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*The United States and the State of Alaska v.
Duran Construction Company, LLC, Marciano Duran, and Josette Duran*

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA**

THE UNITED STATES OF
AMERICA, and THE STATE OF
ALASKA,

Plaintiffs,

v.

DURAN CONSTRUCTION
COMPANY LLC, MARCIANO
DURAN, and JOSETTE DURAN ,

Defendants.

Case No. 1:22-cv-91

CONSENT DECREE

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WHEREAS, the Plaintiffs, the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), and the State of Alaska (“the State”), on behalf of the State of Alaska Department of Environmental Conservation (“ADEC”), filed the Complaint herein against Duran Construction Company LLC, Marciano Duran, and Josette Duran (collectively, “Defendants”), alleging that Defendants violated Section 301(a) of the Clean Water Act (“CWA”), 33 U.S.C. § 1311(a), Alaska Statute (“AS”) 46.03.100, 18 Alaska Administrative Code (“AAC”) 83.015(a), and 18 AAC 83.405;

WHEREAS, the Complaint alleges that Defendants violated CWA Section 301(a), 33 U.S.C. § 1311(a), by discharging dredged and/or fill material and/or controlling and directing the discharge of dredged and/or fill material into waters of the United States at three sites located in the City and Borough of Juneau, Alaska (“Sites”), as more fully described in the Complaint, without authorization pursuant to CWA Section 404, 33 U.S.C. § 1344, by the United States Army Corps of Engineers (“the Corps”);

WHEREAS, the Complaint alleges that Defendants violated CWA Section 301(a), 33 U.S.C. § 1311(a), by discharging pollutants associated with construction and industrial stormwater into waters of the United States at the Sites, as more fully described in the Complaint, without authorization by ADEC and in violation of the terms of a

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construction storm water permit issued by ADEC, pursuant to CWA Section 402, 33 U.S.C. § 1342;

WHEREAS, the Complaint further alleges that Defendants violated AS 46.03.100, 18 AAC 83.015(a), and 18 AAC 83.405 at the Sites, as more fully described in the Complaint, by discharging pollutants with construction and industrial stormwater into waters of the United States, without authorization by ADEC and in violation of the terms of a construction stormwater permit issued by ADEC;

WHEREAS, the Complaint seeks (1) to enjoin the discharge of pollutants into waters of the United States in violation of CWA Section 301(a), 33 U.S.C. § 1311(a), AS 46.03.100, 18 AAC 83.015(a), and 18 AAC 83.405; (2) to require Defendants, at their own expense and at the direction of the EPA and ADEC, to restore and/or mitigate the harms caused by their unlawful activities; and (3) to require Defendants to pay civil penalties as provided in CWA Section 309(d), 33 U.S.C. § 1319(d), and AS 46.03.760(e);

WHEREAS, this Consent Decree is intended to constitute a complete and final settlement of the United States' and the State's claims under the CWA, AS 46.03, and 18 AAC 83, as set forth in the Complaint regarding the Sites;

WHEREAS, the United States, the State, and Defendants agree that settlement of this case is in the public interest and that entry of this Consent Decree is the most

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appropriate means of resolving the United States’ and the State’s claims against Defendants in this case; and

WHEREAS, the Court finds that this Consent Decree is a reasonable and fair settlement of the United States’ and the State’s claims against Defendants in this case, and that this Consent Decree adequately protects the public interest in accordance with the CWA and all other applicable federal and state law.

THEREFORE, before the taking of any testimony upon the pleadings, without further adjudication of any issue of fact or law, and upon consent of the Parties hereto by their authorized representatives, it is hereby ORDERED, ADJUDGED, and DECREED as follows:

I. DEFINITIONS

1. Except as specifically provided in this Consent Decree, definitions for the terms used herein shall be incorporated from the CWA and the regulations promulgated pursuant to the CWA. Whenever terms listed below are used in this Consent Decree the following definitions apply:

- a. “ADEC” shall mean the Alaska Department of Environmental Conservation;
- b. “ADNR” shall mean the Alaska Department of Natural Resources;

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- c. “APDES” shall mean the Alaska Pollutant Discharge Elimination System;
- d. “Complaint” shall mean the complaint filed by the United States and the State in this action;
- e. “Consent Decree” shall mean this Consent Decree and all appendices attached hereto;
- f. “Court” shall mean the United States District Court for the District of Alaska;
- g. “Day” shall mean a calendar day unless expressly stated to be a business day. Other than for a period of violation, in computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until 11:59 pm Alaska Time on the next business day;
- h. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court’s docket;

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- i. “Mitigation Sites” shall mean the three sites identified by the Complaint and at which work will be undertaken to restore, establish, or enhance aquatic resources as set forth in the Appendix;
- j. “Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral;
- k. “Parties” shall mean the United States, the State, Duran Construction Company LLC, Marciano Duran, and Josette Duran, and the term “Party” may be used to refer individually to any of the Parties;
- l. “S&S Ponds Site” shall mean the S&S Ponds Site described in the Appendix;
- m. “Section” shall mean a portion of this Consent Decree identified by a Roman numeral, unless specifically referring to a portion of the CWA or the Internal Revenue Code;
- n. “Sites” shall mean the three sites identified by the Complaint and the Appendix; and
- o. “Subsection” shall mean a portion of this Consent Decree identified by a capital letter.

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II. JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of these actions and over the Parties pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 309(b) of the CWA, 33 U.S.C. § 1319(b).

3. This Court has supplemental jurisdiction over Alaska's state law claims in this action pursuant to 28 U.S.C. § 1367(a).

4. Venue is proper in the District of Alaska under CWA Section 309(b), 33 U.S.C. § 1319(b), and 28 U.S.C. §§ 1391(b) and (c), because Defendants conduct business in this District, the Sites are located in this District, and the causes of action alleged herein arose in this District.

5. The Complaint states claims upon which relief can be granted under Sections 301, 309, 402, and 404 of the CWA, 33 U.S.C. §§ 1311, 1319, 1342, and 1344, as well as AS 46.03.100, AS 46.03.760(e), AS 46.03.765, 18 AAC 83.015(a), and 18 AAC 83.405.

III. APPLICABILITY

6. The obligations of this Consent Decree shall apply to and be binding upon Defendants, their officers, directors, agents, employees and servants, and their successors and assigns and any person, firm, association or corporation who is, or will be, acting in concert or participation with any of the Defendants whether or not such person has notice of this Consent Decree. In any action to enforce this Consent Decree against Defendants,

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Defendants shall not raise as a defense the failure of any of its officers, directors, agents, employees, successors or assigns or any person, firm or corporation acting in concert or participation with the Defendants, to take any actions necessary to comply with the provisions hereof.

7. The transfer of ownership or other interest in any of the “Mitigation Sites” described in the Appendix and below shall not alter or relieve Defendants of their obligation to comply with all of the terms of this Consent Decree. At least 30 days prior to the transfer of ownership or other interest in the Mitigation Sites, the Defendant making such transfer shall provide written notice and a true copy of this Consent Decree to its successors in interest and shall simultaneously notify the United States and the State in writing at the physical and email addresses specified in Section XI below that such notice has been given. As a condition to any such transfer, the Defendant making the transfer shall reserve all rights necessary to comply with the terms of this Consent Decree. This requirement expires as to each Site upon the United States and State’s approval of the Completion Report for that Mitigation Site in accordance with Paragraph 24.

IV. SCOPE OF CONSENT DECREE

8. This Consent Decree shall constitute a complete and final settlement of all civil claims for injunctive relief and civil penalties alleged in the Complaint against the

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Defendants under CWA Section 301, 33 U.S.C. § 1311, AS 46.03.100, 18 AAC 83.015(a), and 18 AAC 83.405 concerning the Sites.

9. It is the express purpose of the Parties in entering this Consent Decree to further the objectives set forth in CWA Section 101, 33 U.S.C. § 1251. All plans, studies, construction, remedial maintenance, monitoring programs, and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of causing Defendants to achieve and maintain full compliance with, and to further the purposes of, the CWA.

10. The Parties agree that Defendants' obligations under this Consent Decree are joint and several.

11. Except as in accordance with this Consent Decree, Defendants and Defendants' agents, successors and assigns are enjoined from discharging any pollutant into waters of the United States, unless such discharge complies with the provisions of the CWA and its implementing regulations, AS 46.03, and 18 AAC 83.

12. This Consent Decree is not and shall not be interpreted to be a permit or modification of any existing permit issued pursuant to Section 402 or 404 of the CWA, 33 U.S.C. §§ 1342 or 1344, AS 46.03, and 18 AAC 83, or any other law. Nothing in this Consent Decree shall limit the ability of the United States Army Corps of Engineers to issue, modify, suspend, revoke, or deny any individual permit or any nationwide or

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regional general permit, nor shall this Consent Decree limit EPA's ability to exercise its authority pursuant to Section 404(c) of the CWA, 33 U.S.C. § 1344(c). Nothing in this Consent Decree shall limit the ability of ADEC to issue, modify, suspend, revoke, or deny any individual or general permit.

13. This Consent Decree in no way affects or relieves Defendants of their responsibility to comply with any applicable federal, state, or local law, regulation, or permit. Where any compliance obligation under this Consent Decree requires Defendants to obtain a federal, state, or local permit or approval, Defendants shall submit timely and administratively complete applications and take all other actions necessary to obtain all such permits or approvals. Defendants may seek relief under the provisions of Section IX (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendants have submitted timely and administratively complete applications and has taken all other actions necessary to obtain all such permits or approvals.

14. This Consent Decree in no way affects the rights of the United States or the State as against any person not a Party to this Consent Decree.

15. The United States and the State reserve any and all legal and equitable remedies available to enforce the provisions of this Consent Decree and applicable law.

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16. With the exception of Paragraphs 1, 2, and 3, nothing in this Consent Decree shall constitute an admission of fact or law by any Party.

V. SPECIFIC PROVISIONS

A. CIVIL PENALTIES

17. Defendants provided financial information that demonstrates Defendants have a limited ability to pay civil penalties at this time. Defendants shall pay a civil penalty to the United States in the amount of One Hundred and Seventy-Five Thousand Dollars and to the State in the amount of One Hundred and Seventy-Five Thousand Dollars, together with interest accruing from the Effective Date. If Defendants fail to pay an installment of civil penalties by the applicable payment dates identified in Paragraph 18, interest on then outstanding principal and theretofore accrued interest owing to the United States shall be calculated at the rate specified in 28 U.S.C. § 1961 and interest on then outstanding principal and theretofore accrued interest owing to the State will be simple, non-compounding interest charged in accordance with the maximum statutory judgment interest rate as provided for in AS 09.30.070 and shall be computed daily from the applicable payment date that was missed until the date payment is made. Upon bringing the account current, interest thereafter accrues at 3.75% as reflected in the Paragraph 18 Table. Defendants shall make payment of the civil penalty to the United States in accordance with Paragraph 19 and to the State in accordance with Paragraph 20.

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18. Defendants may elect to pay according to the following schedule where interest is calculated at 3.75%. There is no penalty for early payment and Defendants may make payments early to avoid further interest. No interest shall accrue if the Civil Penalties in Paragraph 17 are paid in full within 30 days of the Effective Date.

Payment Date	Payment Amount (50% of each payment to the United States and 50% to the State)
24 months after the Effective Date	\$53,173.00
25 months after the Effective Date	\$27,925.60
26 months after the Effective Date	\$27,848.48
27 months after the Effective Date	\$27,764.35
28 months after the Effective Date	\$27,680.21
29 months after the Effective Date	\$27,596.08
30 months after the Effective Date	\$27,511.94
31 months after the Effective Date	\$27,427.81
32 months after the Effective Date	\$27,343.68
33 months after the Effective Date	\$27,259.54
34 months after the Effective Date	\$27,175.41
35 months after the Effective Date	\$27,091.27
36 months after the Effective Date	\$27,008.14

19. Defendants shall make the above-referenced payment to the United States by FedWire Electronic Funds Transfer (“EFT” or wire transfer) to the United States

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Department of Justice account in accordance with current electronic funds transfer procedures, referencing U.S.A.O. file number 2026V00084, EPA Region 10, and the DOJ case number 90-5-1-1-21970. Payment shall be made in accordance with instructions provided to the Defendants by the Financial Litigation Unit of the United States Attorney's Office for the District of Alaska. Any payments received by the Department of Justice after 12:00 P.M. Alaska Time will be credited on the next business day.

20. Defendants shall make the above-referenced payment to the State by check payable to the State of Alaska, referencing the ADEC Enforcement Tracking number (21-R0304-86-0002). Defendants shall deliver the check to the Alaska Department of Environmental Conservation, Attn: Water Accountant, Water Administrative Services, 555 Cordova St., Anchorage, Alaska 99501. Any payments received by the State after 12:00 PM Alaska Time will be credited on the next business day.

21. Upon full payment of the civil penalties required by this Consent Decree, Defendants shall provide written notice, at the physical and email addresses specified in Section XI, that such payment was made in accordance with Paragraphs 19 and 20. Additionally, at the time of payment to the United States, Defendants shall also send notice that payment has been made to the EPA via email at cinwd_acctsreceivable@epa.gov and via regular mail at EPA Cincinnati Finance Office,

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26 W. Martin Luther King Drive, Cincinnati, Ohio 45268. Such notice shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States, et. al v. Duran Construction Company, LLC et. al* and shall reference the civil action number and DOJ case number 90-5-1-1-21970.

22. Penalty payments under this Consent Decree pursuant to this Section or Section X are penalties within the meaning of Section 162(f)(1) of the Internal Revenue Code, 26 U.S.C. § 162(f)(1), and 26 C.F.R. § 1.162-21(a)(3)(i), and Defendants shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section X in calculating its federal income tax.

B. MITIGATION

23. Defendants shall perform mitigation activities under the terms and conditions stated in the Appendix attached hereto and incorporated herein by reference.

24. Within thirty (30) days of completing the mitigation activities described in the Appendix at any one of the three Mitigation Sites, other than monitoring requirements, Defendants shall provide the United States and the State with a separate Completion Report for that/those Mitigation Site(s). Each Completion Report shall include photographs of the Site conditions before and after implementation of the mitigation activities required by the Appendix and provide sufficient information for the United States and the State to determine whether the mitigation activities were completed

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in accordance with the Appendix. The United States and the State will review each Completion Report and, if appropriate, approve. If the United States and/or the State determine that Defendants have not fully satisfied the requirements of the mitigation activities described in the Appendix, the United States and the State will, as soon as practicable, but in no event longer than 120 days, provide Defendants with a written description of the actions necessary to fully satisfy the requirements of the Appendix. If the United States and/or the State provide Defendants with a written description of the requirements of the mitigation activities described in the Appendix that Defendants have failed to fully satisfy, Defendants shall complete the necessary actions identified by the United States and/or the State and submit a revised Completion Report to the United States and State for review and approval.

25. Within ninety (90) days of the United States and State's approval of the Completion Report for the S&S Ponds Site, Defendants shall record a servitude crafted in accord with the requirements of AS Title 34, Chapter 17, or if otherwise agreed by the Parties, the common-law principles summarized in Restatement of the Law Third, Property (Servitudes) prohibiting all post-mitigation man-made alterations of the Site, exclusive of the Shop and Alaway Avenue "Development Areas," except scientific or educational projects designed to monitor or measure fish or wildlife, or enhance their habitat, or engineered features or structures which facilitate passive recreational use, that

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shall run with the land (“Servitude”), with the State of Alaska Department of Natural Resources’ Juneau Recording District that will ensure that the area of the S&S Ponds Site subject to the mitigation activities in the Appendix is protected. The area subject to the Servitude shall be consistent with the Appendix. At minimum, the Servitude must prohibit (1) dredging, straightening, filling, channeling, impeding, diverting, or otherwise altering the water courses on the S&S Ponds Site; (2) any filling, excavation, or other changes in the general topography of the S&S Ponds Site; (3) any commercial activity or industrial development; and (4) any waste, garbage, and unsightly or offensive materials from being placed on the S&S Ponds Site. At least sixty (60) days prior to the deadline for recording the Servitude, Defendants shall submit a draft of the Servitude documents to the United States and State at the physical and email addresses specified in Section XI. As soon as practicable, but in no event longer than 90 days, the United States and State shall provide Defendants any comments on the draft Servitude documents. The Parties shall come to a consensus on the Servitude documents prior to Defendants’ recording required by this Paragraph.

C. 26 U.S.C. § 162(f)(2)(A)(ii) IDENTIFICATION

26. For purposes of the identification requirement in Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), and 26 C.F.R. § 1.162-

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21(b)(2)(iii)(A), performance of Paragraphs 23 – 25 (including the Appendix) are restitution, remediation, or required to come into compliance with the law.

VI. NOTICES AND OTHER SUBMISSIONS

27. Within 30 days after the deadline for completing any task set forth in this Consent Decree, Defendants shall provide the United States and the State with written and electronic notice, at the physical and email addresses specified in Section XI, of whether or not that task has been completed.

28. If the required task has been completed, the notice shall specify the date when it was completed and explain the reasons for any delay in completion beyond the scheduled time for such completion required by this Consent Decree.

29. In all notices, documents or reports submitted by a Defendant pursuant to this Consent Decree, the Defendant shall, by signature of a senior management official, certify such notices, documents and reports as follows:

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 such 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.

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VII. RETENTION OF RECORDS AND RIGHT OF ENTRY

30. Until five years after termination of this Consent Decree, Defendants shall preserve and retain all records and documents now in their possession or control or which come into their possession or control that relate in any manner to the performance of the tasks in this Consent Decree, regardless of any corporate or other retention policy to the contrary. During this information retention period, Defendants shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the tasks in this Consent Decree.

31. At the conclusion of the information retention period, Defendants shall notify the United States and the State at least 90 days prior to the destruction of any such records or documents, and, upon request by the United States or the State, Defendants shall deliver any such records or documents to the EPA or ADEC. Defendants may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If a Defendant asserts such a privilege, they shall provide the United States and the State with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of

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the document, record, or information; and (6) the privilege asserted by the Defendant.

However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

32. Until termination of this Consent Decree, the United States and the State and their authorized representatives and contractors shall have authority at all reasonable times and with advance notice to Defendants to enter and access portions of the Mitigation Sites owned by Defendants:

- a. Monitor the activities required by this Consent Decree;
- b. Verify any data or information submitted to the United States or the State;
- c. Collect samples, including, but not limited to, soil, vegetation, and water;
- d. Take photographs and/or videos;
- e. Inspect and evaluate Defendants' mitigation activities; and
- f. Inspect and review any records required to be kept under the terms and conditions of this Consent Decree, the CWA and any applicable APDES permits.

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33. Paragraph 32 is in addition to, and in no way limits or otherwise affects, the statutory authorities of the United States or the State to conduct inspections, to require monitoring and to obtain information from the Defendants as authorized by law.

VIII. DISPUTE RESOLUTION

34. Any dispute that arises with respect to the meaning or requirements of this Consent Decree shall be, in the first instance, the subject of informal negotiations between the Parties affected by the dispute to attempt to resolve such dispute. The period for informal negotiations shall not extend beyond 30 days beginning with written notice by one Party to the other affected Party or Parties that a dispute exists, unless agreed to in writing by those Parties. If a dispute between the United States or the State, on the one hand, and a Defendant or Defendants, on the other, cannot be resolved by informal negotiations, then the position advanced by the United States, with the concurrence of the State (or, in the case of complying with the requirements of a State Multi-Sector General Permit or Construction General Permit, the position advanced by the State, with the concurrence of the United States), shall be considered binding unless, within 14 days after the end of the informal negotiations period, the Defendant files a motion with the Court seeking resolution of the dispute. The motion shall set forth the nature of the dispute and a proposal for its resolution. The Plaintiffs shall have 30 days to respond to the motion and propose an alternate resolution. In resolving any such dispute, the

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Defendant shall bear the burden of proving by a preponderance of the evidence that its position complies with this Consent Decree and better furthers the objectives of this Consent Decree, the CWA, AS 46.03, and 18 AAC 83, and that the Defendant's position will achieve compliance with the terms and conditions of this Consent Decree, the CWA, AS 46.03, and 18 AAC 83.

35. If the United States or the State believes that a dispute is not a good faith dispute, or that a delay would pose or increase a threat of harm to the public or the environment, the United States or the State may move the Court for a resolution of the dispute prior to the expiration of the 30 day period for informal negotiations. A Defendant opposing the United States or the State shall have 14 days to respond to the motion and propose an alternate resolution. In resolving any such dispute, the Defendant shall bear the burden of proving by a preponderance of the evidence that the United States' or the State's position is not in accordance with the objectives of this Consent Decree, and that the Defendant's position will achieve compliance with the terms and conditions of this Consent Decree, the CWA, AS 46.03, and 18 AAC 83.

36. The filing of a motion asking the Court to resolve a dispute shall not extend or postpone any obligation of the Defendants under this Consent Decree, except as provided in Paragraph 44 regarding payment of stipulated penalties.

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IX. FORCE MAJEURE

37. Defendants shall perform the actions required under this Consent Decree within the time limits set forth or approved herein, unless the performance is prevented or delayed solely by events which constitute a Force Majeure event. A Force Majeure event is defined as any event arising from causes beyond the control of the Defendants, including the Defendants' employees, agents, consultants and contractors, which could not be overcome by due diligence, and which delays or prevents the performance of an action required by this Consent Decree within the specified time period. A Force Majeure event does not include, among other things, increased costs of performance, changed economic circumstances, changed labor relations, or changed circumstances arising out of the sale, lease or other transfer or conveyance of title or ownership or possession of a Site.

38. If a Defendant believes that a Force Majeure event has affected the Defendant's ability to perform any action required under this Consent Decree, then the Defendant shall notify the United States and the State in writing within seven days after the event at the physical and email addresses listed in Section XI. Such notice shall include a discussion of the following:

- a. What action has been affected;
- b. The specific cause(s) of the delay;

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- c. The length or estimated duration of the delay; and
- d. Any measures taken or planned by the Defendant to prevent or minimize the delay and a schedule for the implementation of such measures.

The Defendant may also provide to the United States and the State any additional information that the Defendant deems appropriate to support the Defendant's conclusion that a Force Majeure event has affected the Defendant's ability to perform an action required under this Consent Decree. Failure to provide timely and complete notification to the United States and the State shall constitute a waiver of any claim of Force Majeure as to the event in question.

39. If the United States, after a reasonable opportunity for review and comment by the State, determines that the conditions constitute a Force Majeure event, then the deadline for the affected action shall be extended by the amount of time of the delay caused by the Force Majeure event. The Defendant shall coordinate with EPA and ADEC to determine when to begin or resume the operations that were affected by any Force Majeure event.

40. If the United States, after a reasonable opportunity for review and comment by the State, does not agree that the conditions constitute a Force Majeure event, or that the length of time for fulfilling the provision of the Consent Decree at issue should be

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extended as the Defendant seeks, then any Party may seek a resolution of the dispute under the procedures in Section VIII.

41. The Defendant shall bear the burden of proving (1) that the noncompliance at issue was caused by circumstances entirely beyond the control of the Defendant and any entity controlled by the Defendant, including the Defendant's contractors and consultants; (2) that the Defendant or any entity controlled by the Defendant could not have foreseen and prevented such noncompliance; and (3) the number of days of noncompliance that were caused by such circumstances.

X. STIPULATED PENALTIES

42. After entry of this Consent Decree, if Defendants fail to timely fulfill any requirement of the Consent Decree, including but not limited to the requirements of the Appendix, the Defendants shall pay a stipulated penalty to the United States and the State for each violation of each such requirement as follows:

- | | |
|--|--------------------|
| a. For Day 1 up to and including
Day 30 of noncompliance | \$500.00 per day |
| b. For Day 31 up to and including
Day 61 of noncompliance | \$1,000.00 per day |
| c. For Day 61 and beyond
of noncompliance | \$1,500.00 per day |

Such payments shall be due without demand by the United States or the State on or before the last day of the month following the month in the stipulated penalty accrued.

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Defendants shall pay 50 percent of the total of such payments to the United States and 50 percent to the State.

43. Any disputes concerning the amount of stipulated penalties, or the underlying violation that gives rise to the stipulated penalties, shall be resolved pursuant to the Dispute Resolution provisions in Section VIII and/or the Force Majeure provisions in Section IX.

44. The filing of a motion requesting that the Court resolve a dispute shall stay Defendants' obligation to pay any stipulated penalties with respect to the disputed matter pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall continue to accrue from the first day of any failure or refusal to comply with any term or condition of this Consent Decree. In the event that Defendants do not prevail on the disputed issue, stipulated penalties shall be paid by Defendants as provided in this Section.

45. To the extent Defendants demonstrate to the Court that a delay or other noncompliance was due to a Force Majeure event (as defined in Paragraph 37) or otherwise prevail on the disputed issue, the Court shall excuse the stipulated penalties for that delay or noncompliance.

46. In the event that a stipulated penalty payment is applicable and not made on time, interest on portions payable to the United States will be charged in accordance with

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the statutory judgment interest rate provided for in 28 U.S.C. § 1961. Interest on portions of stipulated penalties payable to the State will be simple, non-compounding interest charged in accordance with the maximum statutory judgment interest rate provided for in AS 09.30.070, and shall be computed daily from the time the payment is due until the date the payment is made. The interest for portions of stipulated penalties payable to the United States shall be computed daily from the time the payment is due until the date the payment is made. The interest for portions of the stipulated penalties payable to the United States shall be compounded annually.

47. Defendants shall make any payment of a stipulated penalty to the United States by FedWire Electronic Funds Transfer (“EFT” or wire transfer) to the United States Department of Justice account in accordance with current electronic funds transfer procedures, referencing U.S.A.O. file number 2026V00084, EPA Region 10, and the DOJ case number 90-5-1-1-21970. Payment shall be made in accordance with instructions provided to the Defendants by the Financial Litigation Unit of the United States Attorney’s Office for the District of Alaska. Any payments received by the Department of Justice after 12:00 PM Alaska Time will be credited on the next business day. Further, upon payment of any stipulated penalties, Defendants shall provide written notice, at the addresses specified in Section XI.

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48. Defendants shall make any payment of a stipulated penalty to the State by check payable to the State of Alaska, referencing the ADEC Enforcement Tracking number (21-R0304-86-0002). Defendants shall deliver the check to the Alaska Department of Environmental Conservation, Attn: Water Accountant, Water Administrative Services, 555 Cordova St., Anchorage, Alaska 99501. Any payments received by the State after 12:00 PM Alaska Time will be credited on the next business day. Further, upon payment of any stipulated penalties, Defendants shall provide written notice, at the addresses specified in Section XI.

49. The United States and State of Alaska may, in the unreviewable exercise of their discretion, reduce or waive stipulated penalties otherwise due under this Consent Decree.

XI. ADDRESSES

50. All notices and communications required under this Consent Decree shall be made to the Parties through each of the following persons and the listed physical and email addresses:

a. TO THE UNITED STATES:

THE EPA

Patrick B. Johnson, Senior Water Law Attorney
U.S. Environmental Protection Agency, Region 10
Alaska Operations Office
222 West 7th Avenue, #19
Anchorage, Alaska 99513-7588
johnson.patrick@epa.gov

*The United States and the State of Alaska v.
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Mark S. Jen, Case Officer
U.S. Environmental Protection Agency, Region 10
Alaska Operations Office
222 West 7th Avenue, #19
Anchorage, Alaska 99513-7588
jen.mark@epa.gov

THE UNITED STATES DEPARTMENT OF JUSTICE

Daniel Martin
U.S. Department of Justice
Env. & Natural Res. Division
P.O. Box 7611
Washington, D.C. 20044
Phone: (202) 598-1869; Fax: (202) 514-8865
Email: Daniel.Martin3@usdoj.gov

Chief, Environmental Defense Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
MailProcessing_EDS.ENRD@usdoj.gov

b. TO THE STATE OF ALASKA:

Melinda O'Donnell, Environmental Program Specialist
Alaska Department of Environmental Conservation
Division of Water
555 Cordova Street
Anchorage, Alaska 99501
melinda.odonnell@alaska.gov, and
dec.water.enforcement@alaska.gov

Thad Adkins
Alaska Department of Law
Environmental Section

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1031 West 4th Avenue, Suite 200
Anchorage, Alaska 99501
Phone: (907) 269-5232
Email: Thad.Adkins@alaska.gov

c. TO DEFENDANTS:

Marciano Duran, President
Duran Construction Company LLC
P.O. Box 32634
Juneau, Alaska 99803
marcianoduran907@gmail.com

Josette Duran
P.O. Box 3346
Juneau, Alaska 99803
duran@acsalaska.net

XII. COSTS OF SUIT

51. Each Party to this Consent Decree shall bear its own costs and attorneys' fees in this action. Should Defendants subsequently be determined by the Court to have violated the terms or conditions of this Consent Decree, Defendants shall be liable for any costs or attorneys' fees incurred by the United States or the State in any action against Defendants for noncompliance with or enforcement of this Consent Decree.

XIII. PUBLIC COMMENT

52. The Parties acknowledge that after the lodging and before the entry of this Consent Decree, final approval by the United States is subject to the requirements of 28 C.F.R. § 50.7, which provides for public notice and comment. The United States reserves the right to withhold or withdraw its consent to the entry of this Consent Decree if the

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comments received disclose facts which lead the United States to conclude that the proposed judgment is inappropriate, improper, or inadequate. The Defendants agree not to withdraw from, oppose entry of, or to challenge any provision of this Consent Decree, unless the United States has notified the Defendants in writing that it no longer supports entry of the Consent Decree.

XIV. CONTINUING JURISDICTION OF THE COURT

53. This Court shall retain jurisdiction over this action in order to enforce or modify the Consent Decree consistent with applicable law or to resolve all disputes arising hereunder as may be necessary or appropriate for construction or execution of this Consent Decree. During the pendency of the Consent Decree, any Party may apply to the Court for any relief necessary to construe and effectuate the Consent Decree.

XV. MODIFICATION

54. Upon its entry by the Court, this Consent Decree shall have the force and effect of a final judgment.

55. Any modification of the Appendix shall be in writing, and shall not take effect unless signed by the United States, the State, and the Defendants.

56. Any modification of this Consent Decree shall be in writing, and shall not take effect unless signed by the United States, the State, and the Defendants, and approved by the Court.

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XVI. TERMINATION

57. This Consent Decree may be terminated by either of the following:
- a. Defendants, the United States, and the State may at any time make a joint motion to the Court for termination of this Consent Decree or any portion of it; or
 - b. Defendants may make a unilateral motion to the Court to terminate this Consent Decree after each of the following has occurred:
 1. Defendants have obtained and maintained compliance with all provisions of this Consent Decree, the CWA, and applicable APDES permits for 12 consecutive months from entry of the CD;
 2. Defendants have paid all penalties and other monetary obligations hereunder and no penalties or other monetary obligations arising under or through this Consent Decree are outstanding or owed to the State or to the United States;
 3. Defendants have certified compliance pursuant to subparagraphs 57.b.1 and 2 to the Court and all Parties; and
 4. Within 45 days of receiving such certification from Defendants, neither EPA nor ADEC has contested in writing that such compliance has been achieved. If EPA or ADEC disputes

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Defendants' full compliance, this Consent Decree shall remain in effect pending resolution of the dispute by the Parties or the Court.

IT IS SO ORDERED.

Dated and entered this _____ day of _____ 2026.

United States District Judge

*The United States and the State of Alaska v.
Duran Construction Company, LLC, Marciano Duran, and Josette Duran*

FOR THE UNITED STATES OF AMERICA:

ADAM R.F. GUSTAFSON
PRINCIPAL DEPUTY
ASSISTANT ATTORNEY GENERAL
Environment and Natural Resources Division
U.S. Department of Justice

07/23/2026

Date



DANIEL MARTIN
Senior Attorney
U.S. Department of Justice
Env. & Natural Res. Division
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Washington, D.C. 20044

MICHAEL J. HEYMAN
United States Attorney

*The United States and the State of Alaska v.
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FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

CAROL
KING

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CAROL KING
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Date

CAROL DeMARCO KING
Acting Director, Water Enforcement Division
United States Environmental Protection Agency
Office of Enforcement and Compliance Assurance
1200 Pennsylvania Avenue, NW
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Consent Decree

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FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

6/10/26

Date

BEVERLY LI

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BEVERLY LI
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BEVERLY LI
Regional Counsel
United States Environmental Protection Agency
Region 10
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OF COUNSEL:
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Senior Water Law Attorney
United States Environmental Protection Agency
Region 10, Alaska Operations Office
222 West 7th Avenue, #19
Anchorage, Alaska 99513

*The United States and the State of Alaska v.
Duran Construction Company, LLC, Marciano Duran, and Josette Duran*

FOR THE STATE OF ALASKA:

CORI MILLS
Acting Attorney General

6-15-2026
Date

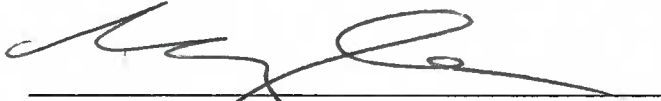
/s/ Thad Adkins

THAD ADKINS
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FOR DURAN CONSTRUCTION COMPANY LLC:

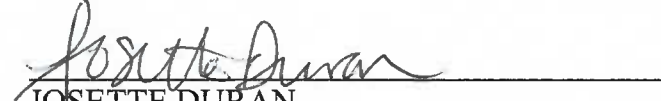
6/23/26
Date



MARCIANO DURAN
Managing Member
Duran Construction Company LLC

FOR JOSETTE DURAN:

6/23/26
Date



JOSETTE DURAN

FOR MARCIANO DURAN:

6/23/26
Date



MARCIANO DURAN

*The United States and the State of Alaska v.
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Mitigation Plan for Duran Construction Sites City and Borough of Juneau, Alaska

Prepared for submission to the Court as an appendix to be included as part of the Consent Decree in *United States and State of Alaska v. Duran Construction Company, LLC, Marciano Duran, and Josette Duran*, No. 1:22-cv-00091-ACP (D. Alaska).

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I. Introduction and Background

This Mitigation Plan (including attachments) sets forth the work projects required of Duran Construction Company, LLC, Marciano Duran, and Josette Duran (collectively, “Duran”) at the three sites at issue in this case: Vista del Mar, which includes a “Pioneer Access Road” wherein mature trees were felled for a potential future subdivision; Vista del Sol, which is an ongoing subdivision development with an engineered water management system; and S&S Ponds, a gravel mining complex that now provides rearing and over-wintering habitat for juvenile coho salmon. Collectively, the sites are referred to as the “Mitigation Sites.” This Mitigation Plan has been subject to interagency coordination among the U.S. Environmental Protection Agency (EPA), State of Alaska Department of Environmental Conservation (ADEC), and the State of Alaska Department of Fish and Game (ADFG) and is intended to be a fully enforceable component of the Consent Decree resolving *United States and State of Alaska v. Duran Construction Company, LLC, Marciano Duran, and Josette Duran*, No. 1:22-cv-00091-ACP (D. Alaska).

This Mitigation Plan addresses measures required to mitigate, in part, the alleged impacts of unauthorized mechanical clearing, filling, grading, gravel and sand mining, rock stockpiling and processing, and other earthwork activities that have occurred in waters of the United States at the Mitigation Sites. This Mitigation Plan includes “Plan Sheets” in Appendix 4 to help guide the work at the S&S Ponds Mitigation Site. For that Mitigation Site, the Plan Sheets provide details concerning the following: current topography and the topography expected after the mitigation work is completed; construction work limits; grading and other earthwork; and recommended staging areas and construction access routes. The Plan Sheets also include details of the large wood installation work to be done and tables that specify the plant species, number, stock type, and on center spacing requirements for mitigation plantings. Appendix 4 is a set of Plan Sheets addressed to details on drainage infrastructure changes at Vista del Sol.

While the work may be completed by contractors, Duran is solely responsible for the work to be performed under this Mitigation Plan.

As is true throughout this document, joinder in this Plan is not an admission by Duran as to the accuracy or correctness of legal or factual characterizations of “existing conditions” or the applicability of certain legal terms, such as “tributary” or implied legal conclusions, such as whether any wetland is jurisdictional.

Duran owns, operates, and/or maintains control of the three Mitigation Sites, which are located within the City and Borough of Juneau, Alaska (CBJ). All three Mitigation Sites are located north of the central municipal district of the City of Juneau (Figure 1). The locations and latitude/longitude coordinates for the approximate center of each Mitigation Site are as follows:

Vista del Mar: land intended for a future subdivision with a Pioneer Access Road is located in USS 687 FR, near Mile Post 13 Glacier Highway west of Waydelich Creek, in Juneau, Alaska. The alleged unauthorized work was performed in Section 22, T. 40 S., R. 65 E., Copper River Meridian (Latitude 58.385414° N/Longitude -134.510994° W).

Vista del Sol: the subdivision is located in Vista del Sol II at 7500 Glacier Highway, Juneau, Alaska. The alleged unauthorized work was performed in Section 32, T. 40 S., R. 66 E., Copper River Meridian (Latitude 58.360306° N/Longitude -134.546844° W).

S&S Ponds: the Mitigation Site is located in JPD II TR S2 at 6225 Alaway Avenue, Juneau, Alaska. The alleged unauthorized work was performed in Section 34, T. 40 S., R. 66 E., Copper River Meridian (Latitude 58.354364° N/Longitude -134.510225° W).

For work required at each Mitigation Site, this Mitigation Plan includes the following elements:

1. *Summary of Existing Conditions* - The summaries describe existing conditions that have been at each Mitigation Site, as observed by EPA and ADEC representatives.
2. *Project Targets* - The Project Targets set forth goals for each component of the overall mitigation work described herein and generally include the level of structure or functioning sought for that component.
3. *Descriptions of Work* - The Descriptions of Work contain a narrative description of the work to be performed for each component. Those narratives provide details that explain the overall intent, structure, and function of the project. The narratives also provide recommendations for initial site, habitat, and species protection systems, installation and management of Best Management Practices (BMPs), construction sequencing, and construction approaches.
4. *Project Standards* - The Project Standards include requirements to guide work activities toward proper completion, including meeting the Project Target(s) and Success Criteria. Project Standards generally are associated with and specify reasonably foreseeable contingency measures that will be triggered if the Project Target is not being achieved.
5. *Measurements/Documentation* - The measurements/documentation element sets forth the methods to be used to document the project work and whether the project has been completed properly.
6. *Success Criteria* - The Success Criteria set forth criteria that must be met.
7. *Contingency and Adaptive Management Measures* - Contingency and adaptive management measures described herein are the first follow-up measures that are responses to foreseeable or anticipated failures that may occur within the context of the proposed work (e.g., plant mortality) and that Durans must take if the Success Criteria are not met after the project is initially completed and monitored for compliance.

Table 2 is a summary of the projects, project targets, project standards, measurement methods, Success Criteria, and adaptive management/contingency measures for each of the Mitigation Sites. The work required at each Mitigation Site must be performed in accordance with the descriptions below and must achieve the project targets and standards and success criteria set forth below in Tables 2 and 3.

II. Permitting and Other Requirements

A. Permitting

This Mitigation Plan is not, and shall not be construed to be, a permit issued under any law. All work performed under this Plan shall be performed in accordance with the requirements of all applicable laws and permits. To perform the work set forth in this Plan, Duran will need to obtain all necessary permits and other authorizations required by federal, state, local (including CBJ), and any other regulatory bodies. For informational purposes, the following list sets forth permits that may be required but (a) not all of the permits listed are necessarily required, and (b) additional permits not listed may be required. Identifying and obtaining all necessary permits and authorizations remains the sole responsibility of Duran.

1. Clean Water Act (CWA) Section 404/Nationwide Permit – U.S. Army Corps of Engineers (Corps)
2. Fish Habitat Permits – State of Alaska Department of Fish and Game (ADFG)
3. Stormwater Construction General Permit (CGP) including development of a Stormwater Pollution Prevention Plan (SWPPP) and potential excavation dewatering General Permit (required for dewatering via pump) (CWA Section 402) – ADEC
4. Grading and In-Water/Wetland Permits – City and Borough of Juneau

B. Additional Authorizations

Duran shall ensure that all other necessary permits, authorizations, permissions, and/or easements are in place to conduct the work described in this Plan, including, for example, to remove the culvert between S&S Pond 1 and Lemon Creek and to construct a channel in place of the culvert. Obtaining all such permits, authorizations, permissions, and/or easements remains the sole responsibility of Durans.

C. Species and Habitat Protections

Duran shall ensure compliance with all species and habitat protection measures required by federal, state, local (including CBJ), and any other regulatory bodies. This remains the sole responsibility of Durans.

D. Notifications

Duran shall notify EPA and ADEC a minimum of ten (10) days in advance of commencing and on completion of any construction or earthwork addressed in this Plan.

E. Staging Areas and Equipment Access Routes

The work set forth in this Plan will involve commissioning and decommissioning of staging areas and access routes. Duran shall minimize any disturbance to waters/wetlands and maintain native vegetation to the extent practicable. Any native vegetation removed during performance of the work shall be salvaged and stockpiled or otherwise poised for replanting or, if salvage is not possible, cut into smaller pieces (“bucked” or chipped and/or mulched) and neatly scattered among plantings or along the access routes within the site limits. Non-native and invasive vegetation shall be controlled on-site using an integrated combination of mechanical controls, and as a last resort, applications of EPA-registered chemicals designated safe for use in aquatic environments, and other means and/or removed from the Mitigation Site and properly disposed. Staging areas and construction access routes shall be returned to preconstruction grades and stabilized with appropriate sediment and erosion control BMPs. Plantings or seeding of native vegetation will be required within work zones.

III. Project Requirements at the Vista del Mar Site - On-Site Stabilization and Management Measures

A. Summary of Existing Conditions

The Vista del Mar Mitigation Site consists almost entirely of an unnamed slope wetland/tributary complex. The site was forested prior to logging and mechanical clearing of a Pioneer Access Road. The slope wetland/tributary complex that dominates the Vista del Mar Mitigation Site is situated in a small watershed that is immediately west of the lower elevation and southern portions of the Waydelich Creek watershed (Figures 2 and 3). The Pioneer Access Road is approximately 1,000 feet long and has an average width of 60 feet. Therefore, EPA and ADEC estimate that the total cleared area of slope wetlands and the unnamed tributary complex combined is approximately 1.4 acres (Figures 4 and 5; Photographs 1, 2, 3 and 4).

According to EPA and ADEC, logging and mechanical clearing of forested wetlands at Vista del Mar resulted in discharges of sediment and woody debris to first order tributary streams and deposition of large logs, woody debris, and slash on the surface of and embedded into the slope wetlands and in several of the tributary channels that flow through the cleared area (Photograph 4). As a result, small stream channels were effectively filled and/or significant changes in the patterns of water flow and circulation within the tributaries occurred. Erosion and scour are occurring in the vicinity of these large wood accumulations as water seeks flow pathways around them.

B. Vista del Mar Project Targets and Associated Descriptions of Work, Project Standards, Measurements/Documentation, Success Criteria, Contingencies, and Adaptive Management Measures

Vista del Mar Project Target #1 – Duran shall restore flow pathways in all of the first order tributary channels that occur within the cleared area of the Vista del Mar Mitigation Site while avoiding further impacts to the channels or abutting wetlands.

Description of Work – Duran shall remove segments of the large logs from the channels. In so doing, Duran shall restore natural flow pathways. The goal is not to remove *all* large wood from the tributaries, but to open a flow pathway by removing the sections of logs and other woody debris that significantly alter patterns of water flow and circulation within the channels. Some residual large wood, including deeply embedded log remnants which do not obstruct flow, can be left in the channels and on channel banks to provide roughness and habitat complexity. Opened channel flow paths need not be the full width of the channel, but shall be at minimum 2 feet in width.

In completing this work, Duran shall not use large rubber-mounted or tracked equipment. Instead, Duran shall use a crew of workers equipped with chain saws, log chokers, snatch blocks, chain, come-alongs or other rigging gear to accomplish this work. Duran shall cut a section of the logs into short segments (buck a portion of the logs) and remove those sections from the first order tributary channels in the cleared Pioneer Access Road. Cut bucked log material will be scattered in place (but outside the waterway), as close as possible to where it was removed, to minimize disturbance and avoid impacts to existing vegetation and drainage.

Vista del Mar Project Standard #1 – Duran shall document the restoration of flow pathways in the first order tributary channels at Vista del Mar via removal of large wood with minimal impact to the existing site conditions to show that the work (a) was completed in accordance with this Plan's Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation -

At each of the locations where a flow pathway will be opened, Duran shall take digital photos along four different directions/orientations (north, south, east, and west depicting site conditions *prior to* commencement of work and then a minimum of 4 digital photographs (taken from the same orientations at each location) showing the completed log removals and restoration of flow pathways in each of the first order tributary channels. The pre- and post-work digital photographs must be submitted electronically in jpeg format, date-stamped with the identified photographic location, including either geotagged or identified by latitude and longitude (plus or minus 10 meters accuracy degree decimal coordinates). Each digital photograph should include captions that provide the direction/orientation of the photograph and clearly explain what is

being depicted. Representative geotagged photographs will document general placement of log material within the distributed corridor. No detailed mapping will be conducted.¹

Monitoring Documentation Requirements After Baseline/Time Zero -

N/A: No monitoring required after approval of Completion Report.

Success Criteria - Large wood has been removed, there is at minimum an unblocked channel width of 2 feet to avoid impeding of the patterns of water flow and circulation in first order tributaries, and the work is accomplished with minimal impact to wetland area, soils, and existing vegetation.

Contingency and Adaptive Management Measures - Not applicable because if the tasks are not completed properly in the first place, they must be re-done.

Vista del Mar Project Target #2 - Prevent Unauthorized Access

Description of Work – Duran shall maintain its efforts to prohibit public access to the Vista del Mar Mitigation Site via closure of the Pioneer Access Road entrance off Glacier Highway and posting of signage (e.g., Private Property, No Trespassing, etc.).

Vista del Mar Project Standard #2 – Duran shall document control and management of unauthorized access to Vista del Mar to prevent further impacts to show that the work (a) was completed in accordance with this Plan’s Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation – Duran shall take a minimum of 6 original color photographs taken from representative photo-reference locations that provide depictions of the closure of the entrance.

Monitoring Documentation Requirements After Baseline/Time Zero

N/A: No monitoring required after approval of Completion Report.

Success Criteria - The entrance is blocked, unauthorized access is effectively prohibited, and there is no further site damage associated with unauthorized entrants to the Vista del Mar Mitigation Site.

¹ Throughout this plan, use the following standards for all photographs:

1. Submit electronically in .jpeg format
2. Date-stamped
3. Numbered and Captioned – Describing the photograph point number and its location and what the photograph shows/represents
4. Fixed Locations (geotag or latitude/longitude) reporting in degree decimal format, with plus or minus 10 meter accuracy
5. Photograph orientation identified (e.g. “view is to the south and upstream”, “View is to the north”)

Contingency and Adaptive Management Measures - Bolster or change the access control measures if they are breached or compromised.

Vista del Mar Project Target #3 - Allow Natural Regeneration of Trees and Shrubs to Proceed

Description of Work - No plantings currently are required. Field observations show that natural regeneration and/or regrowth of native trees and shrubs at Vista del Mar has proceeded after the clearing work occurred. With access prevented, it is currently expected that natural regeneration will occur and that no plantings will be required.

Project Standard #3 – Duran shall document natural native conifer tree seedlings regeneration and growth on the site in years 1, 3, and 5 or until “Success” is demonstrated to show that the work (a) was completed in accordance with this Plan’s Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation -

- (a) Photographs – Duran shall take a minimum of 12 original color photographs taken from fixed representative photo-reference locations that provide depictions of the progress of natural regeneration of native trees and shrubs.
- (b) Plot Sampling – Duran shall use representative sampling in fixed area plots to estimate and report the density (# stems/acre) of native conifer tree seedlings.

Monitoring Documentation Requirements After Baseline/Time Zero

N/A: No monitoring required after approval of Completion Report. Monitoring and Documentation shall instead be accomplished as part of Success Criteria for this Site.

Success Criteria – Standard field survey protocols (e.g. fixed area plots, belt transects) show that natural regeneration of native conifer tree seedlings is ongoing and the plant community is reverting back to a forested slope. The following density criteria for natural regeneration 5 years following the entered Consent Decree date must be met: conifer tree seedlings —at least 280 stems across the 1.4 acre formerly cleared area. If Duran meets the 280 stems of conifer tree seedlings before 5 years has passed, Duran may submit a monitoring report demonstrating that criteria has been met. If EPA and ADEC concur with Duran’s conclusion, no further monitoring is required at this Mitigation Site.

Contingency and Adaptive Management Measures - If natural regeneration success has not been demonstrated in 2026 by the evaluation, Duran shall plant native species stock to reach a target density of conifer tree seedlings at 280 stems over the 1.4 acre formerly cleared Pioneer Road, at their election, in years 1, 3, or 5.

C. Vista del Mar - Off-Site Mitigation Measures

There is very little on-site opportunity to address impacts to the slope wetland and first order tributary ecosystem at the Vista del Mar Mitigation Site, other than to let the area recover slowly via cessation of any further impacts and natural regeneration of native trees and shrubs. Accordingly, mitigation work off-site at the S&S Ponds Mitigation Site will be performed to account for direct, indirect, cumulative, and temporal impacts to waters/wetlands area and ecosystem functioning at the Vista del Mar Mitigation Site.

IV. Project Requirements at the Vista del Sol Mitigation Site – On-Site Stabilization and Management Measures

A. Summary of Existing Conditions

The Vista del Sol Mitigation Site consists of a phased subdivision housing development at a location where Duran's predecessor had constructed a house. Its location is shown in Figure 7 and Photograph 5. Housing construction has been completed on some, but not all, lots. According to EPA and ADEC, prior to development by Durans, the Vista del Sol property supported a complex of formerly forested (and previously logged) upland slopes and slope or depressional wetlands that abutted three perennial tributary streams. These streams flowed south, generally parallel to one another on the west side, through the center of, and along the eastern boundary of the Vista del Sol property (Figures 7, 8, 9). The tributary streams are (a) part of a larger complex of streams and slope wetlands that are known locally as the "Fireweed Creeks" and (b) have continuous surface connections to downslope adjacent wetlands and tributaries of the Mendenhall Wetlands and Gastineau Channel complex, a traditional navigable water (Figures 7, 8, 9).

Mechanical clearing, earthwork, and subdivision development activities at Vista del Sol have either eliminated or highly modified the onsite wetlands. As to the tributaries, most of the water now entering the subdivision in any manner (run-on; direct precipitation; etc.) is collected into an engineered, local-government-approved, conveyance system. Channels, culverts, gutters, pipelines, a "Wet Pond," and an oil-water separator are employed. This Plan refers to the northwest tributary, central tributary, and eastern tributary. One set of evidence depicting their changing condition is a comparison of, Photographs 6, 7, 8, 9, 10 with Figures 10, 11, 12, 13 (aerial photographs).² At the time of this writing, from the western Vista del Sol property line along lots 13 and 14, the remnants of the northwest tributary and the remaining portions of the central tributary (and flows from what had been the northernmost portion of onsite wetlands) enter the Mitigation Site between Lots 11 and 12; converge in a constructed channel, and flow south into a catch basin located immediately adjacent to the cul-de-sac at the edge of Vista del Sol Drive. With the elevations dictated by 2012 construction plans, most flow drains west along Vista del Sol property line dividing lots 13 and 14, and then south through the Glacier Gardens Rainforest property adjacent to Vista del Sol.

² Some of the Duran construction documents refer to the channeled tributaries as "drainage easement."

According to EPA and ADEC, sediment from the Vista del Sol property has been transported by storm water runoff and flowing waters across the western property boundary (Photograph 11). In the westernmost portion of the channel system an improvised, cross-channel check dam was installed (Photograph 14). The engineered system and check dam failed when storms during the winter of 2019 (Photograph 11) produced high-energy flows.

It is likely not feasible to perform on-site restoration that would result in meaningful environmental benefits to any of the tributaries or wetlands that exist or that previously existed within the Vista del Sol property. For example, the wetlands that previously existed on the property and most of the central tributary were filled in for several new subdivision lots; the eastern tributary is partially filled and laterally confined along its length. (Photograph 12 and 2012 CBJ Required Plans, Sheets 9-10, Grading & Stormwater Plans, Admiralty Engineering, 6/8/2010). The northwest tributary, which used to flow outside the Mitigation Site's west boundary through the Glacier Gardens property, may have been partially diverted to the central tributary and then the Vista del Sol stormwater system or otherwise laterally confined and routed back to the west (Glacier Gardens Property) through an incomplete and therefore highly unstable, constructed channel system (Photographs 13). In addition, at this late stage of the Vista del Sol subdivision's development, there is no capacity for on-site restoration of waters/wetlands and functioning within and among existing houses, driveways, and roads. Significant safety concerns and limited available terrain preclude meaningful and environmentally beneficial restoration of waters/wetlands on the Vista del Sol Mitigation Site. Under these circumstances, this Plan's focus at the Vista del Sol Mitigation Site is on stabilization of erodible soils/sediment sources and completion of permanent, engineered stormwater management measures.

By design in the "*Vista del Sol Stormwater Site Plan*" (Gary Jenkins II, P.E. June 4, 2010), and by fully-performed agreement between CBJ and Duran, all drainage structures from the back of the sidewalk forward are "Street Drainage" while easements and structures within platted lot lines are "Lot Drainage." CBJ's Public Works performs maintenance of "Street Drainage." Maintenance of "Lot Drainage" is the obligation of Lot owners. At present that is Duran for Lots 11-14. Said obligations will follow title upon conveyance of each lot.

B. Project Targets and Associated Descriptions of Work, Project Standards, Measurements/Documentation, Success Criteria, Contingencies, and Adaptive Management Measures

Vista del Sol Project Target #1 - Address and permanently fix existing unstable conditions in the incomplete channelization in the vicinity of Lots 11, 12, 13, and 14.

Description of Work – Duran shall address the ditched water flow in the northcentral and northwestern portion of the Mitigation Site by upgrading and modifying already-constructed infrastructure as specified in Appendix 4b. Specifically, within the platted drainage easements on Lots 11, 12, 13 and 14, the "*Vista del Sol Construction Plans*" ("2012 CBJ Required Plans") approved for construction on May 29, 2012 by the City & Borough of Juneau, Community Development Department, Permit Center (CBJ) shall be modified. Duran shall construct the "*Plan, Profile and Trash Rack Detail for the Vista del Sol Creek Inlet Box and Emergency*

Culvert” detailed in the five (5) sheet set of engineered drawings by Jodie A. Pessolano, P.E. (aka Gallamore), North Star Design-Build (December 13, 2024) (Appendix 4b). That designed channel system directs flow to a diversion inlet structure located immediately north of the Vista del Sol cul-de-sac. Via final elevations specified in the Appendix, flow arriving to the diversion inlet from upstream between Lots 11 and 12 will divide between (i) a culvert/ditch complex that flows west to the Glacier Gardens property and (ii) the already constructed underdrain system that runs underneath Vista del Sol Drive to the existing water quality pond (aka “wet pond”). This shall be accomplished by setting the infrastructure at the elevations specified in Appendix 4b, subject to a right reserved by Duran to modify those elevations and/or modify the volume of flow to Glacier Gardens property as may be necessary or appropriate to resolve *Glacier Gardens Real Estate, L.L.C. v. Duran Construction Company, LLC* (1JU-20-00819 CI). If Duran determines that a modification to the elevations and/or modification to the volume of flow to Glacier Gardens property is necessary or appropriate to resolve 1JU-20-00819 CI, Duran shall notify EPA and ADEC no later than 30 days after the diversion has been completed.

The drainage easement at Lots 13 and 14 that was shown on Plat 2012-18 (Juneau Recording District) shall be realigned by recorded easement to an alignment that straddles the border of Lots 13 and 14.

Duran shall maintain its Stormwater Pollution Prevention Plan (“SWPPP”). Duran shall maintain coverage and compliance with the State of Alaska “*Construction General Permit for Discharges from Large and Small Construction Activities*” (CGP), edition that became effective February 1, 2026 and shall implement BMPs consistent with that SWPPP, CGP, and the notes of the 2012 CBJ Required Plans to avoid or minimize sediment eroding from Vista del Sol and entering the stream channel that flows west to the Glacier Gardens property. The work must be accomplished in accordance with the design plans set forth in Appendix 4b.

Vista del Sol Project Standard #1 – Duran has developed drawings of record, by a civil engineer previously reviewed and negotiated by the parties, documenting the structural upgrades and changes of the storm water management system that are required to bring it into compliance with industry, ADEC, CBJ, and any other applicable standards. The work at and in the drainway traversing Lots 11, 12, 13 and 14 must be (a) completed in accordance with those drawings, except for the potential elevation alteration authorized above, to satisfy this Plan’s Description of Work, including any performance requirements, specifications or guidance contained therein, and to (b) meet the Project Target and Success Criteria which such drawings have been predetermined to satisfy if implemented precisely as designed.

Completion Report Measurements/Documentation (Within 3 Months of Execution of this Plan)

- a. Stamped civil drawings of record as heretofore approved by the parties, their counselors and advisors, CBJ and any other applicable regulatory bodies, codified herein in Appendix 4b.
- b. Twelve (12) original color photographs taken from representative photo-reference locations for Baseline/Time Zero that provide depictions of site conditions.

- c. The location of all photographs also should be shown on one or more summary overview photographs or figures of the northern portion of the Vista del Sol Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.

Monitoring/Documentation Requirements After Baseline/Time Zero, Years 1, 2, and 3

To address (b) above, Duran shall, each year at approximately the same time of year as the Baseline/Time Zero photographs, take 12 original color photographs from the same representative photo-reference locations used at Baseline/Time Zero that provide depictions of site conditions in Years 1, 2 and 3 after execution of this Plan.

Success Criteria - For the three years of post Baseline Monitoring, management of water flowing through the “Lot Drainage” stormwater system within Lots 11, 12, 13, and 14; stable conditions; and no erosion (or expected erosion) and minimal sedimentation on-site or downstream. Flow management by Duran must respect a lot owners’ right to use drainage easements so long as such use does not materially impair design flow of surface waters. Permanent management of the “Street Drainage,” including the enclosed storm water pipe system that runs underneath Vista del Sol Drive to the wet pond, was accepted by CBJ pursuant to CBJ Code of Ordinances 49.55.010(7), (9) as provided in the “Reconveyance Agreements” recorded September 04, 2012 and individually released as improvements met CBJ as-built approval. After construction of the Appendix 4b improvements to Lot Drainage at Lots 11, 12, 13 and 14, it is not a violation of the Consent Decree for Duran to delegate maintenance of each lot’s drainage to the persons who acquire title to a lot that is subject to a recorded drainage easement. However, Duran retains responsibility to ensure that this Mitigation Plan is fully implemented regardless of lot ownership.

Contingency and Adaptive Management Measures - Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches or systems that do not fail.

Vista del Sol Project Target #2 – Within the limits of its real property rights, Duran shall install and maintain erosion and sediment control BMP systems for “Lot Drainage” sitewide that are needed to comply with the ADEC’s CGP, including implementation of the Vista del Sol SWPPP and other requirements (including those of CBJ, if applicable).

Description of Work – All erosion control measures in the fully engineered “Street Drainage” system have been constructed as designed with maintenance long-ago accepted and implemented by CBJ Public Works. Many lots within the subdivision have been sold subject to title holder rights and obligations to maintain “Lot Drainage” on the title holder’s lot. Duran shall, within platted easements of lots owned by others or anywhere on lots to which Duran holds title, install or enhance as may additionally be necessary to implement its SWPPP and comply with CGP requirements sitewide, BMP systems, focusing on energy dissipation of flowing waters, slope and channeled-water stabilizations, sediment-source controls, and prevention of movements of sediment off-site consistent with the Vista del Sol SWPPP and as necessary to comply with the

CGP. Established, fully functional Lot Drainage improvements need not, and shall not, be disturbed (i.e. check dams on eastern boundary ditch). This obligation continues until Duran files a “Notice of Termination” that accords the strictures of CGP “Section 10 – Termination of Permit Authorization.”

Vista del Sol Project Standard # 2 - Documentation of installation or enhancement of such erosion and sediment control BMPs site-wide that are in compliance with ADEC’s CGP, including implementation of the Vista del Sol SWPPP and other requirements (including CBJ, if applicable).

Completion Report Measurements/Documentation

(a) Certified compliance of final/finish erosion and sediment control systems as required by ADEC’s CGP, including implementation of the Vista del Sol SWPPP and other requirements (including CBJ, if applicable).

(b) Twelve (12) original color photographs taken from representative photo-reference locations that provide depictions of site conditions other than the photographs required by Target #1. For the Vista del Sol Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.

Monitoring/Documentation Requirements, After Baseline/Time Zero, Years 1, 2, and 3

Duran shall take twelve (12) original color photographs from the same representative photo-reference locations that were used at Baseline/Time Zero, Target #2.

For the Vista del Sol Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.

Success Criteria - Minimize on-site erosion (or expected erosion) and minimal export of eroded materials (e.g. sediment) off-site.

Contingency and Adaptive Management Measures - Target failing areas and maintain or improve existing BMPs or replace existing BMPs with other approaches/systems that do not fail.

C. Off-Site Mitigation Measures

There are no on-site opportunities to mitigate impacts to waters/wetlands on the Vista del Sol property via stream or wetland restoration. Accordingly, off-site mitigation work at the S&S Ponds Mitigation Site will be performed to account for direct, indirect, cumulative, and temporal impacts to waters/wetlands area and ecosystem functioning at the Vista del Sol Mitigation Site.

V. S&S Ponds – Requirements for On-Site Mitigation via Integrated Restoration, Enhancement, and Preservation

A. Summary of Existing Conditions and Opportunities

The S&S Ponds include three connected ponds located on a prior large alluvial fan that spans the stream junction environments and low watershed divide that occurs at the downstream (distal) ends of the Lemon and Switzer Creek ecosystems. Due to berms breached by a single two-foot diameter culvert, the S&S Ponds maintain continuous surface connection to Lemon Creek and a side channel during lower tides, that is subject to the ebb and flow of the tide then transitions into the Mendenhall Wetlands and Gastineau Channel (Figures 14, 15, 16; Photograph 15). Past sand and gravel mining activities on the alluvial fan have resulted in the development of an earthened berm system, three ponds, a small road network, and central and northern laydown areas (Figure 17). Existing pond shoreline slopes are steep and generally devoid of vegetation (Photograph 16). Ponds 1, 2, and 3 in Figure 18 are intermittently connected to one another by water flows over existing haul roads that become flooded at medium to high Pond water levels (Photographs 16 and 17). All of the S&S Ponds receive water inputs from a combination of direct precipitation, surface and shallow subsurface water flows from surrounding uplands, brackish tidal water from Lemon Creek, and hyporheic water flows through the gravels that span the transition area between the Lemon Creek and Switzer Creek watersheds.

There is a culvert installed through the berm that is located along the southern perimeter of Pond 1. (Photograph 18; Plan Sheet 5). This culvert maintains hydrologic connection between Pond 1 and a side channel during lower tides of Lemon Creek (Photograph 19). At the point of this junction, Lemon Creek itself is tidally influenced. During higher tides, salt or brackish tidal water can flow between Lemon Creek system north, through the culvert, and into the southern end of Pond 1.

Immediately to the east of Pond 2, which is on Duran's property, there is another pond (Kingfisher Pond) that is located on CBJ property (Figure 18; Plan Sheet 19). As originally designed and constructed, Kingfisher had no surface connection to any other pond. Currently, a narrow and shallow surface hydrologic connection has developed between Kingfisher Pond and the east end of Pond 2. The connection is partially blocked by dense growth of reed canary grass (*Phalaris arundinaceae*) and by beaver activity (Photographs 22 a, b, and c, and 23).

