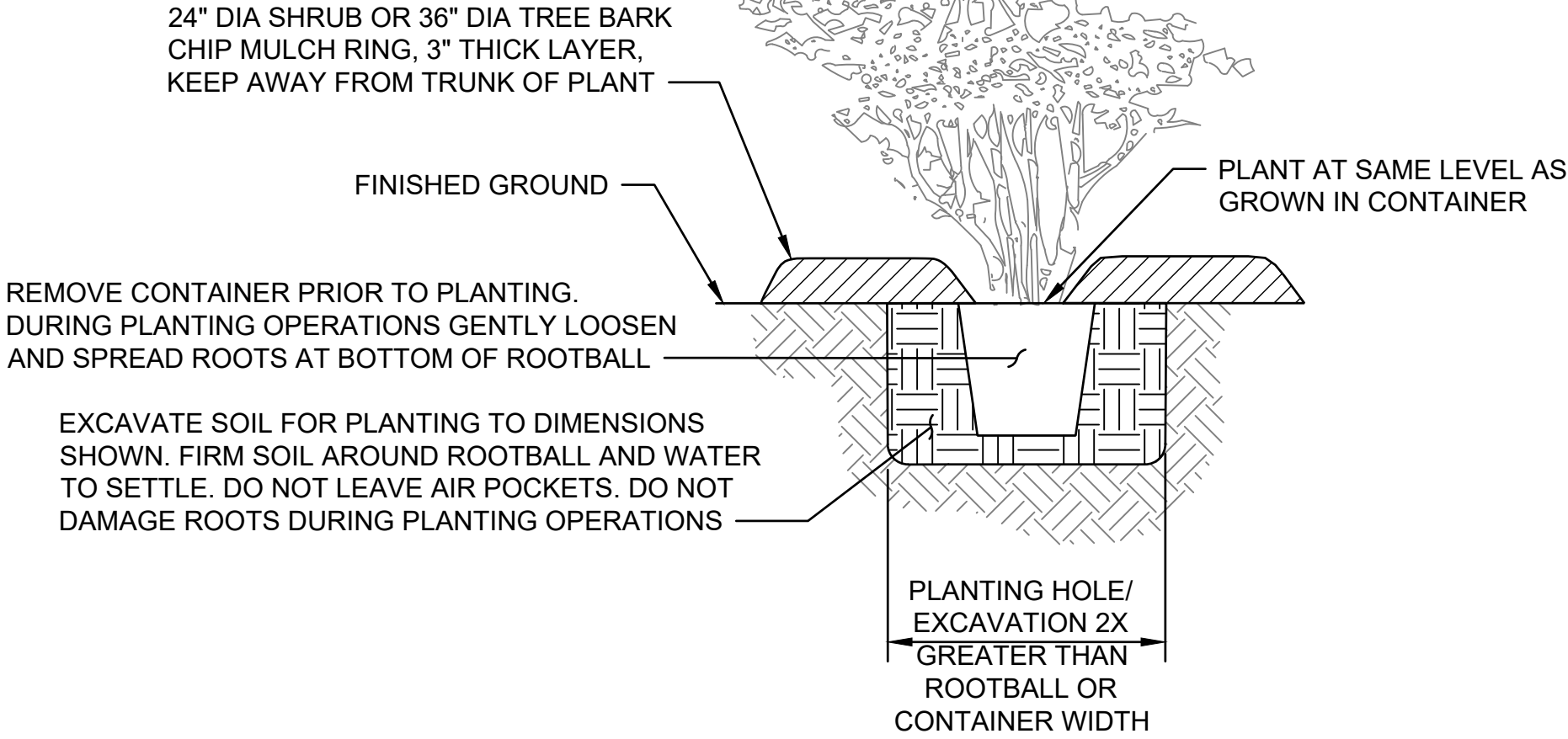
RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