In the earliest years of operation the borrow pit overflowed to the northwest, into Switzer Creek drainage. From the USACE Permit of 1977 and forward, operators were required to have a "permanently plugged dike" to contain water and solids within the borrow pit. Photographs suggest, however, that until Pond 3 was created, water accumulating in the northwest portion of S&S Ponds Mitigation Site could pass to the north via a low area of the dike that functioned as an occasional small surface hydrologic connection between what became the north end of Pond 3 and the Switzer Creek floodplain (Figure 18; Photographs 20 and 21 and "Western Drainage in 2005").

There are opportunities to complete on-site and "in-kind" stream and wetland restoration measures at the S&S Ponds Mitigation Site through a combination of restoration (re-

establishment and rehabilitation), enhancement, and preservation as defined in Table 1. These restoration, enhancement, and preservation measures can be designed to address the past direct, indirect, cumulative, and temporal adverse impacts due to sand and gravel mining and other earthwork activities on the S&S Ponds Mitigation Site.

Restoration, enhancement, and preservation of the S&S Ponds Mitigation Site also presents an opportunity to offset Duran's mitigation "debits" and provide for off site compensatory mitigation "credits" from alleged non-compliance activities at the Vista del Mar and Vista del Sol properties. These measures at S&S Ponds will provide significant environmental benefits for the region.

B. Tasks Required Prior to S&S Ponds Mitigation Work

The following items must be completed before any on-site earthmoving or construction work is commenced at the S&S Ponds Mitigation Site.

1. Duran shall set aside an area of uplands for a proposed shop building. At present the entire S&S Ponds Mitigation Site consists of a 28.7 acre (1,250,229 sq.ft.) fragment of United States Survey #2121 and lands previously accreted thereto that are collectively designated "Tract S2, J.P.D. Subdivision II, according to Plat 2009-15 (Juneau Recording District, First Judicial District, State of Alaska)." The Tract is subject to a publicly dedicated right-of-way for future extension of Alaway Avenue and other easements of record depicted on said plat ("Tract S2"). To accommodate Durans' desire to construct and operate a shop building at the S&S Ponds Mitigation Site, the parties have delineated an area, referred to as the "S&S Shop Area," for that building in the uplands in the vicinity of the northern stockpile area, as set forth in Appendix 4a, Plan Sheet 18.

If a subdivision of Tract S2 becomes necessary, prior to submittal to CBJ in the "Minor Subdivision" process (CBJ 49.15.401), Duran shall submit a stamped and certified preliminary plat map in electronic format (e.g., pdf) to EPA, ADEC, and to the Construction Oversight Team (COT) described below in paragraph V.B.5.

2. The parties accept the map of the existing topography and bathymetry on the entire S&S project area, previously identified as Sheet 3 of 22 drawn by proHNS LLC ((topography), and by Alaska Department of Fish & Game (Figure 18, 2021)(bathymetry). Duran has retained North57 Land Surveying which set up survey/grading controls, including temporary and permanent elevation benchmarks that resulted in various "Existing Condition" depictions provided as a layer in the 22 sheets of "S&S Ponds Plans (proHNS LLC)." The map scale is 1:100 and the contour intervals are 1 foot. The Registered Professional Surveyor licensed in the State of Alaska must stamp and certify the final set of "S&S Ponds Plan Maps." North57's use of an existing LiDAR map base is acknowledged.

The parties acknowledge they have received, reviewed, and commented upon several preliminary, evolving sets of such maps. Duran shall submit the final stamped and certified topographic map in both hardcopy and electronic formats (e.g., pdf) to EPA, ADEC, and to the COT as described below in paragraph V.B.5.

3. *Through surveyor JW Bean and studies conducted, Duran developed an understanding of water levels within the S&S Pond System and in Lemon Creek.* Through investigations performed by Alaska Department of Fish & Game (ADF&G), data regarding salinity within the S&S Pond System was compiled and presented by Fisheries Biologist Jackie Timothy in her “S&S Ponds Fish Presence and Habitat Suitability Assessment” (May 12, 2025).

Between winter 2023 and the execution date of this Plan, Duran, through the aforementioned experts, combined examinations and analyses of existing United States Geological Survey, Alaska, CBJ, and other relevant stream or S&S Pond water level, salinity recording, and fish distribution data to generate a working set of assumptions for managing Pond 1 water levels and salt water intrusion to the S&S Ponds Mitigation Site from Lemon Creek as are reflected in the S&S Ponds Plan Sheets. Duran shall implement those Maps/Plans precisely as drawn in (a) Pond 1 to Lemon Creek outlet channel connection, and (b) connections among Ponds 1 and 2, and 2 and 3.

4. *Duran shall hire a professional botanist to implement a S&S Ponds Planting Plan.* The EPA, ADEC, and the COT shall collaborate to develop and finalize a Planting Plan following entry of the Consent Decree. The Planting Plan shall only include species native to Southeast Alaska and shall fully account for S&S Ponds Project Targets, site hydrology, and microtopographical and elevation differences in the fully implemented restoration design. The EPA and ADEC shall develop the first draft of the Planting Plan and provide to the COT for review. Once the EPA, ADEC, and the COT come to a consensus on the Planting Plan it shall be implemented by Jackie Timothy or a professional botanist hired by Duran.

5. *Duran shall establish construction oversight and Scope of Work.* Duran shall establish a Construction Oversight Team (“COT”), retaining the third parties thereof. The COT will include: (a) Jackie Timothy, or other qualified and professionally certified wetland or river scientist; (b) proHNS LLC a Juneau-based civil engineering firm or other qualified environmental or civil engineering firm; (c) Marciano Duran or his designee, or other construction manager with demonstrated earthwork construction experience in Southeast Alaska; and (d) North57 Land Surveying for matters within the ordinary science, art and profession of measuring and field marking angular, distance and elevation points within the project. The Scope of Work (“SOW”) for the COT will be prepared by the Durans. It must ensure that the engineered plans for restoration and enhancement of S&S Ponds Mitigation Site, as incorporated herein, are implemented as specified in such plans. The SOW should clearly articulate duties and responsibilities, including management of directed time, maintenance of daily logs, certification of work completed, protocols for managing change orders, documentation of compliance with the final construction plans, and dispute resolution. The SOW must require that the COT provide monthly updates to the EPA and ADEC during the construction seasons in the years when earthwork takes place. The SOW must be submitted to the EPA and ADEC representatives designated herein at least 45 days in advance of scheduled field work. The EPA and/or ADEC shall provide recommendations and/or specified disapprovals within 60 calendar days of receipt. The EPA and ADEC may request a meeting and/or site visit to better understand the SOW prior to providing recommendations and/or approvals/disapprovals within the 60 calendar days.

The overall role of the COT will be to inspect the site during construction, monitor the progress and quality of the work, and determine if the work is proceeding in a manner that is consistent with all project plans and specifications, and consistent with conditions of all permits and authorizations. The COT will choose a designated Lead and single point of contact, other than a party to this action. The COT Lead can delegate certain tasks to COT members if the need arises. Specifically, the COT Lead will be authorized to:

(a) Change Work Protocols. At any time, and after consultation with the EPA and ADEC, the COT Lead will have the authority to recommend to Durans changes to work protocols for purposes of compliance with permit conditions and/or to ensure that the work for each project will (a) be completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) meet the Project Targets, Project Standards and Success Criteria.

(b) Stop Work. At any time, the COT Lead will have the authority to stop work to request that the appropriate government agency determine compliance with all permit conditions, and/or that EPA or ADEC assess and determine whether the work for each project as theretofore undertaken, is likely to (i) be completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (ii) meet the Project Targets, Project Standards and Success Criteria.

(c) Inspect and Change Construction Layouts. Initial construction work layouts will be the responsibility of Durans. Layouts will be checked regularly by the COT Lead, in consultation with the appropriate team member, to evaluate compliance with all permit conditions and consistency with this Plan. (i.e. coordinate with J. Timothy on permit questions; coordinate with proHNS on engineering questions, etc.).

(d) Inspect and Change Grade Controls. All temporary and permanent grade controls will be the responsibility of Durans. They will be checked regularly by the COT to evaluate compliance with all grading plans and specifications and permit conditions. Durans shall modify those grade controls that the COT determines must be modified to comply with restoration grading plans and specifications and permit conditions.

(e) Identify Unsuitable Fill Materials. Initial sorting and documentation of suitable and unsuitable fill materials will be the responsibility of Durans. Fill material (including dredge material) must be clean sand, gravel or rock, free from petroleum products and other contaminants in amounts that exceed State of Alaska and federal standards. The COT shall evaluate compliance with all restoration grading plans, specifications, State of Alaska and federal standards, and permit conditions.

(f) Inspect and Adaptively Manage Sediment and Erosion Control Systems and BMPs. Development and implementation of the Storm Water Pollution Prevention Plan (SWPPP) and installation and maintenance of all BMPs shown in the SWPPP are the responsibility of Durans, consistent with CGP requirements.

The COT Lead will have the responsibility for additional inspections and approval of initial installations and subsequent maintenance and adaptive management of BMPs. Standard recordkeeping consistent with conditions of the SWPPP is the responsibility of Durans and is subject to regular inspection(s) by the COT Lead in addition to any compliance inspections conducted by ADEC.

(g) Inspect and Change Wildlife Species and Habitat Protections. Development, installation, and maintenance of all wildlife species and habitat protections required by ADFG is the responsibility of Durans. The COT Lead will have the responsibility for inspection and evaluation of initial installations and subsequent maintenance and adaptive management. Record keeping sufficient to document the safe and meaningful operation of species and habitat protections is the responsibility of Durans and is subject to regular inspection(s) by the COT Lead.

(h) Alert Regulatory Agencies. Compliance with all federal, state, local (including CBJ), and other permits and regulatory requirements associated with this work is the responsibility of Durans. The COT Lead will communicate with Durans when there is a potential or observed deviation from permit or regulatory requirements, with the intent of maintaining compliance through collaboration. If non-compliance continues, the COT Lead will alert the appropriate regulatory agency or agencies to request intervention. On an annual basis for the duration of the Consent Decree, shortly after the primary work window closes for the season (typically around October 31), the COT shall meet with the EPA and ADEC to discuss the work that has been performed during the year, compliance with all permits and authorizations, and any anticipated challenges in the following year.

The COT shall have authority to approve minor changes from each Description of Work, including any performance requirements, specifications or guidance contained there, provided that the work will still meet the Project Targets, Project Standards and Success Criteria. Significant changes from each Description of Work are changes that, objectively assessed by the COT, appear likely to cause the work to fail to meet the Project Targets, Project Standards and Success Criteria, and are subject to Section XV of the Consent Decree. Significant changes require written agreement between the EPA, ADEC, and Duran.

C. Project Targets and Associated Descriptions of Work, Project Standards, Measurements/Documentation, Success Criteria, Contingencies, and Adaptive Management Measures

The following section of this Mitigation Plan complements the engineered drawings (Appendix 4) and presents the elements required for restoration, enhancement, and preservation of the waters/wetlands ecosystems and surrounding upland landscapes on the S&S Ponds Mitigation Site.

Figure 18 and Plan Sheet 4 show the locations of Work Areas and naming conventions used to discuss the integrated restoration, enhancement, and preservation measures for the S&S Ponds Property. Appendix 4 in this Plan consists of Plan Sheets showing restoration construction plans for all elements of the S&S Ponds restoration.

Under this Plan, Durans must identify unsuitable fill materials. In the course of this identification, or during any other the work required in this Plan for S&S Ponds, if Durans notice any signs of potential contaminants or hazardous materials (e.g., visible sheen, foul odor, discoloration of material, etc.), then Durans must cease that work and immediately notify the EPA and ADEC (and any other required regulatory entities with regulatory authority). Durans shall then need to obtain EPA and ADEC approval before proceeding with work described in this Plan for S&S Ponds.

S&S Project Target #1 – Duran shall move, manage, and enhance (through weed controls and planting) the existing berms that are on Durans property and adjacent to Switzer and Lemon Creeks to prevent the creeks from migrating and to buffer the S&S Ponds Mitigation Site from surrounding developments

Description of Work - There currently is a berm system around most of the north, east and south perimeters of the S&S Ponds Mitigation Site (Figures 15 and 16 and Plan Sheet 5-8; 15-18). The existing berms provide some degree of isolation, protection or buffering of the S&S Ponds Mitigation Site from surrounding developments, road networks, and human intrusions. The existing berm side slopes are steep and the berm tops are generally narrow. (Figure 16; Plan Sheets 5). Portions of those berms are located on property that Durans do not own. Consistent with the Plan Sheet 15, and the SWPPP, Durans shall construct berms on its property with appropriate dimensions and location to provide similar isolation, protection, and buffering that the existing berms currently provide. Berms shall be located as positioned, and constructed to the specifications of S&S Plan Set (Plan Sheet 15). In addition, throughout the existing berm system on Duran's property, non-native weed species combined with some native trees and shrubs have colonized and dominate the berm tops and side slopes. The non-native weeds preclude or will slow down establishment of volunteer or planted native trees, shrubs, and undergrowth species.

For existing berms on Duran property, Duran shall use integrated weed control measures on the berms to effectively control and minimize non-native, invasive species. The Alaska non-native plant species list can be accessed at –

<https://accs.uaa.alaska.edu/invasive-species/non-native-plant-species-list/>?

The integrated weed control measures may include, for example, combinations of the following: hand weeding, mechanical clearing if allowed by federal, State of Alaska, and local (including CBJ) regulatory bodies, and as a last resort, use of EPA-registered herbicides that are certified for use within or proximate to waters/wetlands. When disturbance of ground is complete, organic overburden from stripping operations may be used to facilitate reclamation of the site. Duran, directly or through a qualified vendor, shall begin implementing the Planting Plan developed in accordance with Section B.4 of this Mitigation Plan, *infra*. At new berms and those older berms being left in place, dense seeding and plantings of native tree and shrub species to supplement natural revegetation and accomplish competitive exclusion of weeds is required. After initial weed control efforts, and following all earth-disturbing activities in the immediate area being revegetated, plant native tree cuttings, shrubs, and undergrowth species according to the Planting Plan. The Alaska Department of Natural Resources has developed a revegetation manual for

Alaska to assist those involved in revegetation efforts select appropriate seed mixes and, to some degree, methods for revegetation.

<https://dnr.alaska.gov/ag/akpmc/pdf/RevegManual.pdf>

Although geared to moving water, the Alaska Department of Fish and Game (ADF&G) has developed a “Streambank Revegetation and Protection Guide” with applicable discussions and guidance on Revegetation Zones; Plant Material Selection; Stock Type; Species Selection; Techniques for Gathering and Planting Cuttings and Plugs; and Seeding:

[Streambank Revegetation and Protection, A Guide for Alaska, Revised 2025](https://www.adfg.alaska.gov/static/home/library/pdfs/habitat/98_03.pdf)

https://www.adfg.alaska.gov/static/home/library/pdfs/habitat/98_03.pdf

Berm construction shall be in a manner that establishes a stable surface with appropriate soil cover and vegetation consistent with the target elevations. After Duran constructs new berms on Duran property, Duran shall plant the new berms with an effective cover of woody and herbaceous vegetation seeds, cuttings, plugs, shrubs, and undergrowth consistent with the Planting Plan.

S&S Project Standard #1 – Duran shall document, as specified in this Mitigation Plan, any berm retention, berm construction, berm removals, weed controls, and plantings of native trees, shrubs and undergrowth to show that the work (a) was completed in accordance with this Plan’s Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Documentation Requirements

- (a) For berm retention: Drawings of Record that show the location and configuration of retained berms;
- (b) For berm construction: Drawings of Record that show the location and configuration of the new berms;
- (c) For weed control: representative plot sampling to document coverage of non-native weeds at Baseline/Time Zero conditions immediately after cessation of construction and seeding/planting with “Photo Point Monitoring.”³

³ In this document, “Baseline/Time Zero” conditions means that point in the construction process where all of the bulk and fine grading earthwork is done, all required water diversions, connections, and wood structures are installed, post earthwork erosion and sediment control BMP systems are in place and working, and at least the initial phases of plantings and weed control are done. All the foregoing may be completed in one area of the S&S Mitigation Site before moving to a different area. Accordingly, there may be more than one “Baseline/Time Zero” within the S&S Mitigation Site. “Baseline/Time Zero” is usually formally declared to signal the end of construction and the beginning of monitoring.

- (d) For the planting of native tree cuttings, shrubs and undergrowth: “As Planted” Take Off Tables as described below in documentation for Target #2.

Monitoring Documentation Requirements – Years 1, 2, and 3

(a & b) - N/A

- (c) For weed control: photo point monitoring or representative plot sampling to estimate percent (%) coverage of non-native weeds.

- (d) For planting of trees and shrubs – representative plot sampling to document survival and vigor of plantings

Success Criteria -

- (a) For berm retention: the berms are retained;
- (b) For berm construction: the berms are constructed accordance with Plan Sheet 15;
- (c) For weed control: there is less than 25% canopy coverage of non-native weeds at Baseline/Time Zero immediately after cessation of construction and then in Year 1, and 3; and
- (d) For the planting of native trees, shrubs and undergrowth: 75% survival of planted stock in Year 3.

Contingency and Adaptive Management Measures –

- (a) This does not apply to berm retention because the berms must be retained in the first instance.
- (b) This should not apply to berm construction because the tasks must be completed properly in the first instance. However, additional construction or modification may be necessary if the work is not initially done properly or results are not satisfactory.
- (c) For the weed control and plantings, implement in-fill plantings in years 1-3 to offset mortality in excess of 25% (75% survival required).

S&S Project Target #2 – Duran shall improve and enhance the Lemon Creek connection to the S&S Ponds via culvert and berm removal and construction of a new channel and floodplain terrace (bench) system

Description of Work (including construction sequencing) - The hydrologic connection between the S&S Ponds system and Lemon Creek is currently maintained by a culvert that is installed through the existing berm at the southeastern (downstream) end of S&S Pond 1 (Photograph 18; Plan Sheet 5). ADFG staff (Lindgren, 2021) and Ms. Jackie Timothy (2025) have documented that some saltwater intrusion into Pond 1 occurs. They also documented via trapping that salmon

and resident fish move between the Lemon Creek and Pond 1 systems, as there were juvenile coho salmon and other fishes in the S&S Ponds. However, free passage of salmon, resident fish, and other aquatic and semi-aquatic species may be impeded by the culvert, which is old, always submerged, and/or may be partially blocked.

Work at the Pond 1 – Lemon Creek outfall involves removing the existing culvert connecting the south end of Pond 1 to a side channel during lower tides of Lemon Creek. It also includes widening and enhancing the structure and functioning of the connection by constructing a new channel and floodplain bench system that will minimize salt water intrusion and allow passage of salmon, resident fish, and other aquatic species at most stages of Pond 1 and Lemon Creek water elevations and flows (Plan Sheet 7). A recommended sequencing of construction to accomplish this work is set forth below.

(a) Identify Work Windows. Duran shall examine predicted Juneau, Alaska tide charts to identify the lower tidal elevations and water flows in Lemon Creek and precipitation information to identify the drier season/summer months, and within authorized “fish windows” for construction identified by ADFG to identify suitable in-water work windows during tidal cycles and water flows that are low and during daylight hours. Duran shall consult and coordinate in water work windows with the ADFG to ensure that any fish windows or other requirements are identified and work is performed in compliance with all ADFG fish habitat permit requirements. Duran shall schedule and complete in and near water work during periods of low tides to minimize water intrusions into the work area.

(b) Protect the Work Area. Duran shall isolate the work area reach (upstream and downstream) with block nets or other methods, if specified in the ADFG permits. If isolation is required by ADF&G, Duran shall clear fish from the exclusion reach; capture and relocate them further away from the work area. Duran shall monitor any ADF&G-required exclusion reach and net systems at least twice daily or more frequently if required by ADF&G to ensure fish are not present, trapped in the nets, or otherwise harmed during culvert removal and earthwork in the channel and berm side slopes.

(c) Establish Water Diversion Systems, Materials Delivery Routes, and BMPs Consistent with the S&S Ponds SWPPP. Duran shall clear the work area of existing vegetation that will be impacted by culvert removal and earthwork for the new channel. Duran should anticipate the need to deliver materials (e.g., sediment fencing, gravels, large wood) to the work area to support installation and maintenance of BMPs, installation of gravels to line the new channel area, and installation of large wood on floodplain benches. Duran shall install erosion and sediment control BMPs including -

(i) Installation of a temporary coffer dam and/or pump water bypass system in the exclusion reach to dewater the work area. Depending on tide levels, the bypass system may need to be fitted with a one-way flapper valve (or equivalent) to prevent tidal backwatering into the work area.

(ii) Benching/flattening of the area in the vicinity of the culvert removal and new channel/floodplain terrace (bench) system. Floodplain benches will provide platforms on

both sides of the new channel for an excavator and other equipment to safely access the work area, set up, remove the existing culvert, and construct the new channel, floodplain bench, and stabilized berm slope system.

(iii) Creation of smooth transitions from the floodplain benches to the adjacent berm side slopes and slope faces on both sides of where the new channel will be located. See Detail 3/8, Plan Sheet 8. After grading, install erosion and sediment control BMPs as necessary to prevent soil materials from the newly graded slopes from falling into the work area or into the water.

(d) Remove the Existing Culvert. Duran shall set up a track hoe and remove soil and any other materials covering the existing culvert system. Duran shall remove the culvert.

(e) Channel Construction. After culvert removal, Duran shall construct a channel connection to Lemon Creek at elevations specified in the site grading plans (Plan Sheets 7 and 8). The width of, and side slopes to the channel shall be constructed as specified in Plan Sheets 7 and 8. Duran shall stabilize the channel side slopes using a combination of bioengineering techniques that incorporate natural biodegradable materials (e.g., coir cloth or rolls, sterile straw, live fascines) and appropriate erosion and sediment control BMPs (Examples are given in Figures 39 - 44) consistent with requirement of the SWPPP.

The recommended construction approaches and sequencing are as follows:

(i) Duran shall enlarge and continue to shape (a) the initial slot in the berm, and (b) the floodplain bench system used to remove the culvert. The size and shape of the slot through the berm for the new channel must be wide enough to accommodate the new channel. Downstream from that slot develop and retain benches that will be located on either side of the new channel for the length of the new channel reach (Plan Sheets 7 and 8).

(ii) Consistent with the grading plans (Plan Sheets 7 and 8), Duran shall grade the new channel reach and adjacent floodplain benches. In so doing:

(a) Duran shall ensure that the new channel makes smooth transitions to the Lemon Creek floodplain (downstream) and to Pond 1 (Upstream) while minimizing the possibility of salt water intrusion into Pond 1 by precisely executing the elevations specified in Detail 5/8, Plan Sheet 8.

(b) Working with the wetland/river scientist, Duran shall install large wood (with and without rootwads attached) into slot trenches that are excavated on floodplain benches *above* the OHWM. Place large wood pieces into the slot trenches. If necessary, Duran shall hold these logs down with large rocks, driven wood pins (or other natural ballast materials) that will be buried when the slot trenches are backfilled. With the large wood placed, Duran shall backfill the slot trenches and compact the backfill with a combination of the excavator bucket and tracking. Examples of log structures that may be appropriate above the OHWM are given in Figures 19, 21, 22, 23, 24, and 25 (not to scale).

(iii) Duran shall line the new channel through the work area reach with stream gravels approved by ADFG. Preliminary specifications for the stream channel gravel are given in Plan Sheet 8.

(iv) Simultaneously with installation of gravel, Duran shall shape the (temporary) finish grade of the new channel in anticipation that flowing water will ultimately determine its shape.

(v) The finished grade of the new floodplain benches will be slightly sloped (approximately 2%) towards the ordinary high water mark (OHWM) of the new channel to avoid trapping and stranding fish and other aquatic species. The landward extent of the benches will be shaped to transition smoothly into the adjacent side slopes/slope faces along the length of the new channel reach (Plan Sheet 8).

(vi) Working with the wetland/river scientist and simultaneously with installations of large wood on the new floodplain benches above the OHWM, Duran shall install, where and if appropriate, microtopographic features that include pits and mounds that are open at least one end to avoid trapping fish. At the direction of the wetland/river scientist, these features should be built in one or more of three configurations -

- (a) Without large wood.
- (b) With single pieces of wood, or
- (c) With “jack strawed” multiple pieces (complexes) of large wood with and without root balls.

Examples of these features that may be appropriate are given in Figures 26 - 38 (not to scale).

As shown in Figures 26 - 38 (not to scale), single large wood pieces or complexes should be partially embedded in slot trenches excavated above the OHWM in the floodplain benches and/or partially buried and then mounded around and over. If necessary, Duran shall use large rocks, driven wood pins, or other natural ballast materials to ensure that the wood will not move when flooded. These rocks or pins will be buried on finish grades. After pinning, Duran shall compact the mounded soils so that the large wood features are stable and do not move in flooded conditions. Duran shall track over mounds to compact soils or use the excavator bucket to compact, or both. The floodplain bench large wood will add form roughness and therefore complexity to the floodplain bench system above the OHWM of the new channel. If necessary, the large wood pieces on the margins of the benches can be installed in positions to help stabilize the bench to adjacent berm toe slope transitions.

(vii) Duran shall compact soils on the finish grades of the floodplain benches to help hold large wood in place or, where there is no large wood, lofted to increase aeration porosity and to allow easier installation of plantings.

f) Planting Native Trees, Shrubs, and Undergrowth Species consistent with the Planting Plan. Duran shall plant/install native tree cuttings, shrubs, and undergrowth species in the manner, and to the extent, identified in the Planting Plan.

g) Final Stabilization of the Work Area. If needed to minimize erosion, and only where compatible with seeding and planting, Duran shall stabilize the floodplain benches and remaining berm side slopes and slope faces using a combination of bioengineering techniques that require use of natural materials (e.g., coir cloth or rolls, organic geotextiles, sterile straw, live fascines) and other erosion and sediment control BMPs that are consistent with the S&S Ponds SWPPP (Figures 39 – 44 provide examples). In every instance, Duran shall avoid channel or bank hardening using materials such as rip rap, gabions, concrete, and sheet pile. As the last step in this Target #2 process, Duran shall decommission the water bypass and diversion system, any temporary BMPs, and, finally, any installed block net systems.

S&S Project Standard #2 - In Drawings of Record, Duran shall document, as specified in this Plan, the culvert removal and channel construction, finish grades, planting of native tree cuttings, shrubs, and undergrowth species, and final stabilization of the work area to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation

(a) For all of the Target #2 activities depicted with dimensions and/or specifications in the Plan Set, document any deviation therefrom. Deviations may be shown on a working set of the Plans or on a Drawing of Record that updates the baseline site survey/topographic map at a scale of at least 1:100. Duran shall show the finish invert elevations and finish channel topography, including longitudinal and cross sections of the finish channel grades, and locations of large wood structures. Duran shall include a minimum of 12 original color photographs taken from representative photo-reference locations that provide depictions of the completed channel. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another.

(b) For documentation of the seeding and planting of native tree and shrub bare root or containerized stock or cuttings, the COT shall stratify the work area into planting zones that have similar moisture, nutrient, heat, and light characteristics, as determined to the best of the ability of the collective COT. For each planting zone, Duran shall develop “As Planted” Take Off Tables”. An example of a plant take off table is given in Table 3.

(c) For the final stabilization of the work area, Duran shall photograph depicting the completed work and a short narrative describing the stabilizing measures and results.

Success Criteria

- (a) At Baseline Time 0: For the culvert removal and construction of the channel: the connection between Pond 1 and Lemon Creek is at the specified elevations and grade with water connection maintained between Pond #1 and the side channel of Lemon Creek at all tidal elevations that maintain juvenile fish passage through the new and enhanced channel;
- (b) At Baseline Time and Years 1, 3 and 5 For the planting of native tree cuttings, shrubs and undergrowth: a fully revegetated work area with predominantly native stock in year 5, including 75% survival of planted stock; and
- (c) At Baseline and Year 1:: For the final stabilization of the work area: stable site conditions and no erosion of the channel to such an extent that it impairs passage of juvenile fish between Pond #1 and the Lemon Creek side channel.

Contingency and Adaptive Management Measures -

- (a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.
- (b) Implement in-fill plantings in years 1-5 to offset mortality or to enhance the native species regeneration.
- (c) For the weed control and plantings: implement intensified integrated weed management strategies.

S&S Project Target #3 – Duran shall deepen, widen, and enhance the structural complexity of the existing channel connection and adjacent shoreline (littoral) areas between Ponds 1 and 2 to ensure connectivity at most water levels and a higher functioning littoral habitat.

Description of Work (including construction sequencing) - Photograph 16 shows the condition of the existing channel connection through the old road that spans the northwestern end of Pond 1 and the southeastern end of Pond 2. It is shallow, occasionally dries out, and prevents free passage of fish and other aquatic and semi-aquatic species during most water levels. Plan Sheet 21 shows the approach for improving the Pond 1-2 connection.

The recommended sequencing of construction to accomplish the work for this project target is set forth below.

- (a) Duran shall protect the work area. Duran shall schedule work during a period of low water. All work will be done in accordance with ADF&G permit requirements. If required by ADF&G permits, Duran shall isolate the work area reach (upstream and downstream) with block nets with mesh densities specified by the ADFG permit. Duran shall clear fish from the exclusion area; capture and relocate them further away from the work area. Duran shall monitor

any ADF&G-required exclusion area and net systems at least twice daily or more frequently if required by ADF&G to ensure that fish are not present, trapped in the nets, or otherwise harmed or stressed during earthwork in the channel and on adjacent floodplain benches and side slopes.

(b) Duran shall remove the old road and restore natural conditions. Precise widths, depths and other engineered specifications detailed on the Plan Set shall be executed exactly as prescribed (Plan Sheet 21). A recommended sequencing of construction to accomplish this work is set forth below:

(i) Use the eastern segment of the old road to access and mobilize equipment and materials to the new channel construction area.

(ii) On the western segment of the old road above the OHWM, after all activities west of Pond #1 have been completed and after large wood installations, and in areas that are not covered with large wood or mound features, rip and cross rip the old road surface and loft soils/sediments that constitute the old road surface. Ripping and lofting at generally right angle passes with the rippers (cross ripping) will create favorable conditions for plantings.

(c) Revegetation on the western road segment. Before access to the western road segment is difficult or cut off, Duran shall engage in revegetation activities at the lofted road surface consistent with the Planting Plan.

(d) Final stabilization of the western road segment work area. If needed to minimize erosion, and only where compatible with seeding and installed planting, Duran shall stabilize the western road segment work area using a combination of bioengineering techniques that require use of natural materials (e.g., coir cloth or rolls, organic geotextiles, sterile straw, live fascines) and other erosion and sediment control BMPs (Figures 39 – 44 provide; Plan examples Sheet 21. In all cases, Duran shall avoid using hardening materials such as rocks, gabions, concrete, and sheet pile. During this process, Duran shall decommission any temporary BMPs used in the western road segment work area and (last) any installed block net systems.

(e) Deepen and widen the existing connection between Ponds 1 and 2. After treatment/enhancement of the western road segment as described above, at low water, and working with the wetland/river scientist, Duran shall use a track hoe to deepen and widen the existing connection between Ponds 1 and 2. Presently, the connection is approximately 25 feet wide and generally less than 1 foot deep. It occasionally dries out. Duran shall shape the new connection consistent with the dimensions offered in Plan sheet 21.

(f) Enhance the complexity of the new, deeper and wider channel connection between Ponds 1 and 2. After the new channel connection is scribed, but before finish grading is complete and blocks access to both sides of the new channel, and working with the wetland/river scientist, Duran shall install large wood features (with and without root balls attached) on the old road surfaces well above and away from the OHWM. Duran shall partially embed single large logs with root balls or complexes of jack-strawed logs (with and without root balls attached) in slot trenches excavated on the channel side slopes *well above the OHWM*. Examples of log features that could be used above the OHWM are given in Figures 26 -38 (not to scale). Duran shall not place large wood below the OHWM in the new channel connection. On the old road surface and above the OHWM, Duran shall partially bury and pin large wood in place using a combination of large rocks, driven wood pins or other natural ballast materials. Once large wood pieces are

pinned in place, Duran shall mound around and over them and compact mounded soils so that the logs are stable and do not move in flooded conditions. Duran shall track over mounds to compact soils or use the excavator bucket to achieve compaction, or both. Examples of these features are given in Figures 26 - 38 (not to scale). The addition of large wood on the adjacent old road surface above the OHWM will add form roughness and therefore vertical and horizontal habitat complexity on the old road surfaces above the OHWM.

(g) Manage/enhance the eastern road segment. Duran shall ensure all work is complete on the western road segment and in the area of the new channel connection. Duran shall then address the eastern road segment “working your way out” from west to east. The sequencing and substance of construction to accomplish this work is set forth below:

(i) Working with the wetland/river scientist, Duran shall coordinate installation of large wood features (e.g., single logs and log complexes, with and without mounds) and microtopographic features (e.g., mounds with and without wood) on and at the margins of the eastern segment of the old road well *above* the OHWM. *See* Figures 26 - 38, (not to scale). This will increase microtopographic complexity in shoreline habitats proximate to the eastern segment of the old road.

(ii) On the eastern segment of the old road above the OHWM, after large wood installations, and in areas that are not covered with large wood or mound features, Duran shall use equipment capable of ripping and cross ripping the old road surface and loft soils/sediments that constitute the old road surface. Ripping and lofting at generally right angle passes with the rippers (cross ripping) will create favorable conditions for natural revegetation as well as any seeding and planting.

(h) Plant native trees, shrubs, and undergrowth species. Duran shall engage in revegetation activities at the lofted soil in the same manner as described in Targets 1 and 2.

(i) Final Stabilization of the Work Area. Perform stabilization on this eastern road segment in the same manner as described for the western road segment by Paragraph (d) above.

S&S Project Standard #3 – Duran shall document, as specified in this Plan, removing and restoring the old road, deepening and widening the existing channel connection, enhancing the complexity of the new, deeper and wider connection, managing and enhancing the former road segment, revegetation, and final stabilization of the work areas to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation

(a) For all of the Task #3 activities depicted with dimensions and/or specifications in the Plan Set, document any deviations therefrom. Note deviations on a working set of plans. Supplement with 12 original color photographs taken from representative locations that provide depictions of the completed work. Mark photographs or provide narratives as necessary to clarify the work depicted. The location of all photographs taken that year throughout the S&S Ponds Mitigation

Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another.

(b) As specified in the Documentation Standard for Target #2, Duran's qualified vendor shall develop "As Planted" Take Off Tables

Monitoring Documentation Requirements – Baseline and Years 1, , 3 and 5

(a) 12 photographs taken from the same locations as taken for the Completion Report (Baseline/Time 0) to document overall site conditions. Accompany the photographs with a short narrative describing conditions.

(b) For planting of native trees and shrubs – generate and submit representative "Photo Point Monitoring" to document the coverage and vigor of vegetation.

Success Criteria -

(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.

(b) For all of the plantings, implement in-fill plantings in years 1-5 to offset mortality.

(c) For all instances of the final stabilization of the work area, bolster site stabilization measures with standard BMPs, bioengineering and plantings.

Contingency and Adaptive Management Measures -

(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.

(b) For all of the plantings, Duran shall implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required)..

(c) For all instances of the final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering and plantings.

S&S Project Target #4 – Duran shall fill the depressional areas, grade the road on the west side of Pond 2 to drain into the pond, and revegetate to prevent juvenile fish entrapment and enhance the structural complexity and functioning of the new shoreline (littoral) habitat

Description of Work (including construction sequencing) - The existing access road that is located along the western side of Pond 2 is deeply rutted and generally degraded (Photograph 25). In its present condition, the road floods and ponded water serves as an entrapment area for juvenile fish and other aquatic organisms.

To accomplish the work for this project target, at low pond level water, Duran shall grade the existing road on the west side to slope toward Pond 2 to eliminate the possibility of juvenile fish entrapment resulting from water ponded within the ruts and other low points of the road. Slope gradient is specified on Sheet 21, Detail 3/21. In addition, Duran shall enhance the functioning of the new shoreline (littoral) habitat by creating structural complexity via grading to create microtopographic features, placement of large wood, and planting native species plugs from the wetland that naturally emerged in an old processing area on the southwest side of Pond #1 (Plan Sheet 21). The recommended sequencing of construction to accomplish this work is set forth below:

(a) Duran shall isolate the work area and protect adjacent water from excessive turbidity: Duran shall identify a low water interval where grading the road on the west side of Pond 2 will be possible above and below the OHWM. Duran shall install a sediment fence system waterward of the work area to control, to the maximum extent practicable, any sediment movement towards Pond 2 and development of any turbidity in Pond 2.

(b) Duran shall grade the existing road. This work is intended to and must eliminate fish entrapment and create microtopographic complexity along the Pond 2 shoreline/littoral zone.

At low water and with sediment fencing and other appropriate BMPs in place, Duran shall grade the existing road on the west side of Pond 2. The overall finish grade of the new shoreline must be set up to drain east into Pond 2. The new shoreline shall slope at an average of approximately 2% from the foot of the existing berm that is located along the west side of Pond 2 (as depicted on Plan Sheet 19 "Bank & Channel Existing Conditions") to areas that are slightly below the OHWM of Pond 2.

While grading, and working with the wetland/river scientist, Duran shall not create a straight/monolithic linear shoreline feature in the location of the existing west side road ROW. Instead, Duran shall grade the area (per final grading plans) to increase the structural complexity and form roughness of the new shoreline by creating microtopographic features that will exist at finish grade with and without placement of large wood (Plan Sheet 21). The goal in grading is to create a wavy (serrated or "crenulated" in plan form) shoreline that is in scale with the size, shape and water level change processes that occur in Pond 2. While grading the shoreline for plan form complexity, Duran shall redistribute dry to moist, not saturated (cut and fill) soils from the graded old road to create shoreline microtopography by grading a series of elevated humps and associated low spots along the new wavy/crenulated shoreline. All of these features should start near the foot of the existing berm that is located along the west side of Pond 2 and should extend to areas that are slightly below the OHWM. All microtopographic features should be irregular in shape and they should be graded to slope and drain towards Pond 2. Duran shall not create areas that pond water because they will trap fish. In creating this new and more complex shoreline, Duran shall anticipate the placement of large wood (either single pieces or complexes) on or embedded in the tops of the humps and within low spots that are created in the (littoral) transition zone from slightly above the OHWM to slightly below the OHWM (Figures 26 - 38 (not to scale)).

(c) Placement of large wood. After initial shaping of the new shoreline as described immediately above and before finish grading and planting, Duran shall work with the wetland/river scientist to place single logs (with and without root wads attached), or complexes of jack-strawed logs (with and without root wads attached) on the tops of or partially embedded into shoreline mound features (Figures 26 - 38 (not to scale)). In addition, as if on a flowing channel margin, Duran shall place/partially embed single logs or log complexes in the bottom of graded low spots in a manner that spans the transition of these low spots to shoreline areas that are slightly below the OHWM of Pond 2 (Figures 21–25 provide examples (not to scale)). Because logs in low spots will likely be subject to flooding, Duran shall embed them and/or pin them in place with a combination of multiple log layers, large (buried) rocks, or driven wooden pins in a manner designed by the engineer that will not allow the large wood pieces to float away into Pond 2. Duran may obtain the logs with or without root wads from any uncontaminated nearby source, including other lands owned by Duran Construction Company LLC.

(d) Duran shall rip and loft soils in the new shoreline area and prepare for planting. After initial grading and placement of large wood features, Duran shall rip and cross rip the new shoreline area above the OHWM to loft soils and prepare the area for planting.

(e) On the new shoreline Duran shall further enhance natural revegetation by planting native tree and shrub potted or bare root stock, and emergent species cuttings and plugs transplanted from wetlands existing at the southwest portion of the site.

(f) Final Stabilization of the Work Area. When needed to minimize erosion and where compatible with installed planting, Duran shall stabilize the work area using a combination of bioengineering techniques that require use of natural materials (e.g., coir cloth or rolls, sterile straw, organic geotextiles, sterile straw, live fascines) and other erosion and sediment control BMPs (Figures 39 – 44 provide examples). In all instances, Duran shall avoid channel or bank hardening using materials such as rocks, gabions, concrete, and sheet pile. Following this process, Duran shall decommission temporary BMPs.

S&S Project Standard #4 – Duran shall document, as specified in this Plan, the foregoing work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation

(a) For all the Task #4 activities depicted with dimensions and/or specifications in the Plan Set, Duran shall note deviations therefrom on an As-Built set of plans. Supplement with 12 original color photographs taken from representative photo-reference locations that provide depictions of the completed work. Mark photographs or provide narratives as necessary to clarify the work depicted. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another.

(b) For planting of native tree cuttings and plugs: the qualified vendor retained by Duran shall develop “As Planted” Take Off Tables as described in Target #2.

Monitoring Documentation Requirements, Years 1, 2, 3, and 5

(a, b, & c) Documentation under Task #4 post Baseline shall mirror post Baseline documentation under Task #2.

(d) For planting of native trees, shrubs and undergrowth: Duran shall perform representative plot sampling to document survival (%) and vigor of plantings

Success Criteria -

(a) For grading the existing road to eliminate fish entrapment and to create microtopographic complexity along the pond 2 shoreline/littoral zone: stable grades and no fish entrapment hazards;

(b) For the placement of large wood: enhanced functioning of shoreline habitat via stable installation of large wood and microtopography;

(c) For ripping and lofting soils in the new shoreline area and preparing for planting: lofted soils to enhance planting success;

(d) For the planting of native tree and bare root or containerized stock or cuttings, and plugs, a fully revegetated work area with predominantly native stock in year 5; and

(e) For the final stabilization of the work area: stable site conditions and no erosion.

Contingency and Adaptive Management Measures –

(a, b, & c) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.

(d) For the plantings, implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required).

(e) For final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering and plantings.

S&S Project Target #5 – Duran shall construct a channel between Ponds 2 and 3 at and elevation that will ensure minimal salt intrusion and maximum connectivity at most water levels

Description of Work Perform the same tasks at this crossing as are prescribed for the connection between Ponds 1 and 2, Target #3. Apply all engineered drawings and specifications unique to the Pond 2 – 3 Connection.

S&S Project Target #6 – Duran shall restore/reclaim the main staging/processing and stockpile area to a mosaic of emergent wetlands and open space characterized with microtopographic features

Description of Work (including construction sequencing) - Existing grades within the main staging/processing area are nearly level, intersected by haul roads, fill pads, and stockpiles of sand, gravel, rock, and other materials, and compacted by mining and construction traffic (Photograph 25; Plan Sheet 9). The work for this project component must create a mosaic of shallow depressional wetland features and upland open space in the existing central stockpile area (Plan Sheet 11). The eastern boundary for this Task is the eastern edge of the Conservation Easement as depicted immediately below:



The sequencing of construction to accomplish this work is set forth below:

(a) Initial sequencing. Duran shall sequence the main staging/processing area stockpile removals and grading to follow pond connection and shoreline enhancement work that will occur to the southwest.

(b) Erosion and sediment control BMP systems. Before commencing the work described below, Duran shall establish and maintain erosion and sediment control BMP systems that prevent movement of sediment into waters/wetlands or into areas of the site that are not internal to the immediate vicinity of the grading/work area.

(c) Removal of stockpiled materials and creation of shallow (depressional) wetland features and open space. Duran shall remove stockpiled materials as shown in Plan Sheet 11. Duran shall grade the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space consistent with the grading plans shown in Plan Sheet 11. Working with the wetland/river scientist, and where possible, Duran shall enhance microtopographic complexity by creating a series of shallow depressions and mounds with and without wood (Figures 26 – 38 provide examples (not to scale)).

(d) Plant native trees, shrubs, and undergrowth species. Duran shall plant native trees, shrubs, and undergrowth species as shown in the Planting Plan to be developed in accordance with Section V.B.4 of this Mitigation Plan.

(e) Final stabilization of the work area. Along with planting, Duran shall stabilize the work area using a combination of bioengineering techniques that require use of natural materials (e.g., coir cloth or rolls, organic geotextiles, sterile straw, live fascines) and appropriate erosion and sediment control BMPs. See Figures 42 - 47.

S&S Project Standard #6 - With Drawings of Record, documented as specified in this Plan, Duran shall remove stockpiled materials and grade the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space, planting of native trees, shrubs and undergrowth, and final stabilization of the work area to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Report Measurements/Documentation Required at Baseline/Time Zero

(a) For removing all stockpiled materials and for grading the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space: Duran shall develop Drawings of Record of finish grades, locations of large wood structures, and microtopographic features, and take a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work. For the S&S Ponds Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the S&S Ponds Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.

(b) For planting of native trees, shrubs and undergrowth, Duran shall develop “As Planted” Take Off Tables for each planting zone by a professional wetland scientist or an equivalent qualified professional; and

(c) For final stabilization of the work area, Duran shall take a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work, and a short narrative describing the stabilizing measures and results.

Monitoring Documentation Requirements Years 1, 2, 3, and 5

To address Item “b” above - (b) For planting of native trees, shrubs and undergrowth, Duran shall perform representative plot sampling to document survival (%). Vigor and % canopy coverage of plantings and % canopy coverage of weeds may be estimated from plot sampling or depicted by Photo Point Monitoring.

To address item “c” above - (c) For final stabilization of the work area, Duran shall take a minimum of 12 original color photographs from the same representative photo-reference locations used at baseline/Time Zero that provide depictions of the completed work, and develop a short narrative describing the stabilizing measures and results.

Success Criteria -

(a) For removing stockpiled materials and for grading the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space: removal and grading are accomplished consistent with Plan Sheet 11.

(b) For planting of native trees, shrubs and undergrowth: 75% survival of planted stock and less than 25% canopy coverage on non-native weeds such as *Phalaris arundinaceae* in year 5; and

(c) For the final stabilization of the work area: stable site conditions and no erosion.

Contingency and Adaptive Management Measures –

(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.

(b) For the plantings, Duran shall implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required) and implement enhanced integrated weed control measures.

(c) For final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering, and plantings.

S&S Project Target #7 - Throughout the S&S Ponds Mitigation Site, Duran shall remove the Company’s stored rocks and solid waste, then flatten the slopes that surround Ponds 1, 2, and 3,

tie the flattened slopes into surrounding grades, and stabilize them with a combination of bioengineering and plantings

Description of Work (including construction sequencing) - Slopes of stockpiled rock and solid waste east and north of Ponds 1 and 2, are often steep and unstable (Photographs 26 a and b) resulting in rill and sheet erosion of soils where located. This work, wherever such piles and wastes are located, is intended to and must entail flattening the transition from uplands to shoreline as much as possible; tying the flattened slopes into surrounding grades (above and below the OHWM) with smooth transitions, and stabilizing the flattened slopes with a combination of bioengineering and plantings. No such work is wanted on the southwestern side of Pond 1 where an existing wetland shall remain undisturbed except as specified elsewhere in this Plan (i.e. as a source for vegetative plugs or cuttings) or on Plan Sheets 7 and 15. Grading on the west side of Pond #2 is subject to Target #4. Grading on the west sides of Pond #1 and Pond #3 at their old road connections is subject to Target #2 and Target #5 respectively. No ground disturbance is required or allowed for the west side of Pond #3. Finish grades should slope towards the relevant pond at grades shown on the Plan Set and otherwise less than or equal to two percent ($\leq 2\%$) grade as possible, Plan Sheet 21, Detail 3/21 and cannot include depressions, ruts, or other features that would entrap fish. Old and preliminary draft reclamation/closure plans for the S&S Ponds are shown in Figure 17. The sequencing of construction to accomplish this work is set forth below.

(a) Overall sequencing. Duran shall sequence the pond slope grading efforts to integrate with the mobilization and logistics associated with other earthwork throughout the site

(b) Low water work. Duran shall work at low water with all appropriate erosion and sediment control BMPs in place to minimize movement of sediment into the Ponds/wetlands and to minimize development of turbidity in any waters during earthwork activities. Creation of littoral shelves, as called for by the Plan Set, Sheets 11, 12 (Detail 1/12) and 15 is not unintended.

(c) Erosion and sediment controls and BMPs. In all instances, Duran shall set up erosion and sediment control BMP systems prior to initiation of work. Duran shall move and maintain “sets” of BMPs as the slope flattening proceeds in any given area. The exact set(s) of BMPs to be used in any given circumstance during and after earthwork will need to be determined on a case-by-case basis in cooperation with the on-site construction management team. For example, BMPs can include, but are not limited to, broadcast seeding of a native grass mix, planting of trees, shrubs and undergrowth species, and use of natural geotextiles (e.g. coir cloth) to increase the sheer strength of soils where erosion is expected over the long term.

S&S Project Standard #7 – Duran has developed Drawings of Record, (Plan Sheet 3) illustrating existing site conditions. After completion of work, a new drawing of record showing the flattened and stabilized side slopes throughout the site shall be prepared. In this new drawing, Duran shall show all deviations from plans, if any. The new drawings of record will show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Measurements/Documentation Required at Baseline/Time Zero - For the flattened and stabilized side slopes not expressly addressed in other targets, Duran shall note deviations from engineered specifications to the same extent and in the same manner as otherwise required by this Mitigation Plan, including a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another.

Monitoring Documentation Requirements Years 1, 2, 3, and 5

Duran shall take 12 original color photographs from the same representative photo-reference locations used at Baseline/Time Zero that provide depictions of the completed work.

Success Criteria - For the flattened and stabilized side slopes around Ponds 1, 2, and 3: the side slopes around Ponds 1, 2, and 3 are flattened and stabilized as much as possible and there is minimal erosion.

Contingency and Adaptive Management Measures - For the flattened and stabilized side slopes around Ponds 1, 2, and 3, after flattening, Duran shall monitor stabilized slopes to ensure that no erosion is occurring. If it is, Duran shall install erosion and sediment control BMPs to stop the erosion.

VI. Monitoring and Reporting

A. Completion (Time Zero/Baseline) Reports and Site Visits

1. Completion Reports

Duran is responsible for submitting documentation, in the form of a separate “Completion Report” that documents “Baseline/Time Zero” conditions for each of the three Mitigation Sites. These three reports — one each for Vista del Mar, Vista del Sol, and S&S Ponds — must show that Duran properly completed the required mitigation activities at each Mitigation Site and thereby document the “Baseline/Time Zero” conditions; *i.e.*, the conditions that existed at each Mitigation Site after the completion of mitigation activities and before EPA and ADEC have approved a Completion Report for that site in accordance with Paragraph VI.A.3 of this Mitigation Plan and Paragraph 24 of the Consent Decree. In addition to the specific Completion Report Measurements/Documentation for each project target set forth above, each Completion Report shall contain narratives summarizing (1) the work performed at each Mitigation Site and (2) how the work for each project:

- (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and
- (b) met (or has yet to achieve) the Project Targets, Project Standards, and Success Criteria at Baseline/Time Zero (*See Table 2*).

The Completion Reports shall be submitted to EPA and ADEC in electronic formats (e.g., pdf) within 30 calendar days following completion of mitigation activities, other than monitoring requirements, for each Mitigation Site.

2. Site Visit

Within 15 calendar days following completion of work at each of the Mitigation Sites, Duran shall contact EPA and ADEC to schedule and participate in a joint site visit. Other federal, state, and local agencies may be asked to participate, including the Corps, ADFG, CBJ, etc.

3. Review and Approval of Completion Reports

EPA and ADEC will review each submitted Completion Report within a reasonable time after each site visit and approve or disapprove such Completion Report as soon as practicable, but in no event longer than 120 days. If EPA or ADEC disapproves a Completion Report, it shall provide Duran with a written description of the actions necessary to fully satisfy the requirements of this Mitigation Plan for that Mitigation Site within 120 days of receipt. Duran shall then complete the necessary actions identified and submit a revised Completion Report within 30 calendar days of completion of these necessary actions. When EPA and ADEC approve a Completion Report, whether initial or revised, then the conditions that existed at the completion of the mitigation activities documented in the approved edition of that Completion Report shall constitute the Baseline/Time Zero conditions for that Mitigation Site.

B. Compliance Monitoring and Documentation

Following EPA and ADEC approval of a Completion Report for a Mitigation Site, Duran must conduct compliance monitoring and documentation of post-approval conditions at the approved Mitigation Site over time, as specified in each Target above.

Each iteration of monitoring must be addressed in a separate Monitoring Report. Each Monitoring Report must include (1) the photographs specified in that Target's "After Baseline" monitoring requirement and (2) descriptions and narratives addressing the following:

1. the stability of finish grades, water level control structures, and overall conditions at sites where earthwork and other construction activities took place,
2. the stability of permanent erosion and sediment control BMP systems,
3. survival and overall conditions of plantings,
4. invasive weed conditions and any needs for weed controls,
5. needs for other maintenance activities (e.g., beaver controls, site access),
6. any issues that, following the end of construction, might impact the achievement of the overall project goal and associated Project Targets and Project Standards for each work area unless adaptive management and/or contingency measures are enacted, and

7. identification of the need for initiating any adaptive management or contingency measures before they are implemented

Compliance monitoring intervals are as set out for each Target at each Mitigation Site, above. For work completed after September 30, Baseline/Time Zero documentation must occur immediately following completion. Documentation required for the monitoring at each Mitigation Site are as follows:

1. Visa del Mar

- a. Conifer Seedling/Natural tree regeneration counts (#/unit area);
- b. Security of Site Access; and
- c. A description of recommended and implemented adaptive management or contingency measures necessary to ensure that Project Targets and Project Standards are met.

2. Vista del Sol - Document the following in the Monitoring Report -

- a. Stability of permanent erosion and sediment control systems;
- b. Compliance with storm water management requirements (including Alaska and local, including CBJ, requirements); and
- c. A description of recommended and implemented adaptive management or contingency measures necessary to ensure that Project Targets and Project Standards are met.

3. S&S Ponds - In each of those Monitoring Reports, document the following -

- a. Stability (or unanticipated changes) of Baseline/Time Zero grades, inter-pond connections and enhanced fish passages, Lemon and Switzer Creek connections and enhanced fish passages, and large wood structures at all locations;
- b. Stability and proper functioning of erosion and sediment control BMP systems;
- c. Top 5 Dominant species' percentage canopy coverage in each planting area (include planted and volunteer species);
- d. Planted stock survival (percentage planted stock mortality);
- e. An assessment of the vigor/condition of planted stock in each planting area;

- f. Weed cover (percentage) by planting zone and an assessment of “Free growing/not impeded by weeds” conditions in each planting area that is supported by represented sampling and photographs;
- g. A description of the types and frequency of weed control measures used and their locations;
- i. Tabular and narrative documentation of achievement or progress towards each Project Target and Project Standard; and
- j. A description of recommended and implemented adaptive management or contingency measures necessary to ensure that Project Targets and Project Standards are met.

Monitoring Reports must be submitted to EPA and ADEC in electronic formats (e.g., pdf), for review by December 31 of each compliance monitoring year subsequent to the year the Baseline/Time Zero date was established for each Mitigation Site. In the event of failures to meet Success Criteria at year 5, then monitoring interval will be extended for a sufficient time to ensure achievement of Success Criteria.

C. Reporting Destinations

With the exception of those items that are required in this Consent Decree (including Appendices incorporated herein) to be provided in electronic format, all reporting, notices and communications required in this Mitigation Plan shall be made electronically to the following individuals and email addresses provided below:

TO THE UNITED STATES:

EPA

Patrick B. Johnson, Senior Water Law Attorney
U.S. Environmental Protection Agency, Region 10
Alaska Operations Office
222 West 7th Avenue, #19
Anchorage, Alaska 99513-7588
johnson.patrick@epa.gov

Mark S. Jen, Compliance Inspector/Case Officer
U.S. Environmental Protection Agency, Region 10
Alaska Operations Office
222 West 7th Avenue, #19
Anchorage, Alaska 99513-7588
jen.mark@epa.gov

THE UNITED STATES DEPARTMENT OF JUSTICE

Chief, Environmental Defense Section
Daniel Martin, Senior Attorney, Environmental Defense Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
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MailProcessing_EDS.ENRD@usdoj.gov
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c. TO THE STATE OF ALASKA:

ADEC

Melinda O'Donnell, Environmental Program Specialist
Alaska Department of Environmental Conservation
Division of Water
555 Cordova Street
Anchorage, Alaska 99501
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ALASKA DEPARTMENT OF LAW

Thad Adkins, Assistant Attorney General
Alaska Department of Law
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d. TO DEFENDANTS:

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VII. Construction Schedule and Sequencing

A. Vista del Mar -

1. Any required permitting: April 30, 2027
2. All on-site work: September 30, 2027
3. Initiate monitoring at Baseline/Time Zero: November 15, 2027

B. Vista del Sol -

1. All design work and any required permitting: April 30, 2027
2. Construction/On-Site Work: September 30, 2027
3. Initiate monitoring at Baseline/Time Zero: November 15, 2027

C. S&S Ponds

1. Any required permitting: April 30, 2027
2. Finalize all permissions and easements for on-site work: April 30, 2027
3. Plant procurements: May 31, 2028
4. Install Erosion and sediment control BMPs and complete all phases of earthwork and shoreline enhancements: November 30, 2027
5. Planting, maintenance, weed controls: July 15, 2028
6. Submittal of Drawings of Record ("As-Builts") and documentation of completion of all required earthwork, construction, planting, and final site stabilization tasks: December 31, 2027
7. Initiate Monitoring at Time Zero/Baseline: Thirty (30) days after completing a Task, collectively January 15, 2028

VIII. Appendices

Appendix 1 - Tables

Appendix 2 - Figures

Appendix 3 - Photographs

Appendix 4a and 4b - Plan Sheets

Table 1 - Compensatory Mitigation Definitions (40 CFR § 230.92):

Approaches for offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

I. Restoration (re-establishment or rehabilitation): *Restoration* means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: *reestablishment* and *rehabilitation*.

1. *Re-establishment* means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

2. *Rehabilitation* means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

II. Establishment (creation): *Establishment* (creation) means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

III. Enhancement: *Enhancement* means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

IV. Preservation: *Preservation* means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Table 2. Summary of Project Targets, Project Standards, Measurements, Success Criteria, and Contingency Measures for Vista del Mar, Vista del Sol, and S&S Ponds (ver. 05/27/26)

VDM Project Target #1 - Restore flow pathways in all of the first order tributary channels that occur within the cleared area of the Vista del Mar Mitigation Site while avoiding further impacts to the channels or abutting wetlands.			
VDM Project Standard #1 – Document the restoration of flow pathways in the first order tributary channels at Vista del Mar via removal of large wood with minimal impact to the existing site conditions to show that the work (a) was completed in accordance with this Plan’s Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (At Baseline/Time Zero)	Monitoring Documentation Requirements After Baseline/Time Zero	Success Criteria	Contingency and Adaptive Management Measures
(a) At each of the locations where a flow pathway will be opened, Duran shall take digital photos along four different directions/orientations (north, south, east, and west depicting site conditions <i>prior to</i> commencement of work and then a minimum of 4 digital photographs (taken from the same orientations at each location) showing the completed log removals and restoration of flow pathways in each of the first order tributary channels. The pre- and post-work digital photographs must be submitted electronically in jpeg format, date-stamped with the identified	No monitoring required after approval of Completion Report.	Large wood has been removed, there is no blocking or impeding of the patterns of water flow and circulation in first order tributaries, and the work is accomplished with minimal impact to wetland area, soils, and existing vegetation.	Not applicable because if the tasks are not completed properly in the first place, they must be re-done.

photographic location, including either geotagged or identified by latitude and longitude (plus or minus 10 meters accuracy degree decimal coordinates). Each digital photograph should include captions that provide the direction/orientation of the photograph and clearly explain what is being depicted. Representative geotagged photographs will document general placement of log material within the distributed corridor. No detailed mapping will be conducted.			
VDM Project Target #2 – Prevent Unauthorized Access			
VDM Project Standard #2 - Document control and management of unauthorized access to Vista del Mar to prevent further impacts to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements After Baseline/Time Zero	Success Criteria	Contingency and Adaptive Management Measures
A minimum of 6 original color photographs taken from representative photo-reference locations that provide depictions of the closure of the entrance.	No monitoring required after approval of Completion Report.	The entrance is blocked, unauthorized access is effectively prohibited, and there is no further site damage associated with unauthorized entrants to the Vista del Mar site.	Bolster or change the access control measures if they are breeched or compromised.

VDM Project Target #3 - Allow Natural Regeneration of Trees and Shrubs to Proceed			
VDM Project Standard #3 - Document natural native tree and shrub regeneration and rowth on the site immediately after the Consent Decree is signed and following on-site measures and access closure described above to show that the work (a) was completed in accordance with this Plan's Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, & 3)	Success Criteria	Contingency and Adaptive Management Measures
(a) Document natural native conifer tree seedlings regeneration and growth on the site in years 1, 3, and 5 or until "Success" is demonstrated to show that the work (a) was completed in accordance with this Plan's Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.	(a) N/A: No monitoring required after approval of Completion Report. Monitoring and Documentation shall instead be accomplished as part of Success Criteria for this Site.	Standard field survey protocols (e.g. fixed area plots, belt transects) show that natural regeneration of native conifer tree seedlings is ongoing and the plant community is reverting back to a forested slope. The following density criteria for natural regeneration 5 years following the entered Consent Decree date must be met: conifer tree seedlings—at least 280 stems across the 1.4 acre formerly cleared area. If Duran meets the 280 stems of conifer tree seedlings before 5 years has passed, Duran may submit a monitoring report demonstrating that criteria has been met. If EPA and ADEC concur with Duran's conclusion,	If natural regeneration success has not been demonstrated in 2026 by the evaluation, Duran shall plant native species stock to reach a target density of conifer tree seedlings at 280 stems over the 1.4 acre formerly cleared Pioneer Road, at their election, in years 1, 3, or 5.

		no further monitoring is required at this Mitigation Site.	
VDS Project Target #1 - Address and permanently fix existing unstable conditions in the incomplete channelization in the vicinity of Lots 11, 12, 13, and 14.			
VDS Project Standard #1 - Duran has developed drawings of record, by a civil engineer previously reviewed and negotiated by the parties, documenting the structural upgrades and changes of the storm water management system that are required to bring it into compliance with industry, ADEC, CBJ, and any other applicable standards. The work at and in the drainageway traversing Lots 11, 12, 13 and 14 must be (a) completed in accordance with those drawings, except for the potential elevation alteration authorized above, to satisfy this Plan's Description of Work, including any performance requirements, specifications or guidance contained therein, and to (b) meet the Project Target and Success Criteria which such drawings have been predetermined to satisfy if implemented precisely as designed.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, & 3)	Success Criteria	Contingency and Adaptive Management Measures
(Stamped civil drawings of record approved by ADEC, and any other applicable regulatory bodies (including CBJ, if required). (b) 12 original color photographs taken from the representative photo-reference locations that provide depictions of site conditions (c) For the Vista del Sol site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol site so that it is easy to understand the locations of all	(b) 12 original color photographs taken from the same representative photo-reference locations used at Baseline/Time Zero that provide depictions of site conditions.	(a) Permanent management of the northwest tributary system; stable conditions; and no erosion (or expected erosion) and minimal sedimentation on site or downstream. (b) Permanent management of the enclosed storm water pipe system that runs underneath the Vista del Sol subdivision to a stormwater collection pond.	Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.

photographs in relationship to one another.			
(Stamped civil drawings of record approved by ADEC, and any other applicable regulatory bodies (including CBJ, if required). (b) 12 original color photographs taken from the representative photo-reference locations that provide depictions of site conditions (c) For the Vista del Sol site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol site so that it is easy to understand the locations of all photographs in relationship to one another.	(b) 12 original color photographs taken from the same representative photo-reference locations used at Baseline/Time Zero that provide depictions of site conditions.	(a) Permanent management of the northwest tributary system; stable conditions; and no erosion (or expected erosion) and minimal sedimentation on site or downstream. (b) Permanent management of the enclosed storm water pipe system that runs underneath the Vista del Sol subdivision to a stormwater collection pond.	Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail.
Vista del Sol Project Target #2 – Within the limits of its real property rights, Duran shall install and maintain erosion and sediment control BMP systems for “Lot Drainage” sitewide that are needed to comply with the ADEC’s CGP, including implementation of the Vista del Sol SWPPP and other requirements (including those of CBJ, if applicable).			
VDS Project Standard # 2 – Documentation of installation or enhancement of such erosion and sediment control BMPs site-wide that are in compliance with ADEC’s CGP, including implementation of the Vista del Sol SWPPP and other requirements (including CBJ, if applicable).			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, and 3)	Success Criteria	Contingency and Adaptive Management Measures
(a) Certified compliance of final/finish erosion and sediment	Twelve (12) original color photographs from the same	Minimize on-site erosion (or expected erosion) and minimal	Target failing areas and maintain or improve existing BMPs or replace

control systems as required by ADEC's CGP, including implementation of the Vista del Sol SWPPP and other requirements (including CBJ, if applicable). (b) Twelve (12) original color photographs taken from representative photo-reference locations that provide depictions of site conditions other than the photographs required by Target #1. For the Vista del Sol Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.	representative photo-reference locations that were used at Baseline/Time Zero, Target #2. For the Vista del Sol Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the Vista del Sol Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another.	export of eroded materials (e.g. sediment) off-site	existing BMPs with other approaches/systems that do not fail.
S&S Project Target #1 – move, manage, and enhance (through weed controls and planting) the existing berms that are on Durans property and adjacent to Switzer and Lemon Creeks to prevent the creeks from migrating and to buffer the S&S Ponds Mitigation Site from surrounding developments.			
S&S Project Standard #1 – document, as specified in this Mitigation Plan, any berm retention, berm construction, berm removals, weed controls, and plantings of native trees, shrubs and undergrowth to show that the work (a) was completed in accordance with this Plan's Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, and 3)	Success Criteria	Contingency and Adaptive Management Measures
(a) For berm retention: Drawings of Record that show the location and	(a & b) - N/A (c) For weed control: photo point monitoring or representative plot	<i>Success Criteria</i> - (a) For berm retention: the berms are retained;	(a) This does not apply to berm retention because the berms must be retained in the first instance.

configuration of retained berms; (b) For berm construction: Drawings of Record that show the location and configuration of the new berms; (c) For weed control: representative plot sampling to document coverage of non-native weeds at Baseline/Time Zero conditions immediately after cessation of construction and seeding/planting with “Photo Point Monitoring.”¹ (d) For the planting of native tree cuttings, shrubs and undergrowth: “As Planted” Take Off Tables as described below in documentation for Target #2.²	sampling to estimate percent (%) coverage of non-native weeds. (d) For planting of trees and shrubs – representative plot sampling to document survival and vigor of plantings	(b) For berm construction: the berms are constructed accordance with Plan Sheet 15; (c) For weed control: there is less than 25% canopy coverage of non-native weeds at Baseline/Time Zero immediately after cessation of construction and then in Year 1, and 3; and (d) For the planting of native trees, shrubs and undergrowth: 75% survival of planted stock in Year 3.	(b) This should not apply to berm construction because the tasks must be completed properly in the first instance. However, additional construction or modification may be necessary if the work is not initially done properly or results are not satisfactory. (c) For the weed control and plantings, implement in-fill plantings in years 1-3 to offset mortality in excess of 25% (75% survival required).
S&S Project Target #2 - Improve and enhance the Lemon Creek connection to the S&S Ponds via culvert removal and construction of a new channel and floodplain terrace (bench) system			

¹ In this document, “Baseline/Time Zero” conditions means that point in the construction process where all of the bulk and fine grading earthwork is done, all required water diversions, connections, and wood structures are installed, post earthwork erosion and sediment control BMP systems are in place and working, and at least the initial phases of plantings and weed control are done. All the foregoing may be completed in one area of the S&S Mitigation Site before moving to a different area. Accordingly, there may be more than one “Baseline/Time Zero” within the S&S Mitigation Site. “Baseline/Time Zero” is usually formally declared to signal the end of construction and the beginning of monitoring.

² “As Planted” Take Off Tables are planting lists used in environmental restoration projects to detail the species and quantities of native plants needed for a project based on the number of survival goals, often with a target of 85%-90% survival. These tables provide a “take off” of the required plants, outlining the specific species and their required numbers for each planting zone. See Table 3 for an example.

S&S Project Standard #2 - In Drawings of Record, Duran shall document, as specified in this Plan, the culvert removal and channel construction, finish grades, planting of native tree cuttings, shrubs, and undergrowth species, and final stabilization of the work area to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, 3, and 5)	Success Criteria	Contingency and Adaptive Management Measures
(a) For all of the Target #2 activities depicted with dimensions and/or specifications in the Plan Set, document any deviation therefrom. Deviations may be shown on a working set of the Plans or on a Drawing of Record that updates the baseline site survey/topographic map at a scale of at least 1:100. Duran shall show the finish invert elevations and finish channel topography, including longitudinal and cross sections of the finish channel grades, and locations of large wood structures. Duran shall include a minimum of 12 original color photographs taken from representative photo-reference locations that provide depictions of the completed channel. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all	(a) For all of the Target #2 activities depicted with dimensions and/or specifications in the Plan Set, document any deviation therefrom. Deviations may be shown on a working set of the Plans or on a Drawing of Record that updates the baseline site survey/topographic map at a scale of at least 1:100. Duran shall show the finish invert elevations and finish channel topography, including longitudinal and cross sections of the finish channel grades, and locations of large wood structures. Duran shall include a minimum of 12 original color photographs taken from representative photo-reference locations that provide depictions of the completed channel. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another. (b) For documentation of the seeding and planting of native tree and shrub	(a) At Baseline Time 0: For the culvert removal and construction of the channel: the connection between Pond 1 and Lemon Creek is at the specified elevations and grade with water connection maintained between Pond #1 and the side channel of Lemon Creek at all tidal elevations that maintain juvenile fish passage through the new and enhanced channel; (b) At Baseline Time and Years 1, 3 and 5 For the planting of native tree cuttings, shrubs and undergrowth: a fully revegetated work area with predominantly native stock in year 5, including 75% survival of planted stock; and (c) At Baseline and Year 1: For the final stabilization of the work area: stable site conditions and no erosion of the channel to such an extent that it impairs passage of juvenile fish between Pond #1 and the Lemon Creek side channel.	(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail. (b) Implement in-fill plantings in years 1-5 to offset mortality or to enhance the native species regeneration. (c) For the weed control and plantings: implement intensified integrated weed management strategies.

photographs in relationship to one another. (b) For documentation of the seeding and planting of native tree and shrub bare root or containerized stock or cuttings, the COT shall stratify the work area into planting zones that have similar moisture, nutrient, heat, and light characteristics, as determined to the best of the ability of the collective COT. For each planting zone, Duran, shall develop “As Planted” Take Off Tables”. An example of a plant take off table is given in Table 3. (c) For the final stabilization of the work area, Duran shall photograph depicting the completed work and a short narrative describing the stabilizing measures and results.	bare root or containerized stock or cuttings, the COT shall stratify the work area into planting zones that have similar moisture, nutrient, heat, and light characteristics, as determined to the best of the ability of the collective COT. For each planting zone, Duran, shall develop “As planted” Take Off Tables”. An example of a plant take off table is given in Table 3. (c) For the final stabilization of the work area, Duran shall photograph depicting the completed work and a short narrative describing the stabilizing measures and results.		
S&S Project Target #3 - Deepen, widen, and enhance the structural complexity of the existing channel connection and adjacent shoreline (littoral) areas between Ponds 1 and 2 to ensure connectivity at most water levels and higher functioning littoral habitat			
S&S Project Standard #3 – Document, as specified in this Plan, removing and restoring the old road, deepening and widening the existing channel connection, enhancing the complexity of the new, deeper and wider connection, managing and enhancing the former road segment, revegetation, and final stabilization of the work areas to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, 3, and 5)	Success Criteria	Contingency and Adaptive Management Measures

(a) For all of the Task #3 activities depicted with dimensions and/or specifications in the Plan Set, document any deviations therefrom. Note deviations on a working set of plans. Supplement with 12 original color photographs taken from representative locations that provide depictions of the completed work. Mark photographs or provide narratives as necessary to clarify the work depicted. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another. (b) As specified in the Documentation Standard for Target #2, Duran’s qualified vendor shall develop “As Planted” Take Off Tables.	(a) 12 photographs taken from the same locations as taken for the Completion Report (Baseline/Time 0) to document overall site conditions. Accompany the photographs with a short narrative describing conditions. (b) For planting of native trees and shrubs – generate and submit representative “Photo Point Monitoring” to document the coverage and vigor of vegetation.	(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail. (b) For all of the plantings, implement in-fill plantings in years 1-5 to offset mortality. (c) For all instances of the final stabilization of the work area, bolster site stabilization measures with standard BMPs, bioengineering and plantings.	(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail. (b) For all of the plantings, Duran shall implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required).. (c) For all instances of the final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering and plantings.
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S&S Project Target #4 – Fill the depressional areas, grade the road on the west side of Pond 2 to drain into the pond, and revegetate to prevent juvenile fish entrapment and enhance the structural complexity and functioning of the new shoreline (littoral) habitat.

S&S Project Standard #4 – Document, as specified in this Plan, the foregoing work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, 3, and 5)	Success Criteria	Contingency and Adaptive Management Measures
(a) For all the Task #4 activities depicted with dimensions and/or		(a) For grading the existing road to eliminate fish entrapment and	(a, b, & c) Not applicable because if the tasks are not completed properly in

specifications in the Plan Set, Duran shall note deviations therefrom on an As-Built set of plans. Supplement with 12 original color photographs taken from representative photo-reference locations that provide depictions of the completed work. Mark photographs or provide narratives as necessary to clarify the work depicted. The location of all photographs taken that year throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another. (b) For planting of native tree cuttings and plugs: the qualified vendor retained by Duran shall develop “As Planted” Take Off Tables as described in Target #2.	(a, b, & c) Documentation under Task #4 post Baseline shall mirror post Baseline documentation under Task #2. (d) For planting of native trees, shrubs and undergrowth: Duran shall perform representative plot sampling to document survival (%) and vigor of plantings	to create microtopographic complexity along the pond 2 shoreline/littoral zone: stable grades and no fish entrapment hazards; (b) For the placement of large wood: enhanced functioning of shoreline habitat via stable installation of large wood and microtopography; (c) For ripping and lofting soils in the new shoreline area and preparing for planting: lofted soils to enhance planting success; (d) For the planting of native tree and bare root or containerized stock or cuttings, and plugs, a fully revegetated work area with predominantly native stock in year 5; and (e) For the final stabilization of the work area: stable site conditions and no erosion.	the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail. (d) For the plantings, implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required). (e) For final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering and plantings.
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Project Target Number #5 - Construct a channel between Ponds 2 and 3 at an elevation that will ensure minimal salt intrusion and maximum connectivity at most water levels

S&S Project Standard #5 – Perform the same tasks at this crossing as are prescribed for the connection between Ponds 1 and 2, Target #3. Apply all engineered drawings and specifications unique to the Pond 2 – 3 Connection.

S&S Project Target #6 - Restore/reclaim the main staging/processing area to a mosaic of emergent wetlands and open space characterized with microtopographic features

S&S Project Standard #6 – With Drawings of Record, documented as specified in this Plan, Duran shall remove stockpiled materials and grade the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space, planting of native

trees, shrubs and undergrowth, and final stabilization of the work area to show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.

Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, 3, and 5)	Success Criteria	Contingency and Adaptive Management Measures
(a) For removing all stockpiled materials and for grading the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space: Duran shall develop Drawings of Record of finish grades, locations of large wood structures, and microtopographic features, and take a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work. For the S&S Ponds Mitigation Site, the location of all photographs also should be shown on one or more summary overview photographs or figures of the S&S Ponds Mitigation Site so that it is easy to understand the locations of all photographs in relationship to one another. (b) For planting of native trees, shrubs and undergrowth, Duran shall develop “As Planted” Take Off Tables for each planting zone by a professional wetland	To address Item “b” above - (b) For planting of native trees, shrubs and undergrowth, Duran shall perform representative plot sampling to document survival (%). Vigor and % canopy coverage of plantings and % canopy coverage of weeds may be estimated from plot sampling or depicted by Photo Point Monitoring. To address item “c” above - (c) For final stabilization of the work area, Duran shall take a minimum of 12 original color photographs from the same representative photo-reference locations used at baseline/Time Zero that provide depictions of the completed work, and develop a short narrative describing the stabilizing measures and results.	(a) For removing stockpiled materials and for grading the remaining surfaces of the main processing area to create a mosaic of shallow depressional wetland features and upland open space: removal and grading are accomplished consistent with Plan Sheet 11. (b) For planting of native trees, shrubs and undergrowth: 75% survival of planted stock and less than 25% canopy coverage on non-native weeds such as <i>Phalaris arundinaceae</i> in year 5; and (c) For the final stabilization of the work area: stable site conditions and no erosion.	(a) Not applicable because if the tasks are not completed properly in the first place, they must be re-done. Target failing areas and maintain or improve existing construction approaches or BMPs or replace existing construction or BMPs with other approaches/systems that do not fail. (b) For the plantings, Duran shall implement in-fill plantings in years 1-5 to offset mortality in excess of 25% (75% survival required) and implement enhanced integrated weed control measures. (c) For final stabilization of the work area, Duran shall bolster site stabilization measures with standard BMPs, bioengineering, and plantings.

scientist or an equivalent qualified professional; and (c) For final stabilization of the work area, Duran shall take a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work, and a short narrative describing the stabilizing measures and results.			
S&S Project Target #7 – Throughout the S&S Ponds Mitigation Site, Duran shall remove the Company’s stored rocks and solid waste, then flatten the slopes that surround Ponds 1, 2, and 3, tie the flattened slopes into surrounding grades, and stabilize them with a combination of bioengineering and plantings.			
S&S Project Standard #7 – Duran has developed Drawings of Record, (Plan Sheet 3) illustrating existing site conditions. After completion of work, a new drawing of record showing the flattened and stabilized side slopes throughout the site shall be prepared. In this new drawing, Duran shall show all deviations from plans, if any. The new drawings of record will show that the work (a) was completed in accordance with the Description of Work, including any performance requirements, specifications or guidance contained there, and (b) met the Project Target and Success Criteria.			
Completion Documentation Requirements (Baseline/Time Zero)	Monitoring Documentation Requirements (Years 1, 2, 3, and 5)	Success Criteria	Contingency and Adaptive Management Measures
For the flattened and stabilized side slopes not expressly addressed in other targets, Duran shall note deviations from engineered specifications to the same extent and in the same manner as otherwise required by this Mitigation Plan, including a minimum of 12 original color photographs from representative photo-reference locations that provide depictions of the completed work. The location of all photographs taken that year	Duran shall take 12 original color photographs from the same representative photo-reference locations used at Baseline/Time Zero that provide depictions of the completed work.	For the flattened and stabilized side slopes around Ponds 1, 2, and 3: the side slopes around Ponds 1, 2, and 3 are flattened and stabilized as much as possible and there is minimal erosion.	For the flattened and stabilized side slopes around Ponds 1, 2, and 3, after flattening, Duran shall monitor stabilized slopes to ensure that no erosion is occurring. If it is, Duran shall install erosion and sediment control BMPs to stop the erosion.

throughout the S&S Ponds Mitigation Site should be shown on one or more summary overview photographs or figures of the site so that it is easy to understand the locations of all photographs in relationship to one another.			
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Table 3 – Example - Planting Recommendations and Take Off Tables by Planting Zone

Planting Zone Name/Number and Area (Ft²)

Plant Type	Common Name	Scientific Name	USFWS Wetland Indicator Rating	Stock Type	Planting Location/ Microsites Within Zone	Installation Technique(s)	Spacing (ft) (On center = OC; Triangular = T; Random = R)
Trees							
Shrubs							
Forbs, Ferns, Fern Allies							
Graminoids							

Figure 1. Overview of the Location of Vista del Mar, Vista del Sol, and S&S Ponds Clean Water Act Section 402 and 404 Issues
(Three Different Sites, Three Different Patterns of Impact, Three Different Sets of Individual and Complementary Mitigation Solutions)

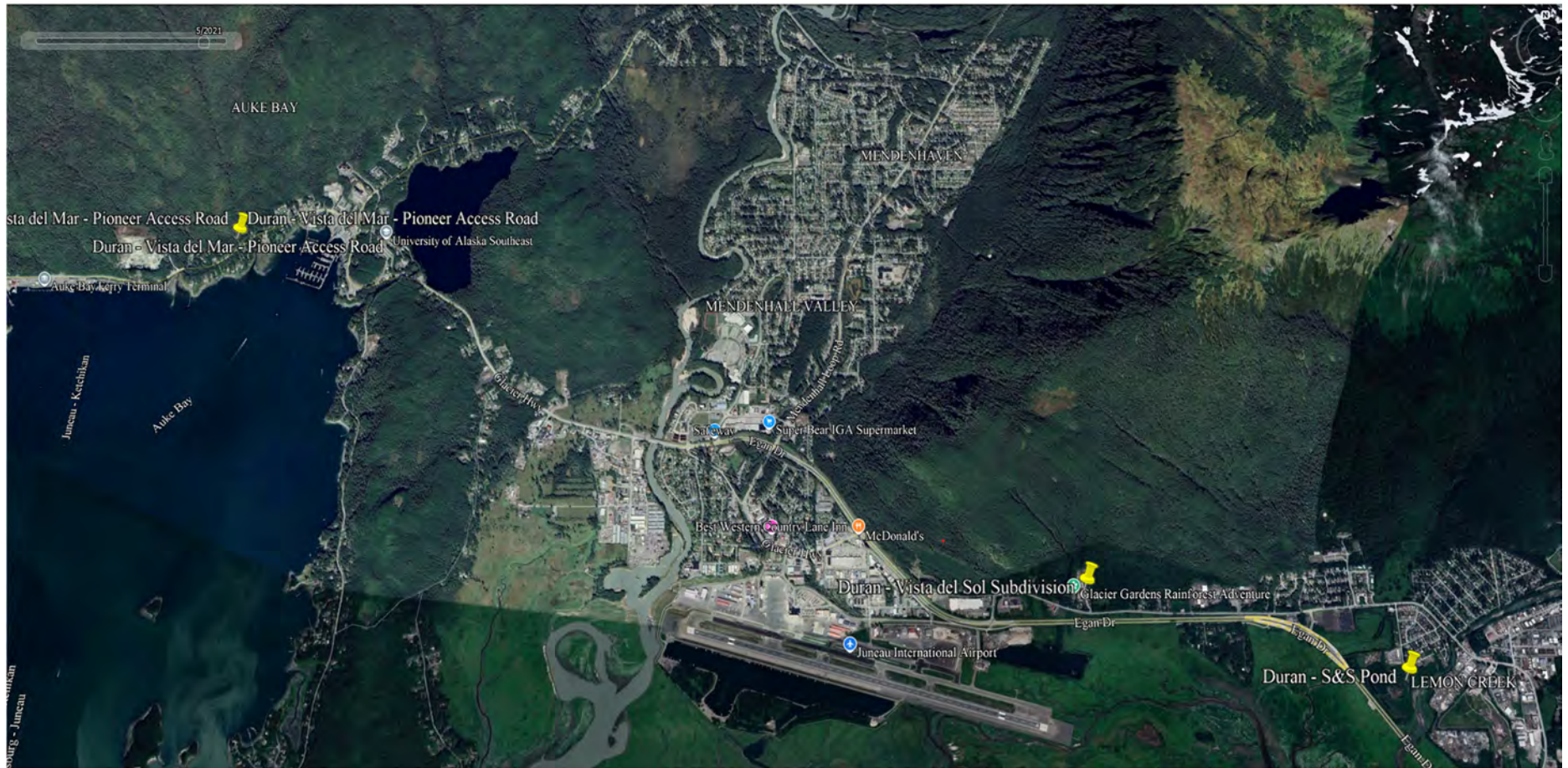


Figure 2. Overview of the Vista del Mar “Pioneer Access Road” Location



Figure 3. Light Detection and Ranging (LiDAR) Overview of Vista del Mar Landscape in 2012

Source – Alaska Division of geological and Geophysical Surveys (<https://elevation.alaska.gov/#58.44665:-135.03296:10>)

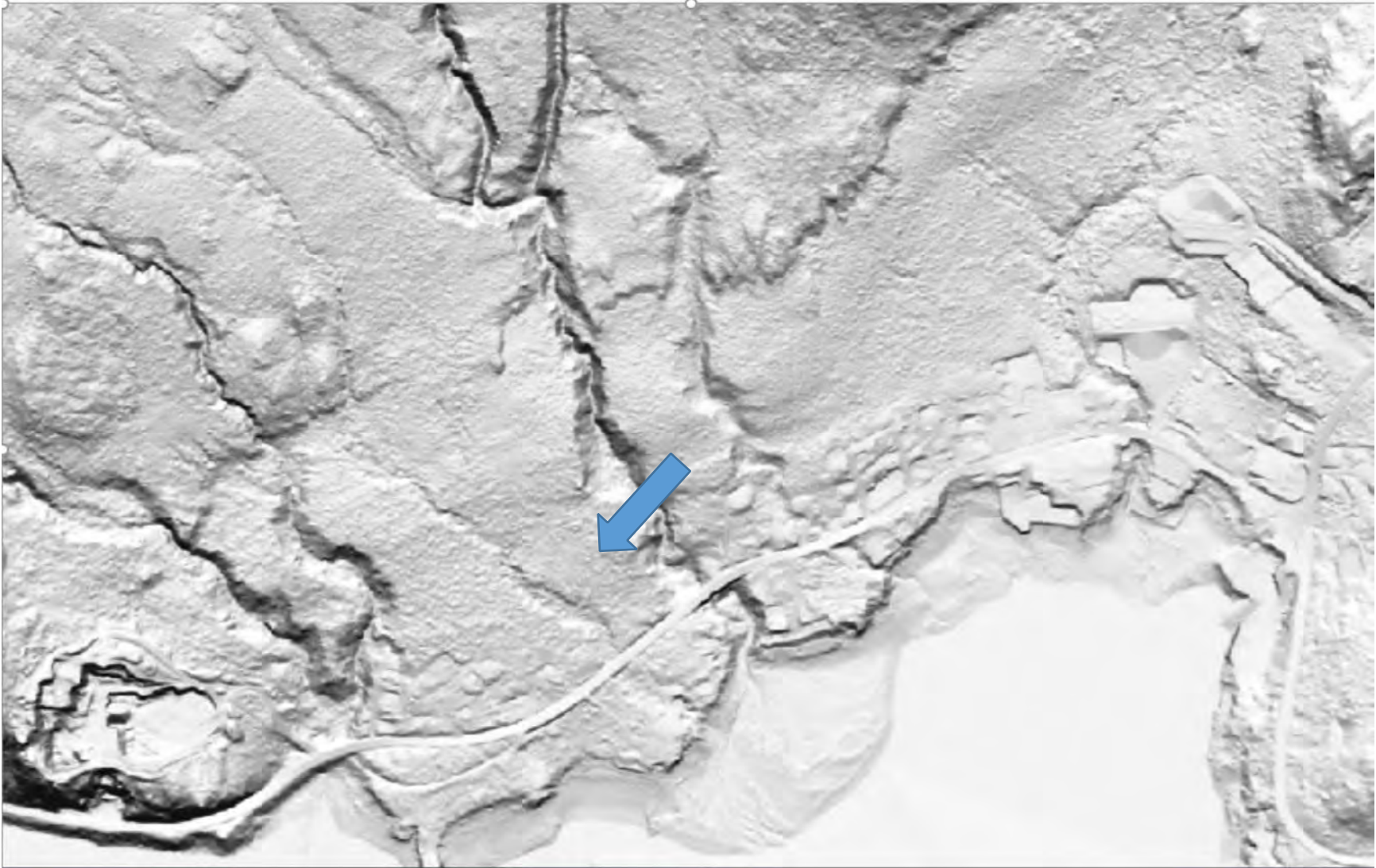


Figure 4. Overview of the Location of U.S. Army Corps of Engineers Delineated Wetlands at Vista del Mar

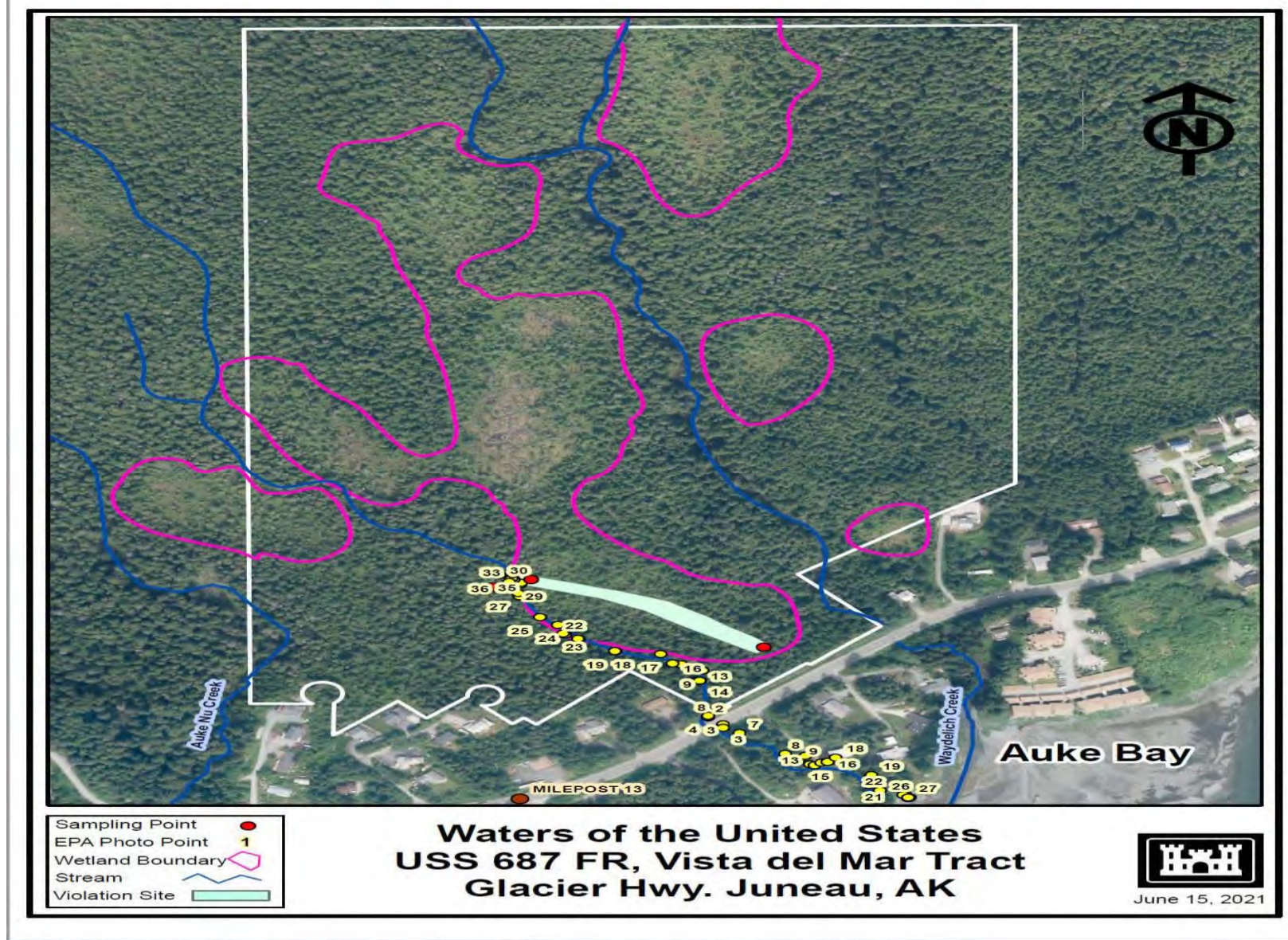


Figure 5. Areal Extent of wetlands at Vista del Mar (Mechanical clearing impact dimensions are approximately 1,000 ft x 60 ft =1.4 acres)



Figure 6. Depiction of tree-like or “dendritic” channel pattern and stream orders typical to stream ecosystems of the Central Coast Region of California (From Lee 1980).

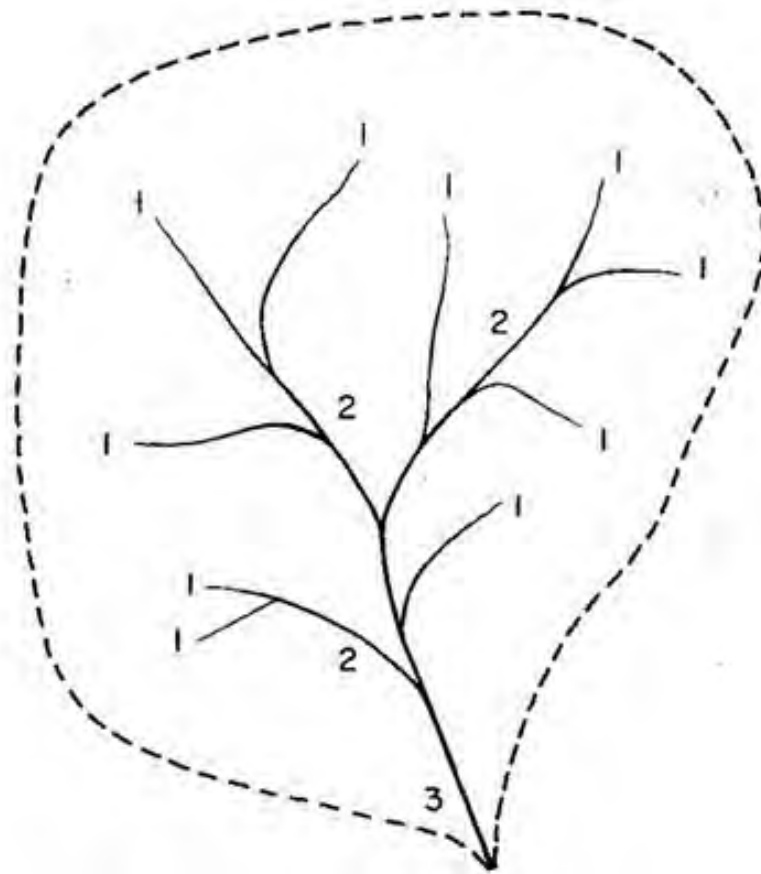


Figure 7. Overview of the Location of the Vista del Sol Subdivision, Juneau, Alaska. North is up.



Figure 8. Vista del Sol Subdivision – Located Within or Abutting the Northwest, Central, and Eastern Tributary Channels. These are part of the “Fireweed Creeks” Channel Systems.

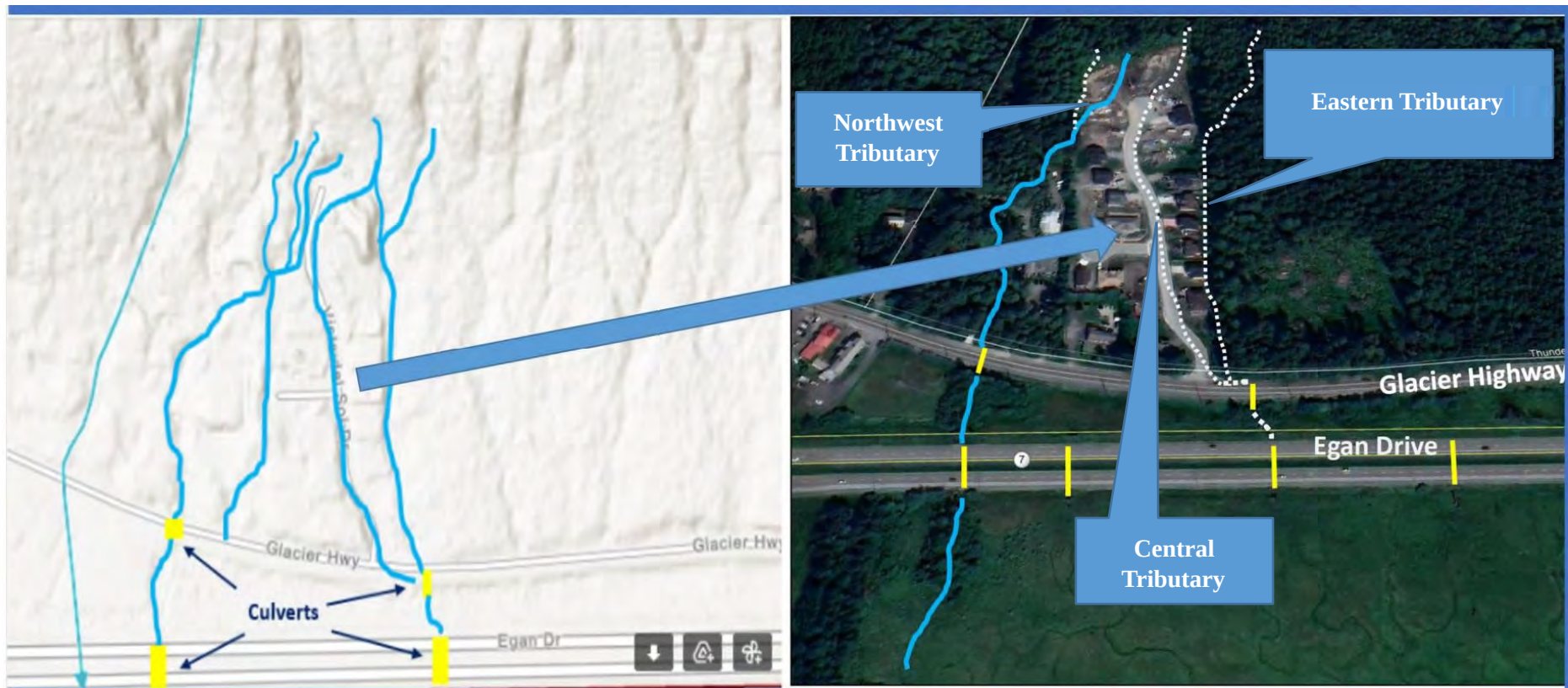


Figure 9. Location and Flow Paths for the Northeastern, Central, and Eastern Tributary Channels That Are Part of the “Fireweed Creeks” Stream System, Vista del Sol Subdivision, Juneau, Alaska

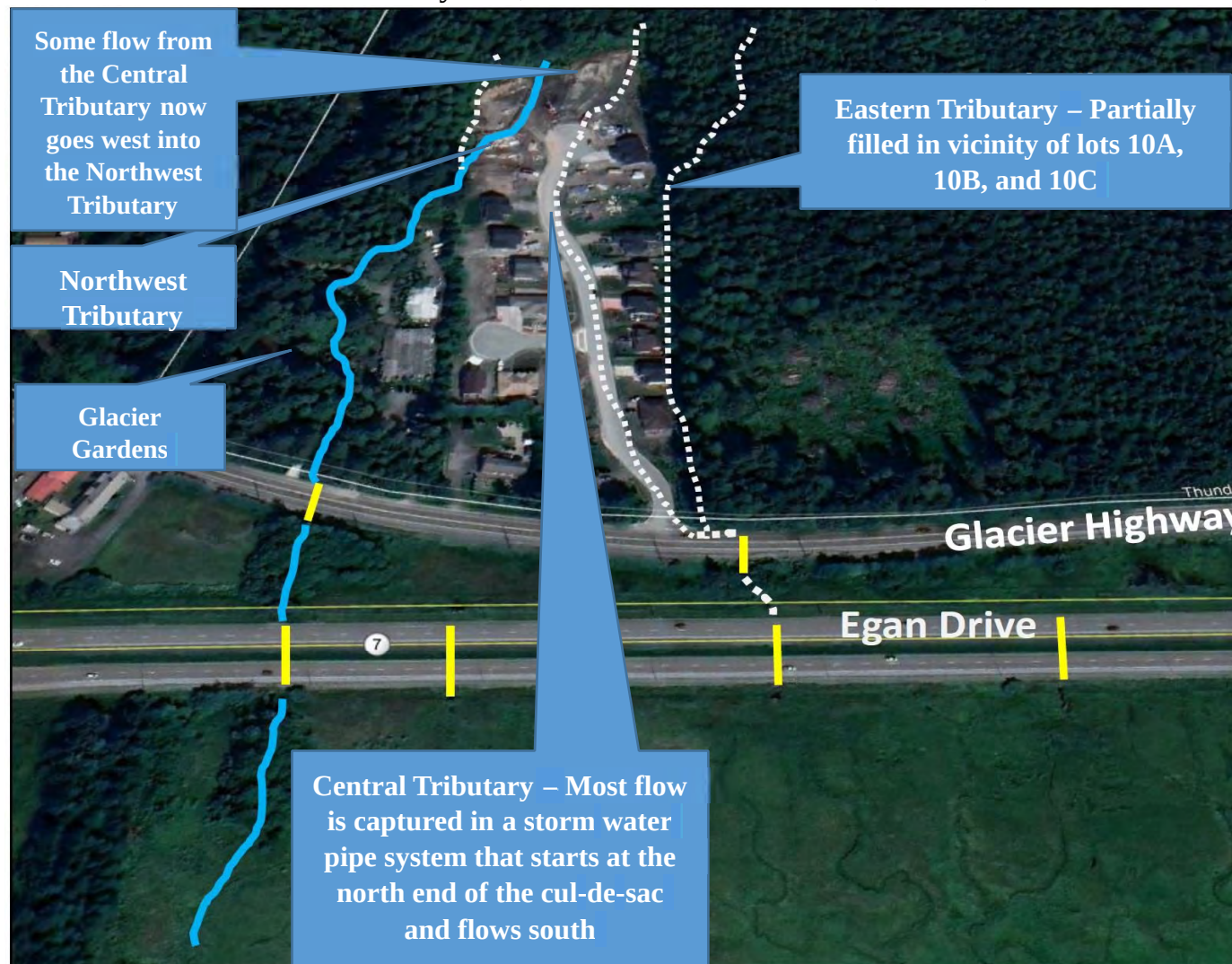


Figure 10. U.S. Army Corps Wetland Delineation Field Sketch
 [Source – U.S. Army Corps of Engineers Notice of Violation, April 3, 2002]

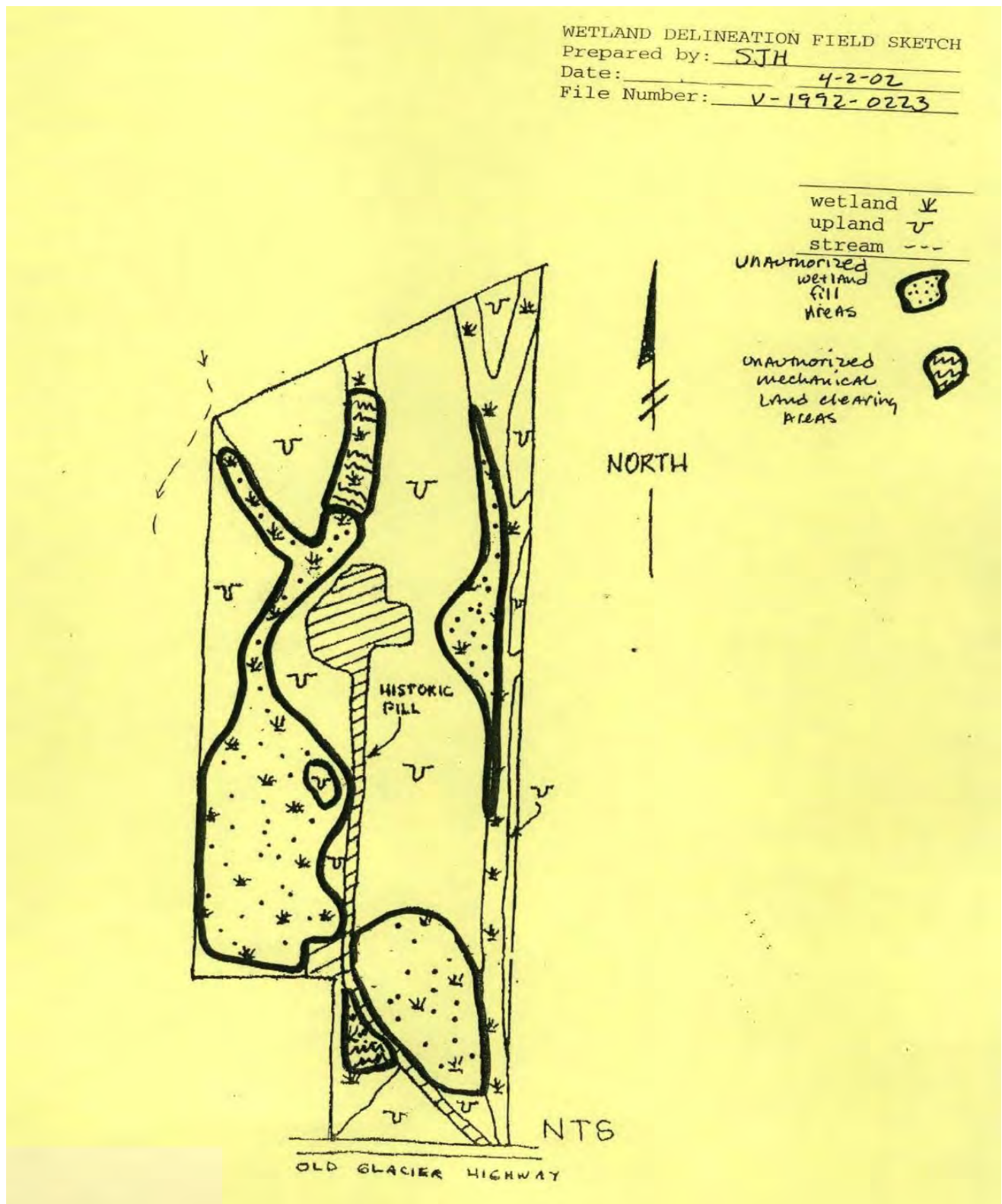


Figure 11. Vista del Sol Northwest Tributary Mechanical Clearing and Rerouting Between April, 2005 and April, 2019

Location = NW Corner of the Subdivision in the Vicinity of Lots 10, 11, 12, 13

Clearing began in 2001.

Images below are April 24, 2005 and April 28, 2019 - Unnamed Stream Channel Within the Fireweed Creeks System - Earthwork, Channel Rerouting, Redistribution of Soils, Changes in Bottom Elevation of WOTUS

April 24, 2005



April 28, 2019



Figure 12. Vista del Sol – Continued Mechanical Clearing, Earthwork, Channel Relocations, and Filling in the Northwest Tributary, April – August, 2019

April 28, 2019



August 11, 2019



Figure 13. Vista del Sol – Continued Mechanical Clearing, Channel Relocations, and Filling in the Northwest Tributary, May 29 – November 7, 2020

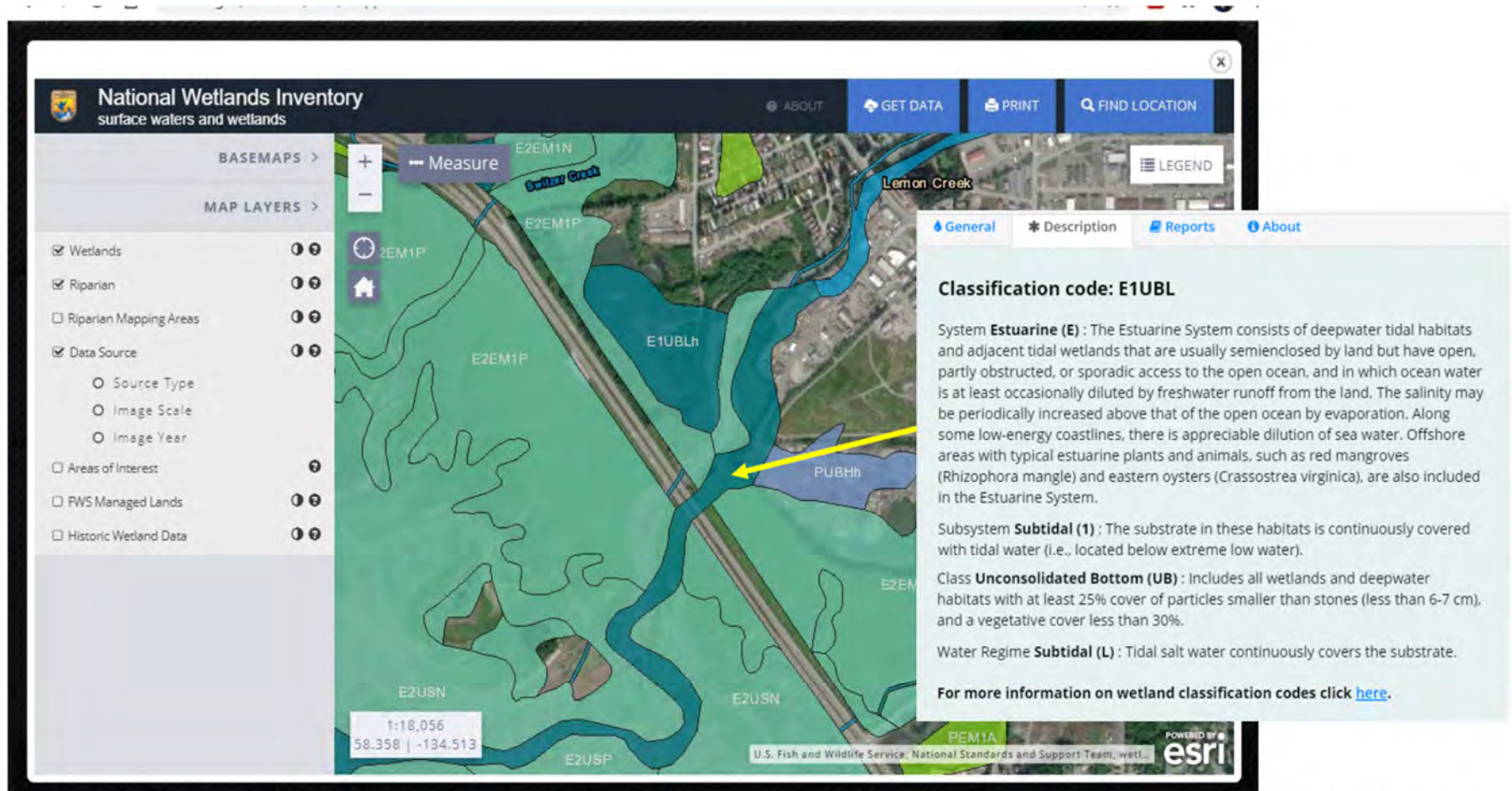
May 29, 2020



November 7, 2020



Figure 14. S&S Ponds National Wetlands Inventory Mapping. S&S Ponds Contiguous with and Connected to the Mendenhall Estuarine Wetlands Complex – Unique Landscape Position



Source: U.S. Fish and Wildlife's National Wetland Inventory. Retrieved March 18, 2021 from: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>. Annotation added.

Figure 15. S&S Ponds, September 15, 2020 (Blue Arrow).

Note - The Ponds are situated between Lemon Creek and Switzer Creek systems as they transition into the Mendenhall Estuarine Wetlands Complex. This is a dynamic stream junction environment.



Figure 16. Light Detecting and Ranging (LiDAR) Image of the S&S Ponds Site– 2012

Source - Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys [DGGIS Elevation Portal \(alaska.gov\)](https://dggis.alaska.gov/elevation/)

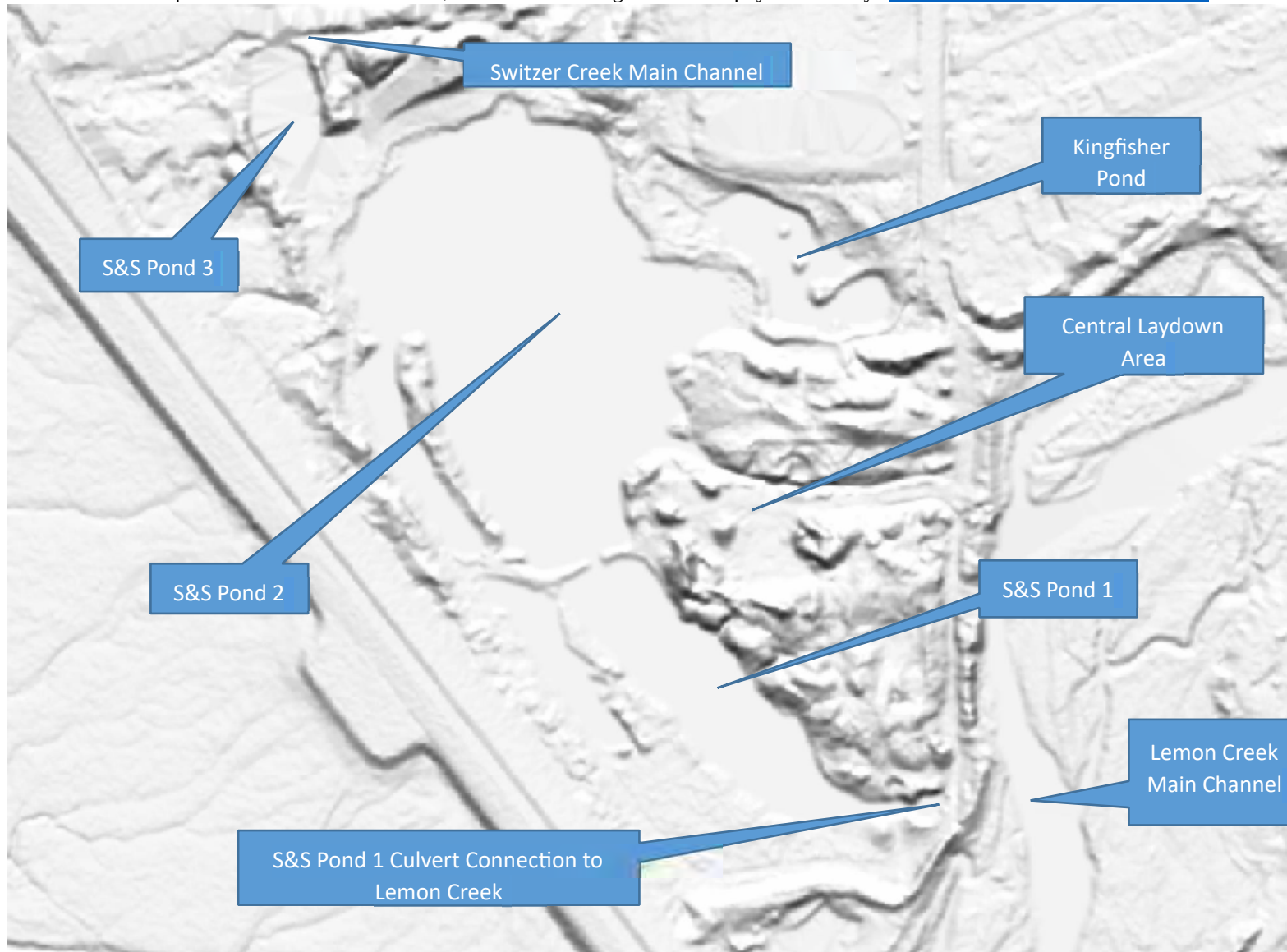
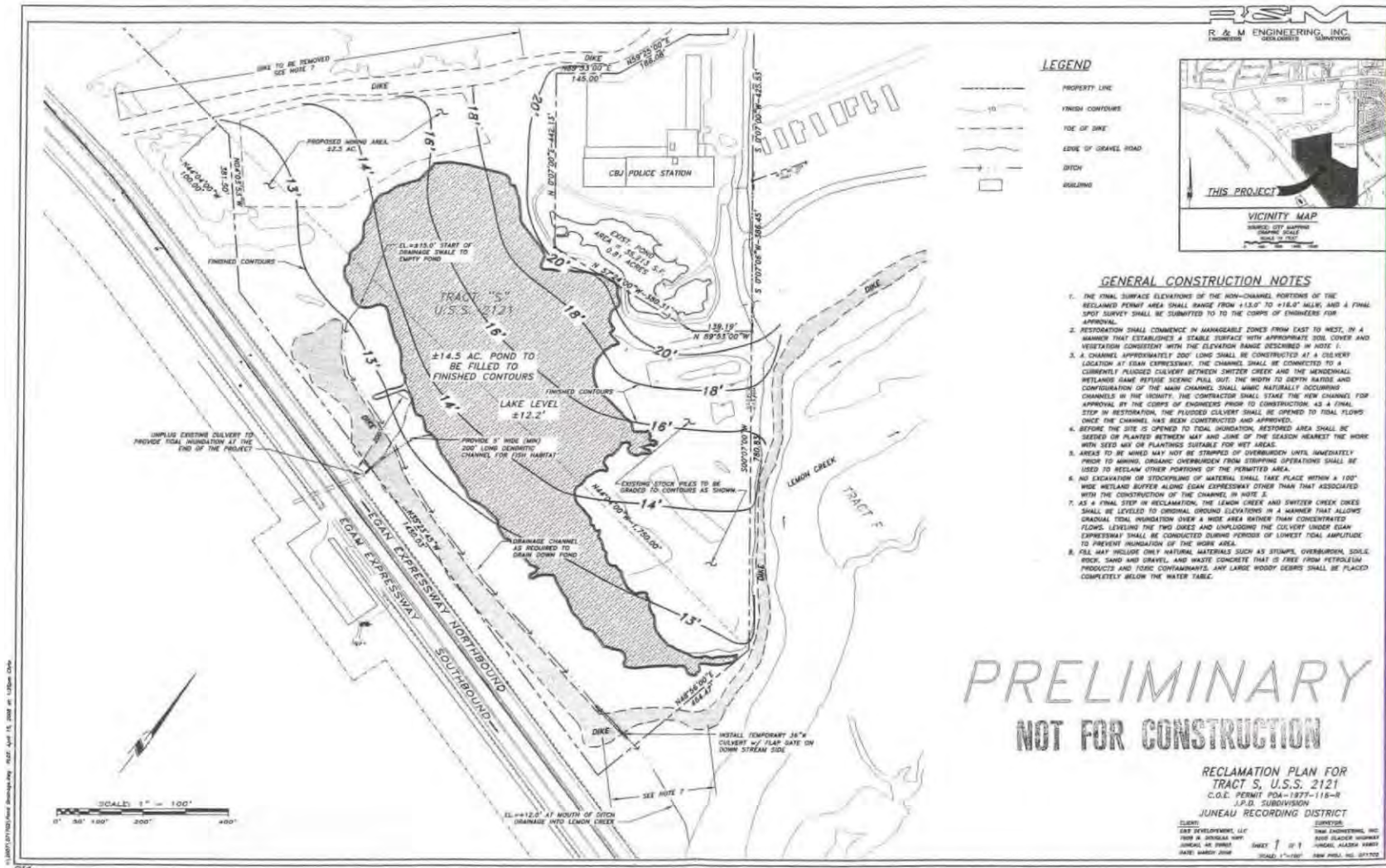


Figure 17. S&S Ponds Reclamation Plan Prepared by R & M Engineering, March, 2008.



S&S Ponds

Switzer Creek

Channel Construction

Channel Construction

Revegetation

Pond 3

Channel Construction

Road Barn

Pond 2

Channel Construction

Pond 1

Overhead Vegetation

Culvert

Kingfisher Pond

Northern Staging Area

Central Staging Area

Lemon Creek

0 0.1 0.2 Kilometers

2021 AWC

Fish Habitat Improvement Options

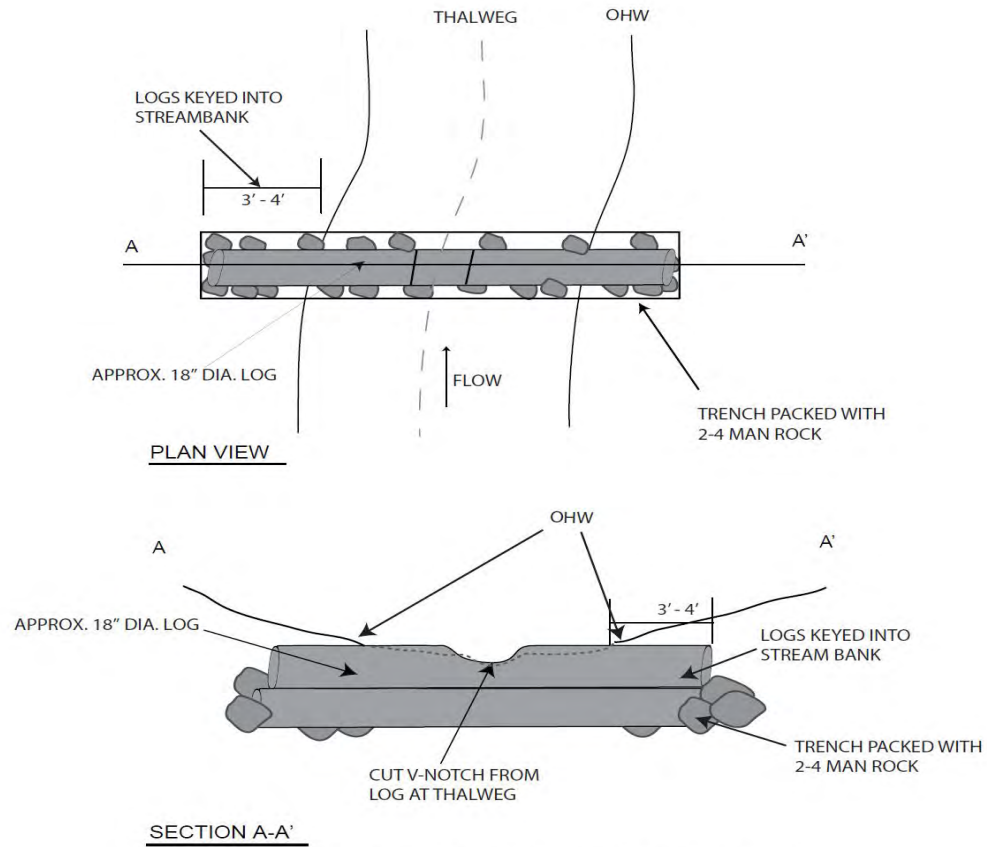
Microsoft

Figure 19. Configurations for Large Wood In-Stream Placement

(Source - Bureau of Reclamation and U.S. Army Corps of Engineers. 2015. National Large Wood Manual: Assessment, Planning, Design, and Maintenance of Large Wood in Fluvial Ecosystems: Restoring Process, Function, and Structure. 628 pages + Appendix. Available: www.usbr.gov/pn/.)