RECLAMATION PLANTING PLAN - FILL SITE

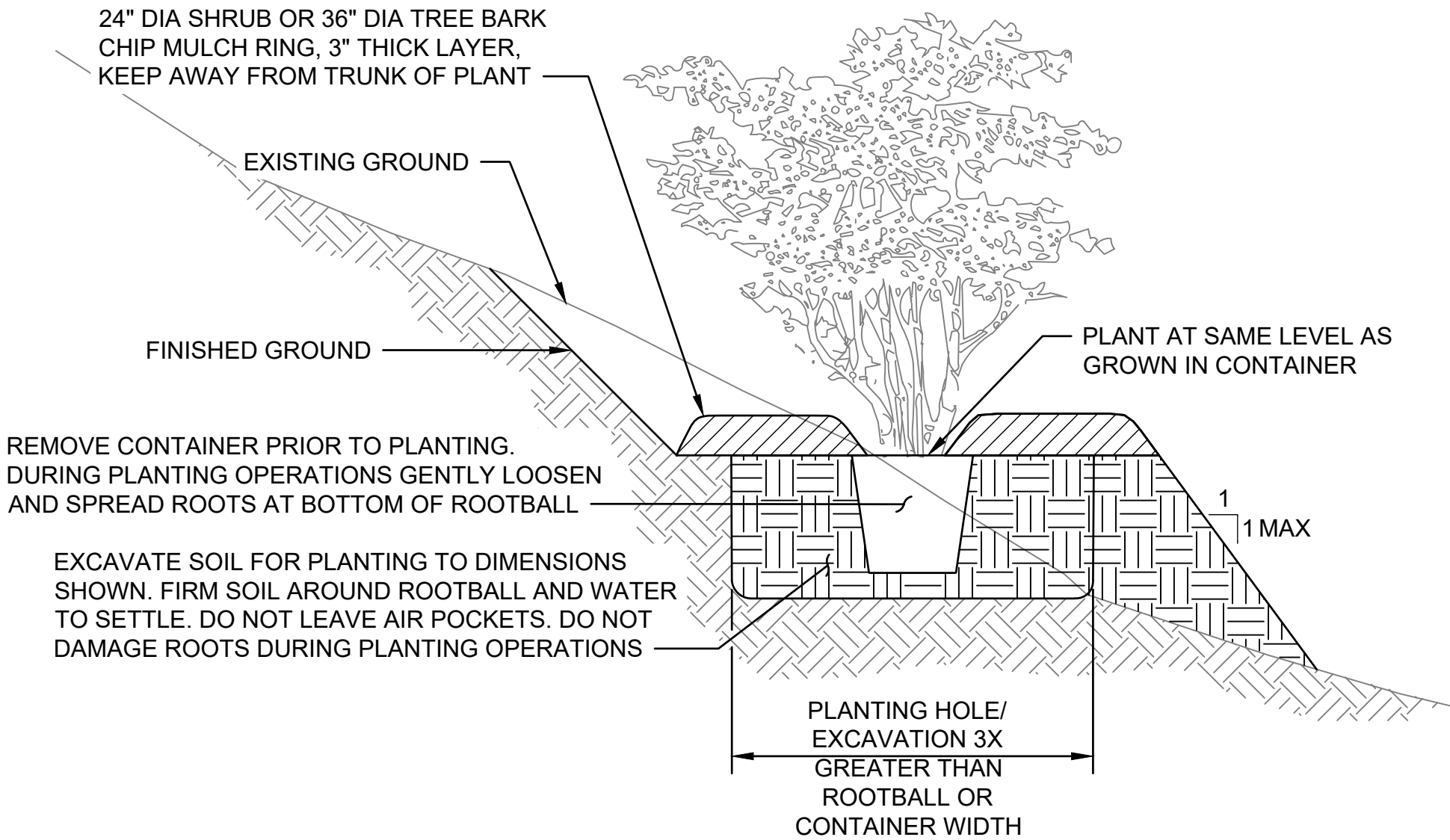
DATE:	
FEBRUARY 2025	
PROJECT NO:	
24-08370-000	
DRAWING NO:	
L1.01	
SHEET NO:	OF
18	19



DETAIL - CONTAINER TREE AND SHRUB PLANTING
SCALE: NTS



DETAIL - CONTAINER TREE AND SHRUB PLANTING ON SLOPE
SCALE: NTS



PLANT SCHEDULE PLANT SITE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		478,746 SF	RECLAMATION PLANTING - FOREST		
	ACE CIR	829	ACER CIRCINATUM	VINE MAPLE	1 GAL.
	ACE MAC	276	ACER MACROPHYLLUM	BIG LEAF MAPLE	1 GAL.
	PRU EMA	576	PRUNUS EMARGINATA	BITTER CHERRY	1 GAL.
	PSE DOU	491	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	1 GAL.
	QUE GAR	246	QUERCUS GARRYANA	OREGON WHITE OAK	1 GAL.
	TSU HET	276	TSUGA HETEROPHYLLA	WESTERN HEMLOCK	1 GAL.
	AME SER	553	AMELANCHIER ALNIFOLIA	SERVICEBERRY	1 GAL.
	HOL DIS	1,727	HOLODISCUS DISCOLOR	OCEANSPRAY	1 GAL.
	MAH NER	2,302	MAHONIA NERVOSA	OREGON GRAPE	1 GAL.
	MAH REP	2,302	MAHONIA REPENS	CREEPING MAHONIA	1 GAL.
	RIB SAN	864	RIBES SANGUINEUM	RED FLOWERING CURRANT	1 GAL.
	SAM RAC	864	SAMBUCUS RACEMOSA	RED ELDERBERRY	1 GAL.
	SYM ALB	3,071	SYMPHORICARPOS ALBUS	COMMON WHITE SNOWBERRY	1 GAL.
		865,895 SF	RECLAMATION SEEDING MIX		
		623,500 SF	EXISTING VEGETATION TO REMAIN		
		94,910 SF	GRAVEL ROAD		

RECLAMATION PLANTING NOTES

- SEE L1.01 FOR RECLAMATION SEEDING MIX DETAILS.
- SEE L1.01 FOR FULL RECLAMATION PLANTING NOTES.

ISSUED FOR COUNTY REVIEW				
No.	REVISION	BY	APP'D	DATE

ONE INCH
↑
AT FULL SIZE, IF NOT ONE
INCH SCALE ACCORDINGLY
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RAVENSDALE, WA 98051



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DESIGNED:	DRAWN:
DESIGNED:	CHECKED: O. REESE
SCALE: AS NOTED	APPROVED: O. REESE

RESERVE SILICA RAVENSDALE FACILITY
GRADING PERMIT NO. GRDE15-0011

RECLAMATION PLANTING PLAN - PLANT SITE

DATE: FEBRUARY 2025
PROJECT NO: 24-08370-000
DRAWING NO: L1.02
SHEET NO: 19 OF 19