Type of configuration	Advantages	Disadvantages	Illustration
Individual large wood piece without rootwad ¹	Less expensive, easier to transport and for hand crews to place, more maneuverable	Less stable, less hydraulic and habitat complexity	
Individual large wood piece with rootwad	More stable, more hydraulic and habitat complexity. Soil in rootwad provides ballast	More expensive, harder to place with hand crews, usually requires heavy equipment to place and operator skill	
Grouping	Added stability by interlocking, added complexity, increased likelihood of engagement	Added cost, generally requires some excavation or anchoring, increased potential for adverse/unanticipated channel response	
Log matrix	High surface complexity and roughness, simple to construct	Aesthetics, limited benefit as bank armoring	

Figure 20. Large Wood Grade Control Structure



LARGE WOOD GRADE CONTROL STRUCTURE/SILL
PLAN VIEW
 Not to Scale



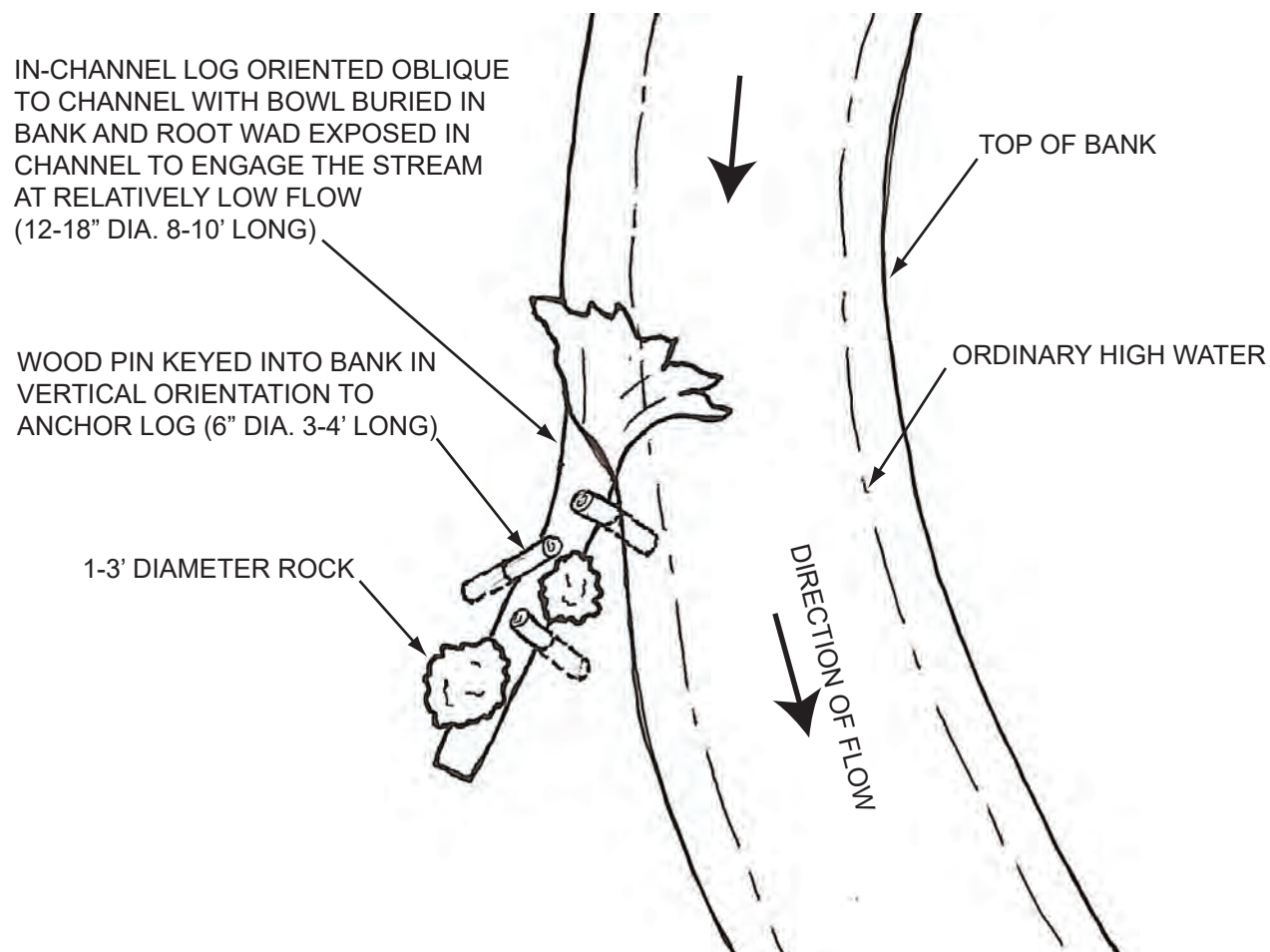


FIGURE 21. TYPICAL IN-CHANNEL DEFLECTION LOG
PLACEMENT PLAN VIEW

Not to Scale

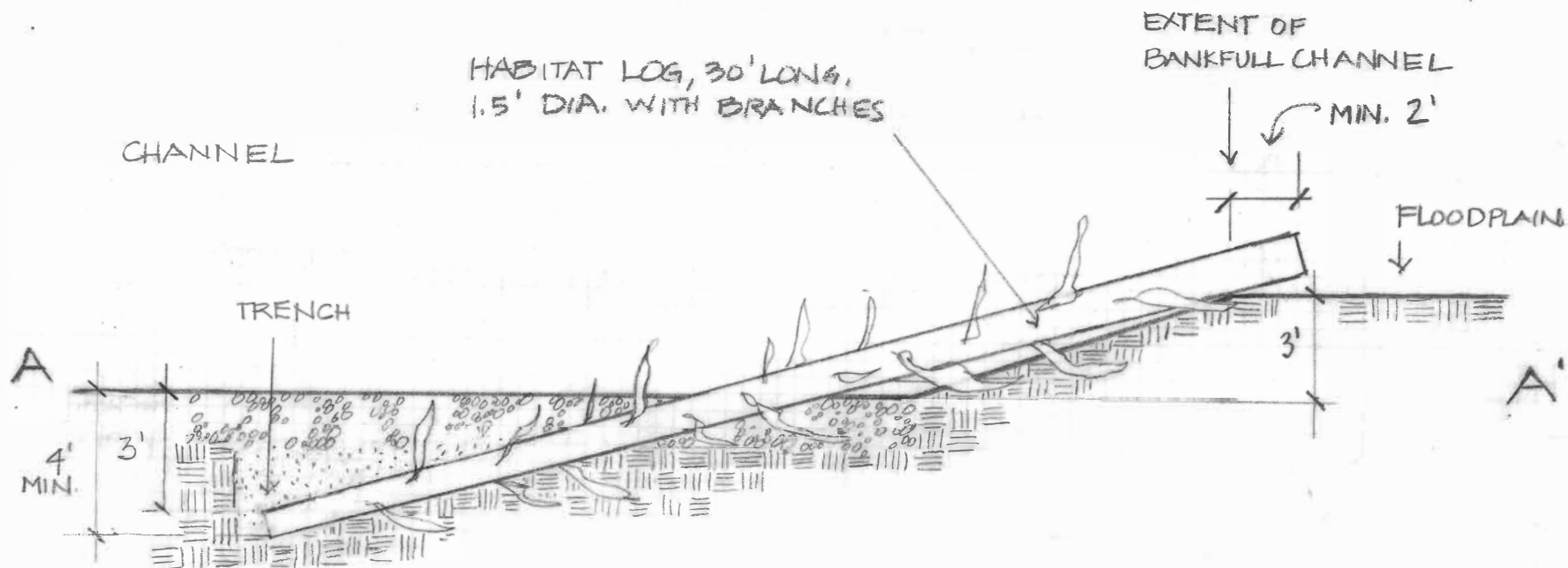


FIGURE 22. SINGLE IN-STREAM HABITAT FEATURE,
SECTION A, A'

SCALE 1" = 5'

DETAIL 4

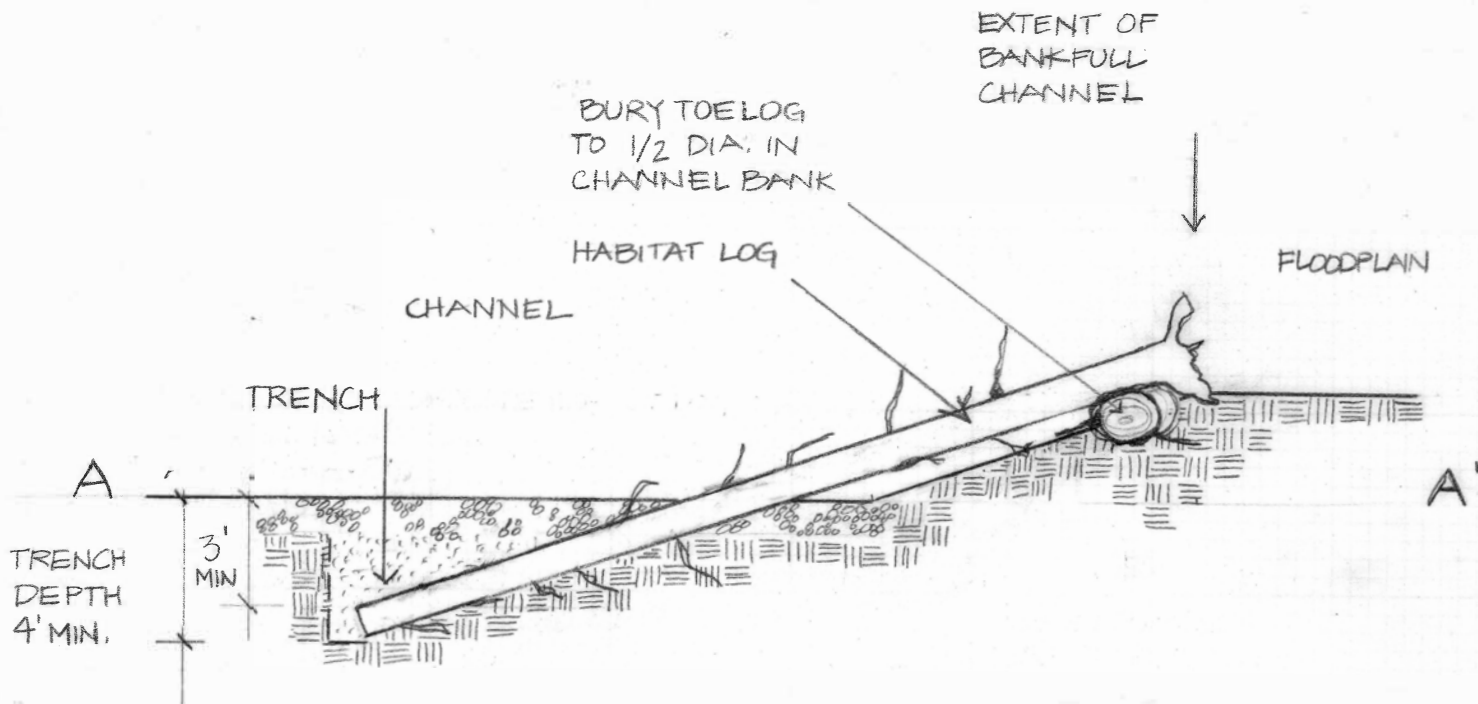
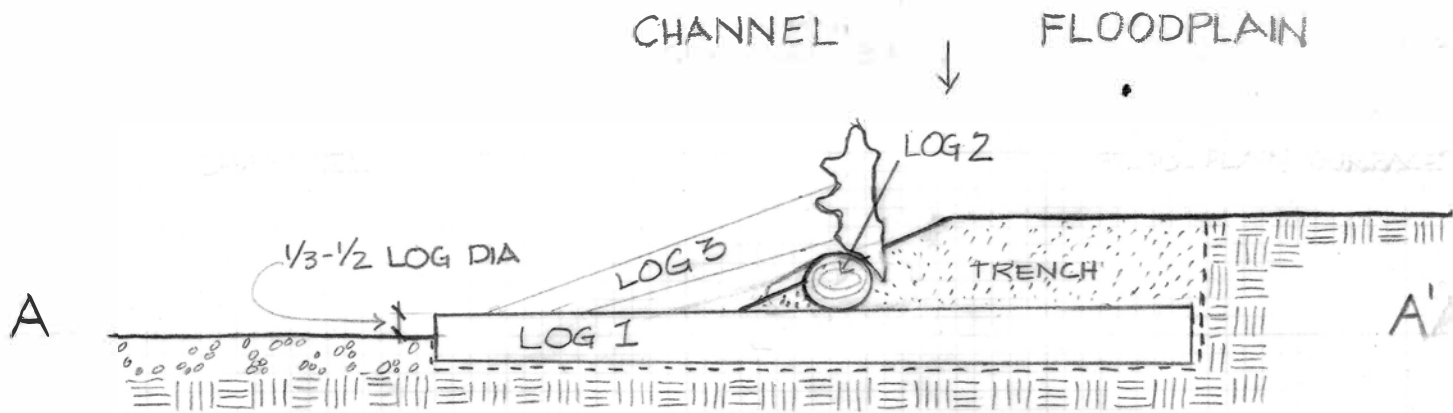


FIGURE 23. IN-STREAM HABITAT FEATURE, SECTION A-A'

DOUBLE
SCALE 1" = 5' 0"



TRIPLE IN-STREAM HABITAT FEATURE, SECTION A, A'

SCALE 1" = 5'

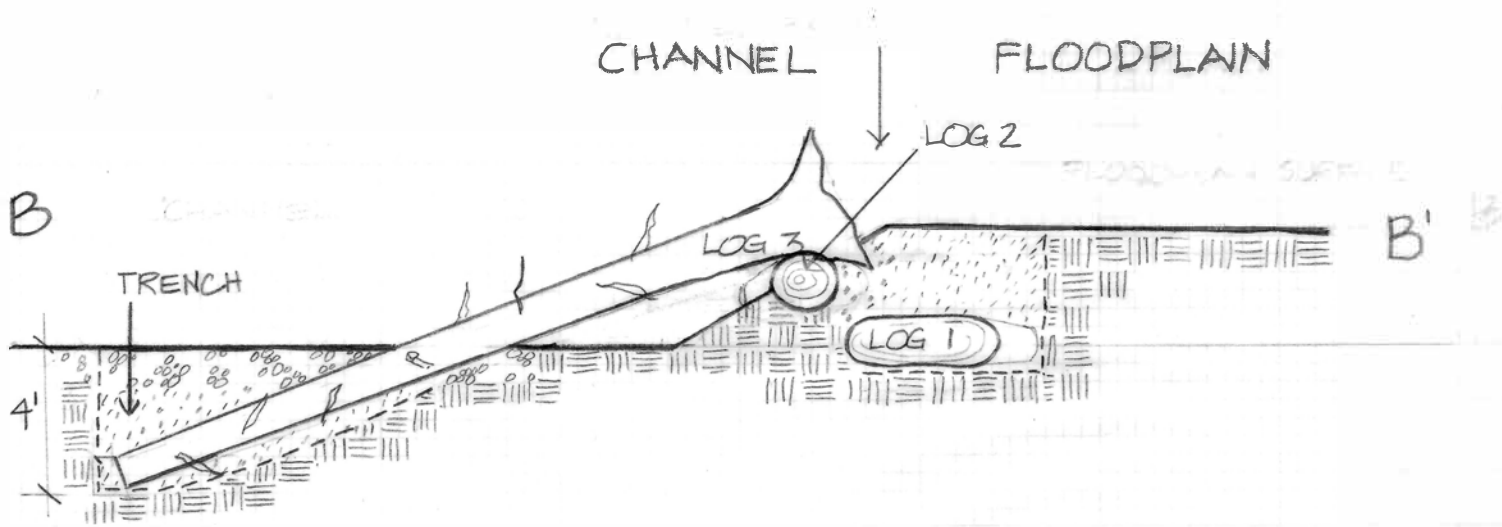
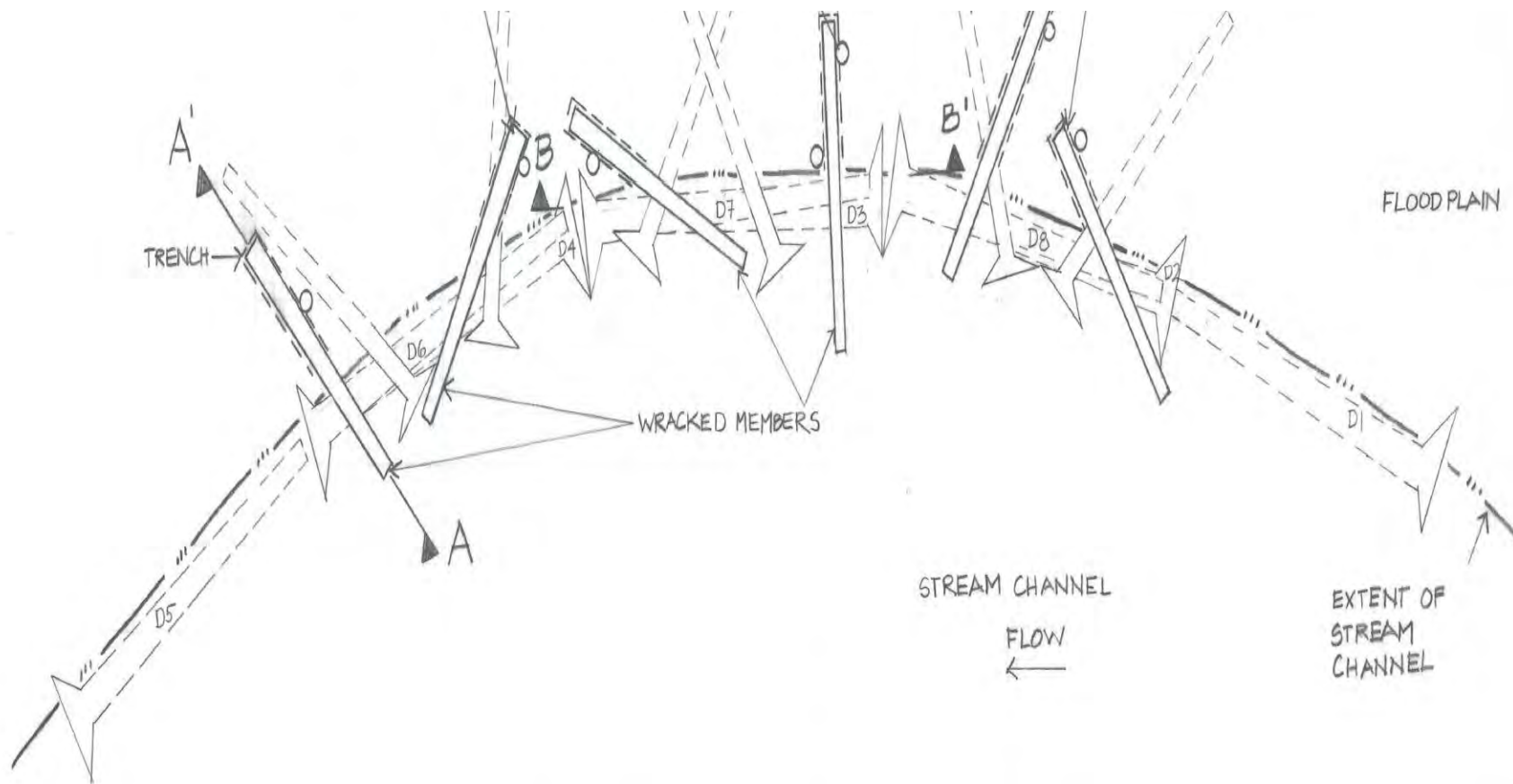


FIGURE 24. TRIPLE IN-STREAM HABITAT FEATURE, SECTION B, B'

SCALE 1" = 5'

Figure 25. Bank Deflection Large Wood Structures



BANK DEFLECTION JAM, PLACEMENT OF WRACKED MEMBERS ON TOP OF JAM, PLAN VIEW

LCLA 4/8/98

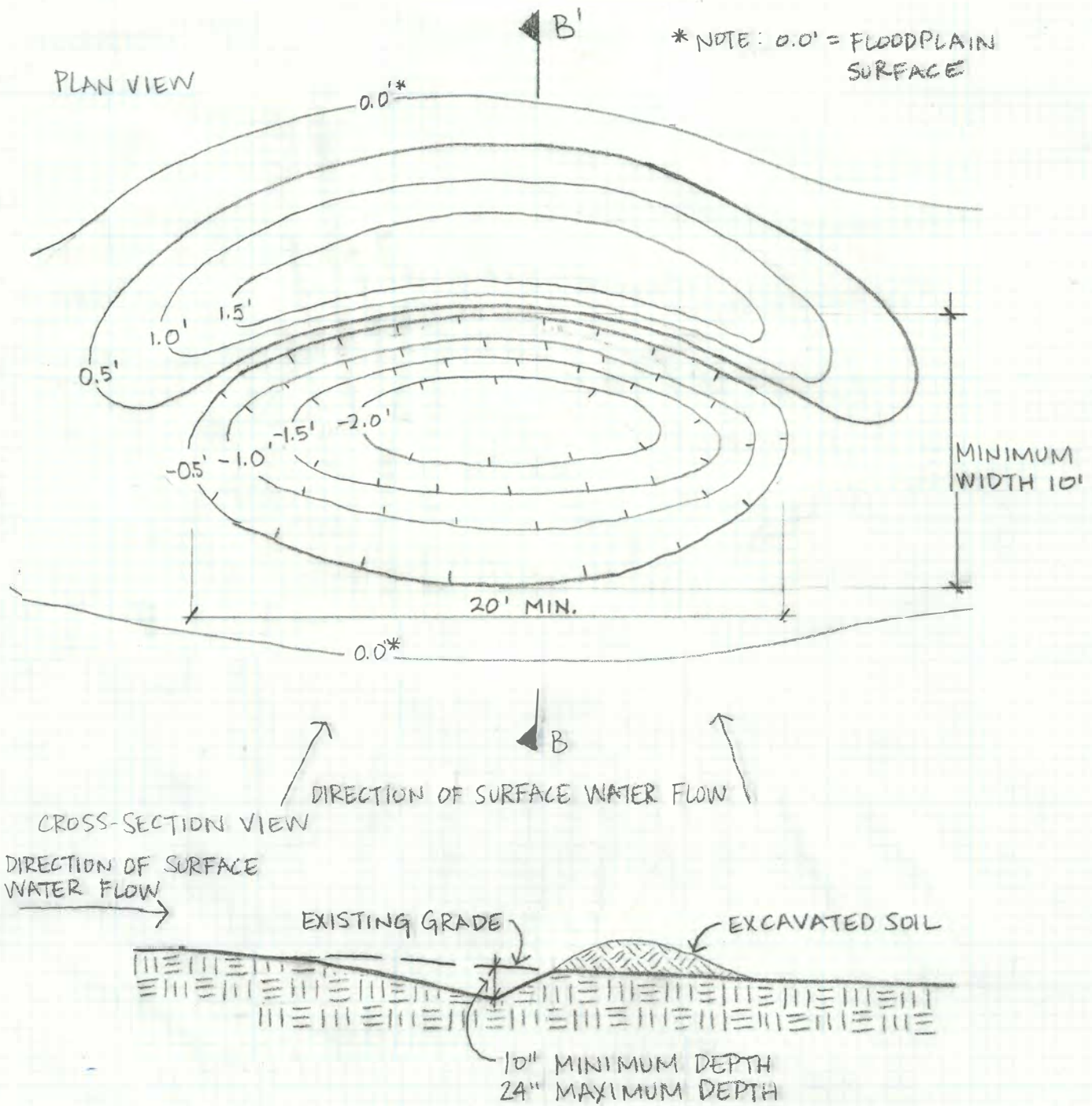


FIGURE 26. TYPICAL MICRODEPRESSION DETAIL NOT TO SCALE

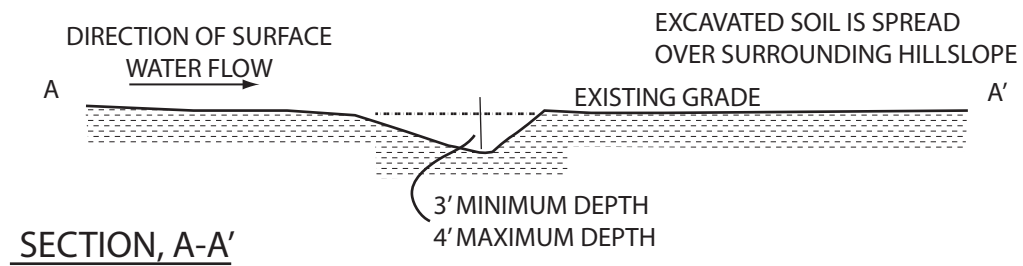
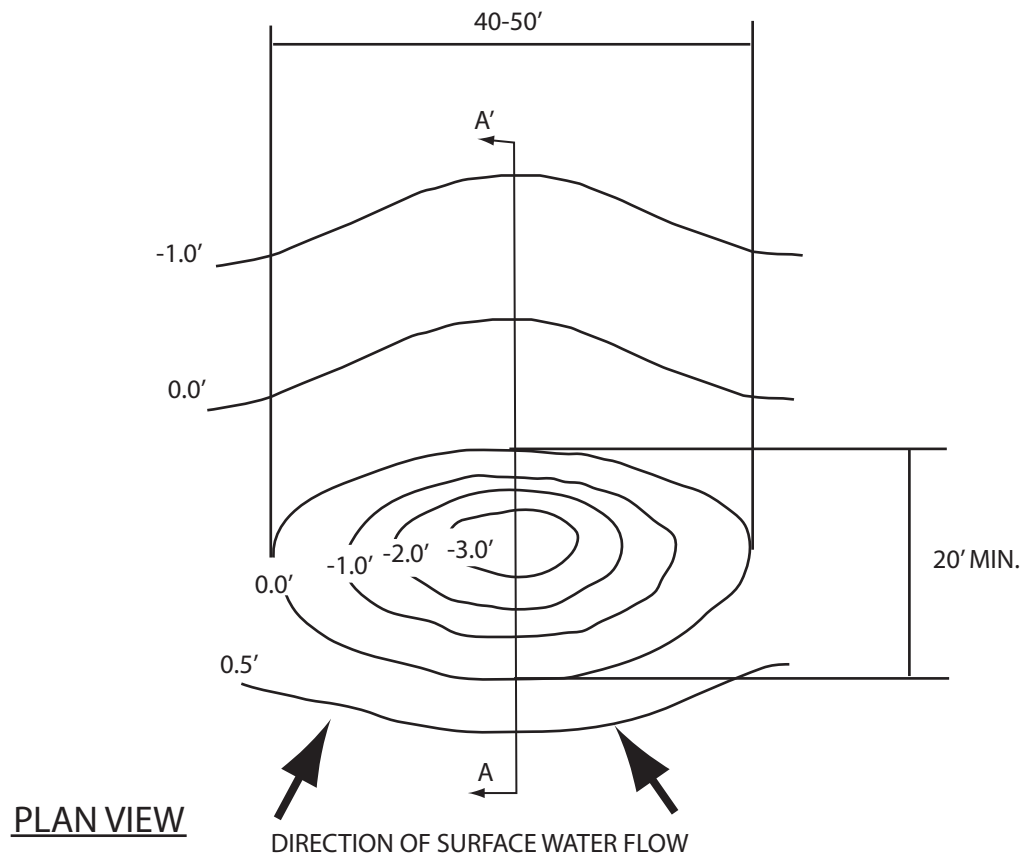


FIGURE 27

Not to scale

MICRODEPRESSION WITHOUT BERM / NO LARGE

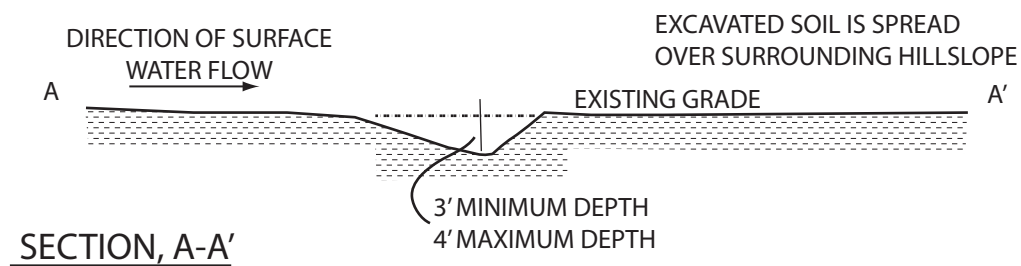
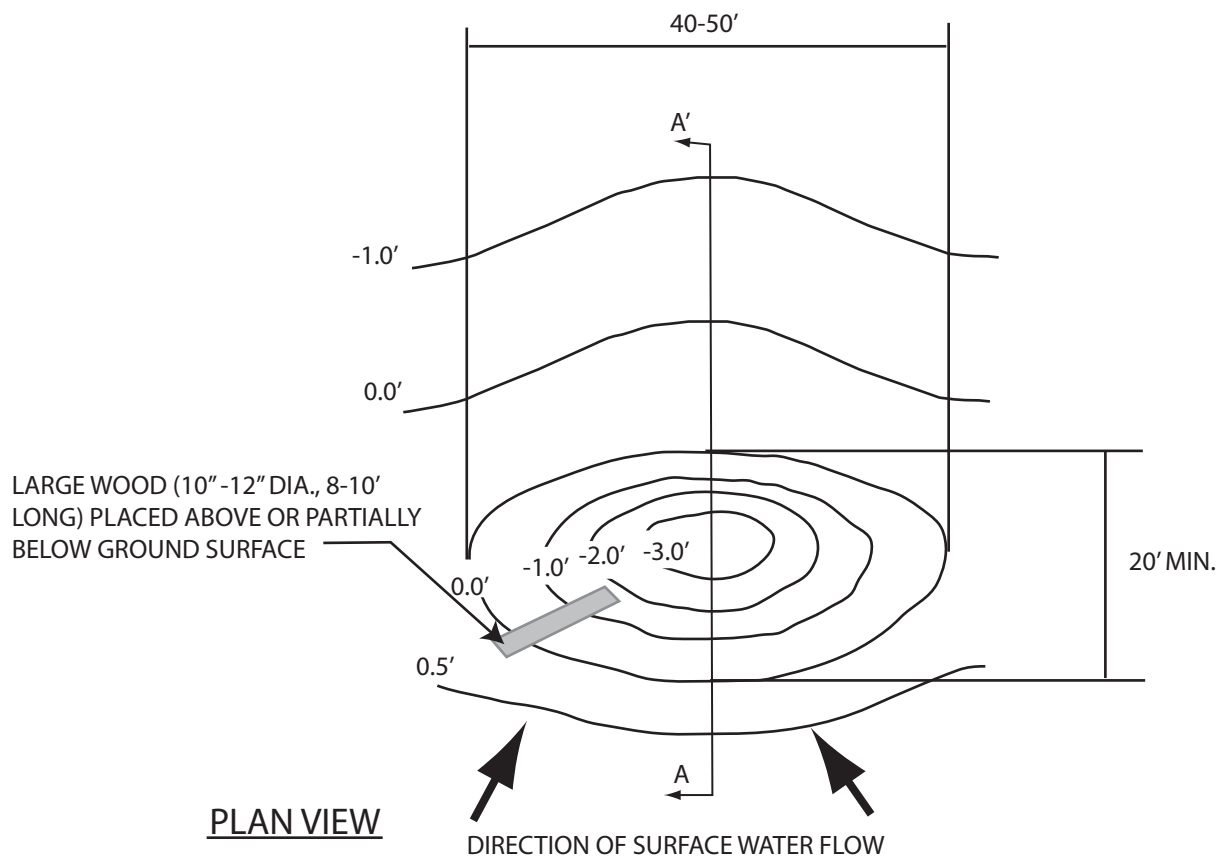


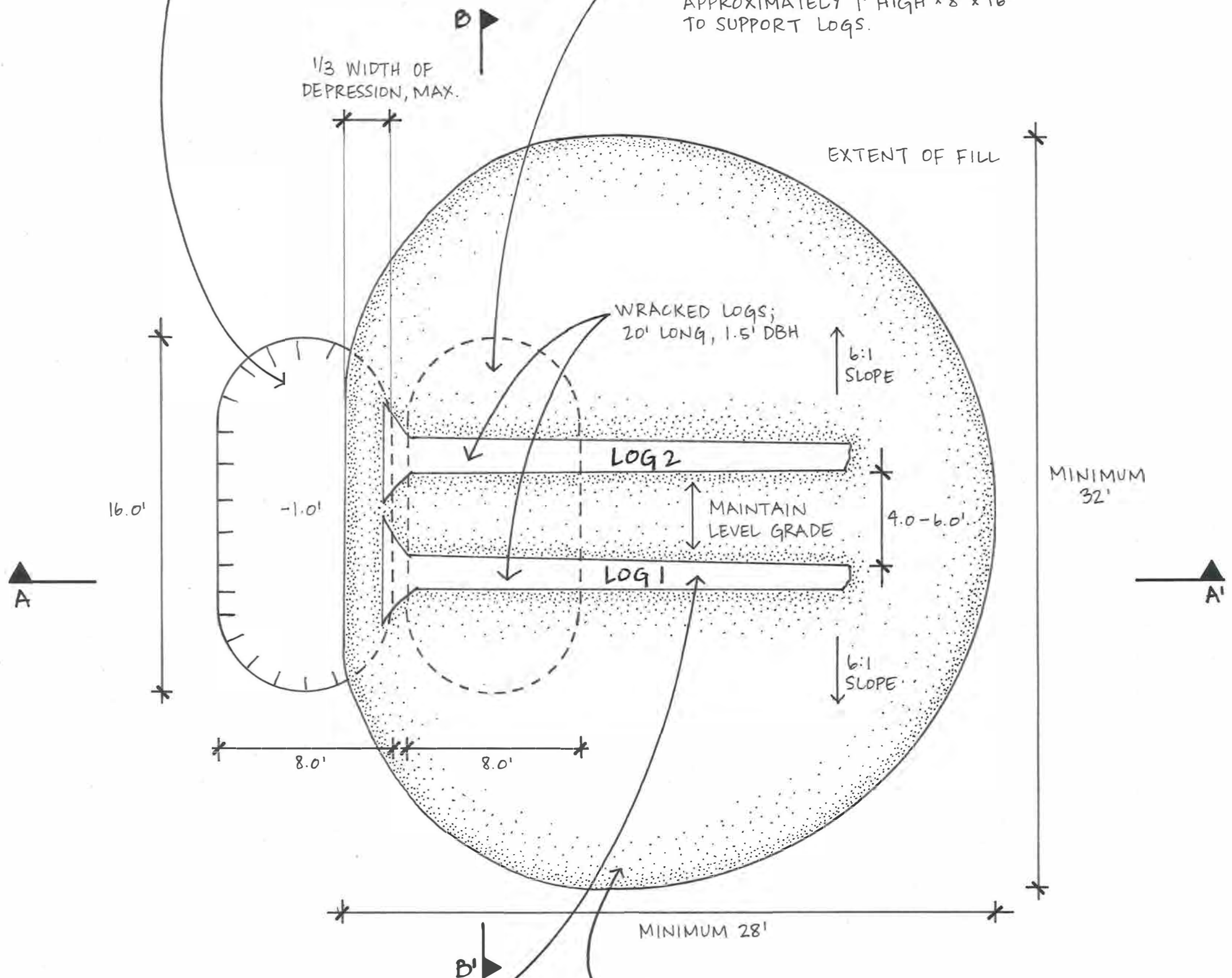
FIGURE 28

Not to scale

MICRODEPRESSION WITHOUT BERM / WITH LARGE WOOD

1. FIGURE 2g. EXCAVATE DEPRESSION.
APPROXIMATELY 1' DEEP x 8' x 16'

2. PLACE EXCAVATED MATERIAL IN
MOUND ADJACENT TO DEPRESSION;
MOUND DIMENSIONS SHOULD BE
APPROXIMATELY 1' HIGH x 8' x 16'
TO SUPPORT LOGS.



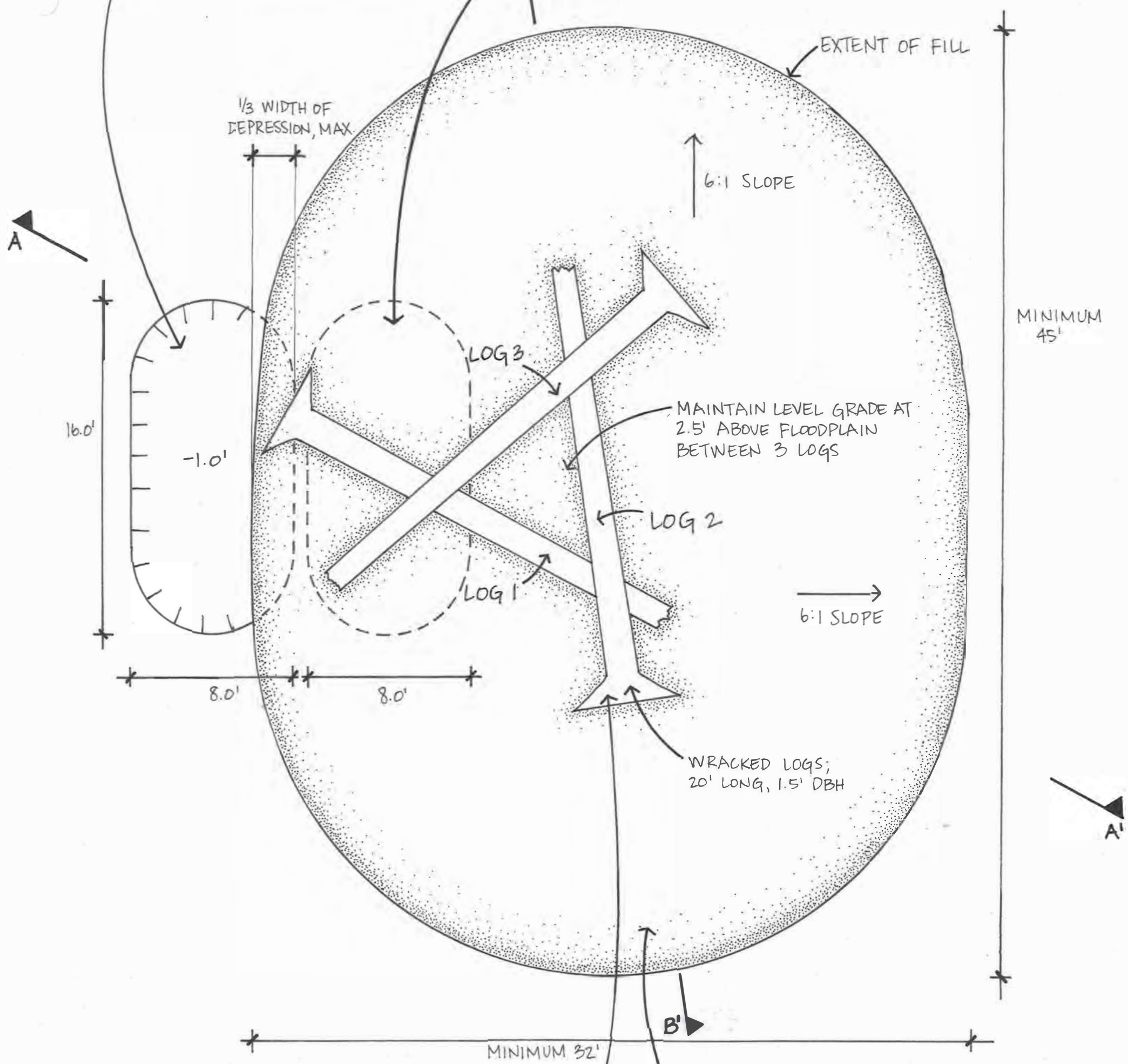
3. PLACE TWO WRACKED LOGS
PARALLEL, 4.0-6.0' APART, WITH
BOLES RESTING ON MOUND AND
CROWNS RESTING ON FLOODPLAIN.
ROOTWADS SHOULD NOT EXTEND
OVER DEPRESSION. IF LOGS DO NOT
HAVE ROOTWADS, LOG SHOULD BE
PLACED IN SAME MANNER (i.e.,
BASE OF LOGS SHOULD NOT
EXTEND OVER DEPRESSION).

4. PLACE FILL OVER LOGS AND MOUND.
FILL SHOULD COVER AT LEAST 2/3 OF
BOLE DIAMETERS AT BASE, AND FILL
SHOULD BE AT LEAST 1.0' DEEP AT
CROWNS. GRADE FILL TO 6:1 SLOPES
AWAY FROM OUTSIDE EDGES OF LOG
STRUCTURE. MAINTAIN LEVEL GRADE
BETWEEN LOGS. FILL SHOULD NOT ENTER
MORE THAN 1/3 WIDTH OF DEPRESSION.
EXTENT OF FILL SHOULD BE AT LEAST 28' x 32'.

FIGURE 30

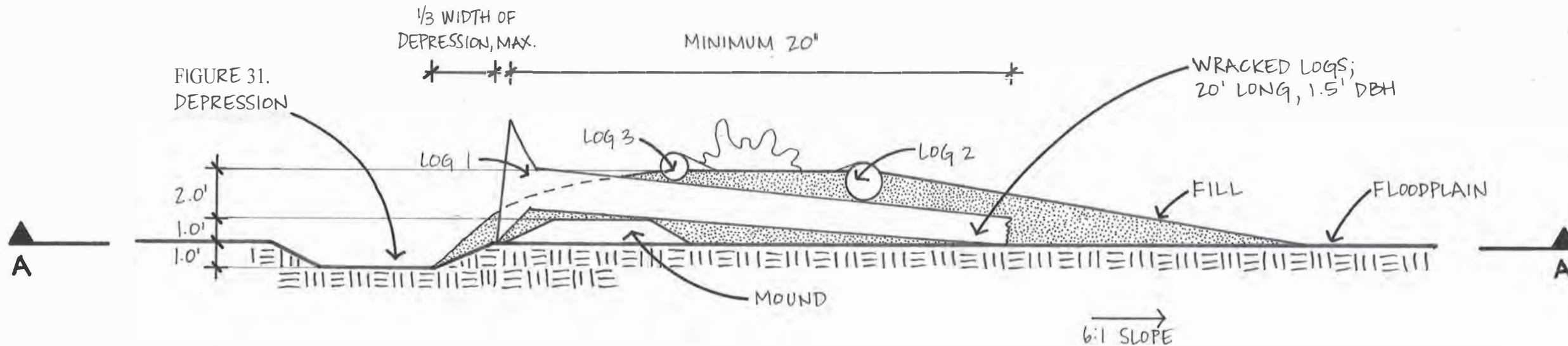
APPROXIMATELY 1' DEEP x 8' x 16'
EXCAVATE DEPRESSION;

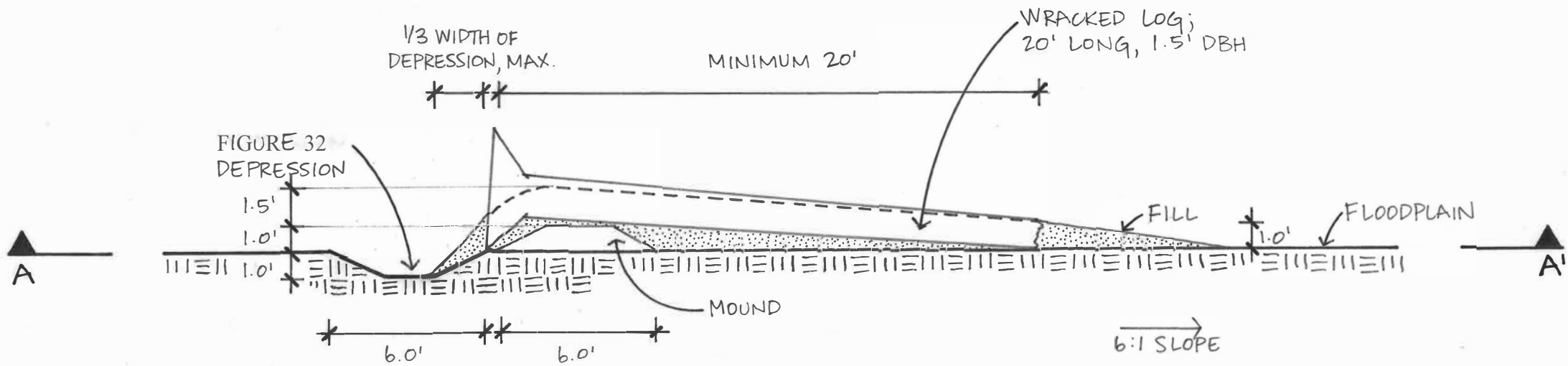
2. PLACE EXCAVATED MATERIAL IN
MOUND ADJACENT TO DEPRESSION.
MOUND DIMENSIONS SHOULD BE
APPROXIMATELY 1' HIGH x 8' x 16'.



3. PLACE 3 WRACKED LOGS IN A TRIANGULAR FORMATION. PLACE LOG 1 WITH ROOTWAD RESTING ON MOUND AND CROWN RESTING ON FLOODPLAIN. PLACE LOG 2 WITH ROOTWAD RESTING ON CROWN OF LOG 1, AND CROWN RESTING ON FLOODPLAIN. PLACE LOG 3 WITH ROOTWAD RESTING ON CROWN OF LOG 2 AND CROWN RESTING ON BOLE OF LOG 1. IF ANY LOG DOES NOT HAVE A ROOTWAD, LOG SHOULD BE PLACED IN SAME MANNER, AS DESCRIBED ABOVE (i.e., BASE OF LOG 2 SHOULD REST ON CROWN OF LOG 1). NO LOG SHOULD EXTEND OVER DEPRESSION.

4. PLACE FILL OVER LOGS AND MOUND. FILL SHOULD COVER AT LEAST $\frac{2}{3}$ DIAMETER OF HIGHEST BOLE (i.e., LOG 3). GRADE FILL AT 6:1 SLOPES AWAY FROM ALL OUTSIDE EDGES OF LOG STRUCTURE. MAINTAIN LEVEL GRADE AT 3.0' ABOVE FLOODPLAIN BETWEEN 3 LOGS. FILL SHOULD NOT ENTER MORE THAN $\frac{1}{3}$ WIDTH OF DEPRESSION. EXTENT OF FILL SHOULD BE AT LEAST 32' x 45'.





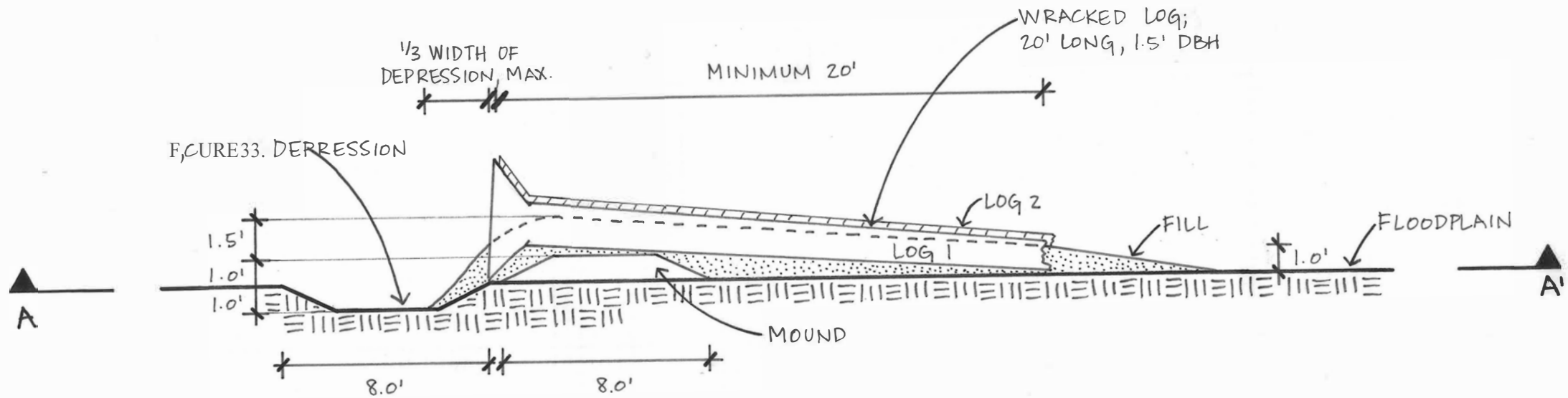


FIGURE 34.
FILL SHOULD COVER

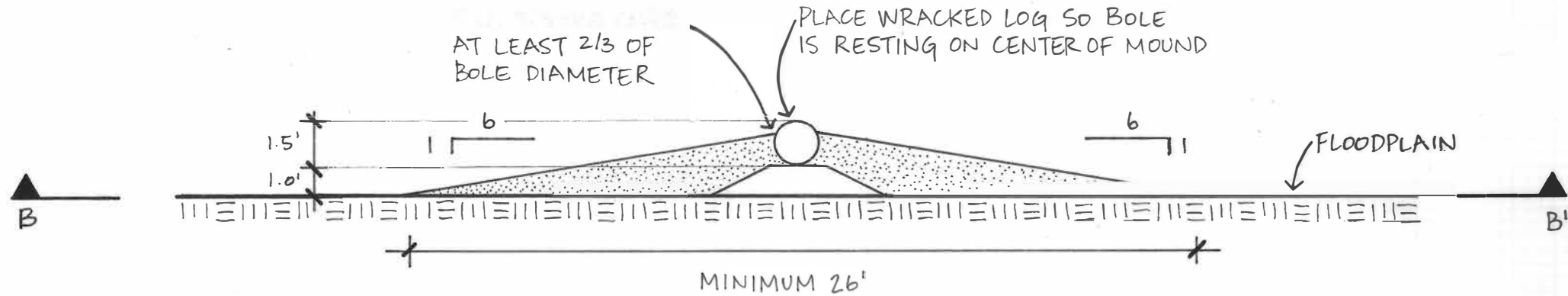


FIGURE 35

The diagram illustrates a cross-section of a log boom on a floodplain. Three logs are shown: Log 1, Log 2, and Log 3. Log 1 is the base log, resting on the floodplain. Log 2 is placed on top of Log 1, and Log 3 is placed on top of Log 2. The logs are represented by horizontal lines with vertical hatching underneath. The area between the logs and the floodplain is shaded with a stippled pattern, labeled 'FILL'. A dashed line indicates the 'MAINTAIN LEVEL GRADE AT 3.0' ABOVE FLOODPLAIN BETWEEN 3 LOGS'. The height of the log boom is marked as 3.0' on the left. The width of the boom is marked as 'MINIMUM 45'' at the bottom. The floodplain is indicated by a horizontal line on the right. Section lines B-B' and 1-1 are shown.

WRACKED LOGS;
20' LONG 1.5' DIA

Figure 36. Bar/Bench Top Habitat Feature

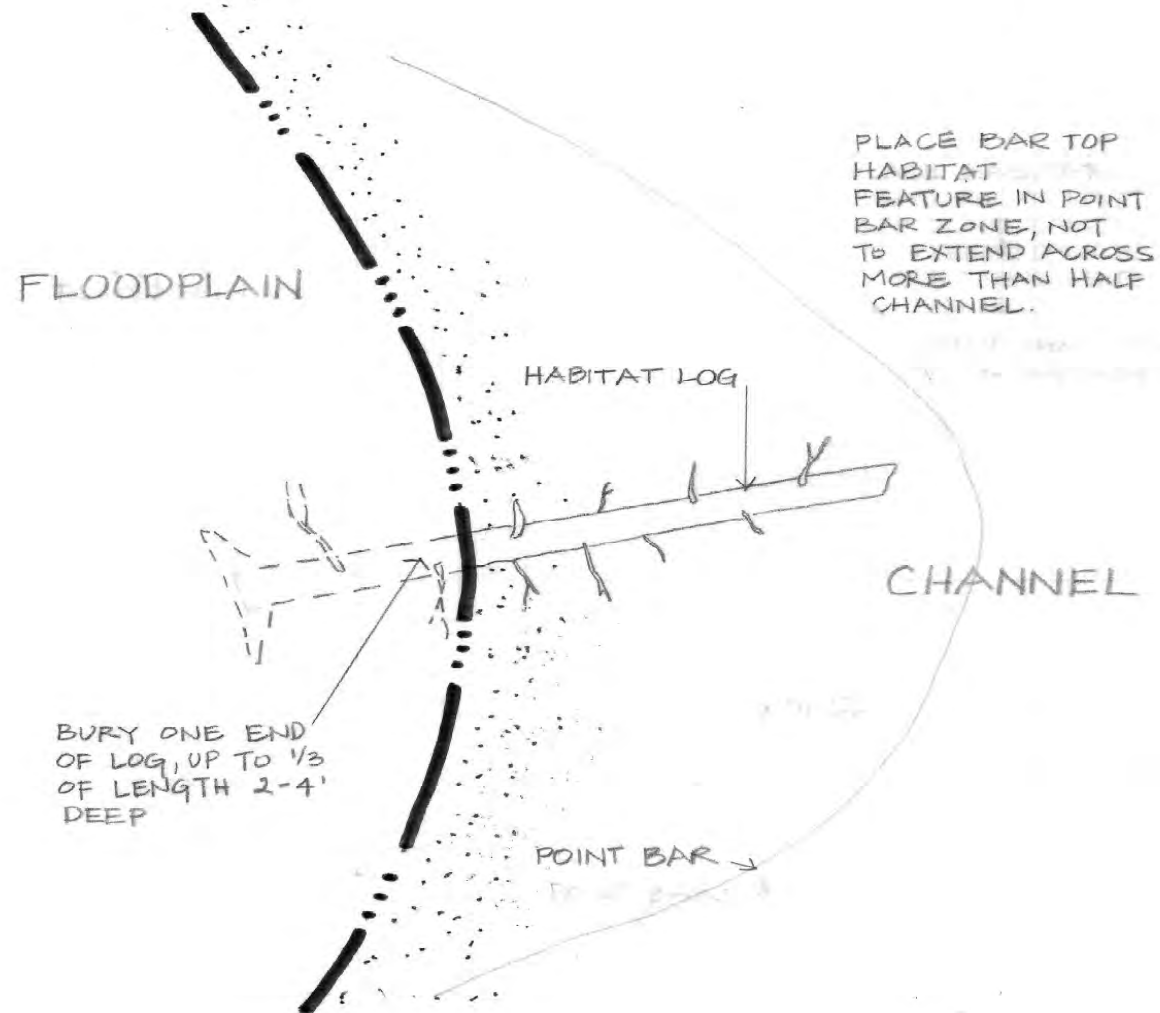
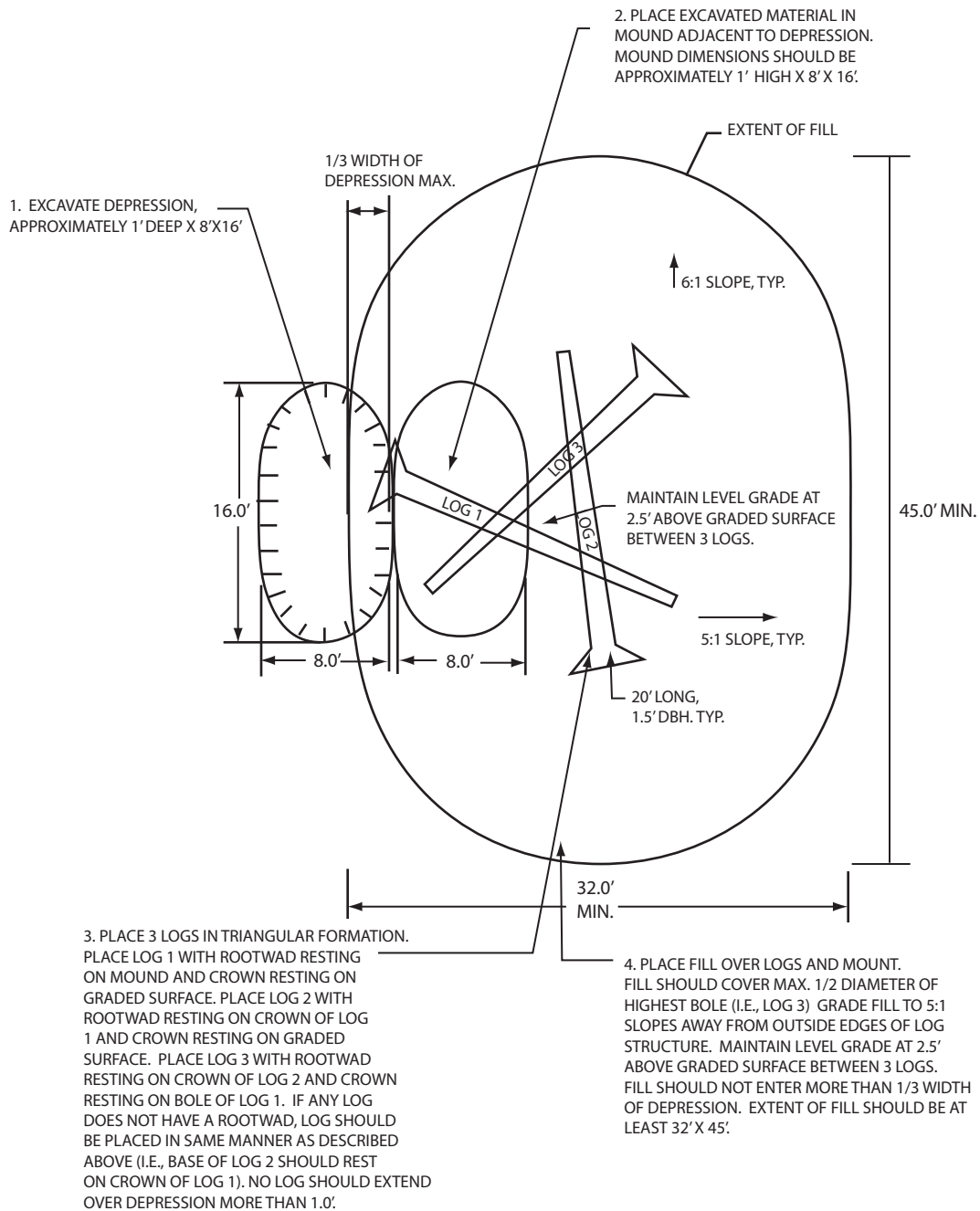


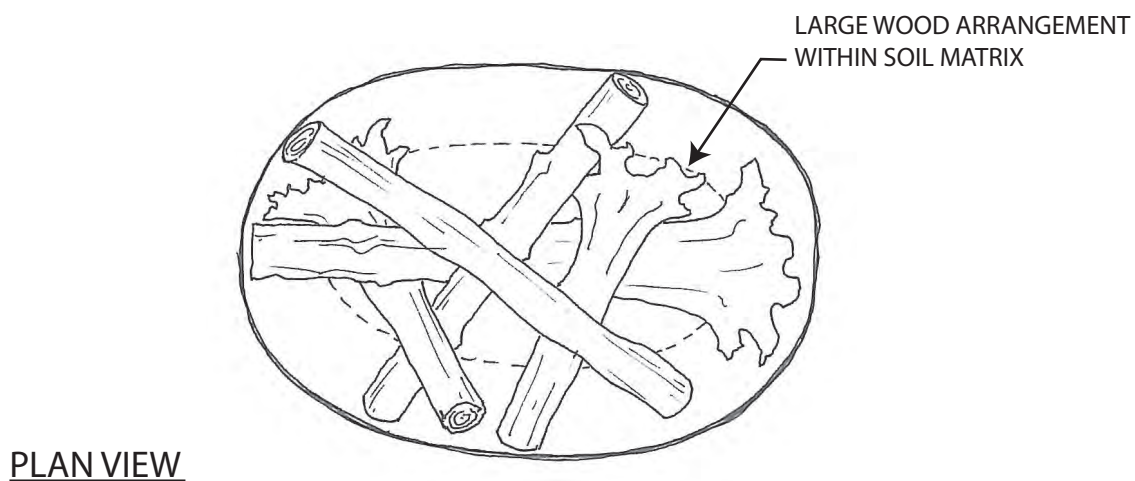
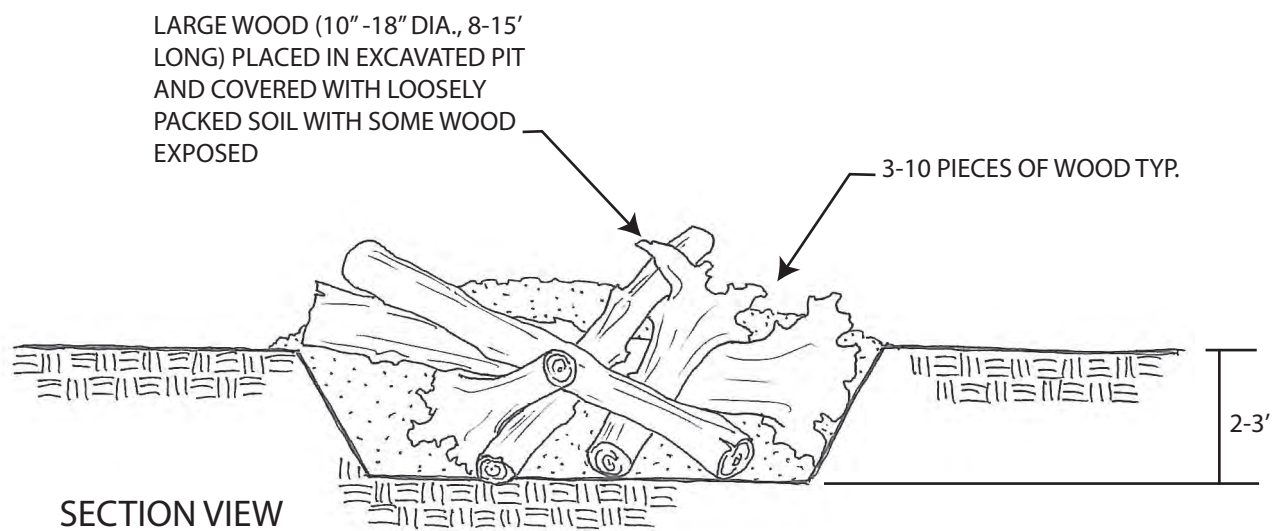
FIGURE 37



TYPICAL WINDTHROW MOUND WITH LARGE WOOD PLAN VIEW

Not to Scale

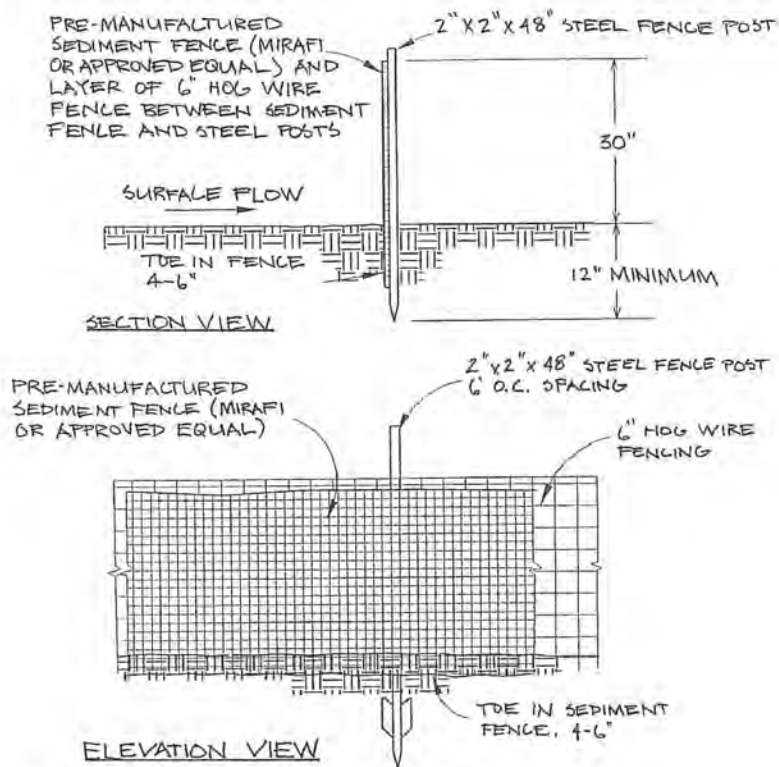
FIGURE 38



WOOD MOUND

Not to scale

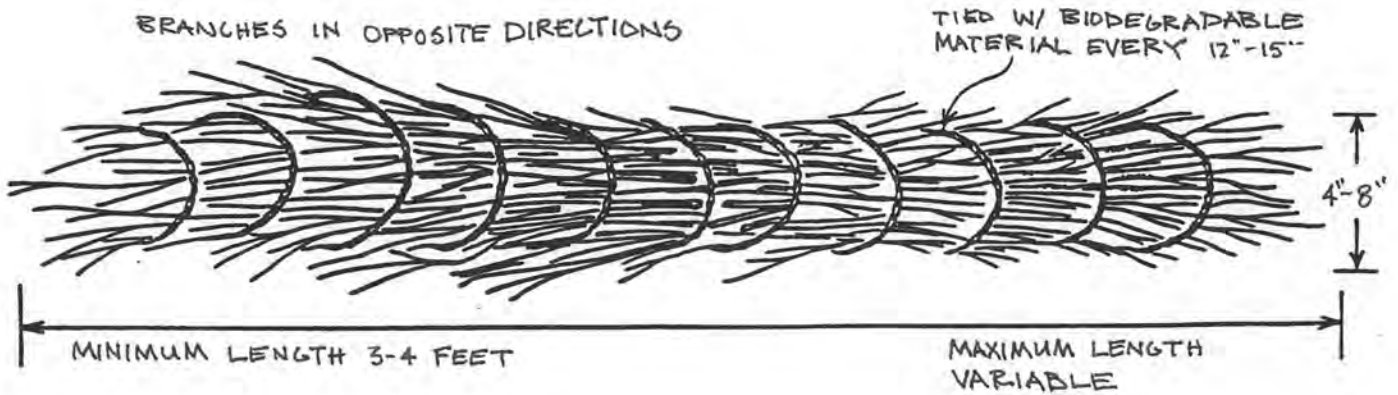
FIGURE 39



HEAVY DUTY SEDIMENT FENCE

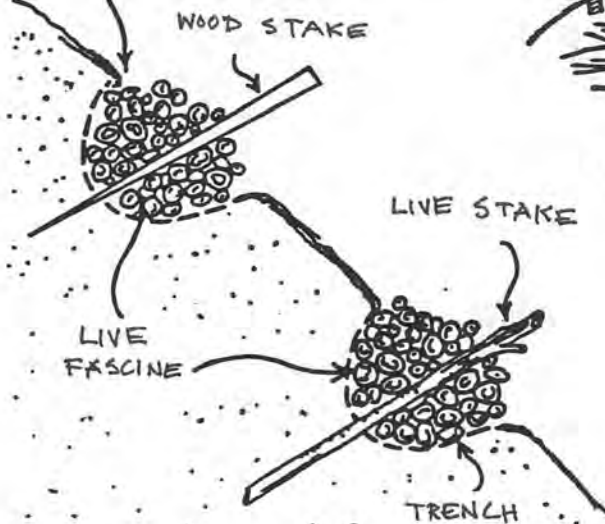
Not to Scale

FIGURE 40



EXAMPLE 1

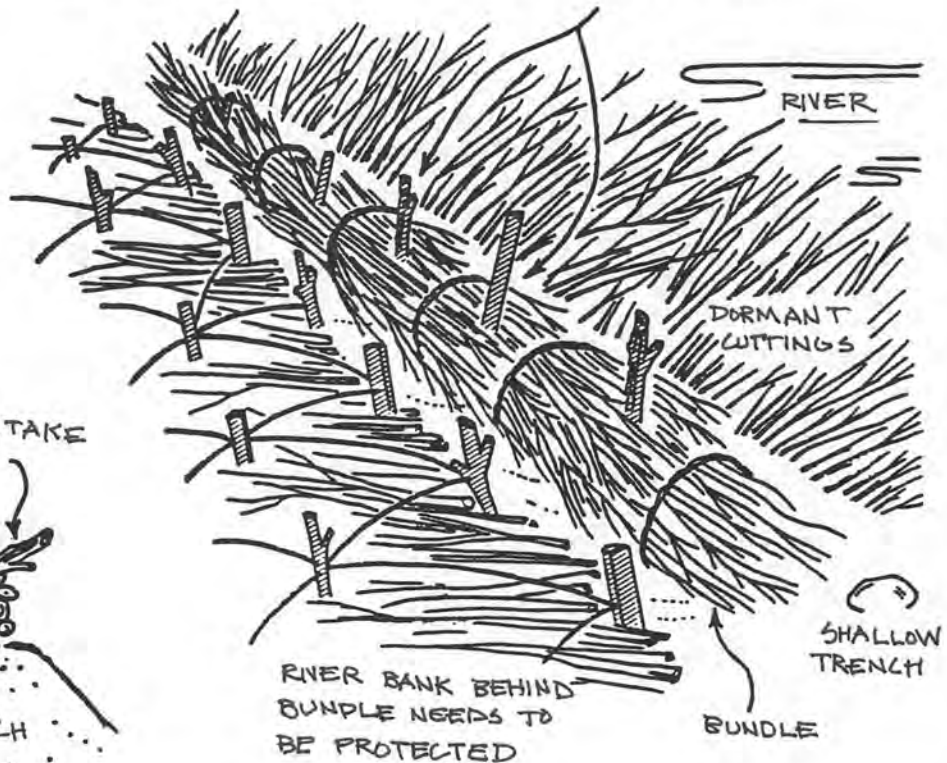
TRENCH IS FILLED WITH SOIL UNTIL BUNDLE IS PARTIALLY COVERED



SECTION OF MULTIPLE LIVE BUNDLES IN BANK. LIVE BUNDLES ARE PARTIALLY COVERED WITH SOIL

EXAMPLE 2

STAKES (LIVE AND/OR BIODEGRADABLE)

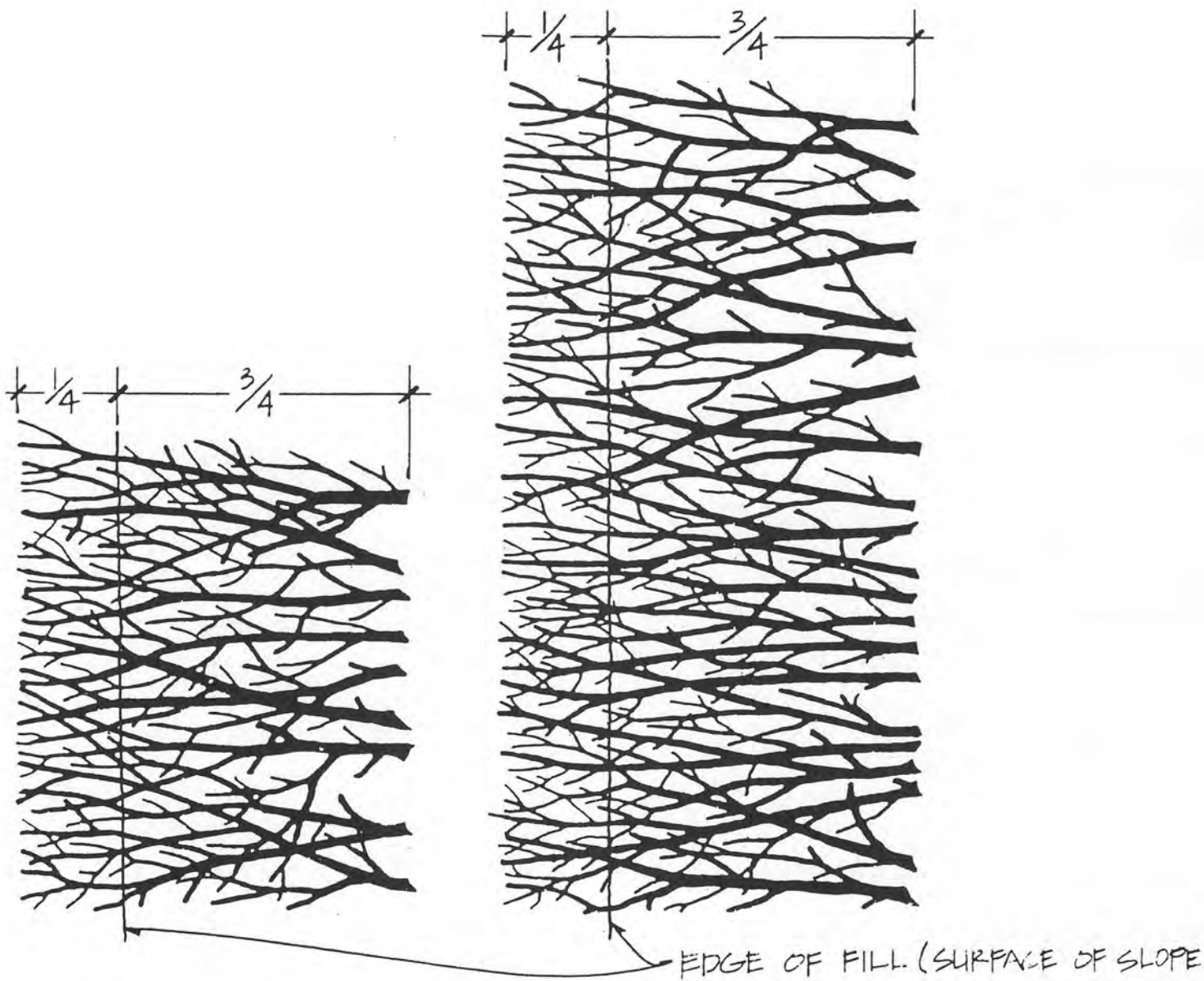


ONE APPLICATION USING LIVE BUNDLE BRUSH MATTRESS AND LIVE SILTATION FOR BANK PROTECTION

LIVE BUNDLE (FASCINE)

No Scale

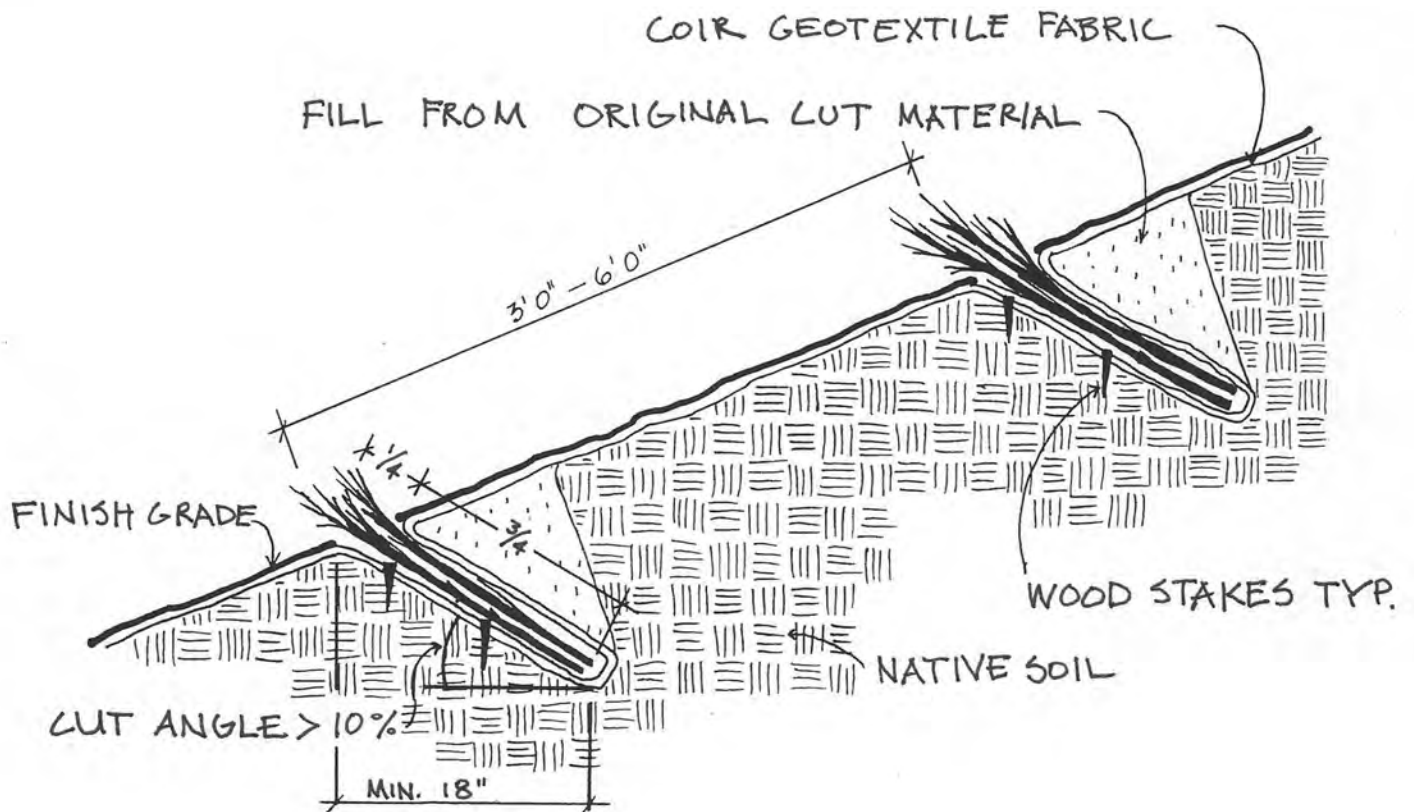
FIGURE 41



BRUSHLAYER CONTRUCTION DETAIL - TYP. PLAN

No Scale

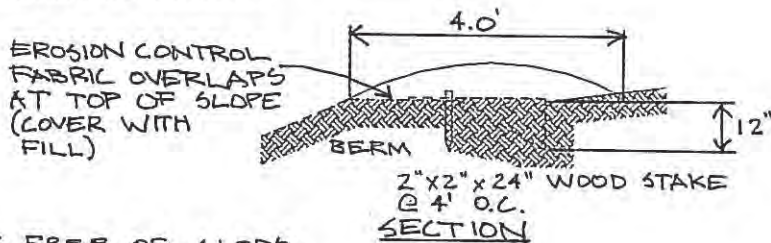
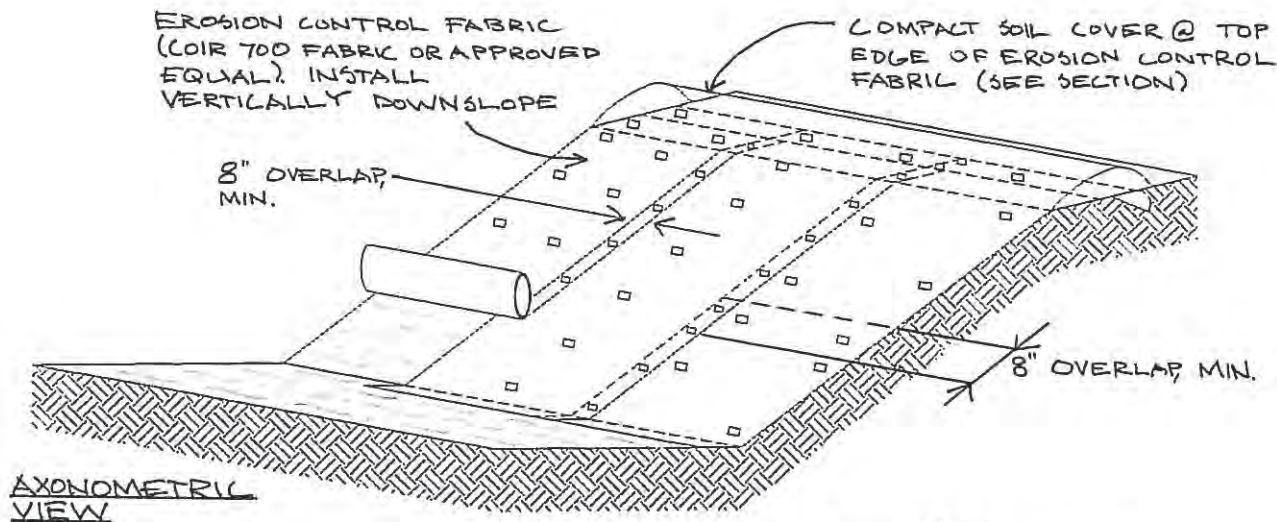
FIGURE 42



BRUSH LAYER PLANTING DETAIL

No Scale

FIGURE 43



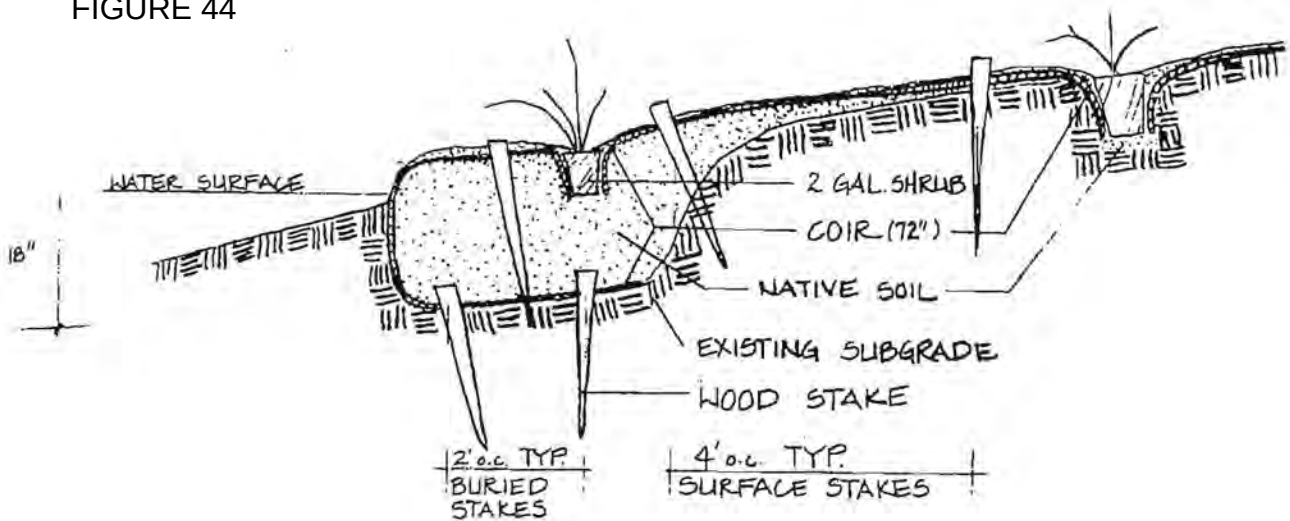
NOTES

1. SLOPE SURFACE SHOULD BE FREE OF CLODS, STICKS, ROCKS, AND GRASS.
2. LAY EROSION CONTROL FABRIC LOOSELY AND STAKE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH THE FABRIC.
3. INSTALL 2" X 2" X 24" LONG STAKES AT 4' O.C. PROVIDE STAKES ON ALL OVERLAPPING AREAS AND EXTEND STAKES 2-3' ABOVE SURFACE OF FABRIC.

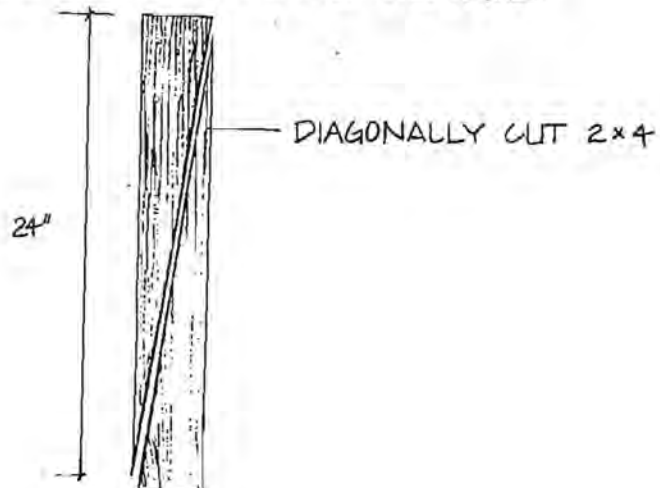
EROSION CONTROL FABRIC INSTALLATION

No Scale

FIGURE 44



WOODEN STAKE DETAIL



COIR - SHRUB PLANTING DETAIL

No Scale

List of Photographs

Photograph 1. Mechanically Cleared Forested Wetlands Along the Route of the “Pioneer Access Road” at Vista del Mar

Photograph 2. Mechanically Cleared Forested Wetlands at Vista del Mar, May 11, 2021

Photograph 3. Mechanically Cleared Forested Wetlands Along the Route of the “Pioneer Access Road” at Vista del Mar

Photograph 4. Vista del Mar “Pioneer Access Road” North End - Large Wood That Was Logged and Mechanically Cleared and Then Deposited in an Unnamed Tributary

Photograph 5. Location of the Vista del Sol Subdivision, Juneau, Alaska

Photograph 6. Vista del Sol Panorama on December 2, 2020

Photograph 7. Vista del Sol Circa December, 2020

Photograph 8. Vista del Sol Northwest Tributary Entering the Site from The North

Photograph 9. Vista del Sol – Northwest Tributary, September 21, 2021

Photograph 10. Vista del Sol Northwest Tributary, September 21, 2021

Photograph 11. Vista del Sol December 10, 2019. Transboundary Sediment Discharges to Glacier Gardens Rainforest Property

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Photograph 13. Unstable Conditions in the Northwest Tributary at Vista del Sol

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Photograph 16. View of the Existing Connection Between S&S Ponds 1 and Pond 2

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Photograph 20. The North End of S&S Pond 3 Has a Shallow and Narrow Connection to Switzer Creek

Photograph 21. Close Up of the Narrow and Shallow Channel Connection Between the North End of S&S Pond 3 and Switzer Creek

Photograph 22. Kingfisher Pond Hydrologic Connection to S&S Pond 2

Photograph 23. Winter View of Kingfisher Pond Connection to the Eastern Portion of Pond 2

Photograph 24 -Views of the Flooded Road that Borders the West Side of S&S Pond 2

Photograph 25. The Central Processing Area at the S&S Ponds

Photograph 26. S&S Pond #3, September 22, 2021

Photograph 1. Mechanically Cleared Forested Wetlands Along the Route of the “Pioneer Access Road” at Vista del Mar. View is downhill and to the south, towards Auke Bay.



Photograph 2. Mechanically Cleared Forested Wetlands at Vista del Mar, May 11, 2021. View is uphill and to the northwest.



Photograph 3. Mechanically Cleared Forested Wetlands Along the Route of the “Pioneer Access Road” at Vista del Mar. View is downhill and to the south.



Photograph 4. Vista del Mar “Pioneer Access Road” North End - Large Wood That Was Logged and Mechanically Cleared and Then Deposited in an Unnamed Tributary to the Traditional Navigable Waters (TNWs) of Auke Bay. Blue arrows indicate the direction of water flows.



Photograph 5. Location of the Vista del Sol Subdivision, Juneau, Alaska (Blue Arrow). North is up. The Traditional Navigable Waters (TNWs) of the Mendenhall Wetlands - Gastineau Channel system are shown in the bottom (south) half of the photograph.



Photograph 6. Vista del Sol Panorama/Mosaic on December 2, 2020.

Notes -

No sediment and erosion control Best Management Practices (BMPs) in place as required by the Alaska Construction General permit



Photographs 7a and 7b. Vista del Sol – Circa December, 2020. Blue arrow in 7a indicates the direction of water flows in the Northwest Tributary channel (flowing south). Photograph 7b shows the check dam installed in the Northwest Tributary.

7a

7b



Photographs 8a and 8b – Vista del Sol – Northwest Tributary Entering the Site from the North – September 21, 2021.
Blue arrows indicate direction of water flows. Yellow arrow indicates the slightly raised catch basin.

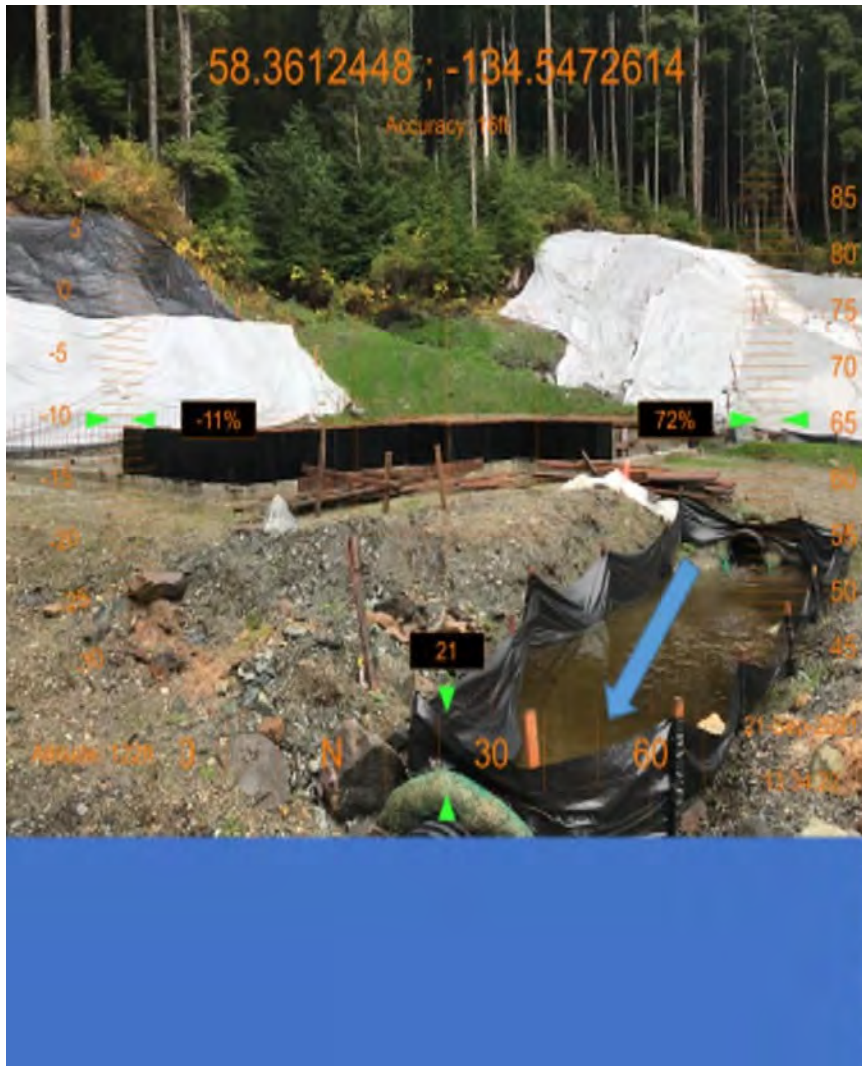
8a

8b

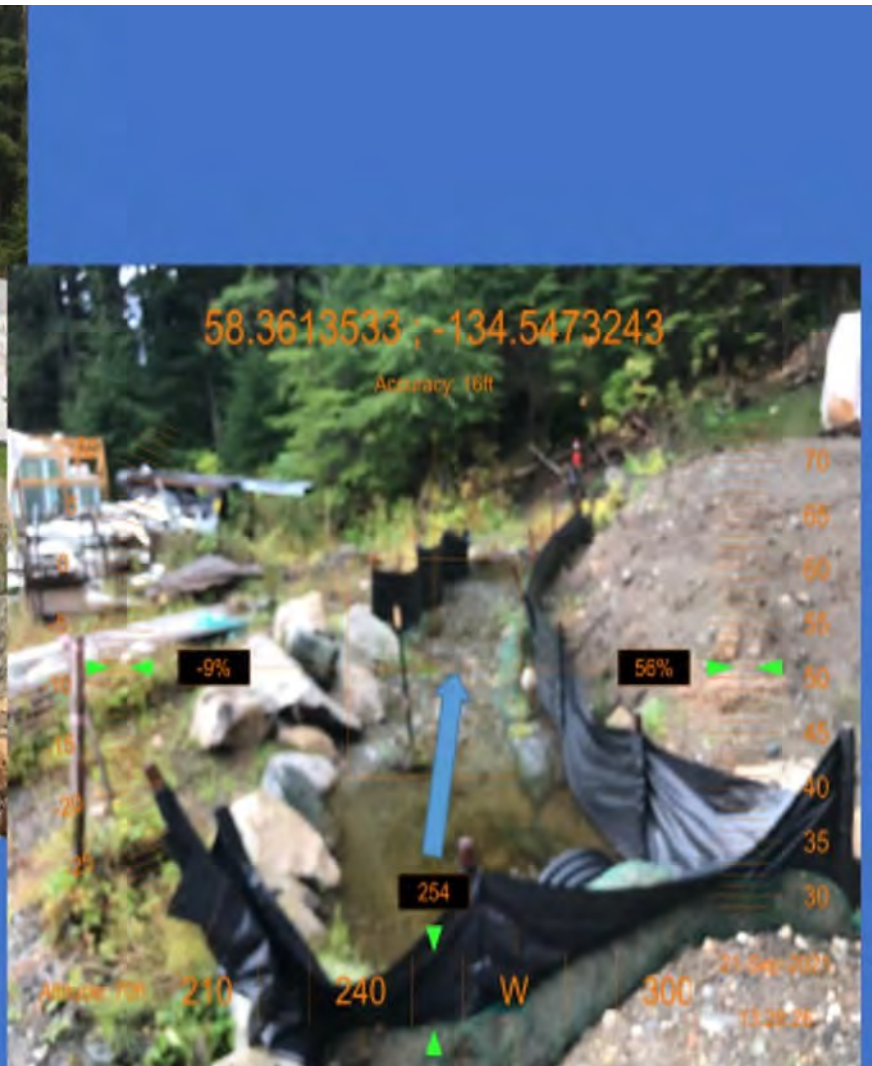


Photograph 9a and 9b Vista del Sol – Northwest Tributary, September 21, 2021

9a



9b



Photographs 10 a and 10 b. Vista del Sol – Northwest Tributary, September 21, 2021. Blue arrows indicate direction of water flows. Red arrow shows avulsion of the northwest channel water flows around the failed check dam.

10a



10b



Photograph 11 – Vista del Sol on December 10, 2019 – Transboundary Sediment Discharge to Glacier Gardens (Source – ADFG)



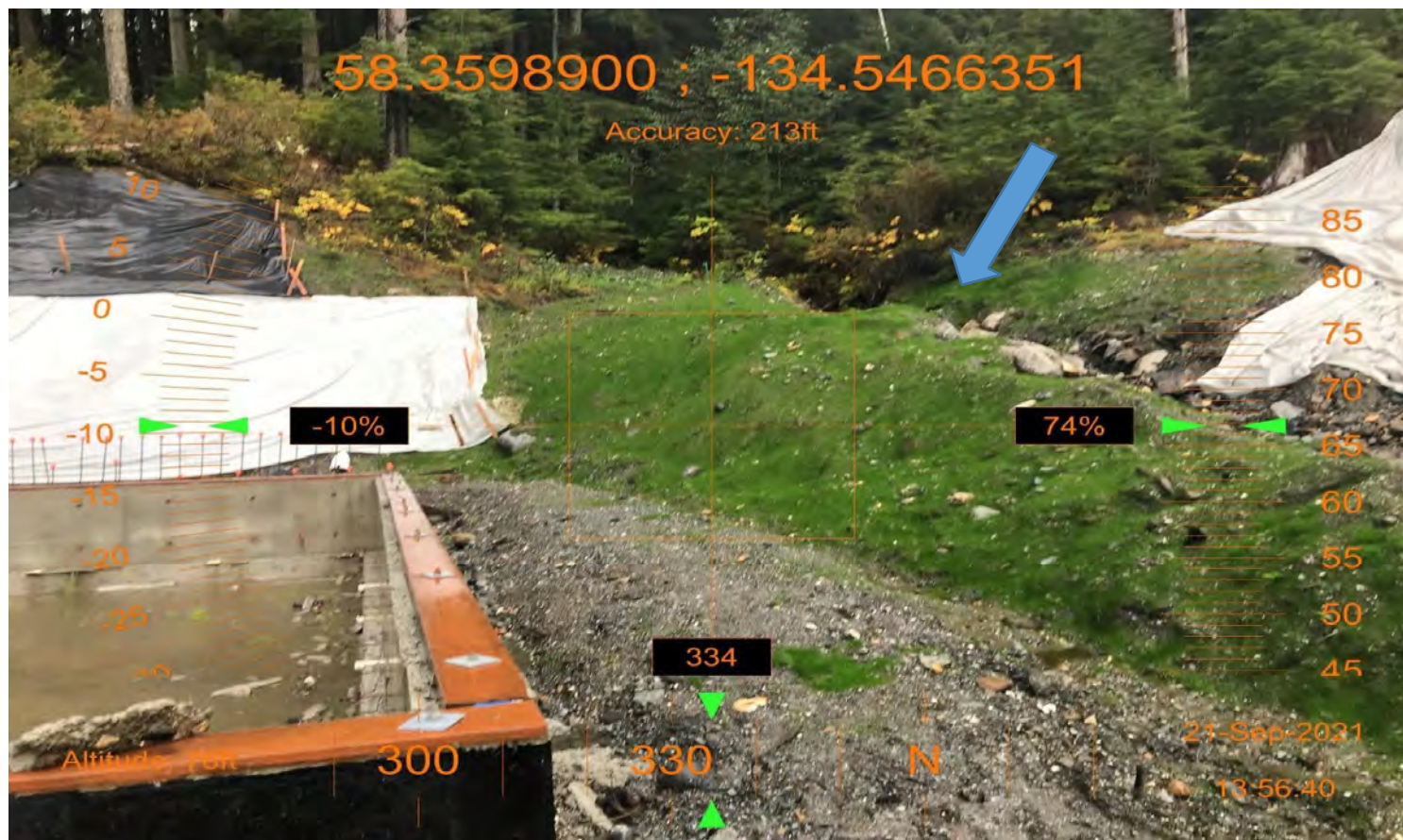
Photograph 12. Vista del Sol - Eastern Tributary Channel Filling and Lateral Confinement from Construction of a Housing Foundation Platform



Photograph 13. Unstable Conditions in the Northwest Tributary at Vista del Sol.

Notes -

- a. Lining materials used are relatively small to medium sized rounded to sub-angular cobbles. The cobbles are not effectively compacted or embedded into the channel banks and channel bottom.
- b. The elevation of the channel is above the elevation of the house foundation (Blue Arrow)



Photograph 14. Improvised and Failing Check Dam Installed in the Northwest Tributary, Vista del Sol

Notes:

- a. Short-Circuiting (avulsion) of water slows around the dam and associated down cutting and erosion (Blue Arrow)
- b. Poorly Maintained collateral BMPs (e.g. Sediment Fences Not Toed In, No Bank Stabilizations Above the Sediment Fence)(Orange Arrow)



Photograph 15. Overview of the S&S Ponds, March 30, 2020



Photograph 16. View of the Existing Connection Between S&S Ponds 1 (to the left) and Pond 2 (to the right). View is to the southwest, and water flow crossing the road is from right to left in the photograph.



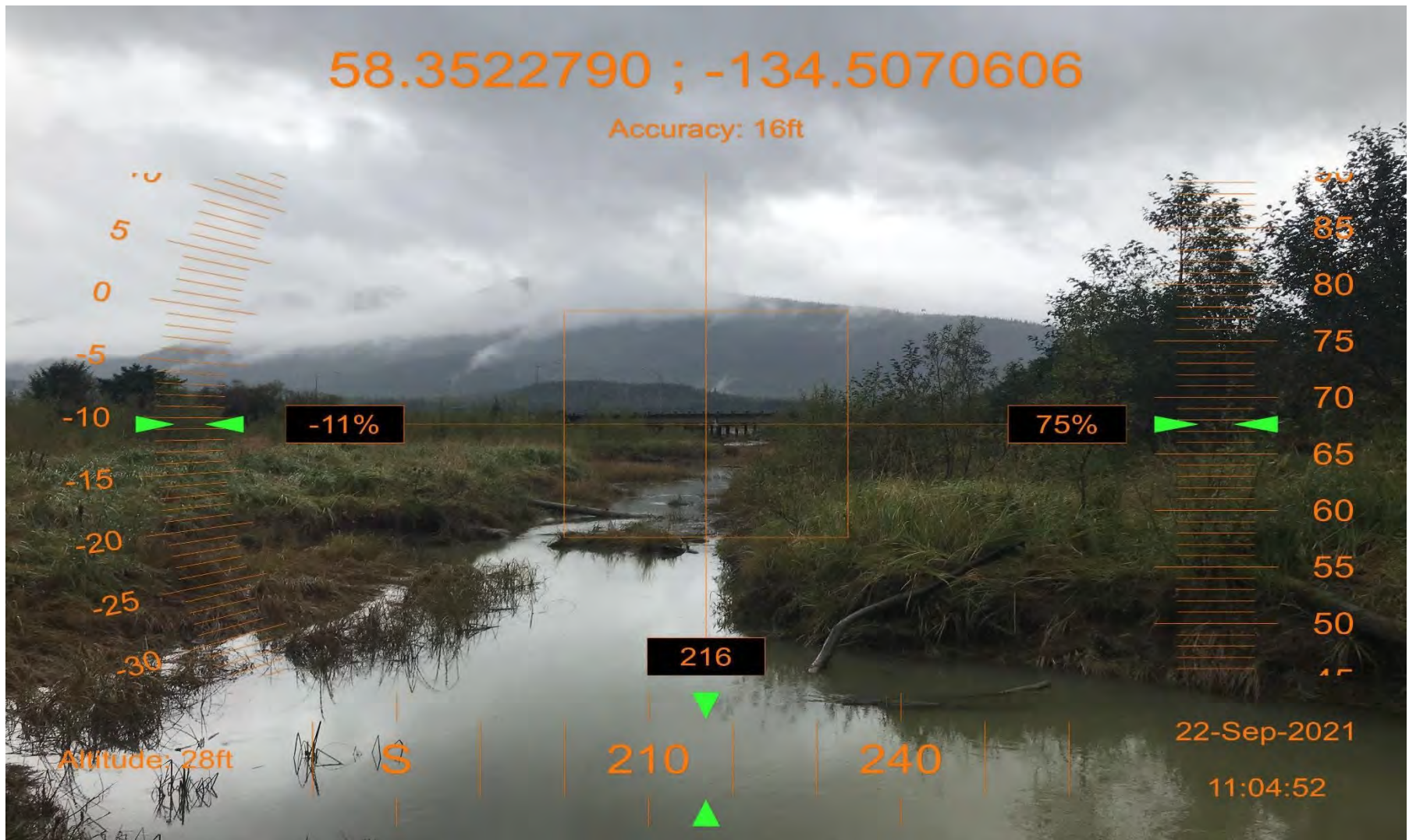
Photograph 17. View of the Connection Between S&S Pond 2 (to the left) and Pond 3 (to the right). View is to the southwest and water flows cross the road from right to left in the photograph.



Photograph 18. The Downstream End of the Culvert (Blue Arrow) Connecting the South End of S&S Pond 1 to Lemon Creek.



Photograph 19. Tidally Influenced Lemon Creek Back Channel That Connects the Downstream End of the S&S Pond 1 Culvert to the Main Channel System of Lemon Creek. View is downstream and to the southwest.



Photograph 20. The North End of S&S Pond 3 Has a Shallow and Narrow and possibly Connection to Switzer Creek (Blue Arrow).



Photograph 21. Close Up of the Narrow and Shallow Channel Connection Between the North End of S&S Pond 3 and Switzer Creek



Photographs 22 a, b, and c. Kingfisher Pond Hydrologic Connection to S&S Pond 2 (Blue Arrows).

22 a - Overview



22 b - Hydrologic Connection of Kingfisher Pond to Pond 2 On Duran Property.
Note – Occlusion of connection by reed canary grass and beaver activity



22 c - View Towards Pond 2



Photograph 23. Winter View of Kingfisher Pond Connection to the Eastern Portion of Pond 2. The Blue Arrow indicates the location of the existing narrow and shallow connection between Kingfisher Pond and S&S Pond 2. Access to the area of the connection can be via the existing road that travels along the southern perimeter of Kingfisher Pond.



Photograph 24. a and b. Views of the Flooded Road that Borders the West Side of S&S Pond 2. These flooded conditions and existing grades potentially will trap fish and other aquatic species as water levels recede.

24 a



24 b



Photographs 25 a and b. The Central Processing Area at the S&S Ponds 26

25 a



25 b



Photographs 26a and 26b. S&S Pond #3, September 22, 2021.

Note – Steep and unstable pond banks with little or no vegetation, so erosion and sediment control BMPs

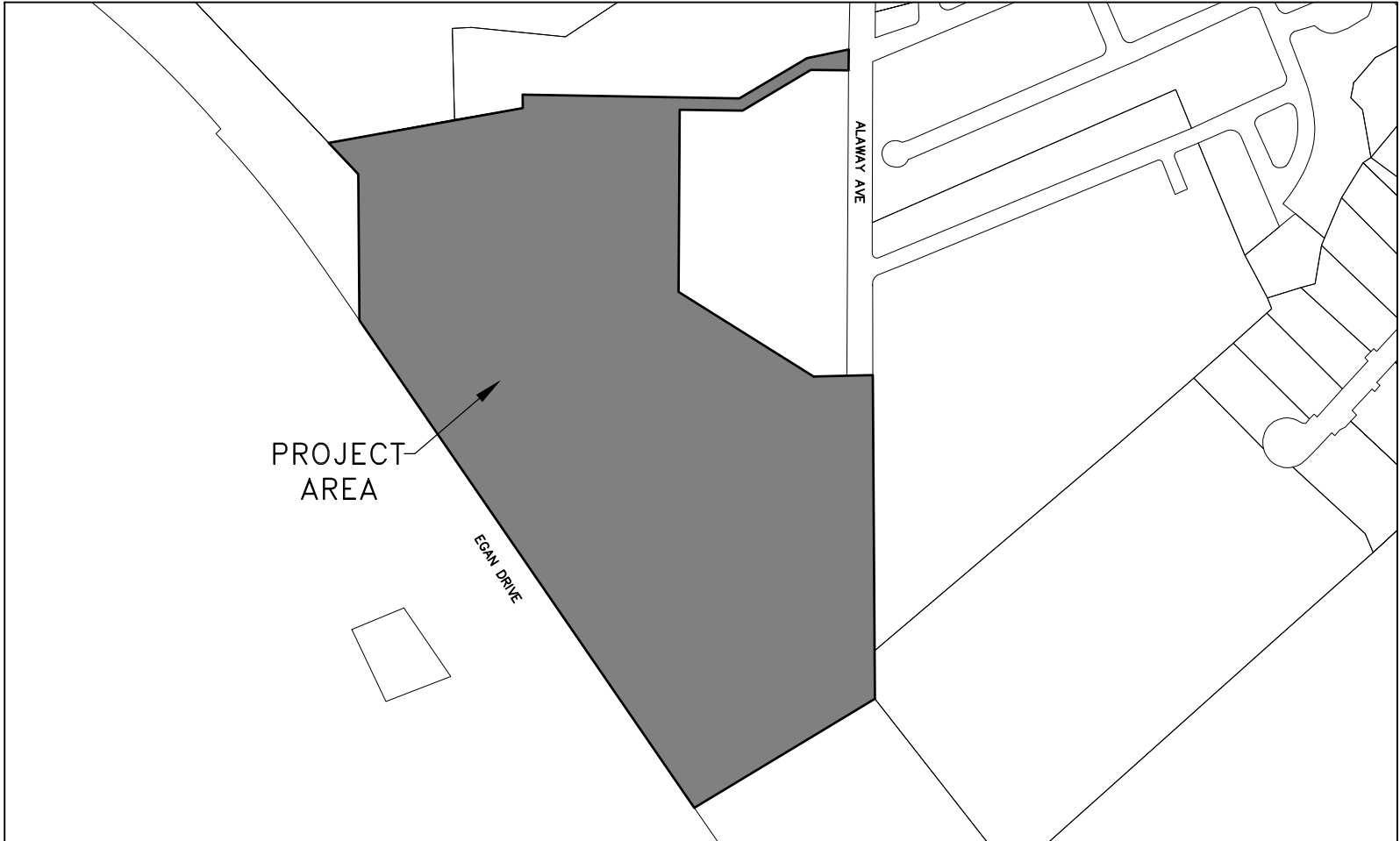
26a

26b



S&S PONDS RESTORATION

JUNEAU, AK



PROJECT LOCATION MAP
NTS

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	LEGEND, ABBREVIATIONS & GENERAL NOTES
3	SITE EXISTING CONDITIONS
4	PLAN OVERVIEW
5	LEMON CREEK CONNECTION EXISTING CONDITIONS
6	LEMON CREEK CONNECTION DEMO
7	LEMON CREEK CONNECTION PLAN
8	LEMON CREEK CONNECTION DETAILS
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22	SURVEY CONTROL



VICINITY MAP
NTS

PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY



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Document 82-3

Filed 07/30/26 Page 1 of 21

S&S PONDS
RESTORATION
DURAN CONSTRUCTION

COVER SHEET

SHEET NUMBER	
1	OF
22	

LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
BERM, TOE			
HIGHEST ASTRONOMICAL TIDE			
MEAN HIGH WATER			
PROPERTY EASEMENT LINE			
PROPERTY LINE			
POND, SURFACE			

ABBREVIATIONS

CBJ	CITY & BOROUGH OF JUNEAU
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CTE	CONNECT TO EXISTING
DIA	DIAMETER
EL	ELEVATION
EX	EXISTING
FG	FINISHED GRADE
GP	GRADE POINT
HAT	HIGHEST ASTRONOMICAL TIDE
INV	INVERT
LT	LEFT
MHW	MEAN HIGH WATER
MIN	MINIMUM
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
RT	RIGHT
ROW	RIGHT-OF-WAY
STA	STATION
STD	STANDARD
TYP	TYPICAL

GENERAL NOTES

1.

CALL 586-1333 BEFORE YOU DIG FOR UNDERGROUND POWER, TELEPHONE AND CABLE. CALL 811 ALASKA DIGLINE BEFORE YOU DIG FOR UNDERGROUND ACS & GCI. LOCATIONS AND ELEVATION OF EXISTING UNDERGROUND WATER, SEWER, POWER, TELEPHONE AND CABLE TELEVISION SHOWN ON THE PLANS WERE DERIVED FROM CBJ AS-BUILTS AND FIELD LOCATES. THE ACTUAL LOCATION OF UTILITIES MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ANY DAMAGE TO THE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

2.

THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) HAS IDENTIFIED ONE "ACTIVE" CONTAMINATED SITE WITHIN 1,500 FEET OF THE PROJECT LIMITS. THE ACTIVE CONTAMINATED SITE IS AT 5165 GLACIER HWY (GAS N GO), SEE DEC.ALASKA.GOV FOR MORE INFO. THERE ARE NO SITES LISTED AS "INSTITUTIONAL CONTROL" WITHIN 1,500 OF THE PROJECT LIMITS. THERE ARE SEVERAL SITES LISTED AS "CLEANUP COMPLETE" WITHIN 1,500 FEET OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSULT DEC AND OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK.

3.

FINISHED GRADE AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. LOCATION OF PROPOSED WATER, SEWER AND STORM DRAINAGE FACILITIES ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.

4.

THE CONTRACTOR SHALL PERFORM A CLOSED LEVEL LOOP THROUGH ALL TBM'S AS LISTED HEREON TO VERIFY ELEVATIONS PRIOR TO BEGINNING ANY WORK.

5.

CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND REMONUMENT AFTER SURFACING IS REPLACED. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.

6.

USING DOCUMENTED HISTORY OF ACTIVITIES AT THE SITE, CONSTITUENTS LIKELY TO BE FOUND WERE IDENTIFIED AND THE PROCESSING AREAS WERE SAMPLED FOR THOSE CONSTITUENTS. FIELD SCREENING AND LABORATORY ANALYSIS DEMONSTRATED THAT ALL ANALYTES AT ALL SAMPLING LOCATIONS WERE WELL BELOW THE STATE OF ALASKA, DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S MOST STRINGENT CLEAN-UP LEVELS." (NORTECH, SAMPLING AND ANALYSIS REPORT - 6225 ALAWAY ROAD, 9 OCT. 2024).

7.

ALL ONSITE BERMS NOT SHOWN REMOVED IN THESE PLANS SHALL BE RETAINED. WEED CONTROL SHALL BE PERFORMED ON ALL REMAINING BERMS. SEE DETAIL 2/9 FOR WEED CONTROL NOTES.

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S&S PONDS RESTORATION
DURAN CONSTRUCTION

LEGEND, ABBREVIATIONS & NOTES

SHEET NUMBER

2

OF

22

Case 1:22-cv-00091-ACP

September 16, 2025

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SHEET NOTES:

- 1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
- 2. AERIAL PHOTO IS 2024 BING MAP SCALED TO THE SITE AND DOES NOT REPRESENT THE EXACT LOCATION OF EXISTING FEATURES.

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S&S PONDS RESTORATION
DURAN CONSTRUCTION

SITE EXISTING CONDITIONS

SHEET NUMBER
3
OF
22



- SHEET NOTES:**
- 1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 - 2. AERIAL PHOTO IS 2024 BING MAP SCALED TO THE SITE AND DOES NOT REPRESENT THE EXACT LOCATION OF EXISTING FEATURES.
 - 3. ADD COMPREHENSIVE BMPS AND WATER MANAGEMENT DETAILS AND CALLOUTS TO THIS SHEET.

PRELIMINARY

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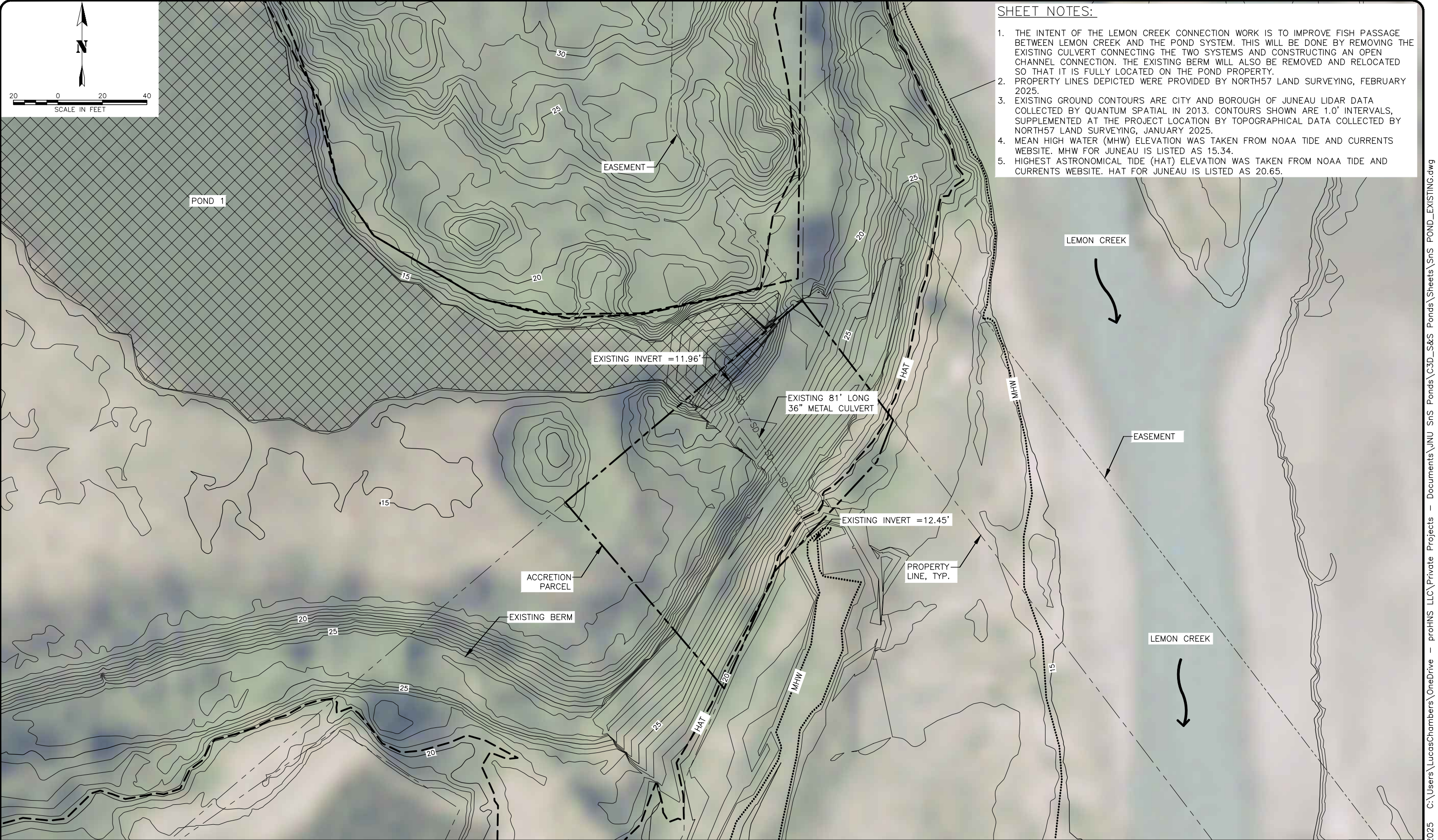
S&S PONDS RESTORATION

Document 82-3

Filed 07/30/26 Page 4 of 21

DURAN CONSTRUCTION

SHEET NUMBER	
4	OF
22	



- SHEET NOTES:**
1. THE INTENT OF THE LEMON CREEK CONNECTION WORK IS TO IMPROVE FISH PASSAGE BETWEEN LEMON CREEK AND THE POND SYSTEM. THIS WILL BE DONE BY REMOVING THE EXISTING CULVERT CONNECTING THE TWO SYSTEMS AND CONSTRUCTING AN OPEN CHANNEL CONNECTION. THE EXISTING BERM WILL ALSO BE REMOVED AND RELOCATED SO THAT IT IS FULLY LOCATED ON THE POND PROPERTY.
 2. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 3. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
 4. MEAN HIGH WATER (MHW) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. MHW FOR JUNEAU IS LISTED AS 15.34.
 5. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. HAT FOR JUNEAU IS LISTED AS 20.65.

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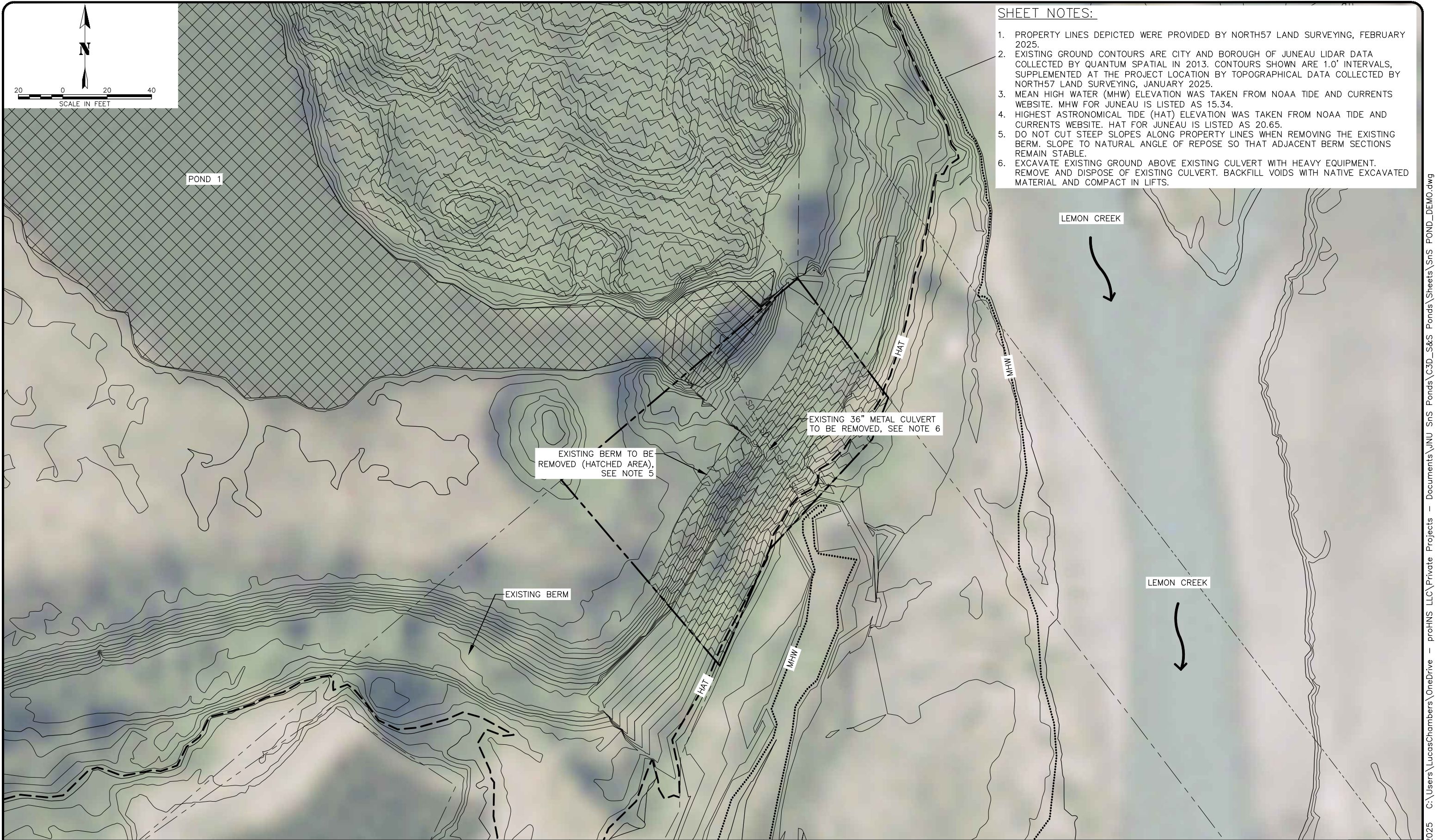
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S&S PONDS
RESTORATION
DURAN CONSTRUCTION

LEMON CREEK
CONNECTION EXISTING
CONDITIONS

SHEET NUMBER	
5	OF
22	



- SHEET NOTES:
1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
 3. MEAN HIGH WATER (MHW) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. MHW FOR JUNEAU IS LISTED AS 15.34.
 4. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. HAT FOR JUNEAU IS LISTED AS 20.65.
 5. DO NOT CUT STEEP SLOPES ALONG PROPERTY LINES WHEN REMOVING THE EXISTING BERM. SLOPE TO NATURAL ANGLE OF REPOSE SO THAT ADJACENT BERM SECTIONS REMAIN STABLE.
 6. EXCAVATE EXISTING GROUND ABOVE EXISTING CULVERT WITH HEAVY EQUIPMENT. REMOVE AND DISPOSE OF EXISTING CULVERT. BACKFILL VOIDS WITH NATIVE EXCAVATED MATERIAL AND COMPACT IN LIFTS.

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#100662

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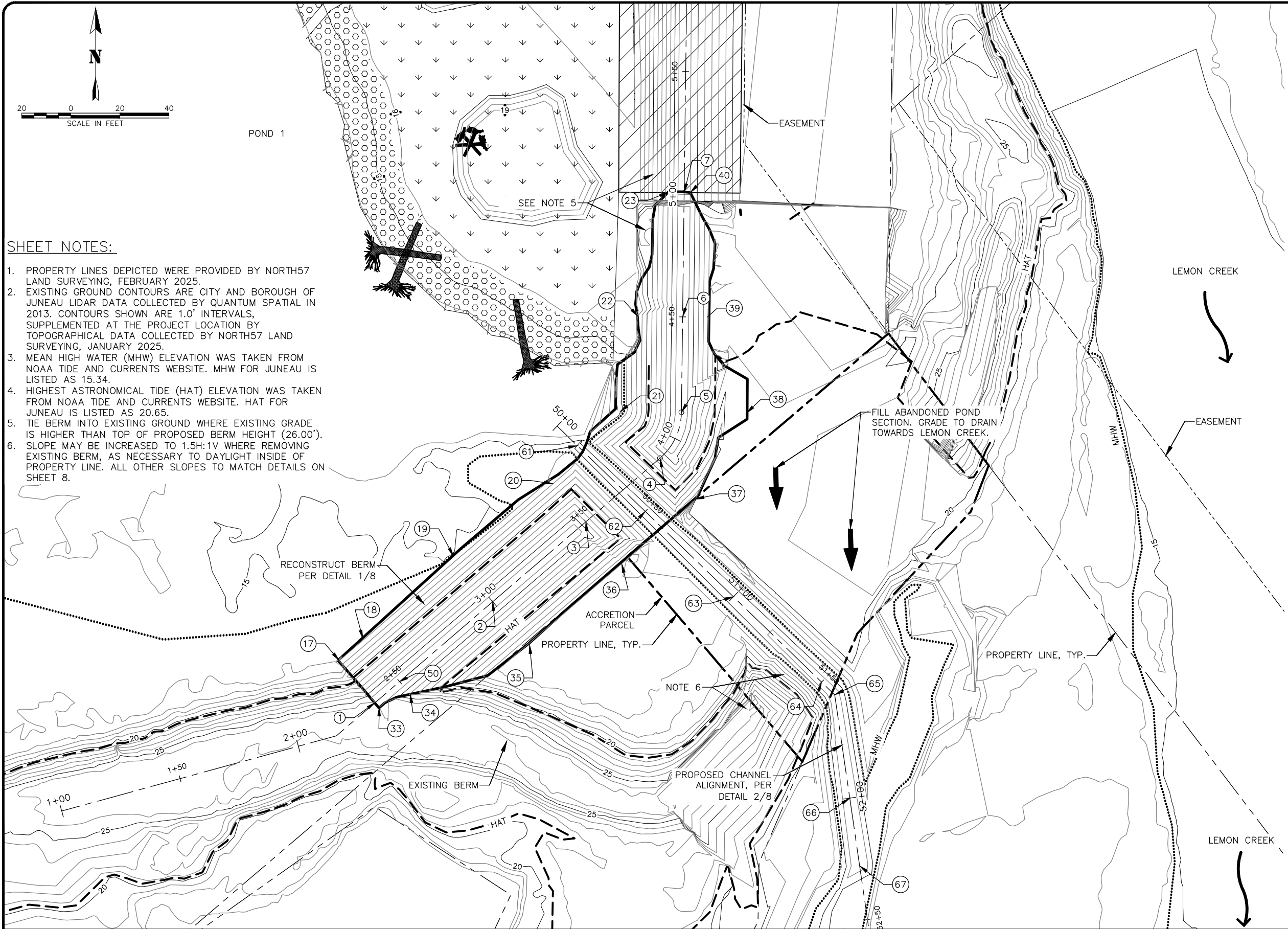
S&S PONDS
RESTORATION

Document 82-3

DURAN CONSTRUCTION

LEMON CREEK
CONNECTION DEMO

SHEET NUMBER	
6	OF
22	



SHEET NOTES:

1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
3. MEAN HIGH WATER (MHW) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. MHW FOR JUNEAU IS LISTED AS 15.34.
4. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. HAT FOR JUNEAU IS LISTED AS 20.65.
5. TIE BERM INTO EXISTING GROUND WHERE EXISTING GRADE IS HIGHER THAN TOP OF PROPOSED BERM HEIGHT (26.00').
6. SLOPE MAY BE INCREASED TO 1.5H:1V WHERE REMOVING EXISTING BERM, AS NECESSARY TO DAYLIGHT INSIDE OF PROPERTY LINE. ALL OTHER SLOPES TO MATCH DETAILS ON SHEET 8.

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEV.	REMARKS
1	2381819.19	2524268.67	26.00	BERM, TOP
2	2381860.24	2524316.54	26.00	BERM, TOP
3	2381892.80	2524354.50	24.70	BERM, TOP
4	2381918.75	2524384.76	24.63	BERM, TOP
5	2381937.41	2524393.48	26.00	BERM, TOP
6	2381976.31	2524393.96	26.00	BERM, TOP
7	2382027.00	2524394.59	26.00	BERM, TOP
17	2381836.28	2524254.01	15.99	BERM, TOE
18	2381845.13	2524263.64	15.77	BERM, TOE
19	2381878.85	2524300.58	14.99	BERM, TOE
20	2381908.29	2524341.21	17.05	BERM, TOE
21	2381937.72	2524368.48	14.75	BERM, TOE
22	2381976.54	2524375.73	18.13	BERM, TOE
23	2382027.08	2524388.14	24.02	BERM, TOE
33	2381817.28	2524270.31	26.01	BERM, TOE
34	2381822.67	2524282.90	23.95	BERM, TOE
35	2381842.70	2524331.59	15.69	BERM, TOE
36	2381875.72	2524369.15	16.00	BERM, TOE
37	2381902.04	2524399.09	16.24	BERM, TOE
38	2381937.08	2524419.98	14.00	BERM, TOE
39	2381976.19	2524403.98	22.24	BERM, TOE
40	2382026.97	2524397.12	26.00	BERM, TOE
50	2381827.69	2524278.59	26.00	BERM, TOP
61	2381923.82	2524351.07	15.50	DITCH, BOT
62	2381897.04	2524378.74	15.49	DITCH, BOT
63	2381862.27	2524414.67	15.47	DITCH, BOT
64	2381827.50	2524450.60	15.45	DITCH, BOT
65	2381822.33	2524455.94	15.44	DITCH, BOT
66	2381780.21	2524462.09	15.43	DITCH, BOT
67	2381752.62	2524466.12	15.45	DITCH, BOT

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CHECKED BY:	STAFF

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Page 7 of 21

S&S PONDS RESTORATION

DURAN CONSTRUCTION

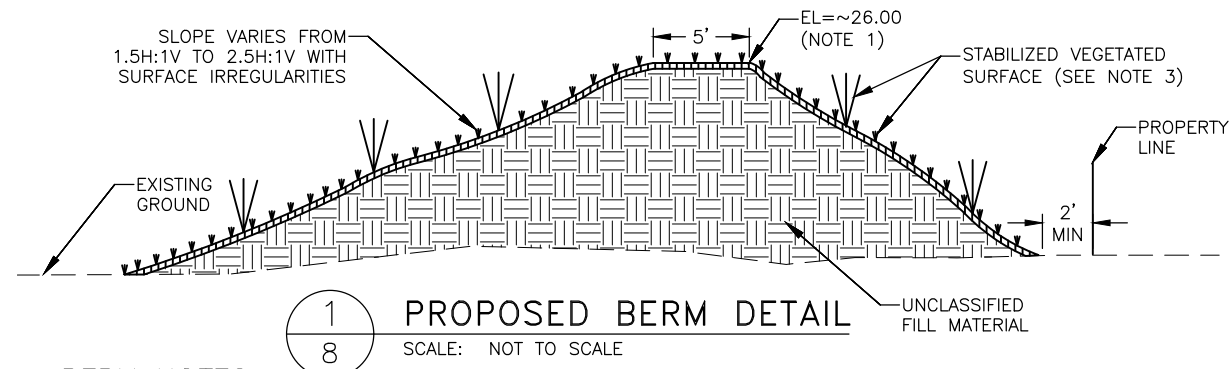
LEMON CREEK CONNECTION PLAN

SHEET NUMBER

7

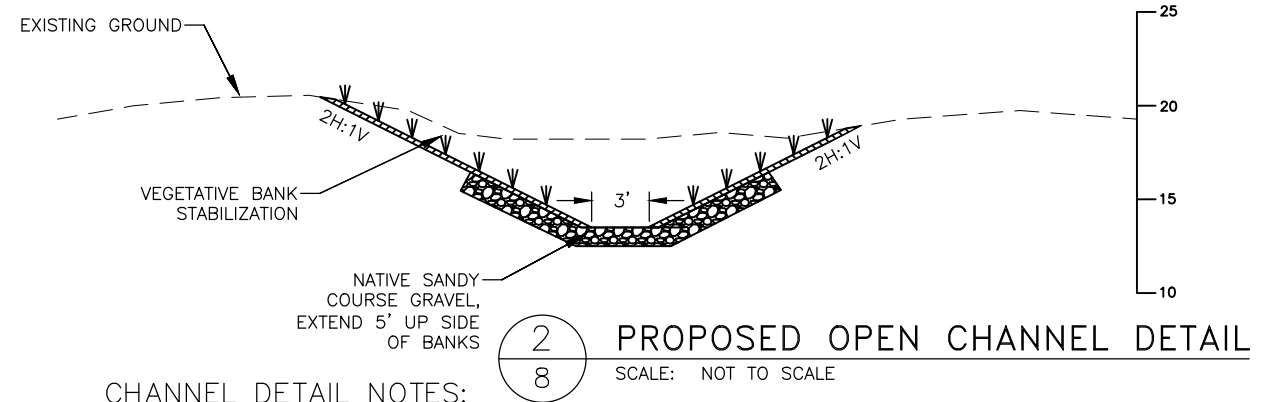
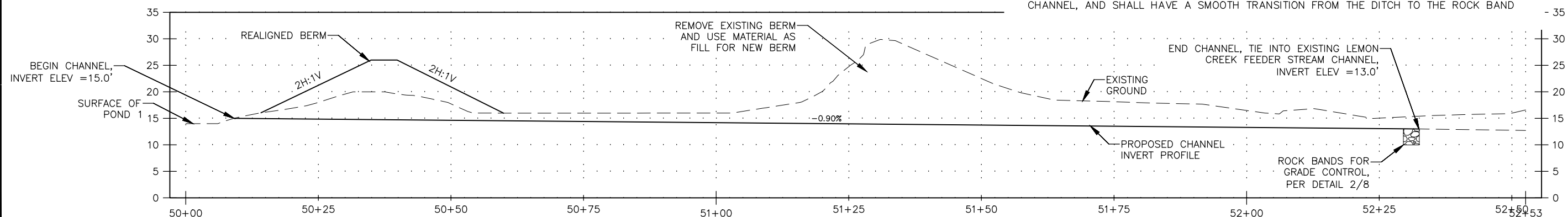
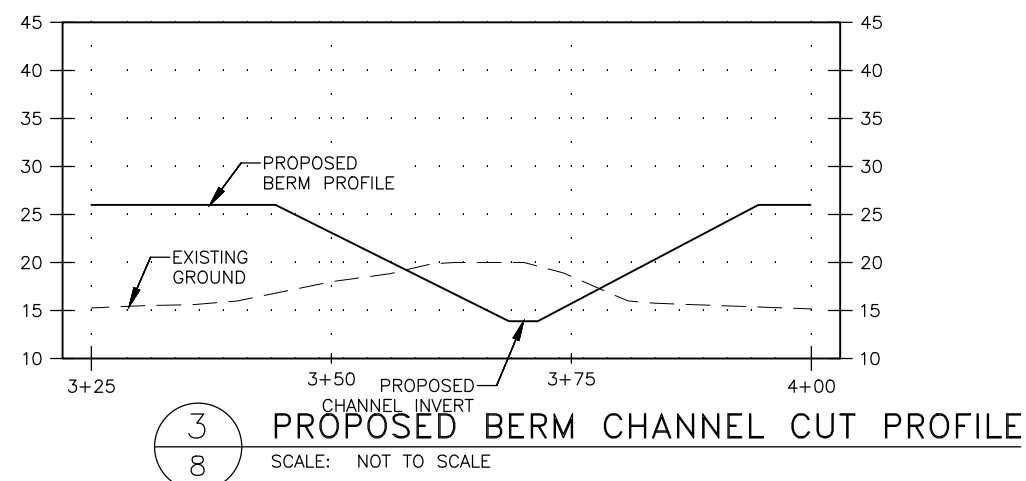
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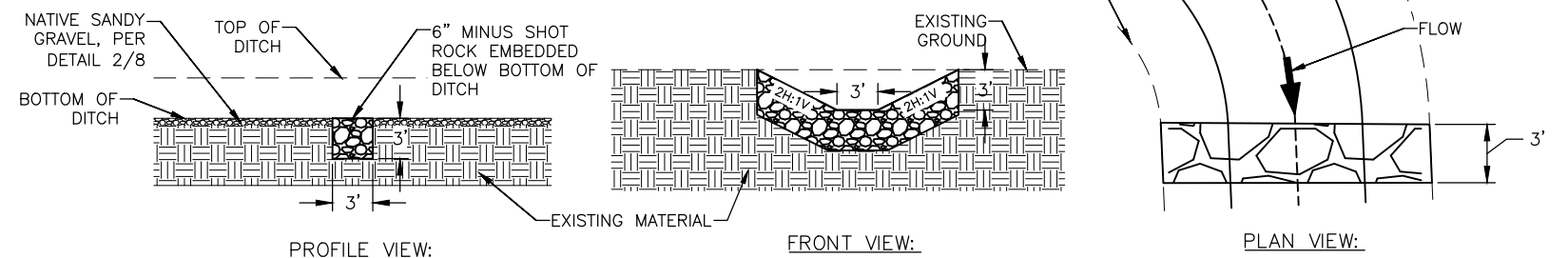
BERM NOTES:

1. BERM HEIGHT VARIES STATION-TO-STATION. TOP OF BERM ELEVATION = 26.00' ±0.50'
2. STABILIZE BERM WITH VEGETATION.
3. REMOVE NON-NATIVE WEEDS AND PLANT NATIVE TREES, SHRUBS, AND UNDERGROWTH SPECIES. PLANT SCHEDULE TO BE PROVIDED BY OTHERS.
4. MATERIAL FOR BERM SHALL COME FROM STOCKPILE AREA/EXISTING BERM REMOVAL.



CHANNEL DETAIL NOTES:

1. EXCAVATION LIMITS VARY STATION-TO-STATION ALONG PROPOSED CHANNEL. SEE PLAN VIEW ON THIS SHEET FOR APPROXIMATE LIMITS OF EXCAVATION. CONSTRUCTED SLOPES SHALL BE 2H:1V OR FLATTER.
2. ALL VEGETATIVE STAKE DETAILS (VARIETY, SPACING, ETC.) TO BE PROVIDED BY A QUALIFIED BIOLOGIST. SPACING SHOWN ON THIS DETAIL IS CONCEPTUAL.



ROCK BAND DETAIL NOTES:

1. ROCK BANDS SHALL BE CONSTRUCTED WITH THE SAME CROSS-SECTION SHAPE AS THE OPEN CHANNEL, AND SHALL HAVE A SMOOTH TRANSITION FROM THE DITCH TO THE ROCK BAND

PRELIMINARY

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Case 1:22-cv-00091-ACP Document 82-3

S&S PONDS
RESTORATION
DURAN CONSTRUCTION

LEMON CREEK
CONNECTION DETAILS

SHEET NUMBER
8
OF
22



- SHEET NOTES:**
1. THE INTENT OF THE STOCKPILE WORK IS TO REMOVE EXISTING ROCK STOCKPILES FROM THE AREA AND ESTABLISH EMERGENT WETLANDS AND ENHANCE POND SHORELINE HABITAT STRUCTURAL COMPLEXITY.
 2. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 3. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
 4. MEAN HIGH WATER (MHW) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. MHW FOR JUNEAU IS LISTED AS 15.34.
 5. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. HAT FOR JUNEAU IS LISTED AS 20.65.

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S&S PONDS RESTORATION

Case 1:22-cv-00091-ACP Document 82-3 Filed 07/30/26 Page 9 of 21

DURAN CONSTRUCTION

SHEET NUMBER	
9	OF
22	



- SHEET NOTES:**
- 1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
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PRELIMINARY

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proHNS LLC
CERTIFICATE OF AUTHORIZATION
#100662

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DESIGNED BY: L. CHAMBERS
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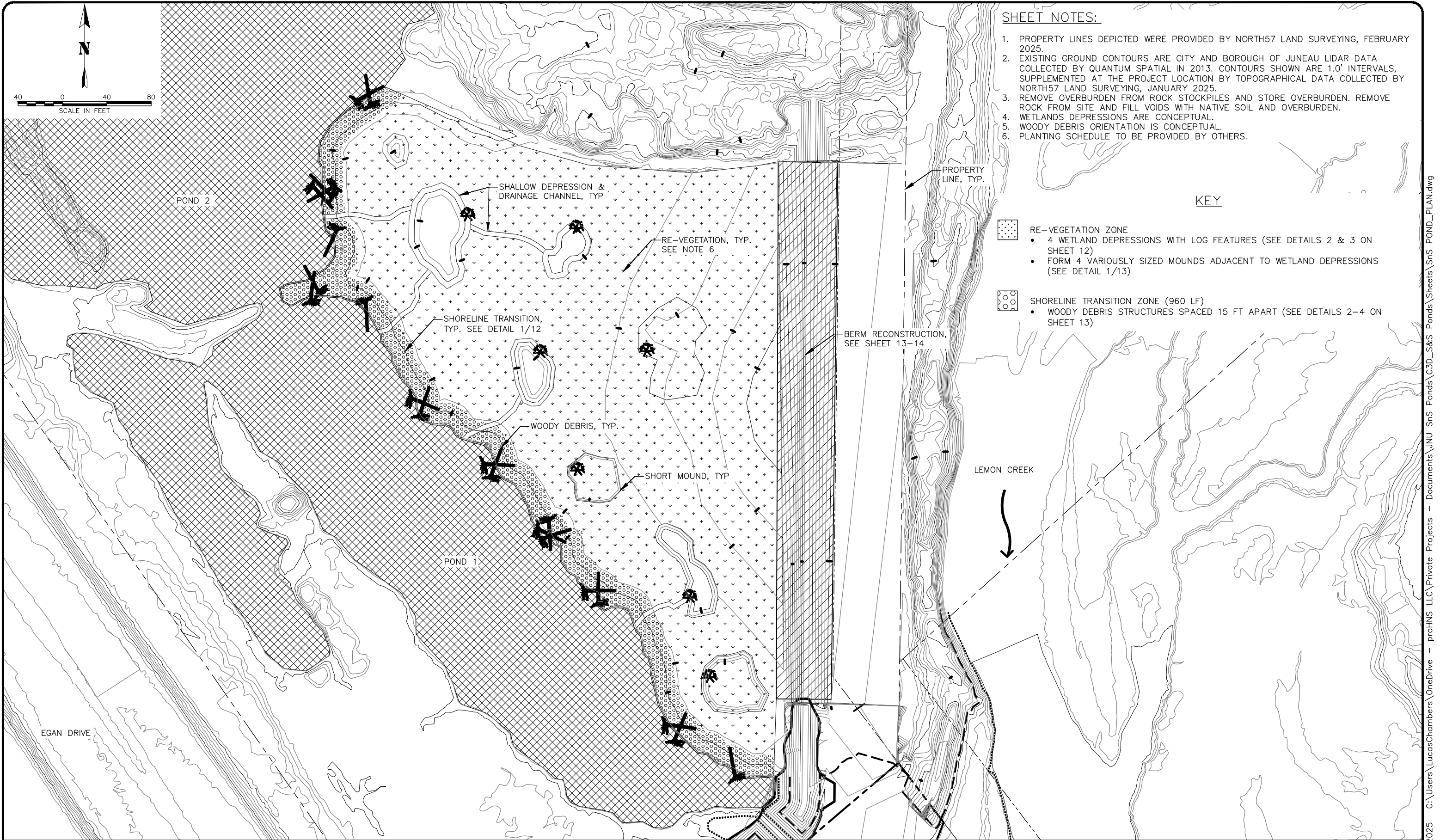
S&S PONDS RESTORATION

DURAN CONSTRUCTION

STOCKPILE DEMO

SHEET NUMBER	
10	OF
22	

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- SHEET NOTES:**
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 3. REMOVE OVERBURDEN FROM ROCK STOCKPILES AND STORE OVERBURDEN. REMOVE ROCK FROM SITE AND FILL VOIDS WITH NATIVE SOIL AND OVERBURDEN.
 4. WETLANDS DEPRESSIONS ARE CONCEPTUAL.
 5. WOODY DEBRIS ORIENTATION IS CONCEPTUAL.
 6. PLANTING SCHEDULE TO BE PROVIDED BY OTHERS.

KEY

-  RE-VEGETATION ZONE
- 4 WETLAND DEPRESSIONS WITH LOG FEATURES (SEE DETAILS 2 & 3 ON SHEET 12)
 - FORM 4 VARIOUSLY SIZED MOUNDS ADJACENT TO WETLAND DEPRESSIONS (SEE DETAIL 1/13)
-  SHORELINE TRANSITION ZONE (960 LF)
- WOODY DEBRIS STRUCTURES SPACED 15 FT APART (SEE DETAILS 2-4 ON SHEET 13)

PRELIMINARY

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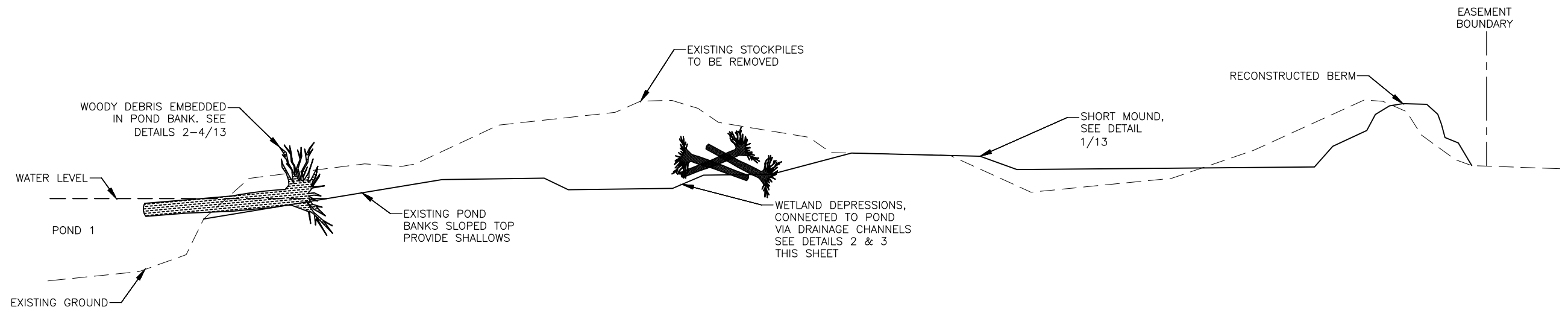


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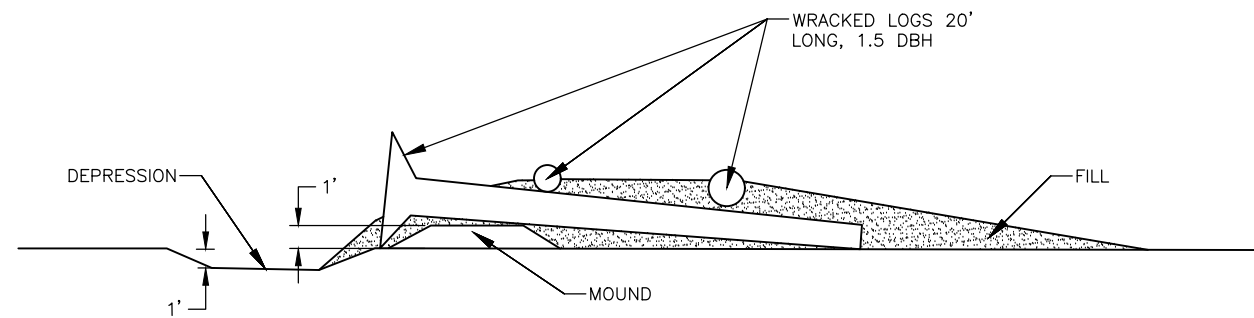
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DESIGNED BY: L. CHAMBERS	
CHECKED BY: STAFF	

Document 82-3 Filed 07/30/26 Page 11 of 21	SHEET NUMBER 11 OF 22	

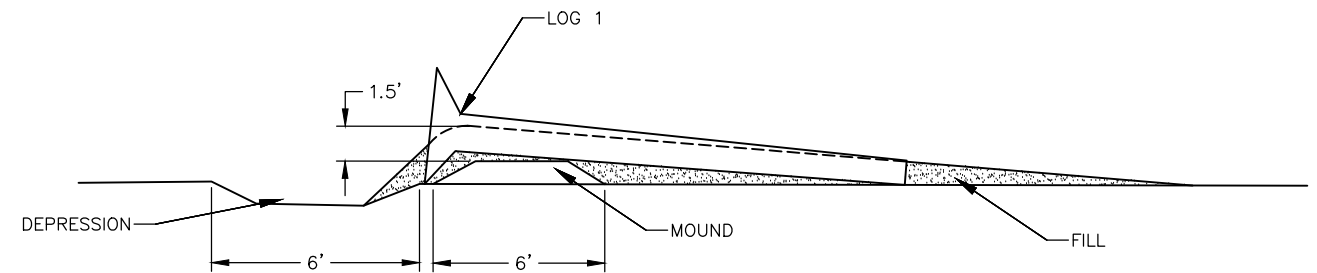
STOCKPILE PLAN



1 STOCKPILE SECTION VIEW
12 SCALE: NOT TO SCALE



2 TRIPLE LOG WETLAND DEPRESSION DETAIL
12 SCALE: NOT TO SCALE



3 SINGLE LOG WETLAND DEPRESSION DETAIL
12 SCALE: NOT TO SCALE

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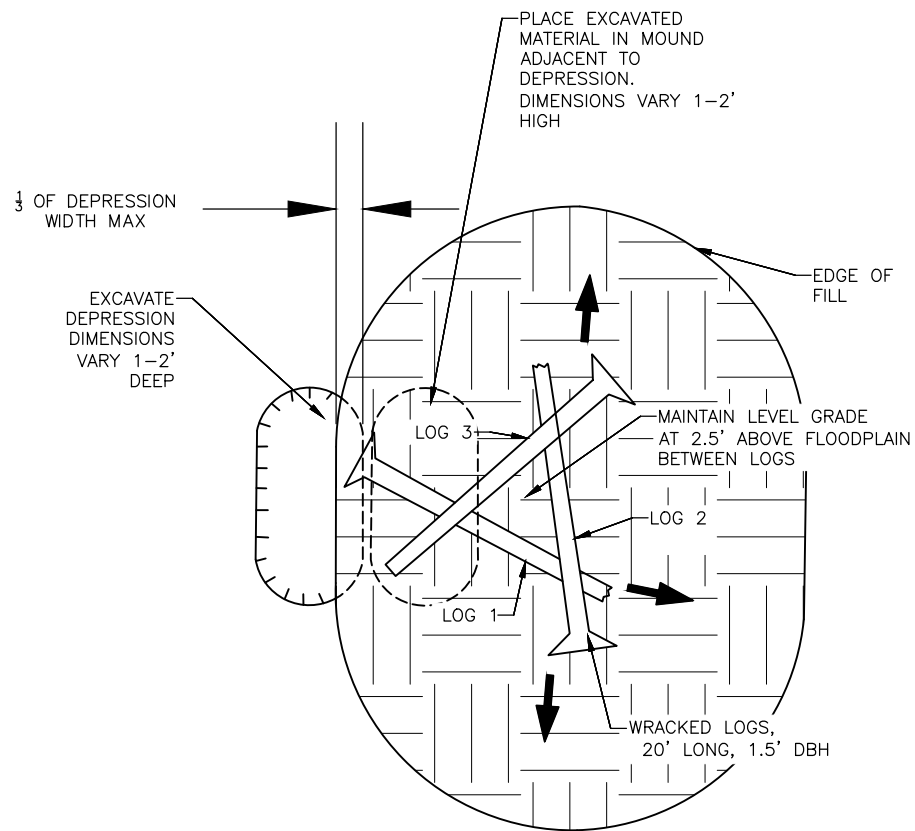
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S&S PONDS
RESTORATION
DURAN CONSTRUCTION

STOCKPILE DETAILS 1

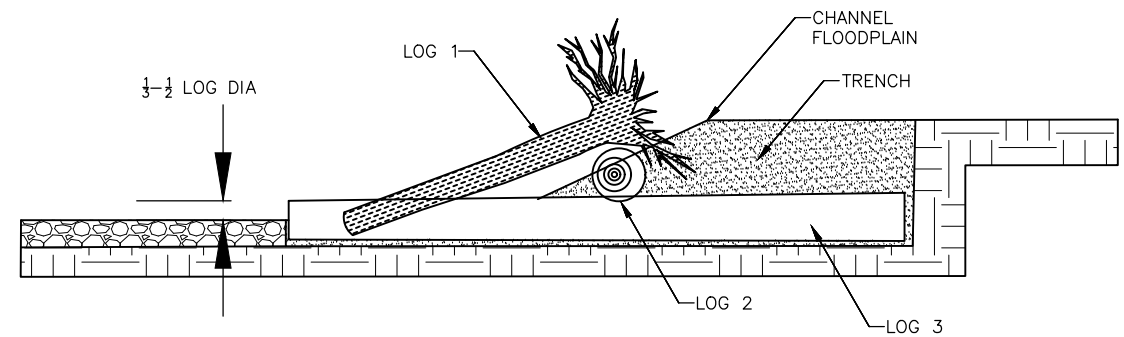
SHEET NUMBER	
12	OF
22	



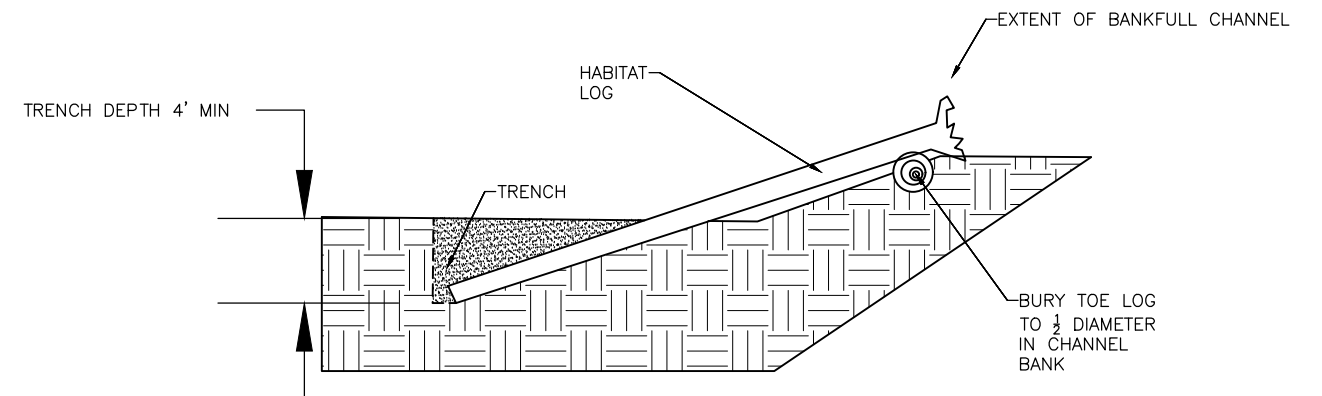
1
13 **MOUND AND DEPRESSION WITH WOOD PLAN VIEW**
SCALE: NOT TO SCALE

MOUND DETAIL NOTES:

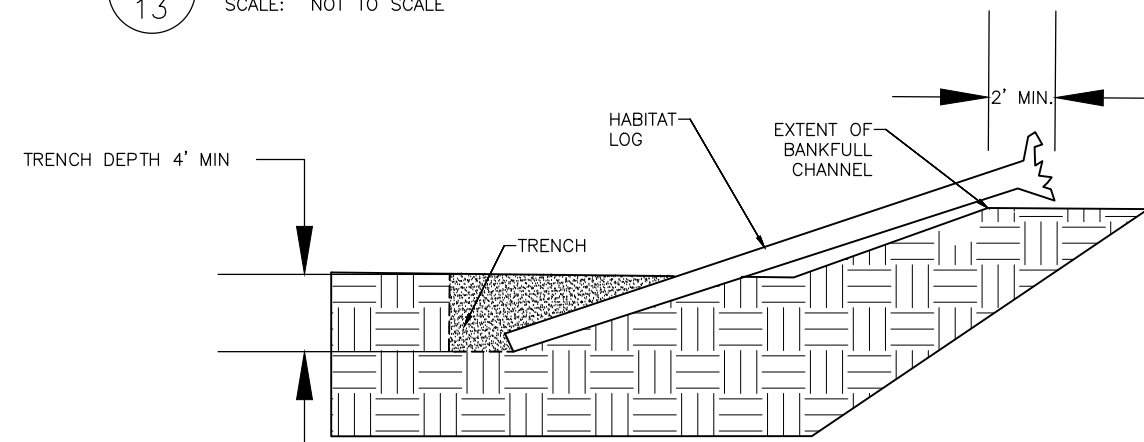
1. PLACE 3 WRACKED LOGS IN A TRIANGULAR FORMATION. PLACE LOG 1 WITH ROOTWAD RESTING ON MOUND AND CROWN RESTING ON FLOODPLAIN, PLACE LOG 2 WITH ROOTWAD RESTING ON CROWN ON LOG 1, AND CROWN RESTING ON FLOODPLAIN. PLACE LOG 3 WITH ROOTWAD RESTING ON CROWN OF LOG 2 AND CROWN RESINT ON BOLE OF LOG 1. IF ANY LOG DOES NOT HAVE A ROOTWAD, LOG SHOULD BE PLACE IN SAME MANER AS DESCIBED ABOVE.
2. NO LOG SHOULD EXTEND OVER DEPRESSION
3. PLACE FILL OVER LOGS AND MOUND. FILL SHOULD COVER AT LEAST $\frac{2}{3}$ DIAMETER OF HIGHEST BOLE.
4. GRADE FILL AT 6:1 SLOPES AWAY FROM ALL OUTSIDE EDGES OF LOG STRUCTURE. MAINTAIN LEVEL GRADE AT 3.0' ABOVE FLOODPLAIN BETWEEN 3 LOGS. FILL SHOULD NOT ENTER MORE THAN $\frac{1}{3}$ WIDTH OF DEPRESSION,



2
13 **TRIPLE LOG IN-STREAM HABITAT FEATURE**
SCALE: NOT TO SCALE



3
13 **DOUBLE LOG IN-STREAM HABITAT FEATURE**
SCALE: NOT TO SCALE



4
13 **SINGLE LOG IN-STREAM HABITAT FEATURE**
SCALE: NOT TO SCALE

PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY



DRAWN BY: C. BYDLON
DESIGNED BY: L. CHAMBERS
CHECKED BY: STAFF
2201 DUNN STREET, STE 2
JUNEAU, AK 99801
(907) 780-4004
solutions@proHNS.com
www.proHNS.com

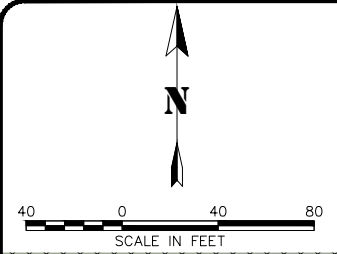
Document 82-3

Filed 07/30/26 Page 13 of 21

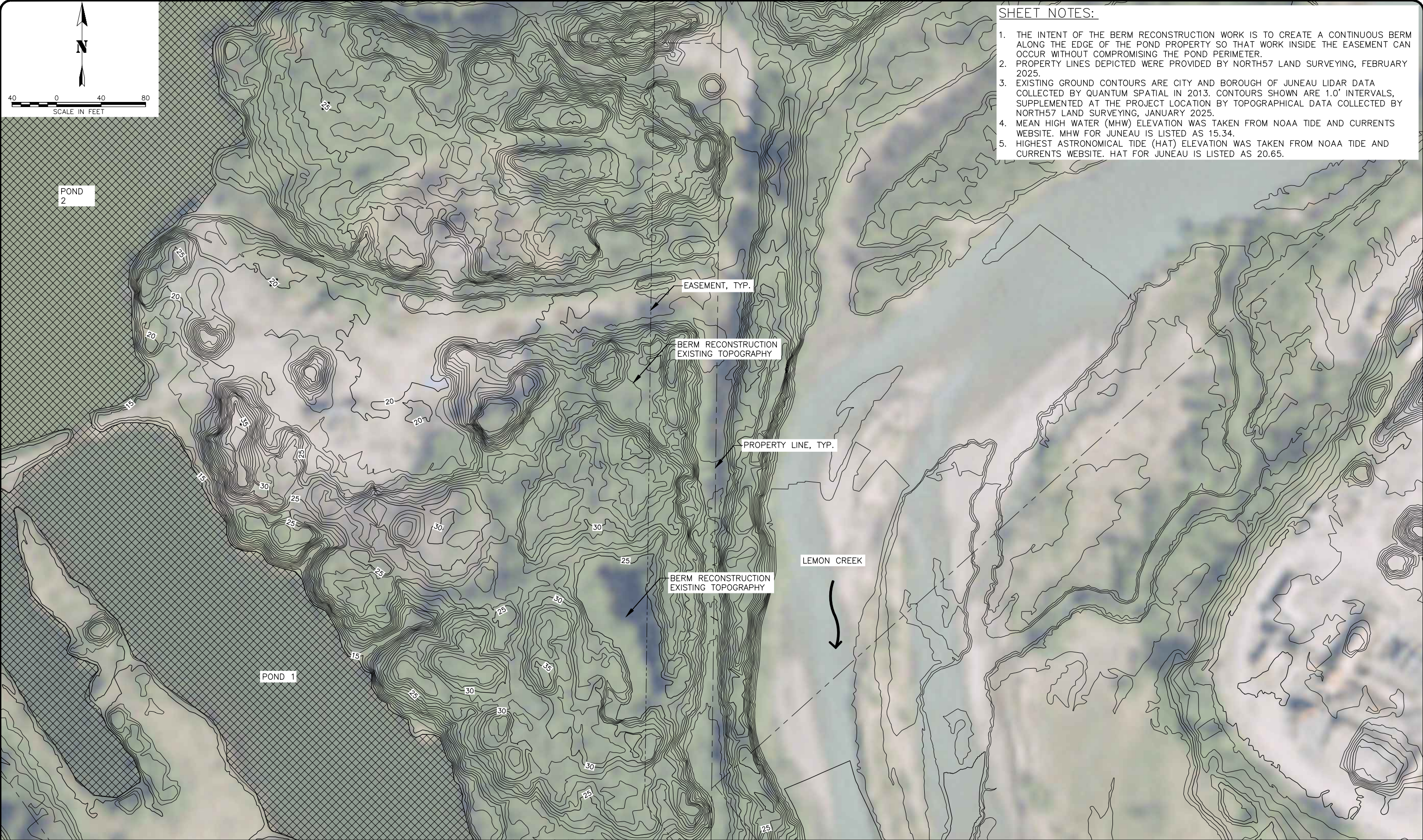
**S&S PONDS
RESTORATION**
DURAN CONSTRUCTION

STOCKPILE DETAILS 2

SHEET NUMBER	
13	OF
22	



- SHEET NOTES:**
1. THE INTENT OF THE BERM RECONSTRUCTION WORK IS TO CREATE A CONTINUOUS BERM ALONG THE EDGE OF THE POND PROPERTY SO THAT WORK INSIDE THE EASEMENT CAN OCCUR WITHOUT COMPROMISING THE POND PERIMETER.
 2. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 3. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
 4. MEAN HIGH WATER (MHW) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. MHW FOR JUNEAU IS LISTED AS 15.34.
 5. HIGHEST ASTRONOMICAL TIDE (HAT) ELEVATION WAS TAKEN FROM NOAA TIDE AND CURRENTS WEBSITE. HAT FOR JUNEAU IS LISTED AS 20.65.



PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

2201 DUNN STREET, STE 2
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solutions@prohns.com
www.prohns.com

CERTIFICATE OF AUTHORIZATION
#100662

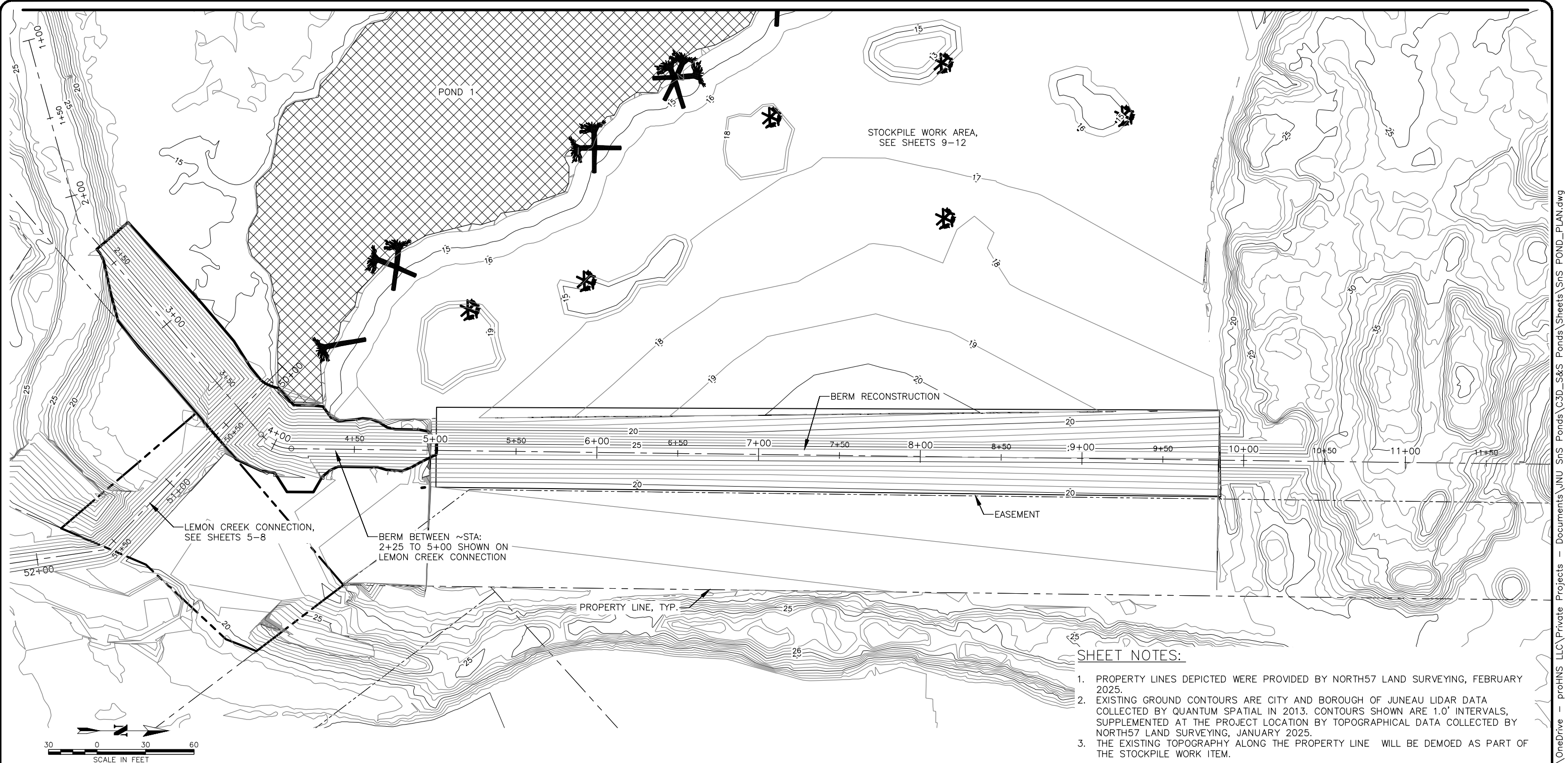
DRAWN BY: DESIGNED BY: CHECKED BY:	C. BYDLON L. CHAMBERS STAFF
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Document 82-3

S&S PONDS
RESTORATION
DURAN CONSTRUCTION

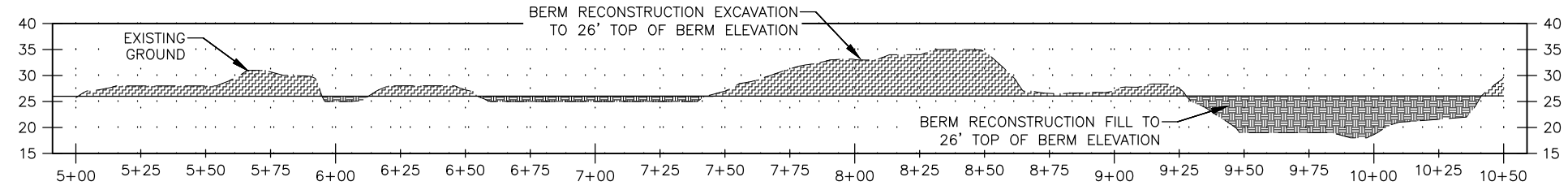
BERM RECONSTRUCT
EXISTING CONDITIONS

SHEET NUMBER	
14	OF
22	



SHEET NOTES:

1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
3. THE EXISTING TOPOGRAPHY ALONG THE PROPERTY LINE WILL BE DEMOED AS PART OF THE STOCKPILE WORK ITEM.



BERM PROFILE

PRELIMINARY

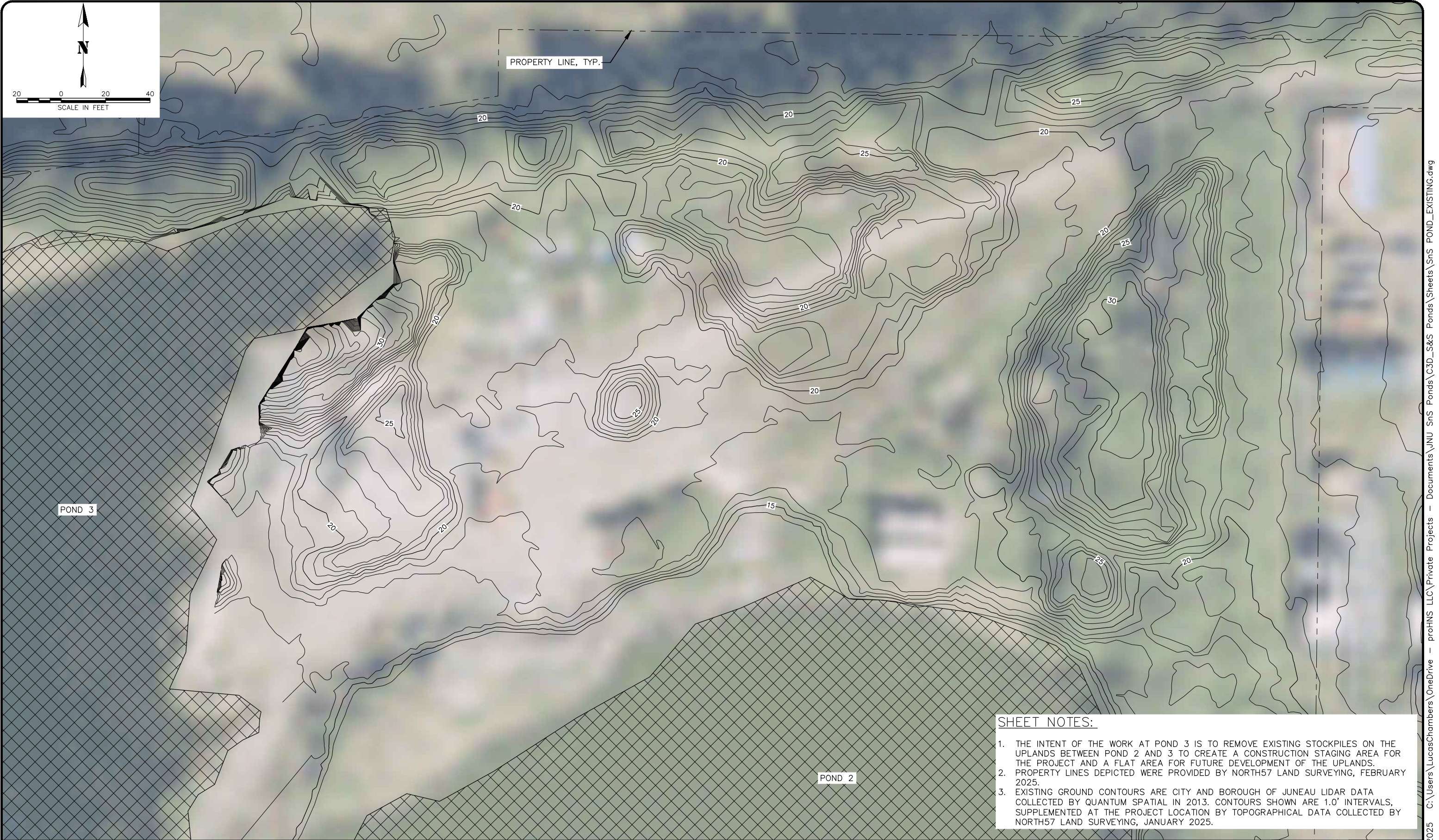
RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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(907) 780-4004
solutions@prohns.com
www.prohns.com

DRAWN BY: C. BYDLON	S&S PONDS RESTORATION DURAN CONSTRUCTION
DESIGNED BY: L. CHAMBERS	
CHECKED BY: STAFF	

S&S PONDS RESTORATION DURAN CONSTRUCTION	SHEET NUMBER
	15
	OF

22



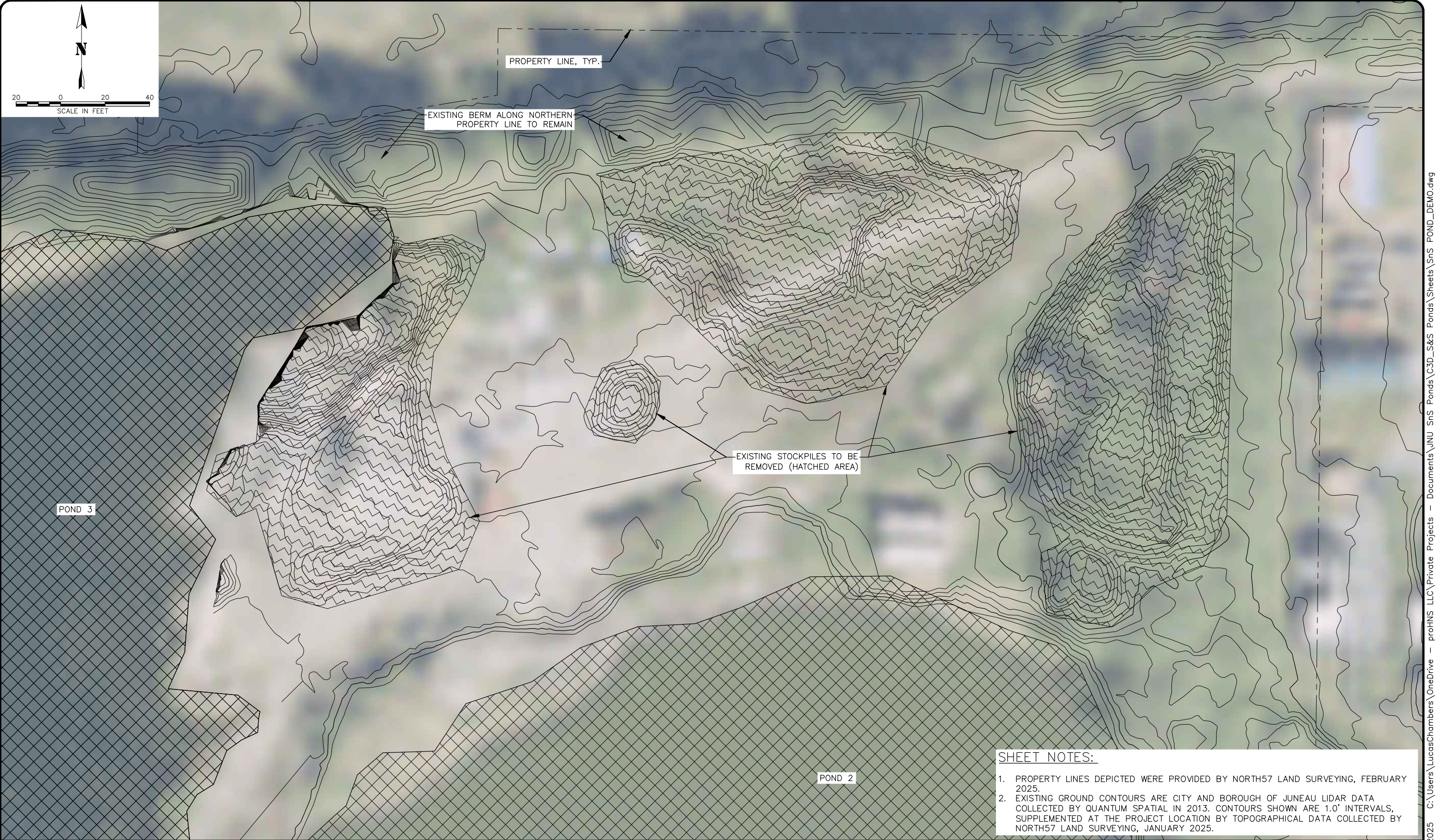
- SHEET NOTES:**
1. THE INTENT OF THE WORK AT POND 3 IS TO REMOVE EXISTING STOCKPILES ON THE UPLANDS BETWEEN POND 2 AND 3 TO CREATE A CONSTRUCTION STAGING AREA FOR THE PROJECT AND A FLAT AREA FOR FUTURE DEVELOPMENT OF THE UPLANDS.
 2. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 3. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.

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RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

2201 DUNN STREET, STE 2
JUNEAU, AK 99801
(907) 780-4004
solutions@proHNS.com
www.proHNS.com

DRAWN BY: C. BYDLON	Document 82-3	S&S PONDS RESTORATION DURAN CONSTRUCTION	POND 3 EXISTING CONDITIONS	SHEET NUMBER
DESIGNED BY: L. CHAMBERS				16
CHECKED BY: STAFF				OF
Case 1:22-cv-00091-ACP				22



PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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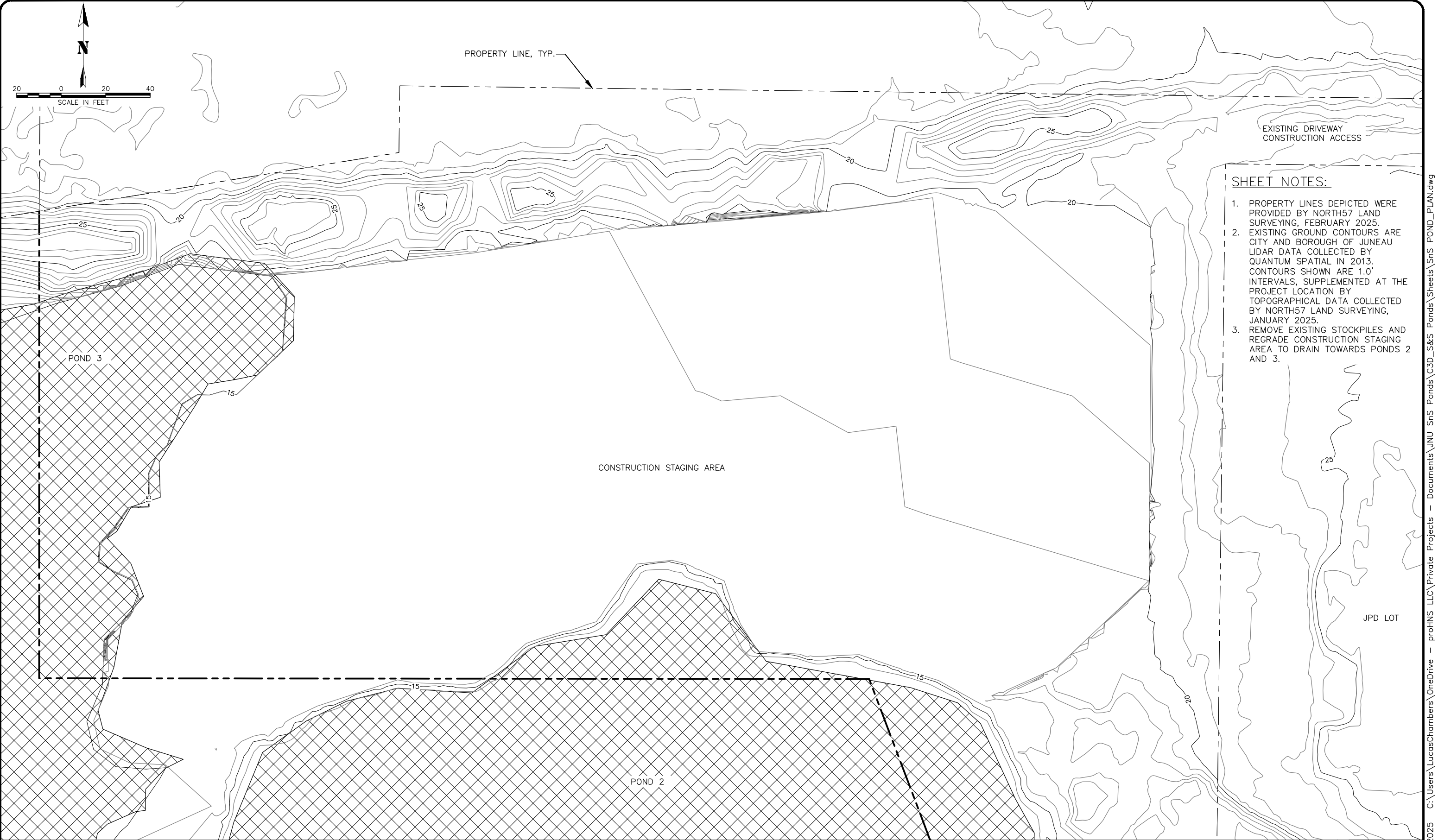
DRAWN BY: C. BYDLON	S&S PONDS RESTORATION DURAN CONSTRUCTION	POND 3 DEMO	SHEET NUMBER 17 OF 22
DESIGNED BY: L. CHAMBERS			
CHECKED BY: STAFF			

Document 82-3

Filed 07/30/26

Page 17 of 21

- SHEET NOTES:
1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.

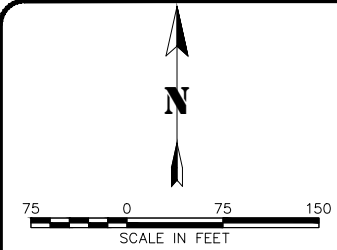


SHEET NOTES:

1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.
3. REMOVE EXISTING STOCKPILES AND REGRADE CONSTRUCTION STAGING AREA TO DRAIN TOWARDS PONDS 2 AND 3.

PRELIMINARY	RECORD OF REVISIONS				 2201 DUNN STREET, STE 2 JUNEAU, AK 99801 (907) 780-4004 solutions@prohns.com www.prohns.com	DRAWN BY: C. BYDLON DESIGNED BY: L. CHAMBERS CHECKED BY: STAFF	S&S PONDS RESTORATION DURAN CONSTRUCTION	POND 3 PLAN	SHEET NUMBER
	No.	DATE	DESCRIPTION	BY					18
									OF
									22

Case 1:22-cv-00091-ACP Document 82-3 Filed 07/30/26 Page 18 of 21



- SHEET NOTES:**
1. THE INTENT OF THE BANK AND CHANNEL WORK IS TO IMPROVE CONNECTIVITY BETWEEN PONDS 1, 2 AND 3 AND TO ENHANCE SHORELINE HABITAT ALONG THE POND EDGES.
 2. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 3. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.



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RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

2201 DUNN STREET, STE 2
JUNEAU, AK 99801
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CERTIFICATE OF AUTHORIZATION
#100662

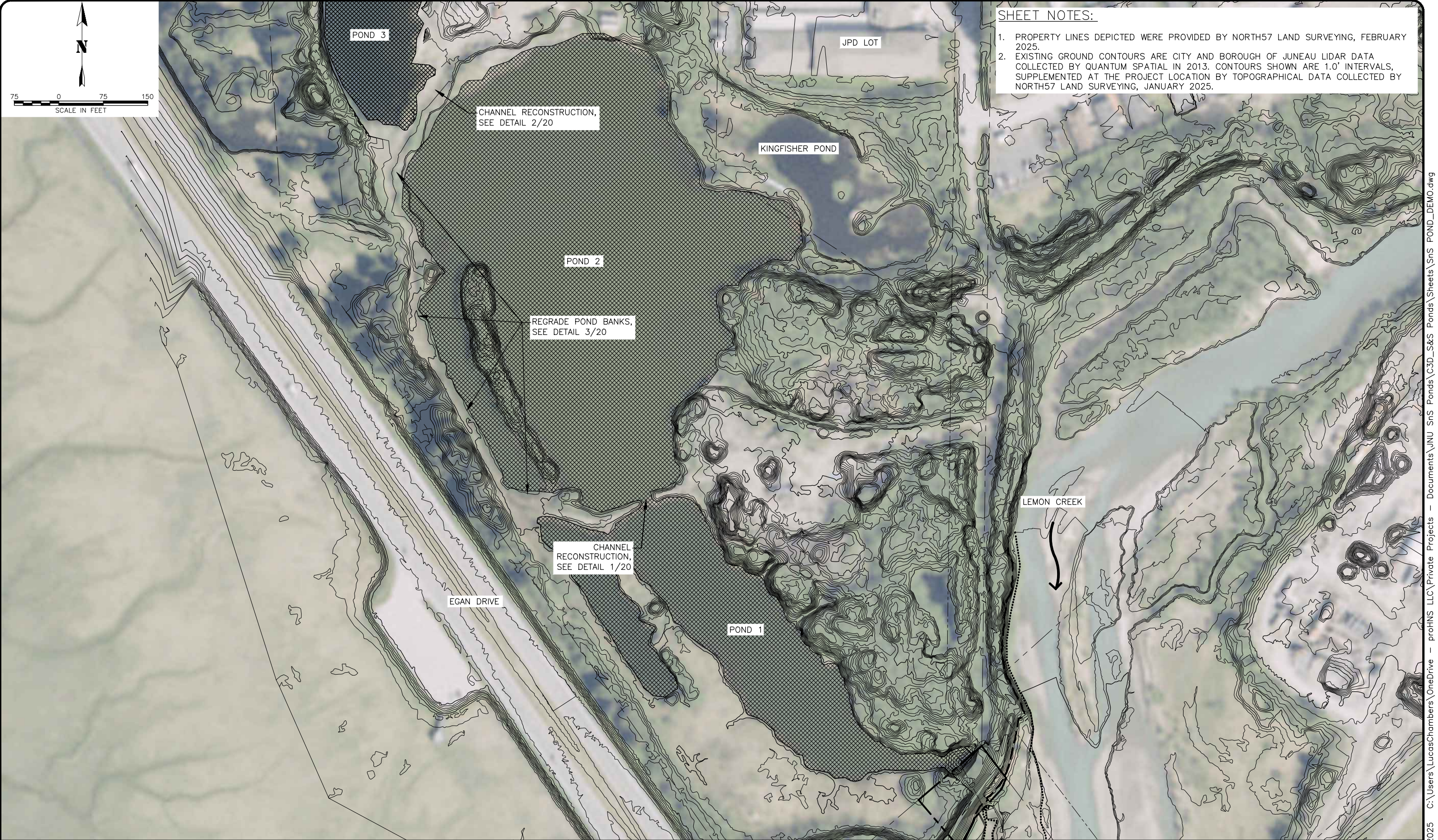
DRAWN BY: DESIGNED BY: CHECKED BY:	C. BYDLON L. CHAMBERS STAFF
--	-----------------------------------

Document 82-3

S&S PONDS
RESTORATION
DURAN CONSTRUCTION

Filed 07/30/26 Page 19 of 21

SHEET NUMBER	
19	OF
22	



- SHEET NOTES:**
- 1. PROPERTY LINES DEPICTED WERE PROVIDED BY NORTH57 LAND SURVEYING, FEBRUARY 2025.
 - 2. EXISTING GROUND CONTOURS ARE CITY AND BOROUGH OF JUNEAU LIDAR DATA COLLECTED BY QUANTUM SPATIAL IN 2013. CONTOURS SHOWN ARE 1.0' INTERVALS, SUPPLEMENTED AT THE PROJECT LOCATION BY TOPOGRAPHICAL DATA COLLECTED BY NORTH57 LAND SURVEYING, JANUARY 2025.

PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

proHNS LLC
CERTIFICATE OF AUTHORIZATION
#100662

DRAWN BY: C. BYDLON
DESIGNED BY: L. CHAMBERS
CHECKED BY: STAFF

2201 DUNN STREET, STE 2
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solutions@prohns.com
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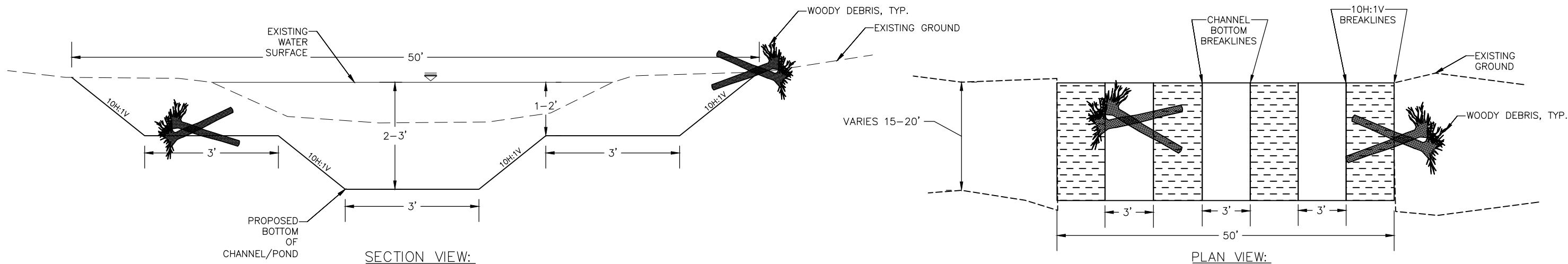
S&S PONDS RESTORATION
DURAN CONSTRUCTION

BANK & CHANNEL DEMO

SHEET NUMBER	
20	OF
22	

Case 1:22-cv-00091-ACF Document 82-3 Filed 07/30/26 Page 20 of 21

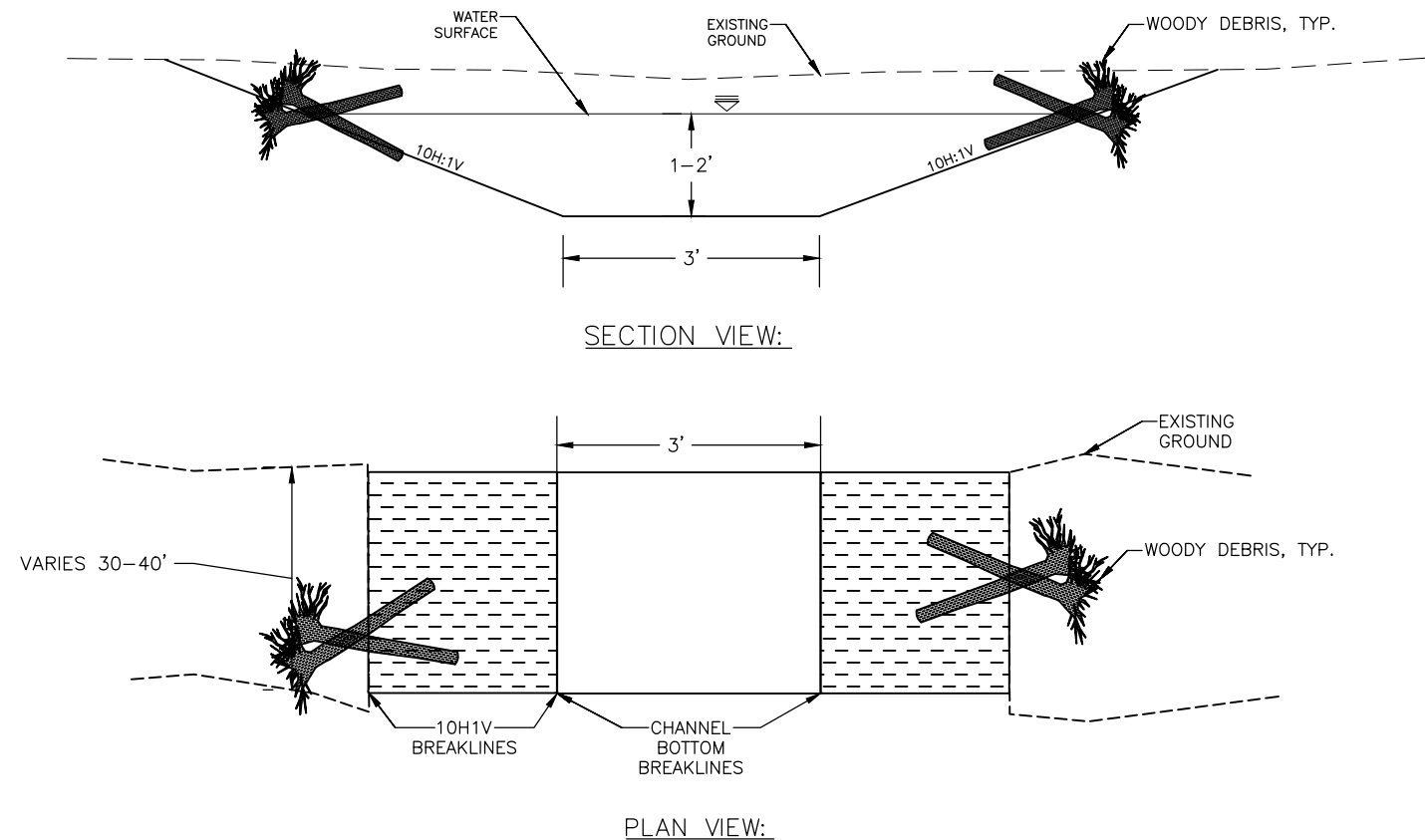
September 16, 2025 C:\Users\LucasChambers\OneDrive - proHNS LLC\Private Projects - Documents\JNU SnS Ponds\C3D_S&S Ponds\Sheets\SnS POND_DEMO.dwg



1
21

POND #1 & POND #2 CONNECTION DETAILS

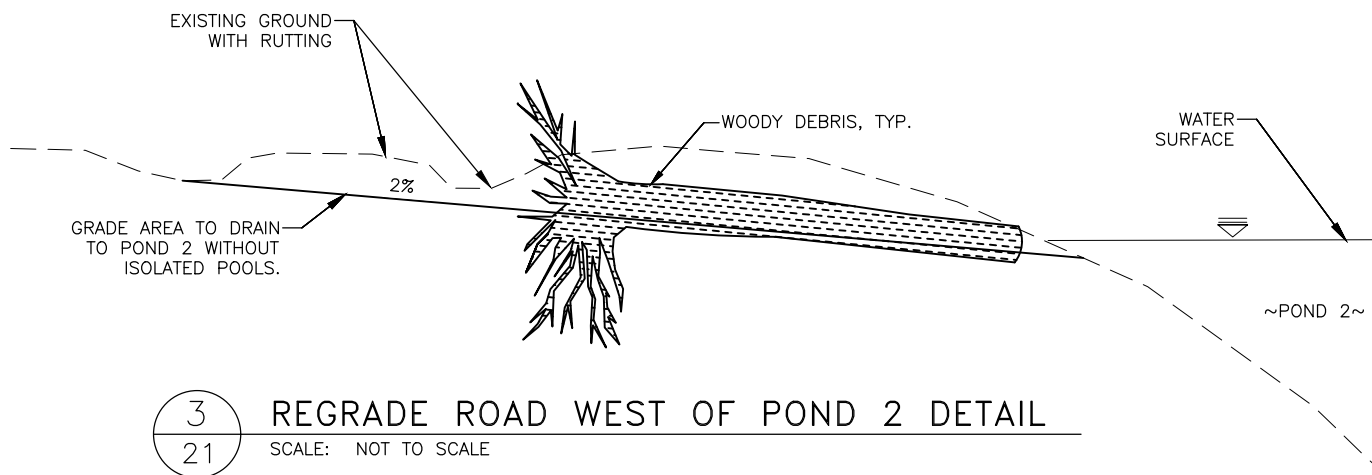
SCALE: NOT TO SCALE



2
21

POND #2 & POND #3 CONNECTION DETAILS

SCALE: NOT TO SCALE



3
21

REGRADE ROAD WEST OF POND 2 DETAIL

SCALE: NOT TO SCALE

NOTES:

1. WOODY DEBRIS AND NATIVE PLANTS TO BE INCLUDED WHERE DIRECTED BY BIOLOGIST, TO ADD HABITAT COMPLEXITY.

PRELIMINARY

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY



DRAWN BY: C. BYDLON

DESIGNED BY: L. CHAMBERS

CHECKED BY: STAFF

2201 DUNN STREET, STE 2
JUNEAU, AK 99801
(907) 780-4004

solutions@prohns.com
www.prohns.com

Document 82-3

Filed 07/30/26 Page 21 of 21

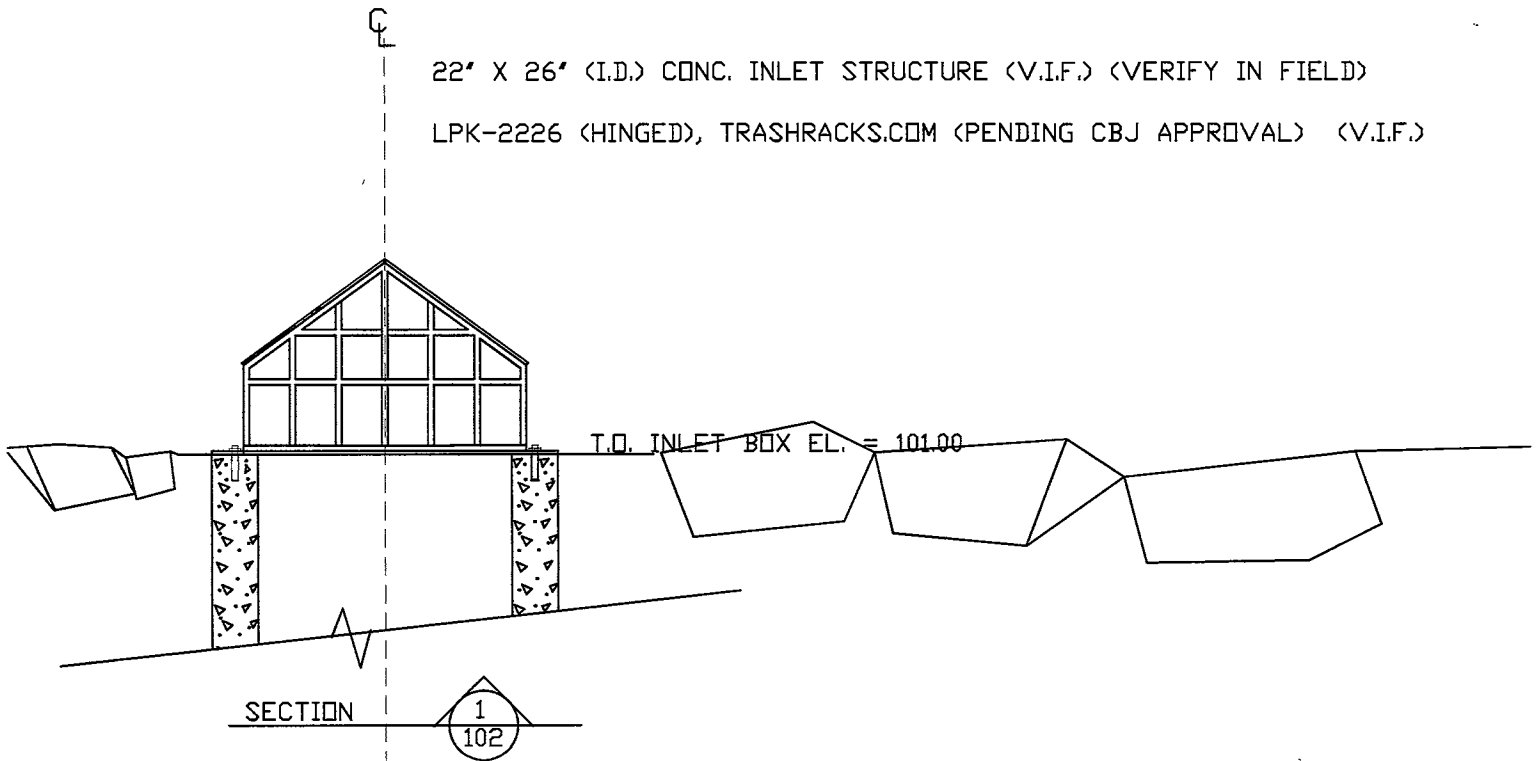
S&S PONDS
RESTORATION
DURAN CONSTRUCTION

BANK & CHANNEL
DETAILS

SHEET NUMBER	
21	OF
22	

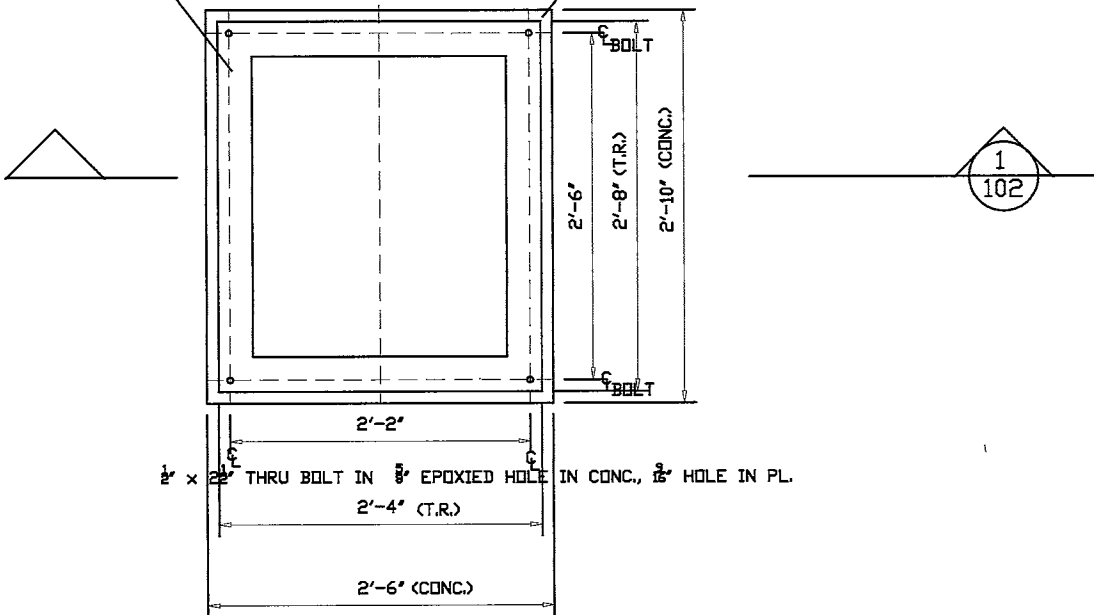
22' X 26' (I.D.) CONC. INLET STRUCTURE (V.I.F.) (VERIFY IN FIELD)

LPK-2226 (HINGED), TRASHRACKS.COM (PENDING CBJ APPROVAL) (V.I.F.)



LPK-2226

CONC. INLET BOX, O.D. 2'-10 X 2'-6
I.D. 2'-2 X 1'-10



PLAN (ONLY TRASH RACK PERIMETER SHOWN FOR CLARITY)

NORTH STAR DESIGN-BUILD
JODIE A. PEROLANO, P.E.
807 713 4177

VISTA DEL SOL SUBDIVISION

TRASH RACK DETAIL

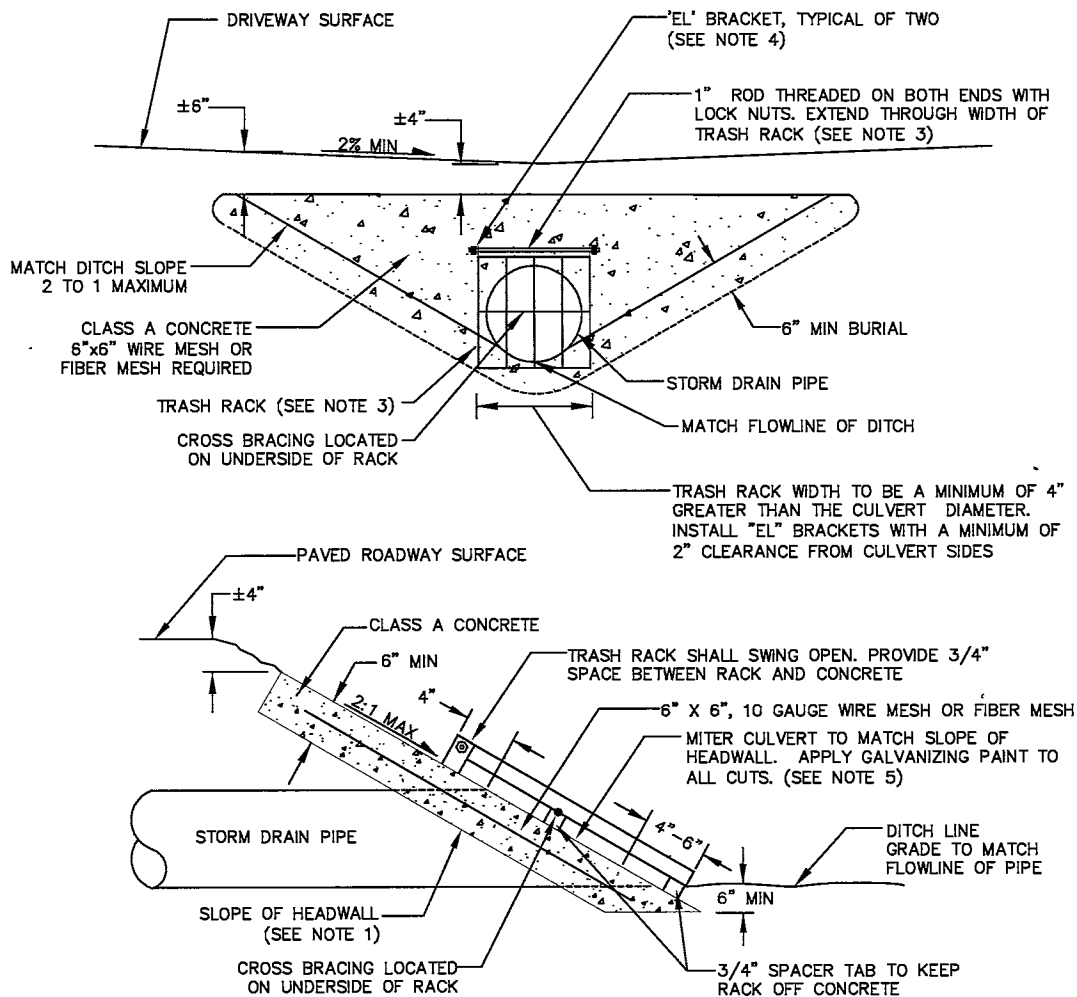
DATE:
DECEMBER 13, 2024
SCALE:
3/4" = 1'-0 (U.O.N.)

SHEET:

S102



J. A. GALLANORE, P.E.
LIC. #10865 C.E.



NOTES:

1. SLOPE OF HEADWALL SHALL BE 2:1 OR FLATTER AND SHALL BE DETERMINED BY THE ENGINEER.
2. TRASH RACKS SHALL BE REQUIRED ON HEADWALLS AT UP STREAM ENDS OF CULVERTS ENTERING CLOSED STORM DRAIN SYSTEMS.
3. GRATE, 'EL' AND THREADED ROD SHALL BE CONSTRUCTED OF FLAT BARS OF EITHER 6061 ALUMINUM OR HOT DIPPED GALVANIZED STEEL.
4. INSTALL 'EL' BRACKETS A MINIMUM OF 2" INTO WET CONCRETE.
5. IF CORRUGATED PLASTIC PIPE IS USED, EMPTY WATER FROM CORRUGATIONS ON MITERED ENDS AND THEN COMPLETELY FILL VOIDS WITH CONCRETE GROUT.
6. NO HEADWALLS ARE TO BE CONSTRUCTED WITHIN ADOT RIGHT-OF-WAY UNLESS DIRECTED BY THE ENGINEER.

SCALE: NTS	DATE: 12/3/96	CITY AND BOROUGH OF JUNEAU, ALASKA CULVERT HEADWALL WITH HINGED TRASH RACK	
DRAWN BY: DRW	CHECKED BY: JB/STAFF		
APPROVED BY: <i>DRW</i>	REVISED: 8/14/2011	STANDARD 104A	

VISTA DEL SOL SUBDIVISION CONSTRUCTION PLANS

SHEET INDEX		COORDINATION OF DRAWINGS
SHEET NO	DESCRIPTION	ALL IMPROVEMENT <u>INSIDE</u> THE BACK OF SIDE WALK, INCLUDING UTILITIES, CURBING, SIDEWALK, AND PAVING. COORDINATE WITH IMPROVEMENTS SHOWN ON SHEETS 12 AND 13.
1	SEWER & WATER PLANS	
2	STREET & SEWER PROFILES	
3	STREET DRAINAGE PLAN	
4	STORM DRAIN PROFILES	
5	INLET STRUCTURE & ROCKERY DETAIL	ALL IMPROVEMENT <u>OUTSIDE</u> THE BACK OF SIDE WALK, PLUS SD-3A AND SD-4A (SEE SHEET 8), EXCEPT AS NOTED ON SHEET 9 FOR GRADING OF LOTS 11, 12, AND 13, AND THE DRAINAGE DIVERSION.
6	GRADING & STORMWATER PLAN - LEGENDS, NOTES & ABBREVIATIONS	
7	GRADING & STORMWATER PLAN - EXISTING SITE	
8	GRADING & SW PLAN-SITE GRADING PLAN 1 & TYP. LOT GRADING PLAN	
9	GRADING & SW PLAN-SITE GRADING PLAN 2 & TYPICAL SECTIONS	
10	GRADING & SW PLAN-CREEK REALIGNMENT & STEP POOL DETAILS	(1) REVISION OF INTERSECTION FOR BOP TO STA 11+15 (2) ADDITION OF UNDERDRAIN ABOVE CUL-DE-SAC
11	GRADING & SW PLAN - WET POND DETAILS	
12	GLACIER HWY MODIFIED INTERSECTION PLAN & PROFILE	ELECTRICAL AS NOTED
13	VISTA DEL SOL UNDERDRAIN	
E100	POWER DISTRIBUTION	
E101	LIGHTING	
E102	TELEPHONE / TV	

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MAY 21 2012
PERMIT CENTER/CDD

APPROVED FOR CONSTRUCTION
BY: *[Signature]* DATE: *5/19/12*

SHEET
0 OF 13
PROJ.
NO.

TOPO. BY J.W. BEAN, R.L.S.

VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
WATER, STREET AND SEWER PROFILES
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568

G:\Bent\19751-Vista-Del-Sol\19751-Vista-Del-Sol-Profiles.dwg 4/20/2010 3:00:54 PM ADT

5/12	COORD. OF DWG'S.	JP
REV	DESCRIPTION	BY

DESIGNED BY	
DRAWN BY	
CHECKED BY	
DATE	
REF. NO.	
SCALE:	AS NOTED



LEGEND

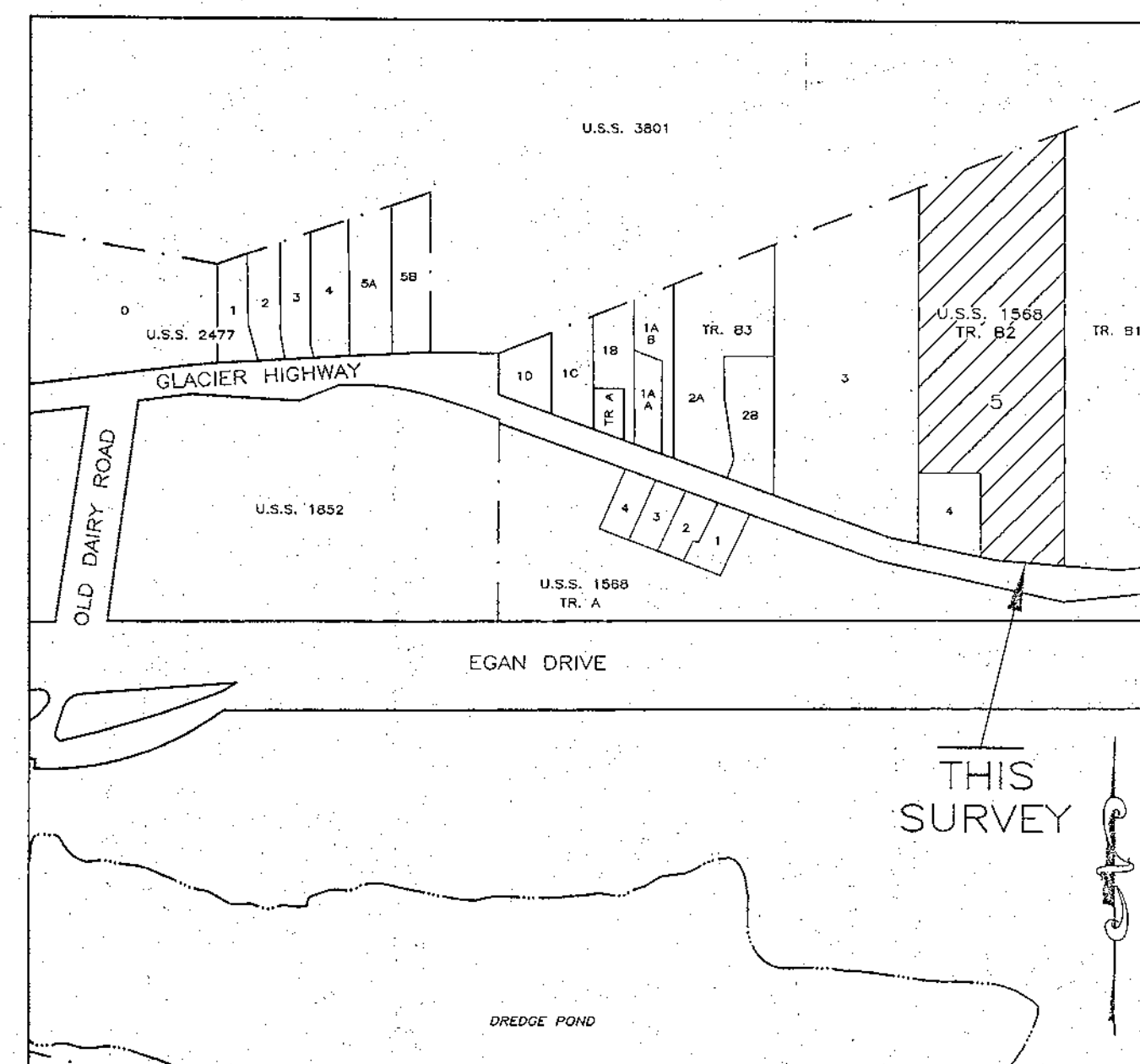
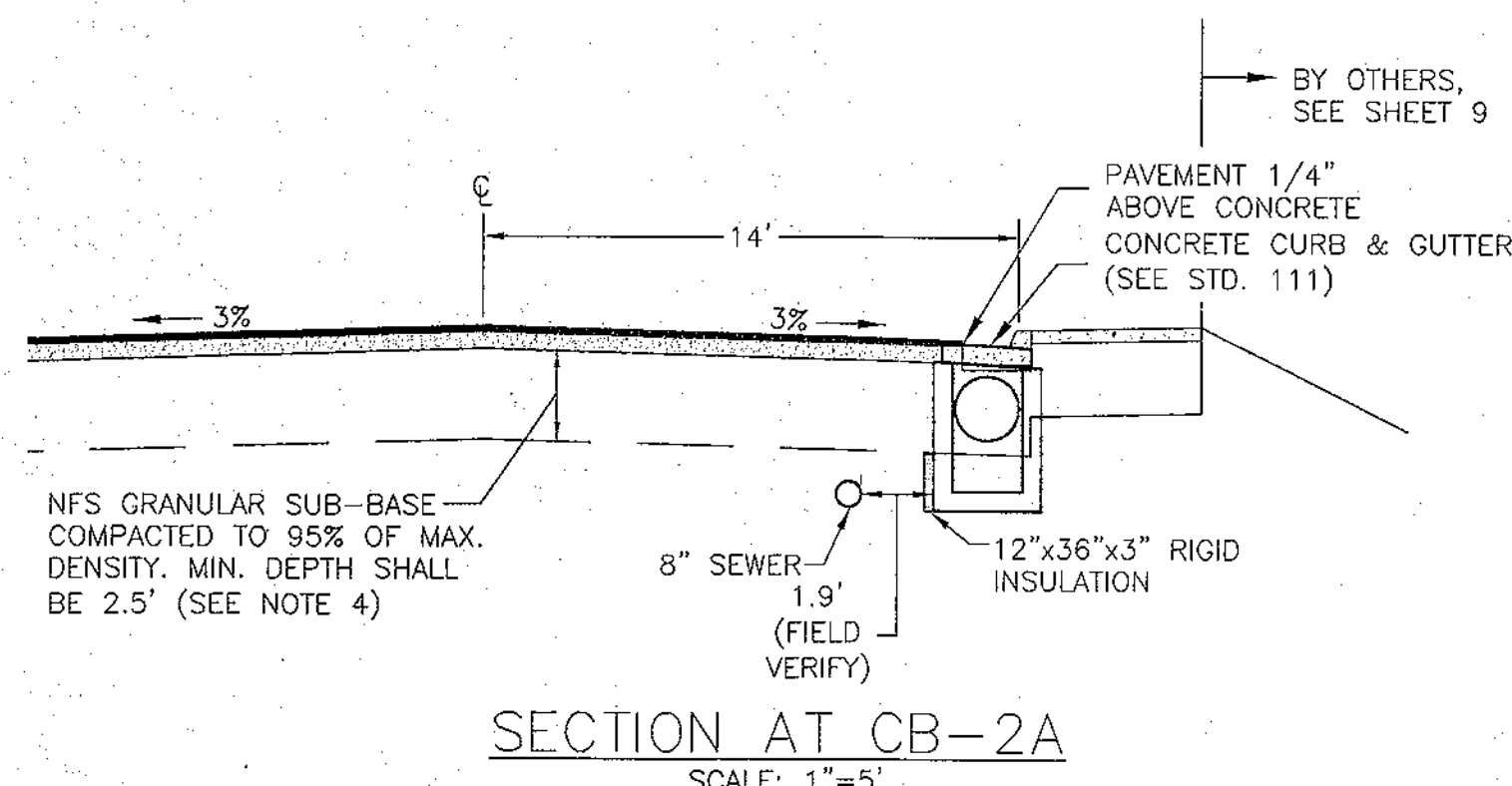
- WATER MAIN
- - - SEWER MAIN
- == STORM DRAIN
- ⊙ SANITARY MANHOLE
- ⊞ CATCH BASIN
- ⊞ TRASH RACK
- ⊙ OIL/ WATER SEPARATOR MANHOLE
- CPP CORRUGATED PLASTIC PIPE

NOTES:

1. ALL PLAT BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARINGS.
2. ALL DISTANCES SHOWN ARE REDUCED TO HORIZONTAL.
3. RECORDED BEARINGS AND DISTANCES ARE SHOWN ENCLOSED IN PARENTHESIS. MEASURED OR CALCULATED BEARINGS AND/OR DISTANCES ARE SHOWN WITHOUT PARENTHESIS.
4. AREA TO BE VACATED IF STREET EXTENSION REQUIRED
5. PROPOSED SEWER AND WATER FOR FUTURE EXTENSION OF BUENA VISTA WAY

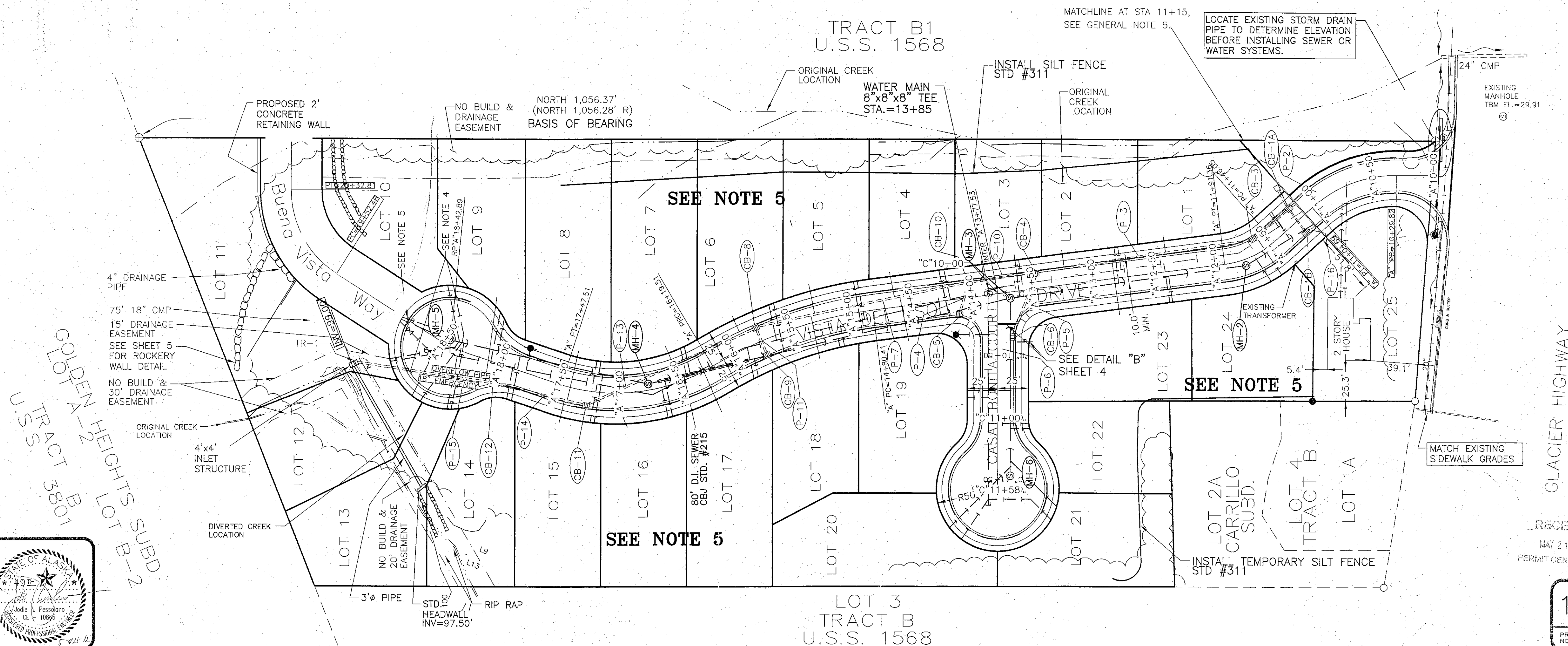
GENERAL NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST REVISION OF CBJ STANDARD SPECIFICATIONS AND DETAILS.
2. SILT FENCING AND OTHER REQUIRED STORM WATER POLLUTION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO CONSTRUCTION.
3. SILT FENCING SHALL BE PLACED AROUND HOUSE PADS PER GRADING PLAN PRIOR TO PLACEMENT OF BACKFILL.
4. CONTRACTOR TO OBTAIN APPROVED STORM WATER POLLUTION PLAN PRIOR TO CONSTRUCTION.
5. SHEETS 1-5 ADDRESS ONLY WORK INSIDE THE BACK OF SIDEWALK, EXCEPT WHERE NOTED OTHERWISE ON SHEET 9; SEE SHEET 12 FOR INTERSECTION AND UTILITY DESIGN FROM STA 9+65 TO 11+15.

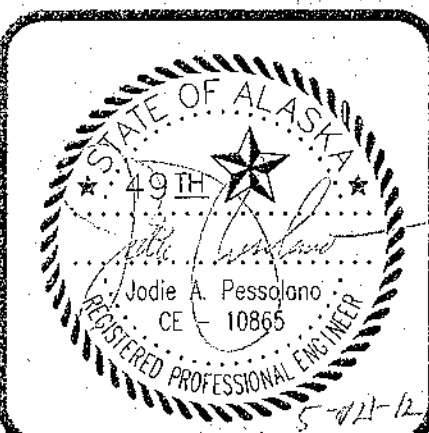


VICINITY MAP

SOURCE: C.B.J. BASEMAP SERIES (M-1, M-4, M-5) - SCALE: 1" = 400'



U.S.S. 3801
GOLDEN HEIGHTS SUBD
TRACT A-2
TRACT B-2

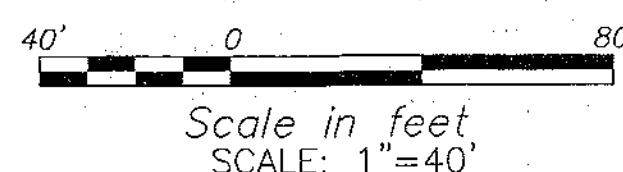


5/12	COORD. OF DWG'S	JP
5/08	WATER MAIN, ADD FIRE HYDS.	GDM
REV	DESCRIPTION	BY

DESIGNED BY	T. BRENNER
DRAWN BY	GDM Graphics
CHECKED BY	J.A. PESSOLANO
DATE	FEB 2010
REF. NO.	
SCALE:	AS NOTED



NORTH STAR DESIGN
1003 1st STREET
DOUGLAS, ALASKA 99824



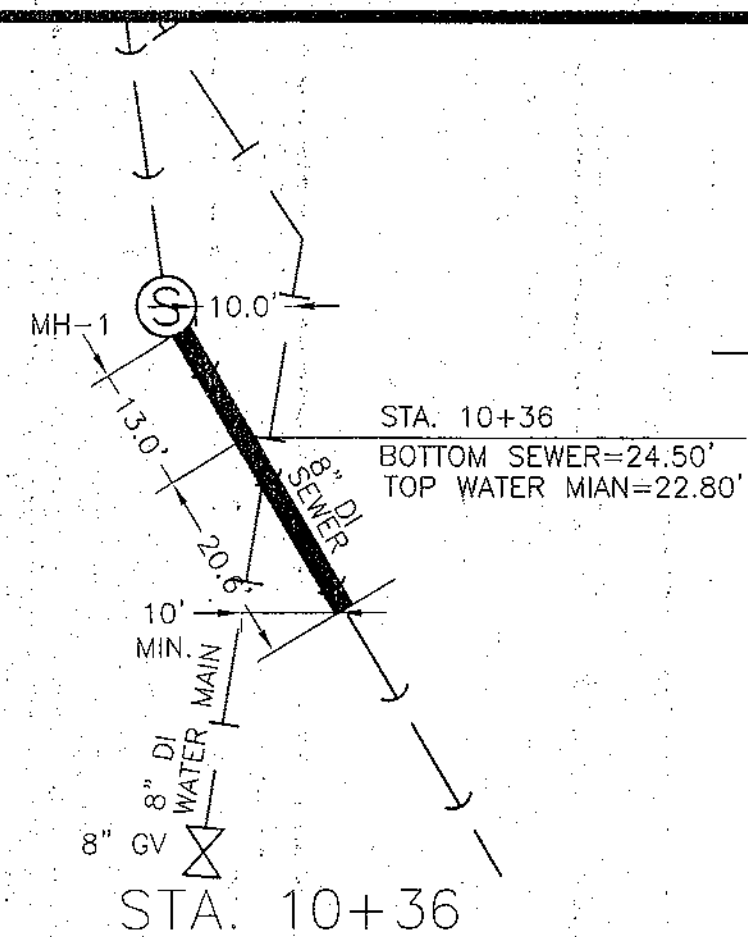
VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
SEWER, WATER AND CONSTRUCTION PLANS
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568

TOPO. BY J.W. BEAN, R.L.S.

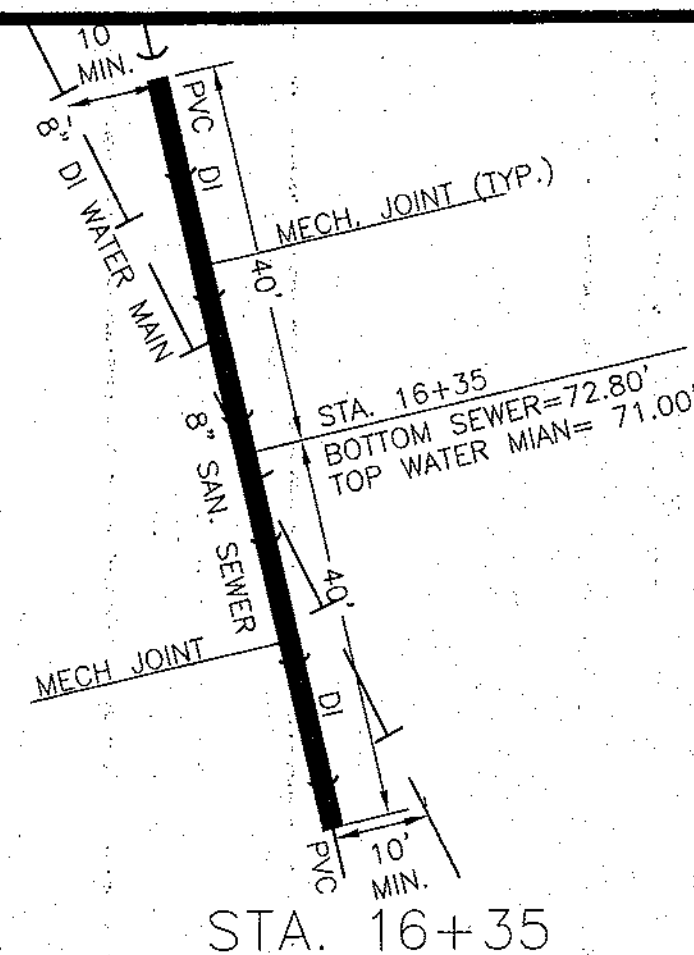
RECEIVED
MAY 21 2012
PERMIT CENTER/CDD

SHEET
1 OF 13
PROJ. NO.

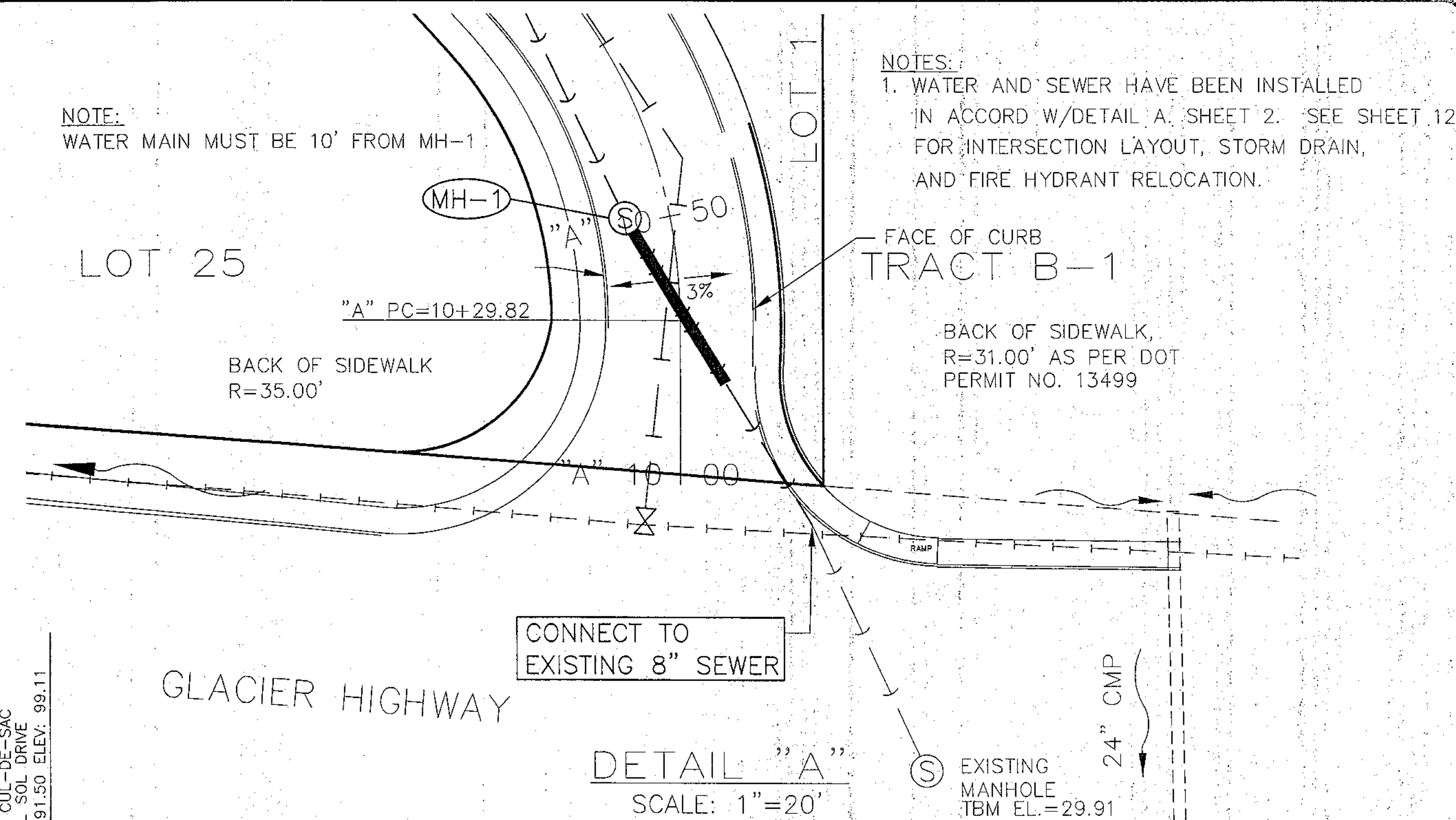
- NOTES:
- SEWER AND WATER PIPE JOINTS MUST BE NOT LESS THAN 9 FEET APART, UNLESS JOINTS ARE RESTRAINED OR MECHANICAL AS APPROVED WITH STATE D.E.C. WAIVER.
 - ALL DUCTILE IRON WATER AND SEWER MAINS MUST BE BEDDED IN ACCORDANCE WITH TYPE 4 OR TYPE 5 BEDDING CONFIGURATIONS.



SEWER/ WATER CROSSING DETAILS



NOTE:
WATER MAIN MUST BE 10' FROM MH-1

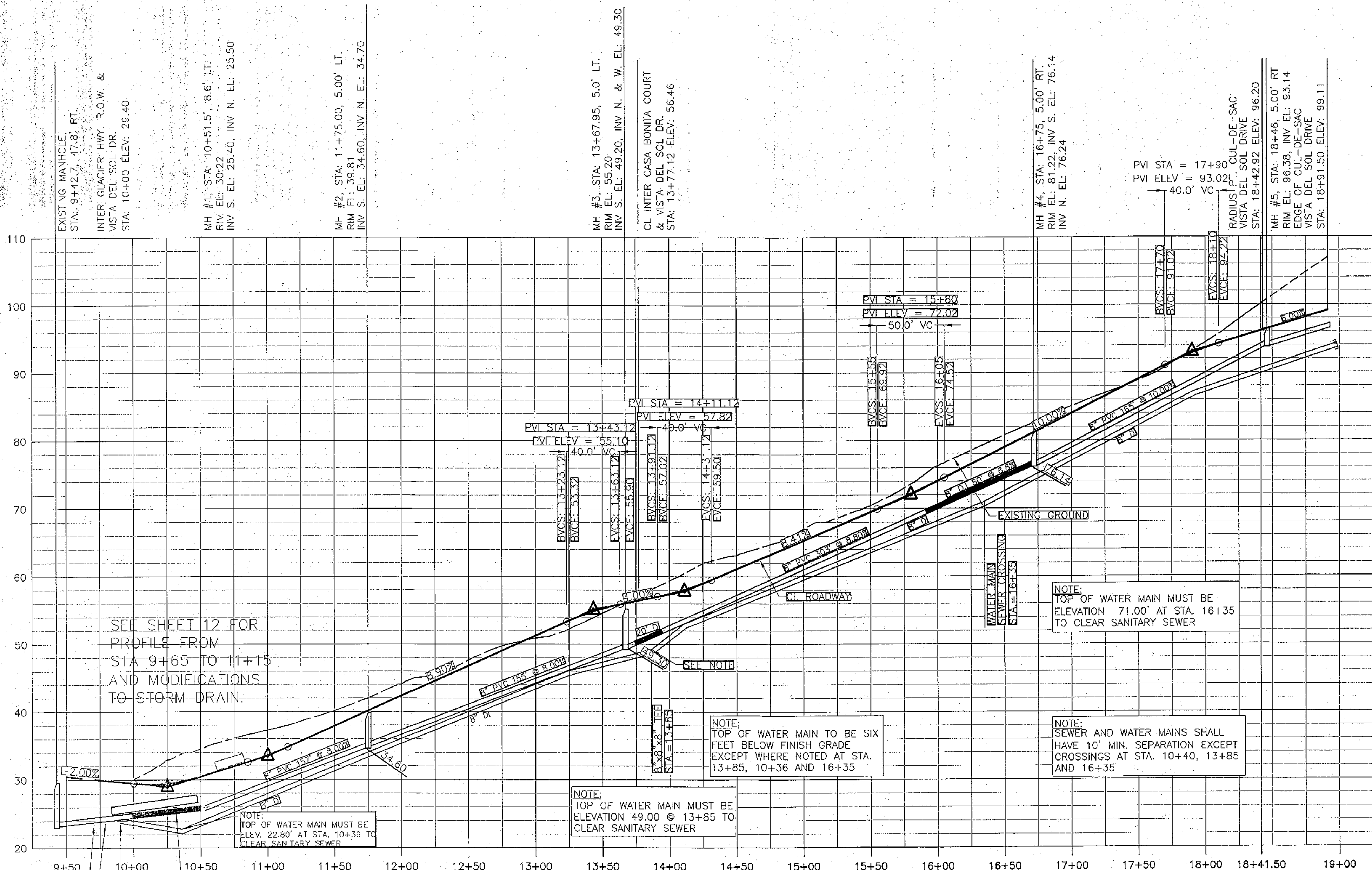


- NOTES:
- WATER AND SEWER HAVE BEEN INSTALLED IN ACCORD W/DETAIL A, SHEET 2. SEE SHEET 12 FOR INTERSECTION LAYOUT, STORM DRAIN, AND FIRE HYDRANT RELOCATION.

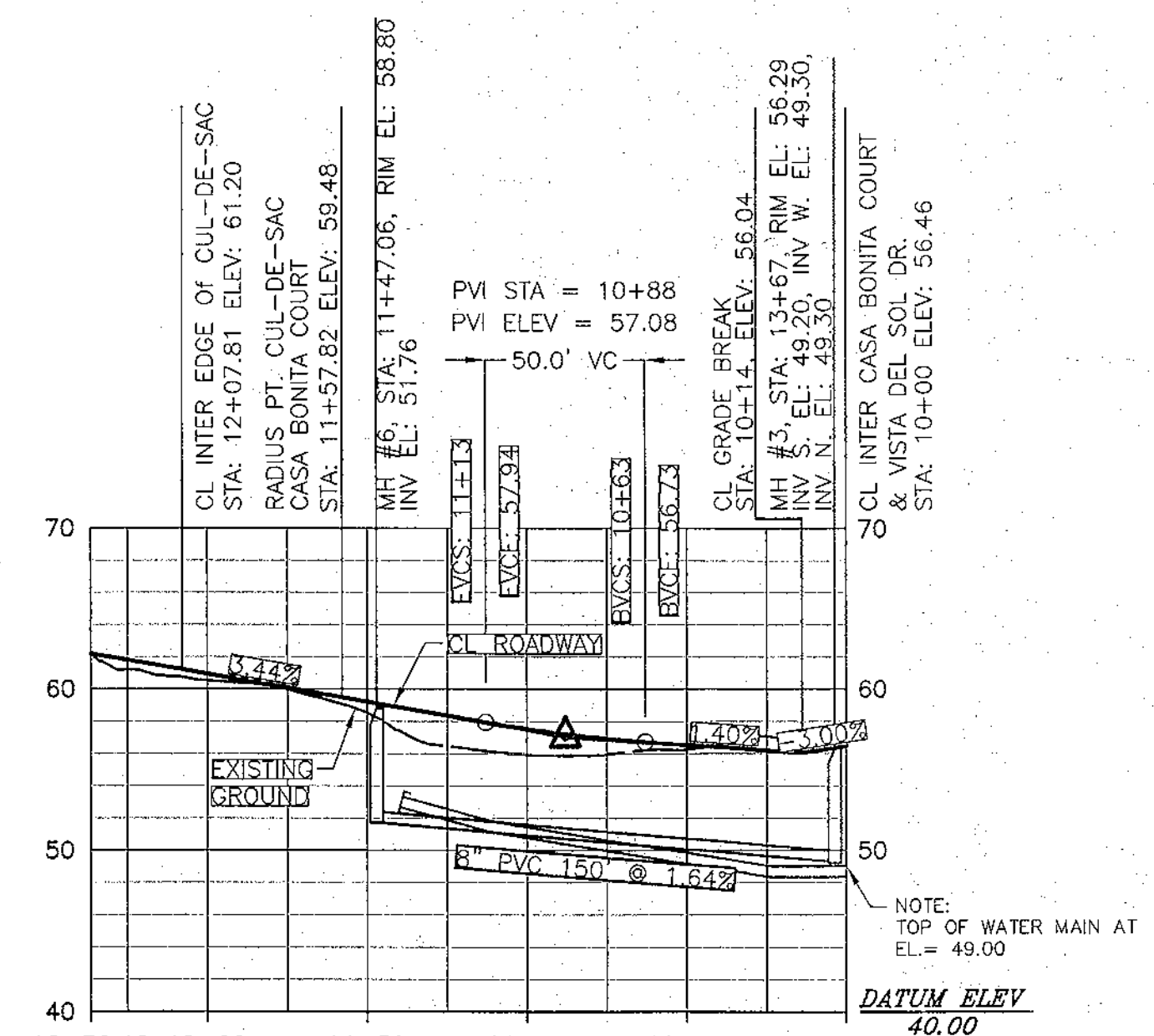
CONNECT TO EXISTING 8" SEWER

DETAIL "A"
SCALE: 1"=20'

EXISTING MANHOLE
TBM EL.=29.91



STREET PROFILE
WITH
WATER AND SEWER PROFILES



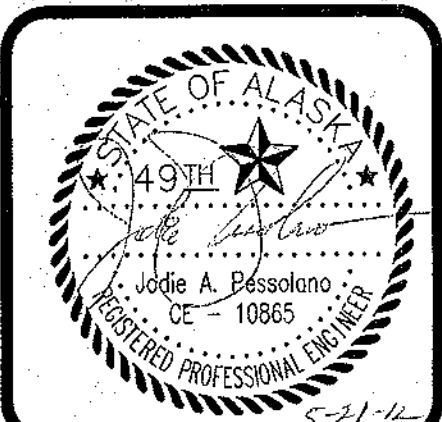
CASA BONITA COURT
SCALE: HORZ. 1"=50'
VERT. 1"=10'

RECEIVED
MAY 21 2012
PERMIT CENTER/CDD

SHEET
2 OF 13
PROJ.
NO.

TOPO. BY J.W. BEAN, R.L.S.

VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
WATER, STREET AND SEWER PROFILES
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568



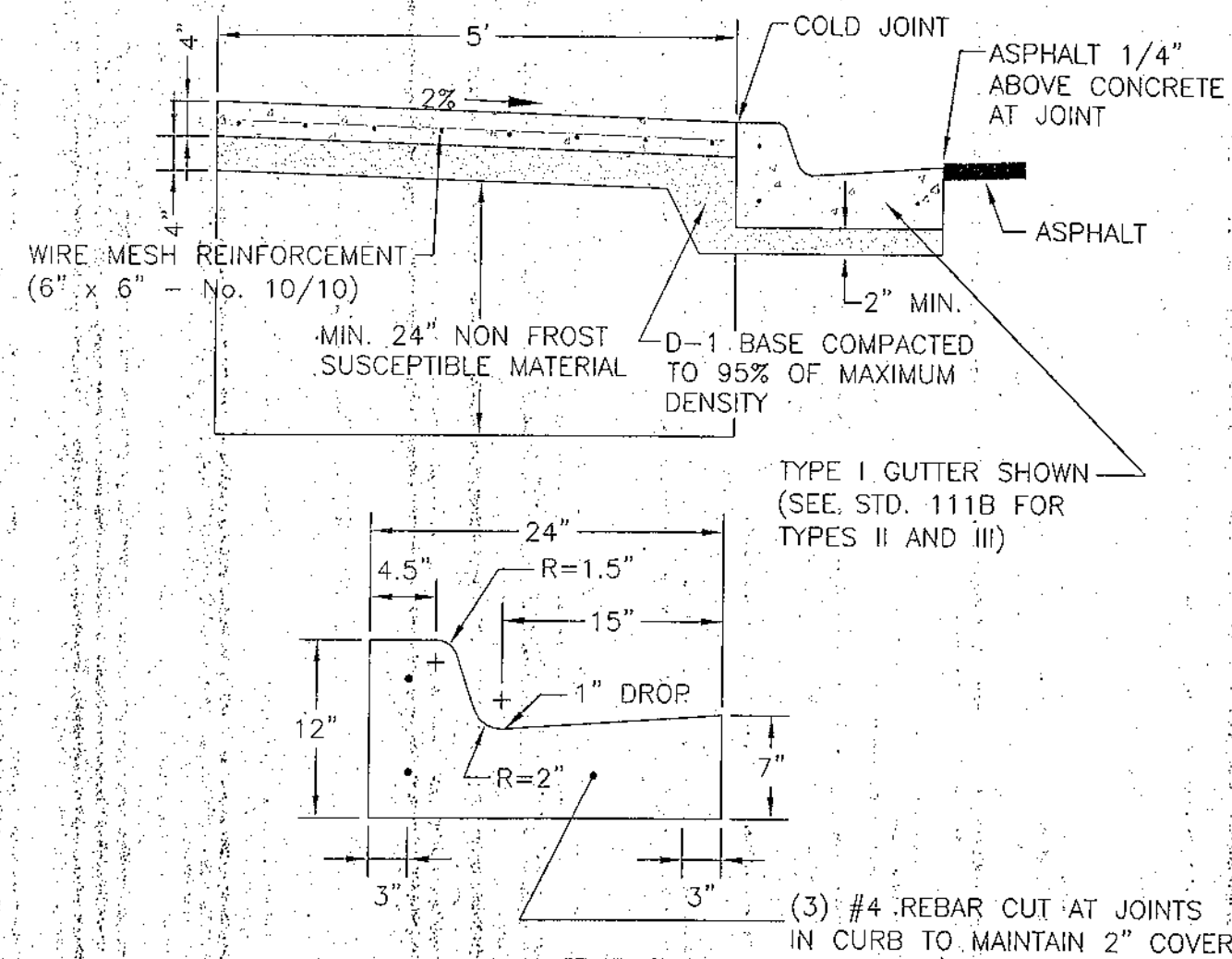
NORTH STAR DESIGN
1003 1st STREET
DOUGLAS, ALASKA 99824



DESIGNED BY	T. BRENNER
DRAWN BY	GDM Graphics
CHECKED BY	J.A. PESSOLANO
DATE	APR 2010
REF. NO.	
SCALE:	AS NOTED

5/12	COORD. OF DRWG'S	JP
6/08	WATER MAIN PROFILE	GDM
REV	DESCRIPTION	BY

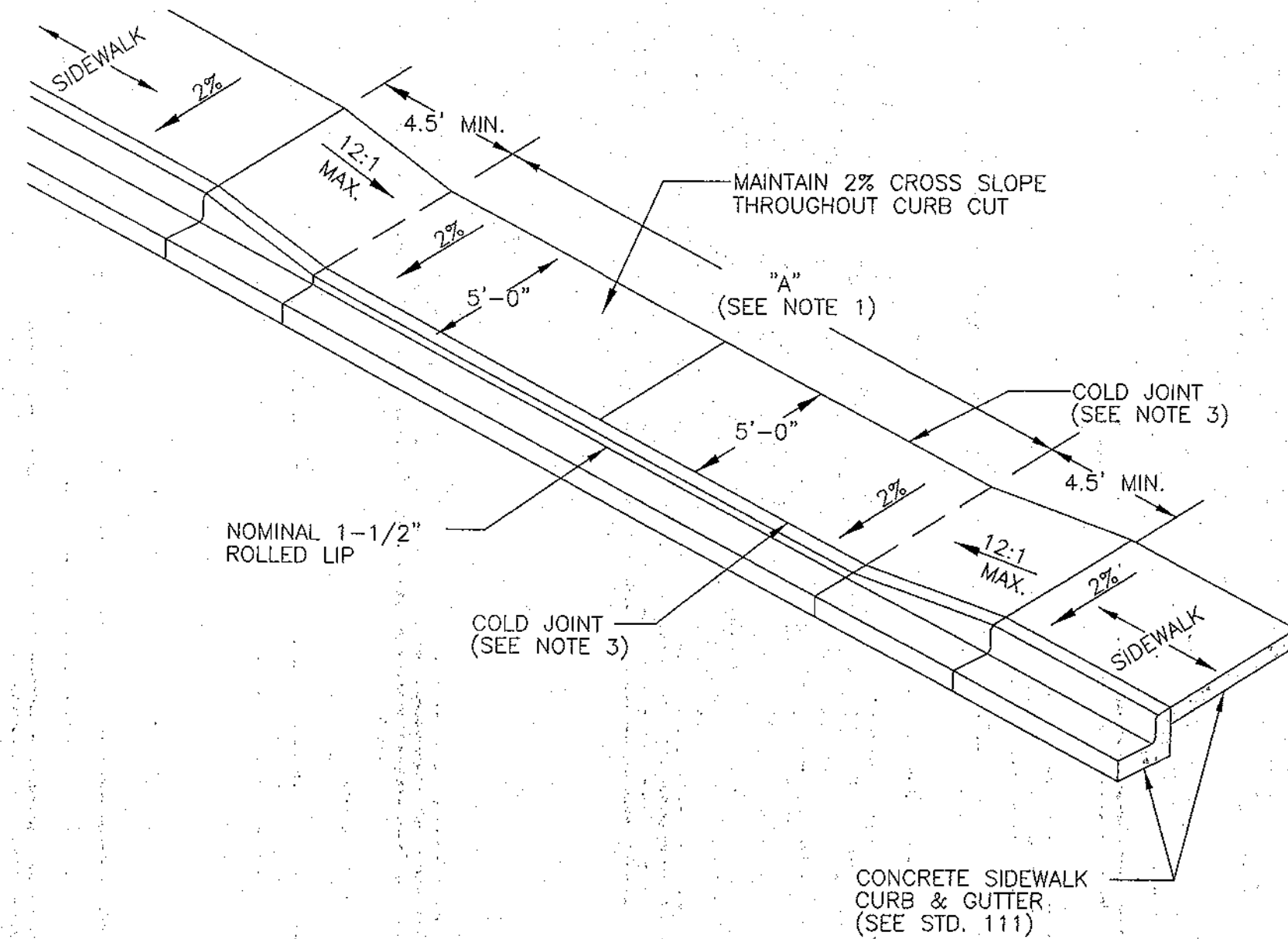
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TYPE I
STANDARD CURB & GUTTER

N.T.S.

- NOTES:
1. WHEELCHAIR ACCESS RAMP SHALL BE REQUIRED ON ALL NEW SIDEWALK CONSTRUCTION AT CROSSWALKS AND INTERSECTIONS IN CONFORMANCE WITH ADOT STANDARD DRAWINGS SECTION 11.
 2. CURB AND GUTTER TRANSITION DESIGN TO BE APPROVED BY THE ENGINEER.
 3. TYPE II AND TYPE III CURB TO BE USED AS DIRECTED BY THE ENGINEER.
 4. ALL STEEL MUST HAVE A MINIMUM OF 2" OF CONCRETE COVER.
 5. ALL JOINTS AND SEAMS SHALL BE EDGED.
 6. EXPANSION JOINTS SHALL BE MAX 1/2", MIN 1/4", WITH NO GAPS FOR WATER INTRUSION. JOINTS SHALL BE A MAXIMUM OF 30' O.C.
 7. STEEL TROWELING FINISH REQUIRED PRIOR TO BROOM FINISHING ON ALL SURFACES.
 8. CONCRETE INTERNATIONAL CORPORATION ASHFORD FORMULA OR APPROVED EQUAL SHALL BE APPLIED AS A CURING COMPOUND. APPLICATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS.
 9. ALTERNATE TO REINFORCEMENT: INCLUDE FIBERMESH 150 IN CONCRETE MIX IN ACCORD WITH SPEC'S OF SI CONCRETE SYSTEMS. (siconcretesystems.com)

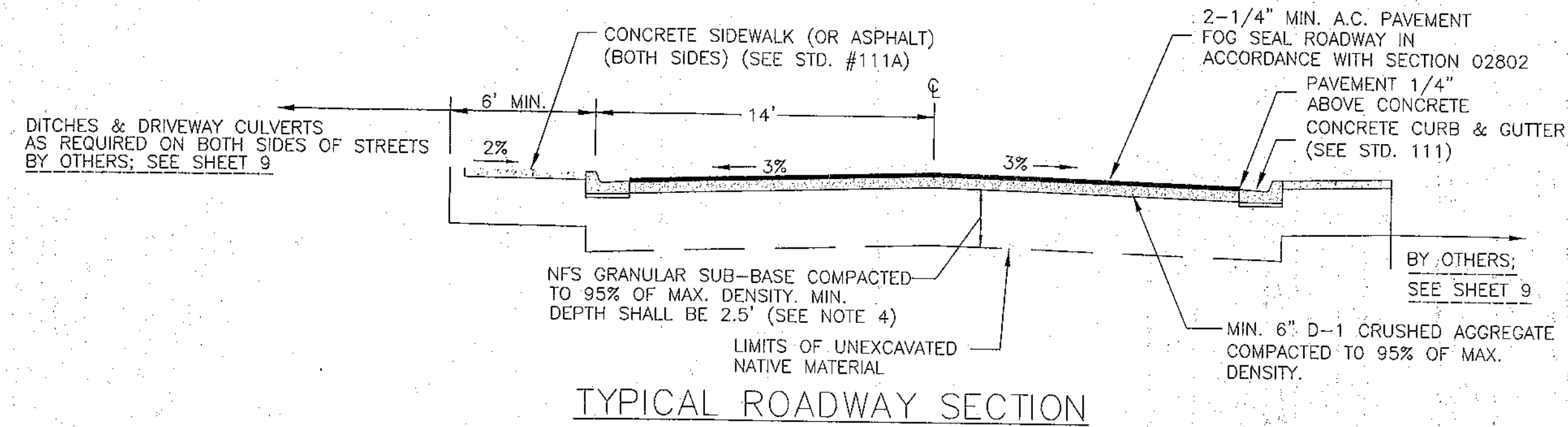


TYPICAL CONCRETE SIDEWALK

SCALE: 1"=5'

NOTES:

1. "A" EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE. MAXIMUM WIDTH SHALL BE 24' FOR SINGLE FAMILY RESIDENCES AND 32' FOR COMBINED DRIVEWAYS.
2. CONCRETE INTERNATIONAL CORPORATION ASHFORD FORMULA OR APPROVED EQUAL SHALL BE APPLIED AS A CURING COMPOUND. APPLICATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS.
3. COLD JOINT REQUIRED BETWEEN SIDEWALK AND DRIVEWAY AND BETWEEN SIDEWALK AND CURB.
4. ALL DRIVEWAY CONCRETE IN THE R.O.W. SHALL BE A MINIMUM 6" THICK AND SHALL BE POURED ON A 4" BASE OF D-1 COMPACTED TO 95% OF ITS MAXIMUM DENSITY.
5. 6" x 6" 10 GAUGE WIRE MESH REINFORCEMENT SHALL BE INSTALLED AT MID-DEPTH OF ALL DRIVEWAY CONCRETE.
6. EXPANSION JOINT REQUIRED IF "A" IS GREATER THAN 15'.



TYPICAL ROADWAY SECTION

SCALE: 1"=5'

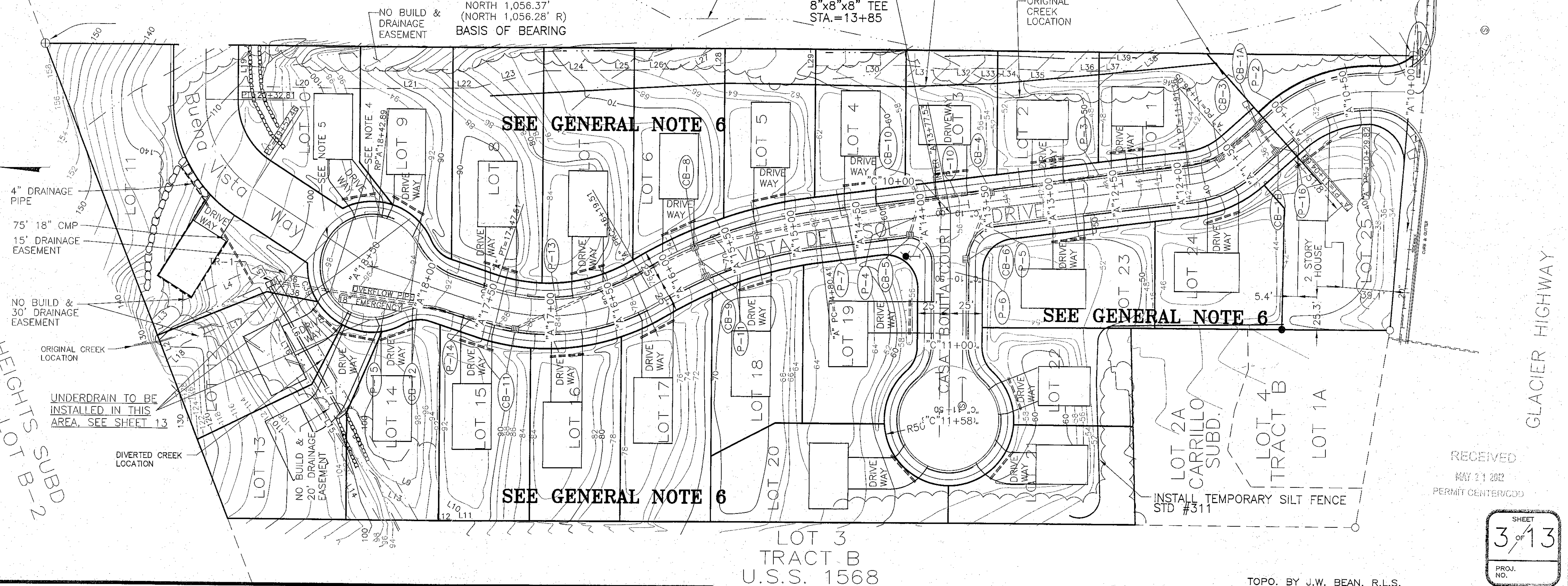
NOTES:

1. MAXIMUM ROAD GRADE SHALL BE 12%.
2. MAXIMUM GRADE WITHIN 100' OF INTERSECTIONS SHALL BE 6%.
3. MINIMUM GRADE FOR CONCRETE GUTTER SHALL BE 0.5%.
4. REMOVE ALL ORGANIC MATERIALS TO A MINIMUM DEPTH OF 60".
5. ROADWAY SITE MUST BE CLEARED IN ACCORDANCE WITH SECTION 02201.
6. EMBANKMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH SECTION 02202.
7. ALL CUT AND FILL SLOPES FOR THE ROADWAY AND DRAINAGE WAY EASEMENTS, SHALL BE SEED IN ACCORDANCE WITH SECTION 02710 AND TOPSOILED WHERE NECESSARY IN ACCORDANCE WITH SECTION 02709 AS APPROVED BY THE ENGINEER.
8. THE DEVELOPER SHALL INSTALL STREET NAME SIGNS, TRAFFIC CONTROL SIGNS AND TRAFFIC CONTROL PAVEMENT MARKINGS IN ACCORDANCE WITH THE APPROVED PLANS AND THE REQUIREMENTS OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM CONTROL DEVICES, INCLUDING THE CURRENT SUPPLEMENT.

GENERAL NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST REVISION OF CBJ STANDARD SPECIFICATIONS AND DETAILS.
2. SILT FENCING AND OTHER REQUIRED STORM WATER POLLUTION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO CONSTRUCTION.
3. SILT FENCING SHALL BE PLACED AROUND HOUSE PADS PER GRADING PLAN PRIOR TO PLACEMENT OF BACKFILL.
4. CONTRACTOR TO OBTAIN APPROVED STORM WATER POLLUTION PLAN PRIOR TO CONSTRUCTION.
5. SEE SHEET 5 FOR DRIVEWAY HEADWALL DETAIL.
6. SHEETS 1-5 ADDRESS ONLY WORK INSIDE THE BACK OF SIDEWALK EXCEPT WHERE NOTED OTHERWISE ON SHEET 9. SEE SHEET 12 FOR INTERSECTION AND UTILITY DESIGN FROM 9+65 TO 11+15.

STORM DRAIN PIPE TABLE			
P	2	3	4
P-2	185'	18" CPP @ 8.00%	N/A
P-3	30'	12" CPP @ 2.00%	
P-4	51'	18" CPP @ 2.50%	
P-5	40'	12" CPP @ 1.80%	
P-6	N/A		
P-7	N/A		
P-8	56'	18" CPP @ 7.20%	
P-9	28'	12" CPP @ 2.00%	
P-10	N/A		
P-11	155'	18" CPP @ 10.0%	
P-12	75'	18" CPP @ 8.00%	
P-13	100'	18" CPP @ 11.00%	
P-14	40'	12" CPP @ 2.00%	
P-15			
P-16			



SEE GENERAL NOTE 6

SEE GENERAL NOTE 6

SEE GENERAL NOTE 6

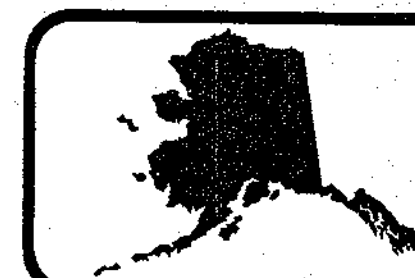
TRACT B1
U.S.S. 1568

LOT 3
TRACT B
U.S.S. 1568



REV	DESCRIPTION	BY
1/12	COORD OF DRWG'S	JP
2/12	DESCRIPTION	BY

DESIGNED BY	T. BRENNER
DRAWN BY	GDM Graphics
CHECKED BY	J.A. PESSOLANO
DATE	JAN 2012
REF. NO.	
SCALE:	AS NOTED



NORTH STAR DESIGN
1003 1st STREET
DOUGLAS, ALASKA 99824

Case 1:22-cv-00091-ACP Document 2-4 Filed 07/30/26 Page 8 of 18

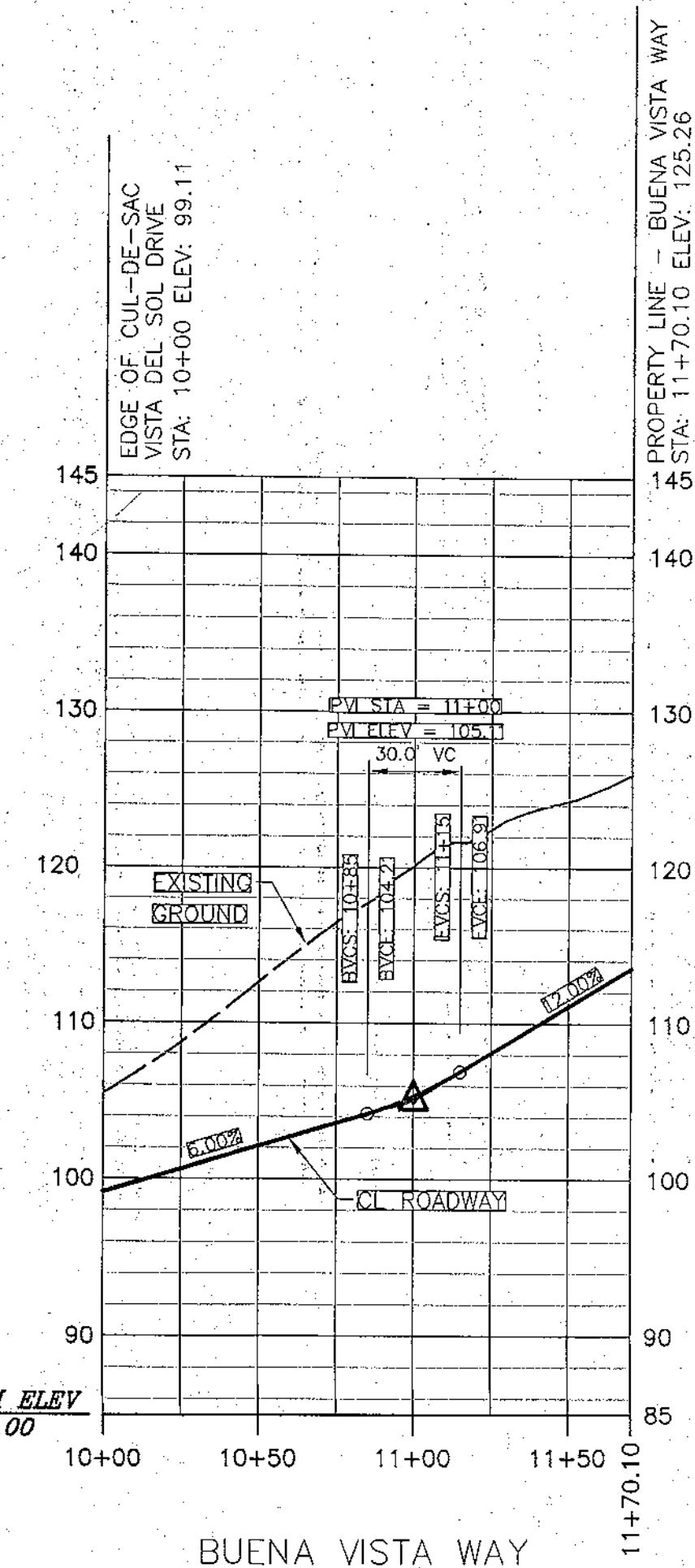
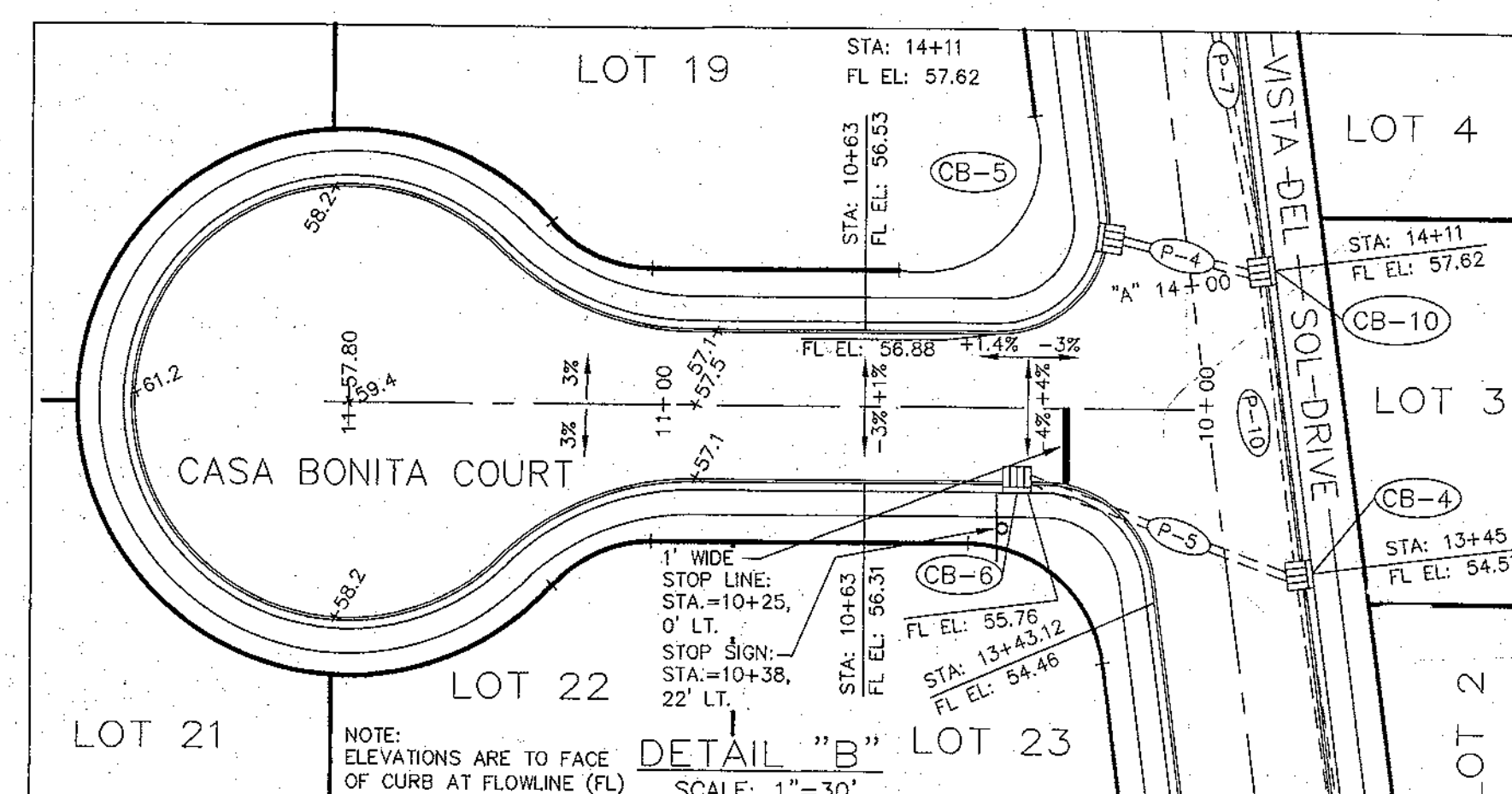
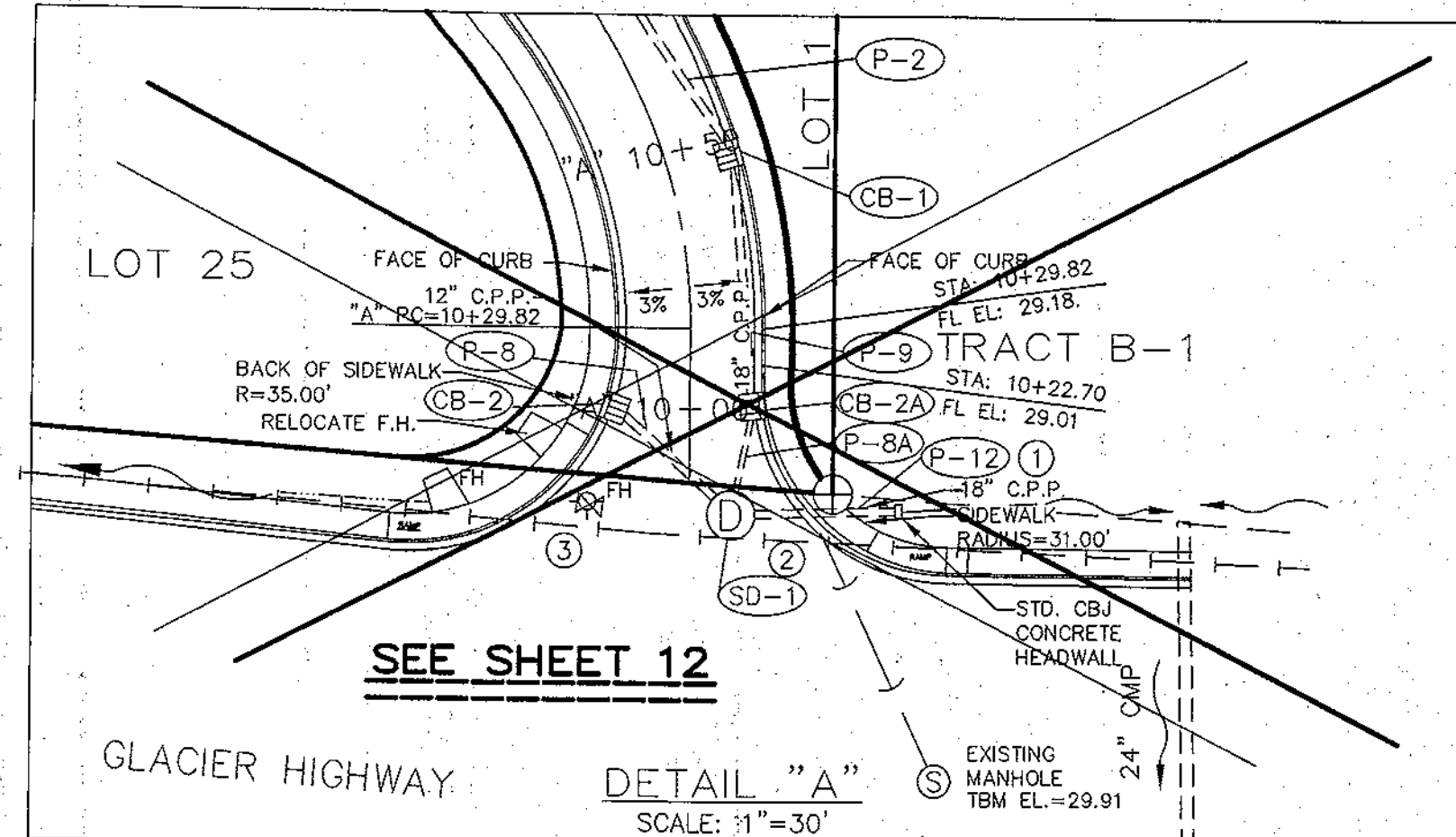
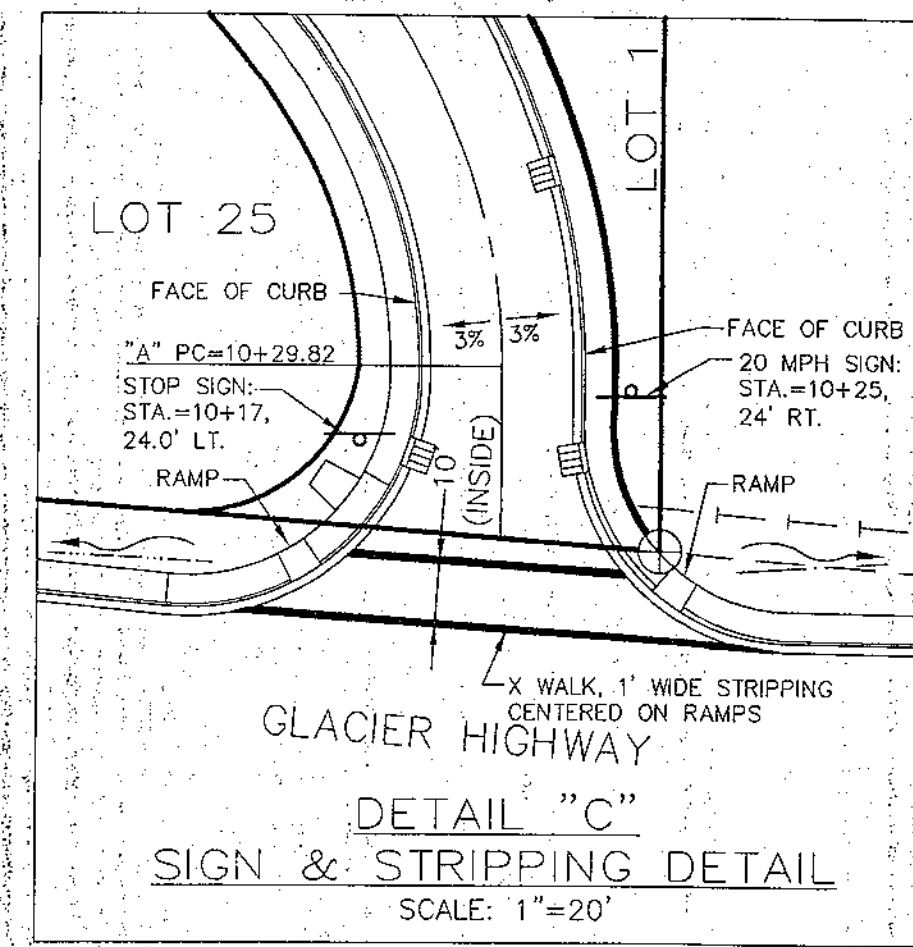
40' 0 80'
Scale in feet
SCALE: 1"=40'

TOPO. BY J.W. BEAN, R.L.S.

VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
STREET DRAINAGE PLAN
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568

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SHEET
3 of 13
PROJ.
NO.



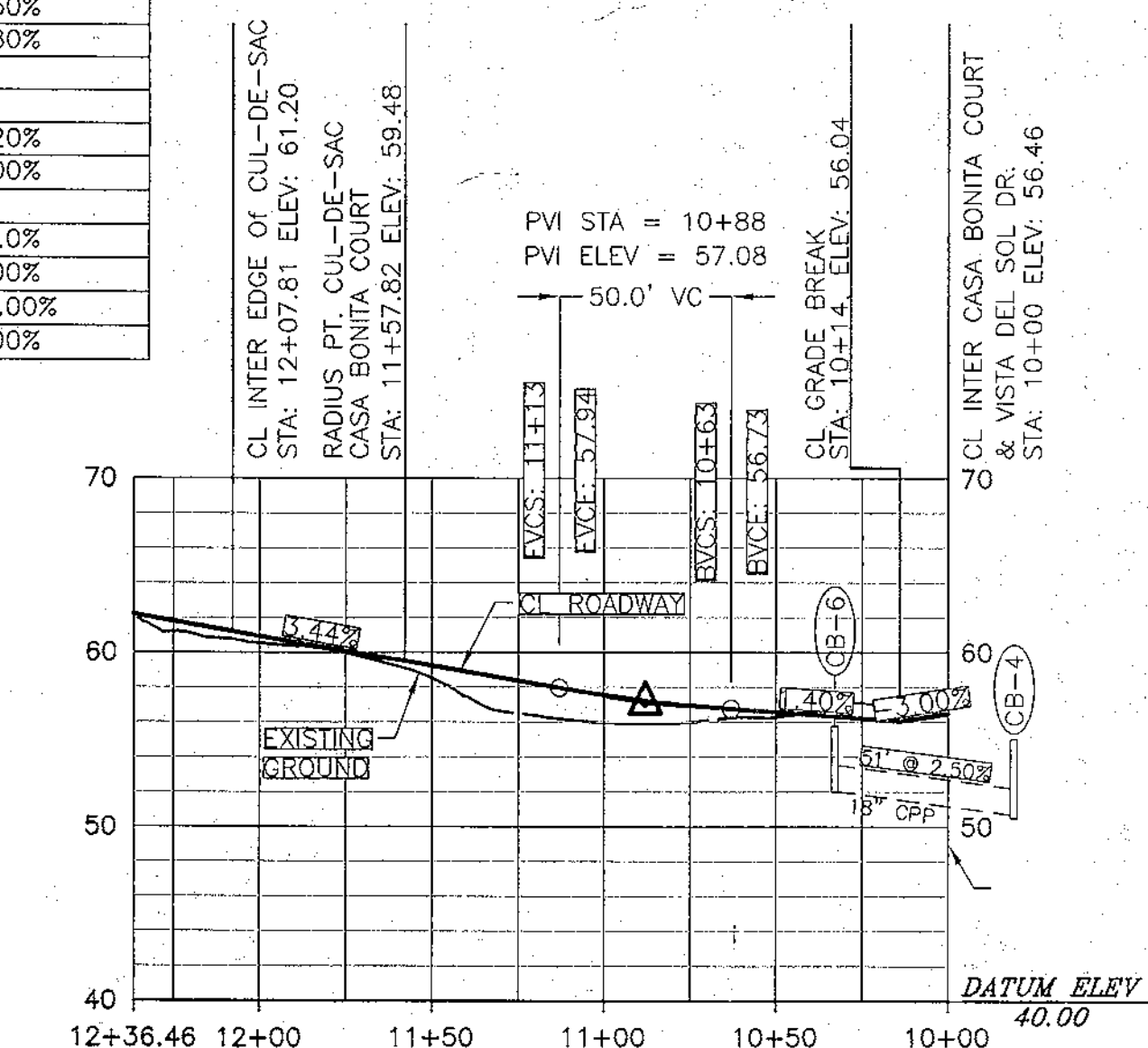
DATUM ELEV 85.00

BUENA VISTA WAY

SCALE: HORZ. 1"=50'
VERT. 1"=10'

TRASH RACK TABLE		
NO.	GRATE ELEV.	INV. ELEV.
TR-1	104.0'	97.0'
TR-2	55.75'	53.5'

STORM DRAIN PIPE TABLE		
P	SIZE	PERCENT
P-2	18"	8.00%
P-3	18"	8.00%
P-4	12"	2.00%
P-5	18"	2.50%
P-6	12"	1.80%
P-8	N/A	
P-9	N/A	
P-10	18"	7.20%
P-11	12"	2.00%
P-12	N/A	
P-13	18"	10.00%
P-14	18"	8.00%
P-15	18"	11.00%
P-16	12"	2.00%



CASA BONITA COURT

SCALE: HORZ. 1"=50'
VERT. 1"=10'

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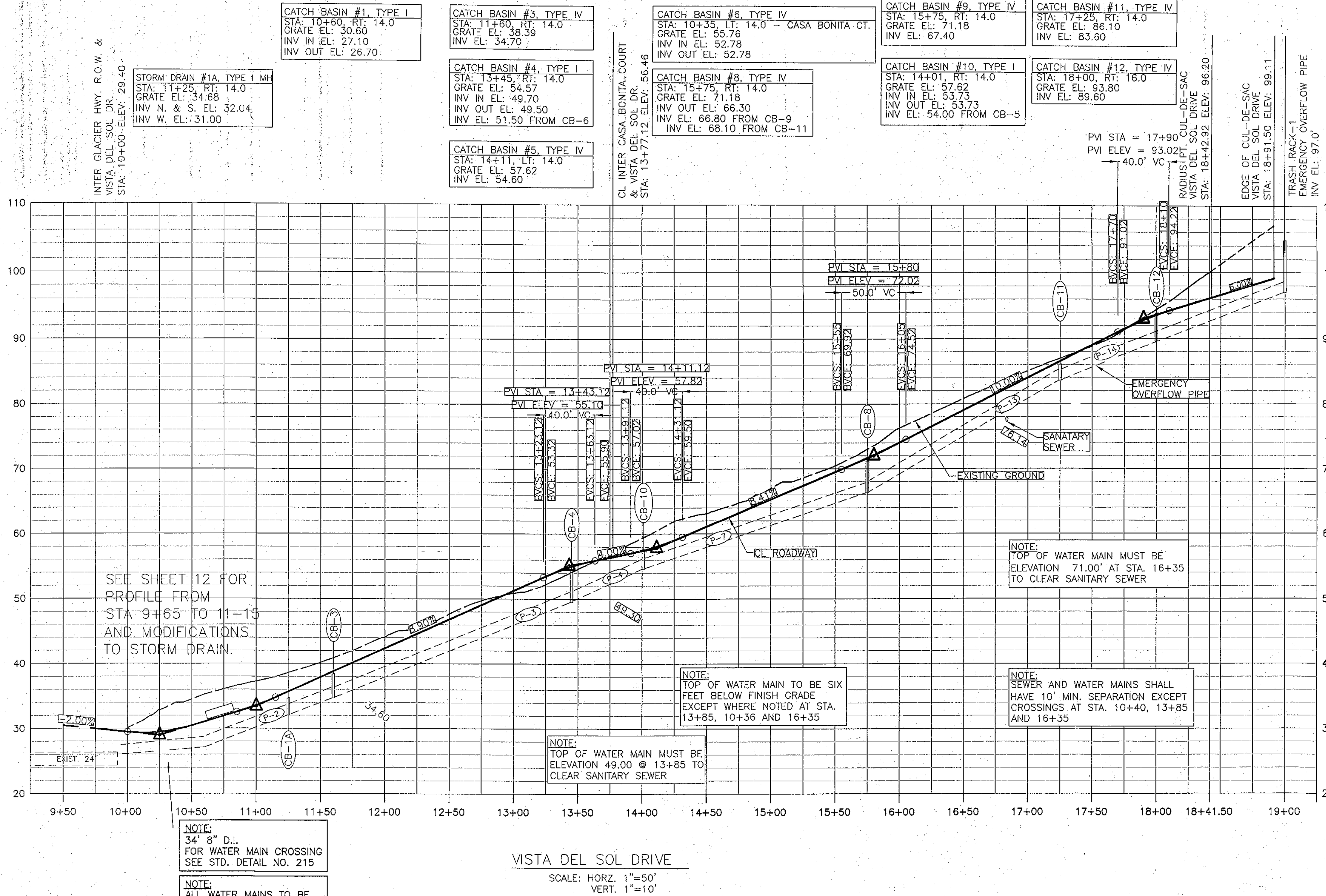
MAY 21 2012

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SHEET
4 OF 13
PROJ.
NO.

TOPO. BY J.W. BEAN, R.L.S.

VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
STORM DRAIN PROFILES
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568



VISTA DEL SOL DRIVE

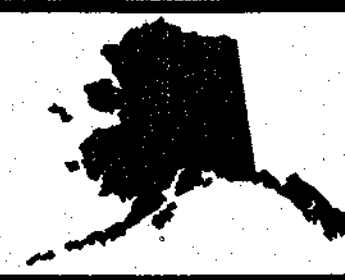
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VERT. 1"=10'

DRAINAGE PROFILES

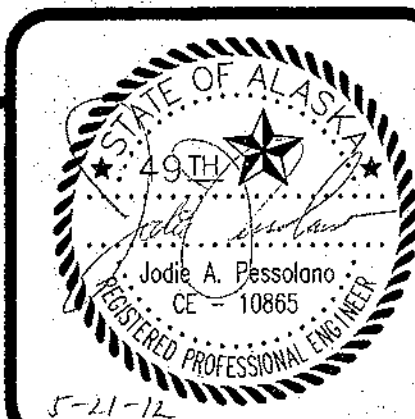
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REV	DESCRIPTION	BY
5/12	COORD. OF DRWG'S	JP

DESIGNED BY	T. BRENNER
DRAWN BY	GDM Graphics
CHECKED BY	J.A. PESSOLANO
DATE	APR 2010
REF. NO.	
SCALE:	AS NOTED



NORTH STAR DESIGN
1003 1st STREET
DOUGLAS, ALASKA 99824
Case 1:22-cv-00091-ACP Document 82-4 Filed 07/30/26 Page 9 of 18

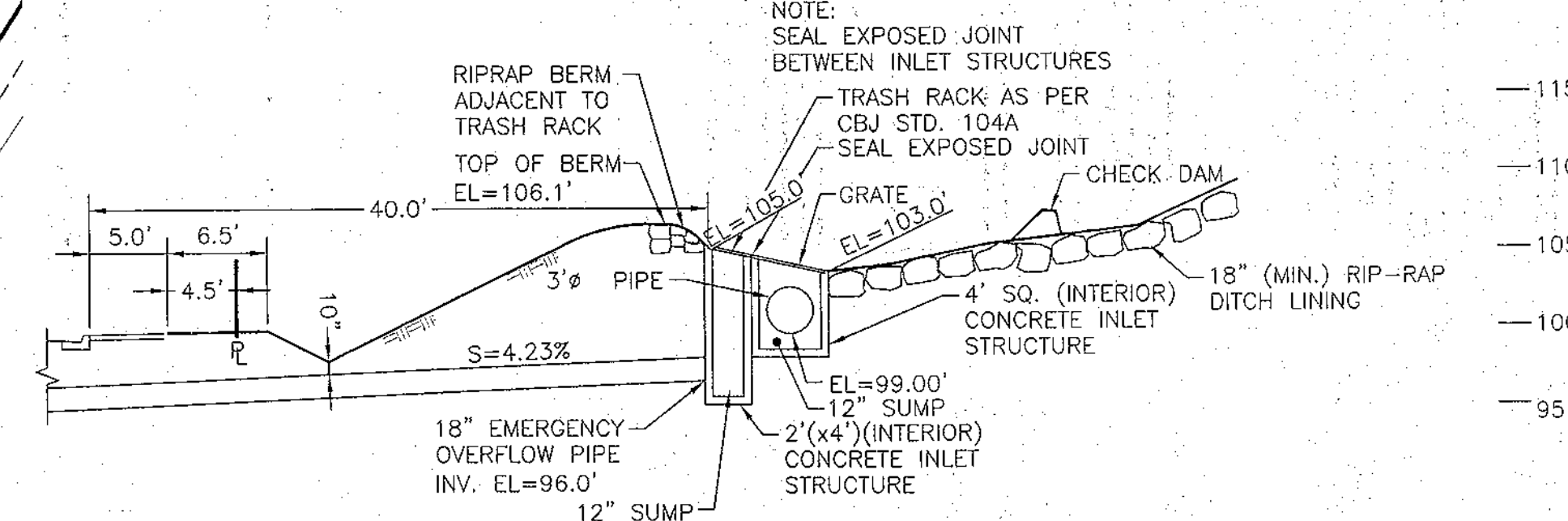
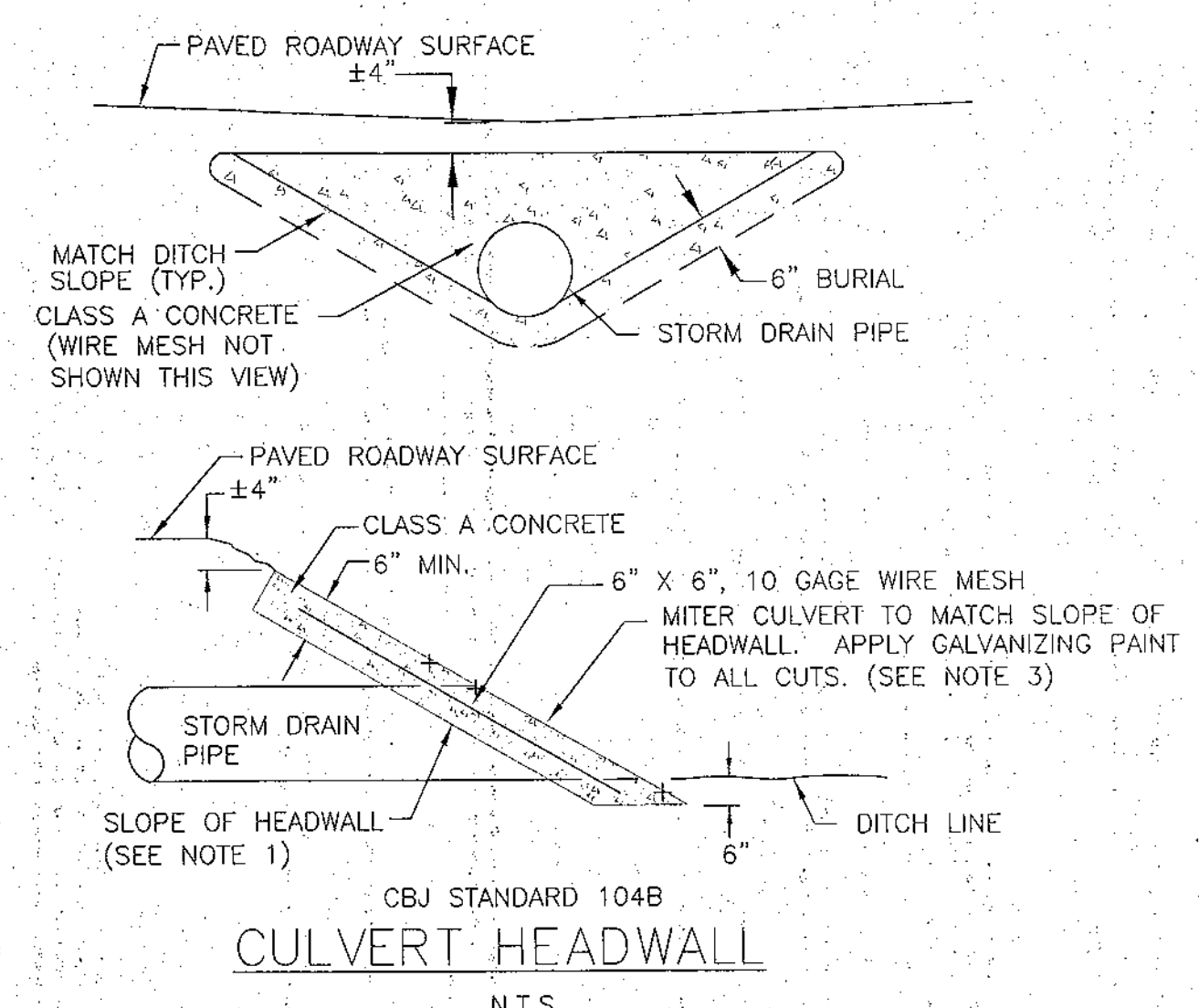
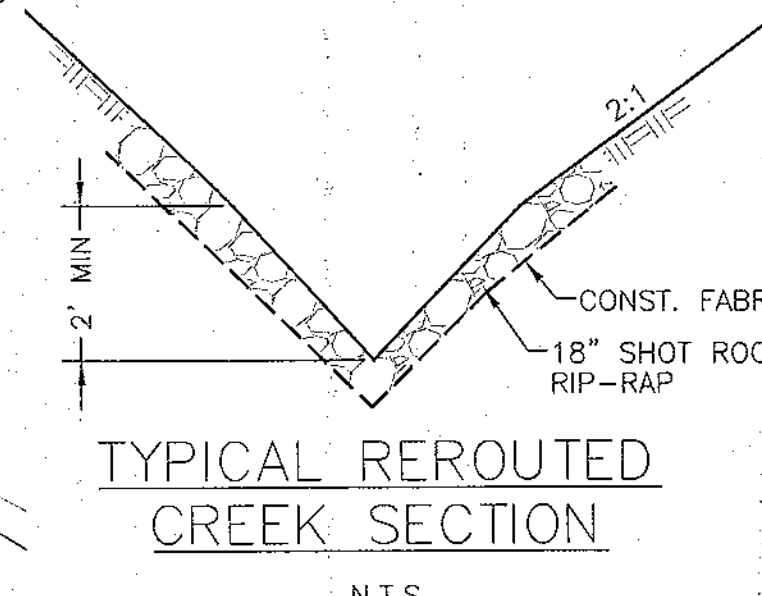


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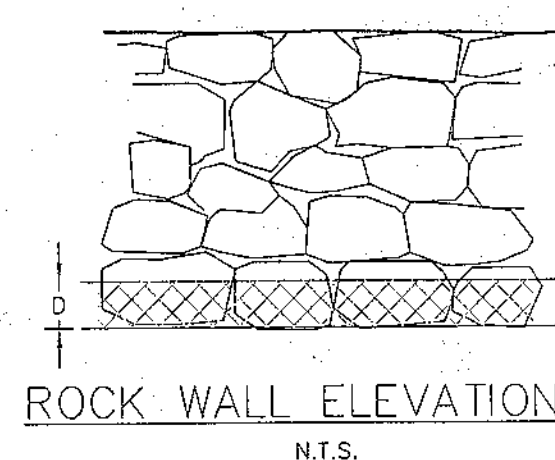
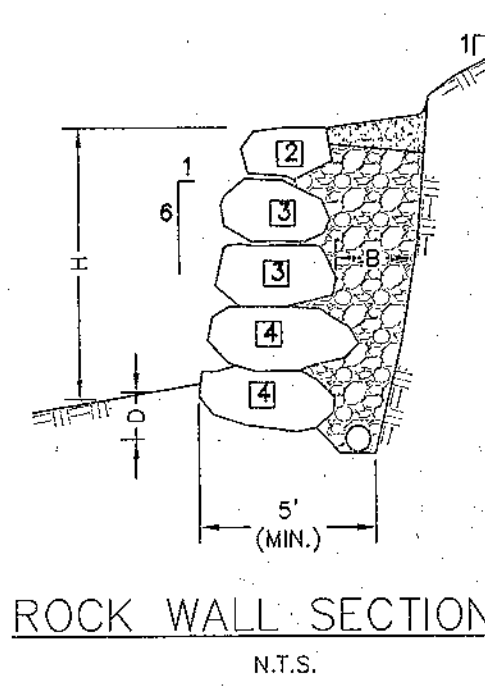


Scale in feet

4" DRAINPIPE
12" ROCK FILTER LAYER
ABOVE DRAINPIPES
(SEE ROCK WALL DETAIL)



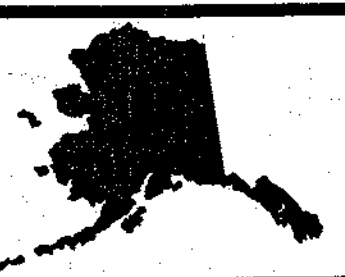
CREEK PROFILE AT TR-1
SCALE: HORIZ. 1"=10'
VERT. 1"=10'



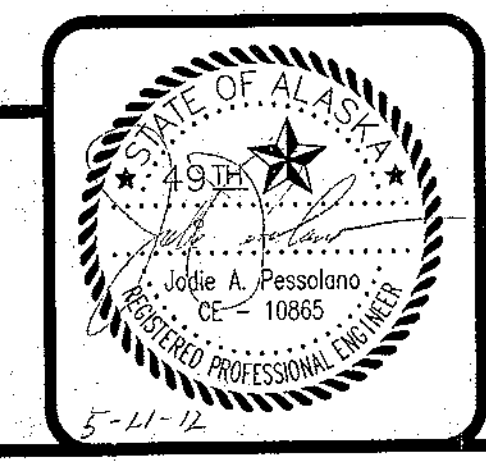
- NOTES:
1. THE DEGREE OF RETENTION ACHIEVED BY THE ROCK WALL IS DEPENDENT ON THE SIZE OF THE ROCK USED; THAT IS, THE MASS OR WEIGHT, AND THE HEIGHT OF THE WALL BEING CONSTRUCTED. THE LARGER THE ROCK, THE MORE COMPLETE THE ROCK WALL SHOULD BE.
 2. ROCK WALLS SHOULD BE CONSIDERED MAINTENANCE ITEMS THAT WILL REQUIRE PERIODIC INSPECTION AND REPAIR BY THE PROPERTY OWNER. THEY SHOULD BE LOCATED SO THAT THEY CAN BE REACHED BY A CONTRACTOR IF REPAIRS BECOME NECESSARY.
 3. MAXIMUM INCLINATION OF THE SLOPES ABOVE AND BEHIND ROCK WALLS SHOULD BE 2:1 (HORIZONTAL: VERTICAL).
 4. MINIMUM THICKNESS OF ROCK FILTER LAYER B = 12 INCHES, MINIMUM EMBEDMENT D = 12 INCHES UNDISTURBED NATIVE SOIL OR COMPACTED FILL PLACED IN ACCORDANCE WITH REPORT RECOMMENDATIONS.
 5. MAXIMUM ROCK WALL HEIGHT H = 6 FEET.
 6. ROCK WALLS GREATER THAN 6 FEET IN HEIGHT TO BE INSTALLED UNDER PERIODIC OR FULL TIME OBSERVATION OF THE GEOTECHNICAL ENGINEER.
 7. ROCK SHOULD BE PLACED TO GRADUALLY DECREASE IN SIZE WITH INCREASING WALL HEIGHT IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS RECOMMENDATIONS.
 8. MINIMUM WIDTH OF KEYWAY EXCAVATION, W, SHOULD BE EQUAL TO THE THICKNESS OF THE BASAL ROCK (AS DETERMINED BY GEOTECHNICAL ENGINEERS DESIGN) PLUS 6.
- * A TWO-TIERED WALL MUST BE SEPARATED BY 5-FEET (MIN.).
- REFERENCE: LOCAL QUARRY WEIGHT STUDY USING AVERAGE WEIGHTS OF NO LESS THAN SIX ROCKS OF EACH MAN SIZE CONDUCTED IN JANUARY 1, 1988.
- | SIZE | APPROXIMATE WEIGHT - LBS. | APPROXIMATE DIAMETER |
|-------|---------------------------|----------------------|
| 1 Man | 50-200 | 12"-18" |
| 2 Man | 200-700 | 18"-28" |
| 3 Man | 700-2000 | 28"-36" |
| 4 Man | 2000-4000 | 36"-48" |
| 5 Man | 4000-6000 | 48"-54" |
| 6 Man | 6000-8000 | 54"-60" |
- Drainage materials to consist of clean angular 4 to 2 inch spalls, or other material, approved by the geotechnical engineer.
- Surface seal: may consist of impervious soil or a fine free draining granular material.
- Undisturbed firm native soil.
- Drainpipe: 4-inch minimum diameter, perforated or slotted rigid plastic ads pipe laid with a positive gradient to discharge under control well away from the wall.
- Designates size of rock required, i.e. 4 man.

5/12	COORD OF DRWG'S	JP
REV	DESCRIPTION	BY

DESIGNED BY	T. BRENNER
DRAWN BY	GDM Graphics
CHECKED BY	J.A. PESSOLANO
DATE	APR 2010
REF. NO.	
SCALE:	AS NOTED



NORTH STAR DESIGN
1003 1st STREET
DOUGLAS, ALASKA 99824



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VISTA DEL SOL SUBDIVISION
FOR DURAN CONSTRUCTION CO.
INLET STRUCTURE & ROCKERY DETAIL
LOT 5, TRACT B
WITHIN U.S. SURVEY NO. 1568

SHEET
5 OF 13

PROJ.
NO.

VISTA DEL SOL SUBDIVISION - GRADING PLANS

LEGEND

DESCRIPTION	EXISTING/BY OTHERS	PROPOSED
SHOULDER LIMIT		
ASPHALT LIMIT		
ASPHALT SAWCUT		
BURIED ELECTRICAL UTILITIES		
CABLE TV		
POWER		
TELEPHONE		
LIGHTING		
CATCH BASIN		
CONTROL POINT		
CURB		
CUT LIMITS		
DRAINAGE SWALE OR DITCH		
DRAINAGE FLOW DIRECTION		
EXISTING TOPO SHOT		
FILL LIMITS		
FINISH GRADE CALLOUT		
FIRE HYDRANT		
PROJECT CONTROL LINE		
PROPERTY/ROW LINE		
EASEMENT		
POWER POLE		
REBAR W/ PLASTIC CAP		
SANITARY SEWER MAIN OR SERVICE		
SANITARY SEWER MANHOLE		
STREET SIGN		
STORM DRAIN/CULVERT		
STORM DRAIN MANHOLE		
WATER LINE		
WATER VALVE		

ABBREVIATIONS

AC	ASPHALT PAVING
ARCH	ARCHITECTURAL PLANS
BOP	BEGINNING OF PROJECT
BFS	BEGIN FULL SUPERELEVATION
BLDG	BUILDING
BS	BEGIN SUPERELEVATION
CB	CATCH BASIN
C&G	CURB AND GUTTER
CI	CAST IRON
CIRC	CIRCULATION
CMP	CORRUGATED METAL PIPE
CP	CONTROL POINT
CPP	CORRUGATED POLYETHYLENE PIPE
CO	CLEAN OUT
CONC	CONCRETE
COORD	COORDINATE
CTE	CONNECT TO EXISTING
CU	COPPER
DI	DUCTILE IRON
DIA	DIAMETER
DTL	DETAIL
ELEC	ELECTRICAL PLANS
EOP	END OF PROJECT
EXST	EXISTING
FG	FINISHED GRADE
FH	FIRE HYDRANT
GV	GATE VALVE
HP	HIGH POINT
INV	INVERT
LT	LEFT
LP	LOW POINT
MECH	MECHANICAL PLANS
MH	MANHOLE
MIN	MINIMUM
MN	MAGNETIC NAIL
NO	NUMBER
NTS	NOT TO SCALE
OHP	OVER HEAD POWER
PP	POWER POLE
PVC	POLYVINYL CHLORIDE PIPE
ROW	RIGHT-OF-WAY
RT	RIGHT
SD	STORM DRAIN
SHLDR	SHOULDER
SHT	SHEET
SS	SANITARY SEWER SERVICE
STA	STATION
STD	STANDARD
SW	SIDEWALK
TBC	TOP BACK OF CURB
TBM	TEMPORARY BENCH MARK
TP	TOP OF PAVEMENT
WS	WATER SERVICE

ABBREVIATIONS TO BE USED WITHOUT PERIODS.

GENERAL NOTES

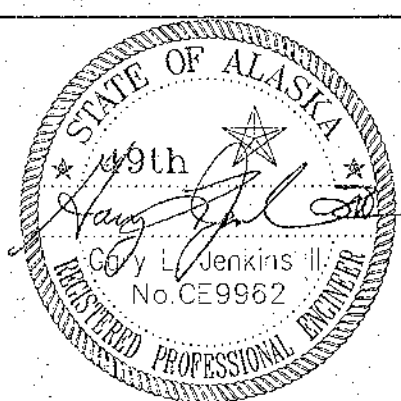
1. LARGE Boulders, BEDROCK, HARDPAN, ORGANICS, AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING, DITCHING AND SITE GRADING OPERATIONS.
2. EXISTING PIPE LOCATIONS ARE FIELD LOCATED BY SURFACE FEATURES AND ASBUILTS. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITY PIPING PRIOR DIGGING.
3. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE DRAWINGS ARE A BEST FIT APPROXIMATION OF CLOSURE.
4. CONTRACTOR SHALL REFERENCE ALL EXISTING SURVEY MONUMENTS (E.G.—REBARS, CONCRETE NAILS, CHISELED X'S) PRIOR TO CONSTRUCTION AND RE-MONUMENT IF DISTURBED. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF: AN ALASKA REGISTERED LAND SURVEYOR.
5. THE CONTRACTOR SHALL RESTRICT HIS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES.
6. TOPOGRAPHIC AND EXISTING CONDITION SURVEY PROVIDED J.W. BEAN, INC. PROJECT CONTROL AND TBM ELEVATIONS WERE NOT PROVIDED IN THE SURVEY DATA. CONTACT THE PROJECT SURVEYOR FOR HORIZONTAL AND VERTICAL CONTROL.
7. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL PERMITS REQUIRED FOR THIS PROJECT.
8. SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, THE PROJECT'S STORMWATER SITE PLAN AND THE CSJ MANUAL OF STORMWATER BMPs (JUNE 2009).
9. A STORMWATER POLLUTION PREVENTION PLAN MUST BE PREPARED AND ACTIVE FOR THE SITE WORK.
10. THESE DESIGN DRAWINGS ADDRESS SITE GRADING OUTSIDE THE BACK OF SIDEWALK. ALL GRADING AND UTILITY DESIGN BETWEEN THE BACK OF SIDEWALK, RIGHT AND LEFT, IS BY OTHERS EXCEPT FOR THE FOLLOWING DRAINAGE CULVERTS: SD-1g, SD-2a, SD-3a, SD-3a, AND SD-4a.

INDEX

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STATUS	DATE PRINTED	
DATE	REVISIONS	BY



Admiralty Engineering, INCORPORATED

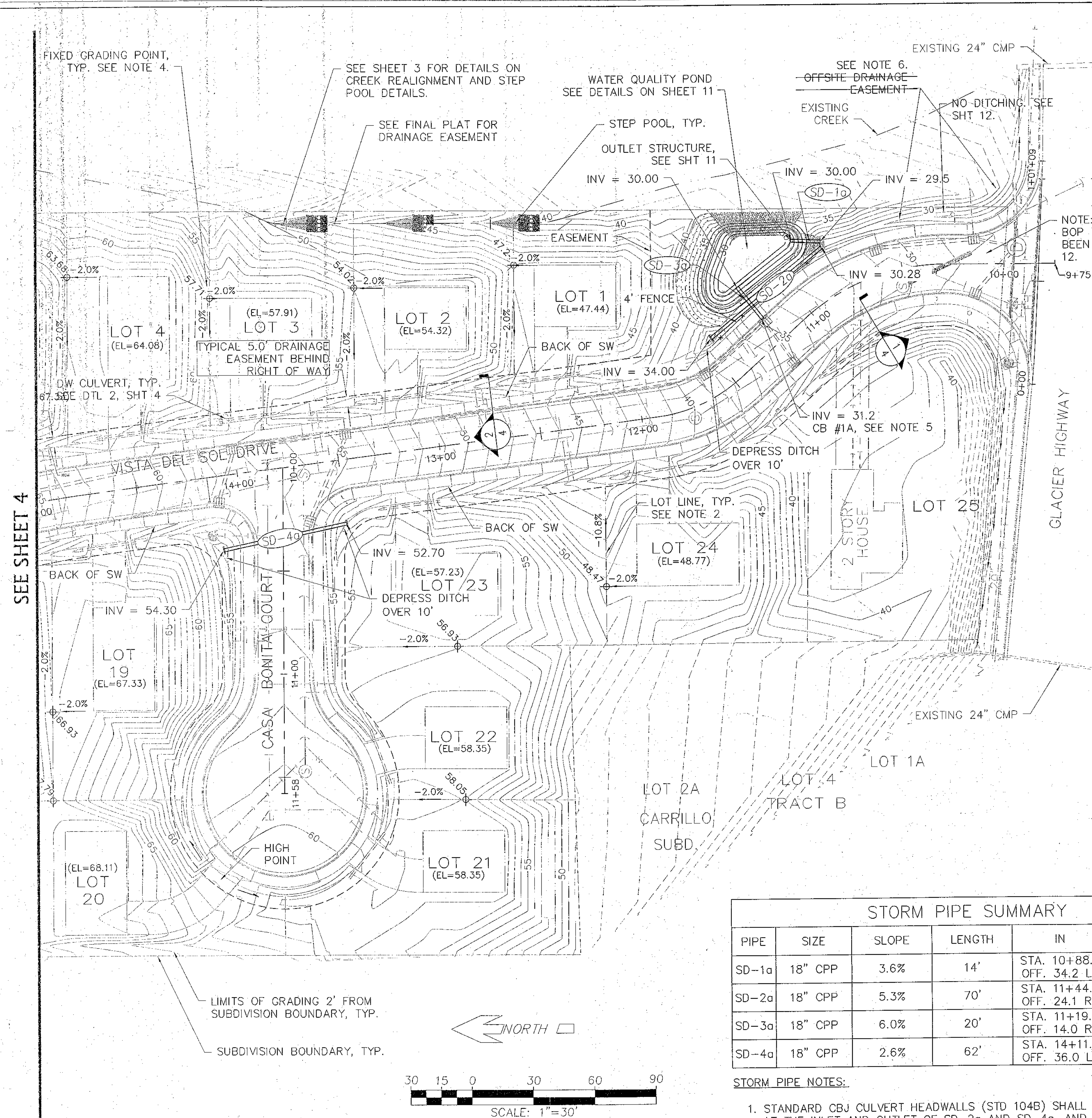
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**DURAN
CONSTRUCTION
COMPANY**

VISTA DEL SOL SUBDIVISION: GRADING & STORMWATER PLAN

LEGEND, NOTES & ABBREVIATIONS

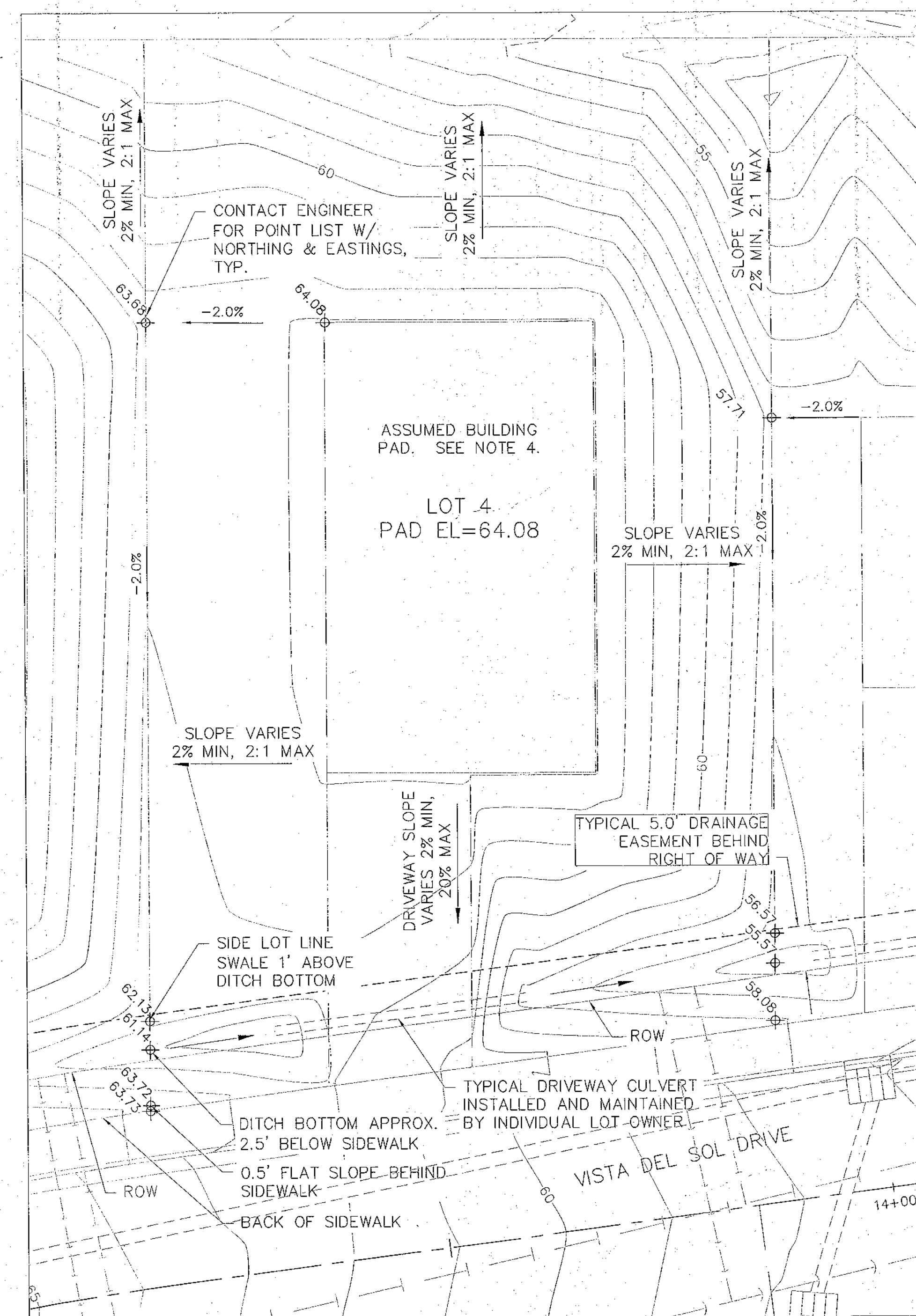
SHEET NO.
3
of
13



NOTES:

1. THIS DESIGN ADDRESSES SITE GRADING BEHIND BACK OF SIDEWALK. ALIGNMENT, PROFILE, CURB, SIDEWALK, AND UTILITIES BY OTHERS, EXCEPT FOR THE STORM DRAIN PIPES LISTED ON THIS SHEET. SEE VISTA DEL SOL CONSTRUCTION PLANS BY OTHERS FOR ALL WORK BETWEEN THE BACK OF SIDEWALKS.
2. LOT LAYOUT BY OTHERS. LOT LINE SWALE GRADES ARE BASED ON LOT LINE LOCATIONS PROVIDED.
3. SITE GRADING TIES INTO ORIGINAL TOPOGRAPHY A MINIMUM OF 2' FROM SUBDIVISION BOUNDARY. ORIGINAL TOPO PROVIDED BY J.W. BEAN.
4. BUILDING PAD SIZE AND SHAPE CAN BE ALTERED BY OWNER. LOT OWNERS MUST MAINTAIN LOT LINE SWALE GRADES AS SHOWN IN DETAIL 1. GRADES IN DETAIL 1 ARE REPRESENTATIVE. ACTUAL ELEVATIONS ARE RELATIVE TO EACH LOT PAD.
5. CB #1A IS SHOWN BY OTHERS. IT SHALL BE A TYPE 1 STORM DRAIN MANHOLE DUE TO THE NUMBER OF PIPES COMING INTO AND OUT OF THE STRUCTURE.
6. THE DISCHARGE FROM SD-1a AND SD-2a HAS BEEN MODIFIED. THE DITCH AND OFFSITE DRAINAGE EASEMENT SHOWN HERE HAVE BEEN ELIMINATED. SEE SHEET 12.

NOTE: INTERSECTION FROM BOP TO STA 11+15 HAS BEEN MODIFIED. SEE SHEET 12.



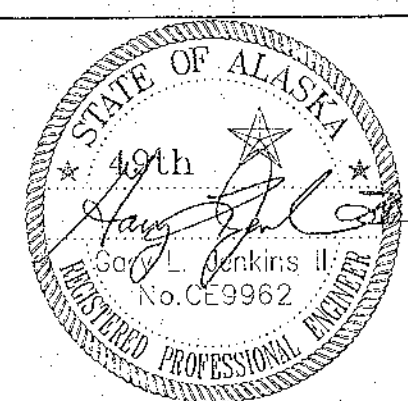
STORM PIPE SUMMARY

PIPE	SIZE	SLOPE	LENGTH	IN	OUT
SD-1a	18" CPP	3.6%	14'	STA. 10+88.7 OFF. 34.2 LT	STA. 10+79.5 OFF. 26.6 LT
SD-2a	18" CPP	5.3%	70'	STA. 11+44.7 OFF. 24.1 RT	STA. 10+80.2 OFF. 23.9 RT
SD-3a	18" CPP	6.0%	20'	STA. 11+19.5 OFF. 14.0 RT	STA. 11+18.4 OFF. 33.9 RT
SD-4a	18" CPP	2.6%	62'	STA. 14+11.6 OFF. 36.0 LT	STA. 13+50.2 OFF. 31.1 LT

STORM PIPE NOTES:

1. STANDARD CBJ CULVERT HEADWALLS (STD 104B) SHALL BE CONSTRUCTED AT THE INLET AND OUTLET OF SD-2a AND SD-4a, AND THE OUTLET OF SD-1a. THE HEADWALLS AT THE OUTLETS OF SD-1a AND SD-2a SHALL BE TIED TOGETHER TO FORM ONE HEADWALL.

STATUS	DATE PRINTED
1/23/12	SEE NOTE 6
DATE	REVISIONS
	BY



Admiralty Engineering,
INCORPORATED

Consulting Engineering

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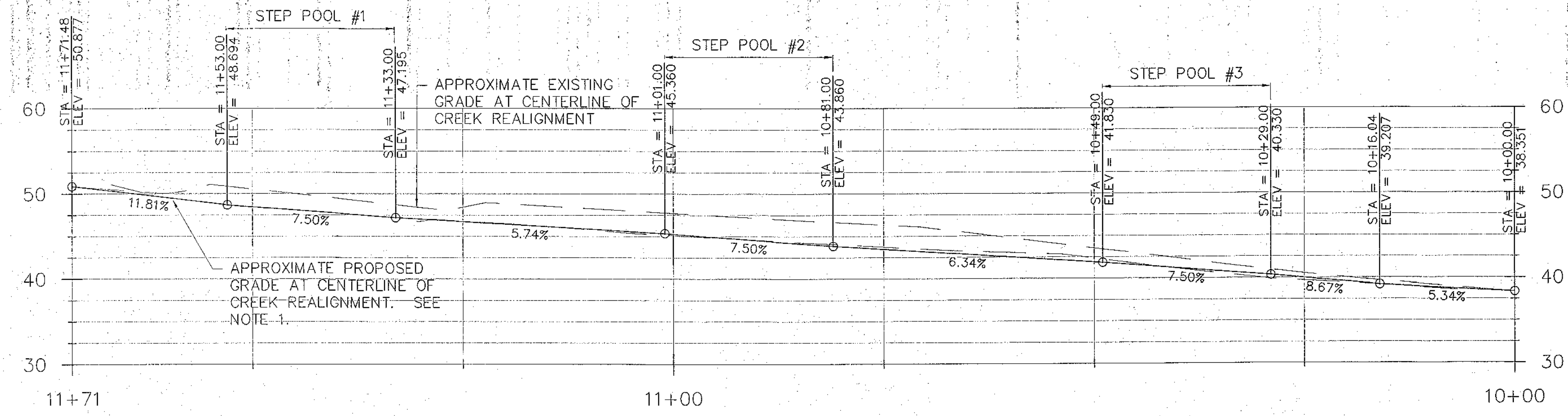
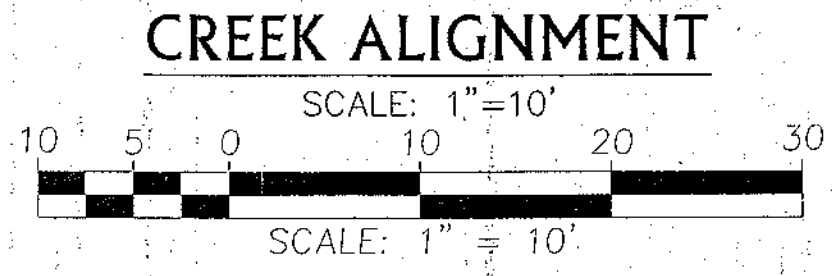
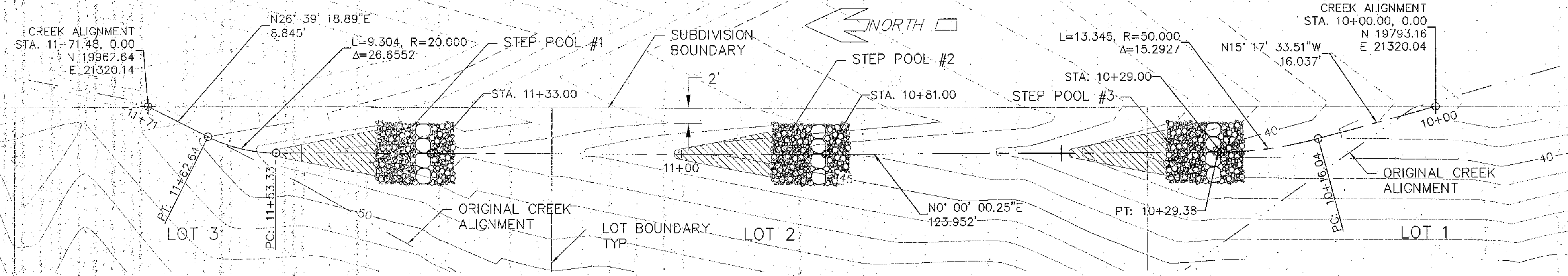
DATE: 6/8/2010 AE NO. 10-081 DESIGNED BY: GLJ DRAWN BY: STAFF CHECKED BY: GLJ

DURAN CONSTRUCTION COMPANY

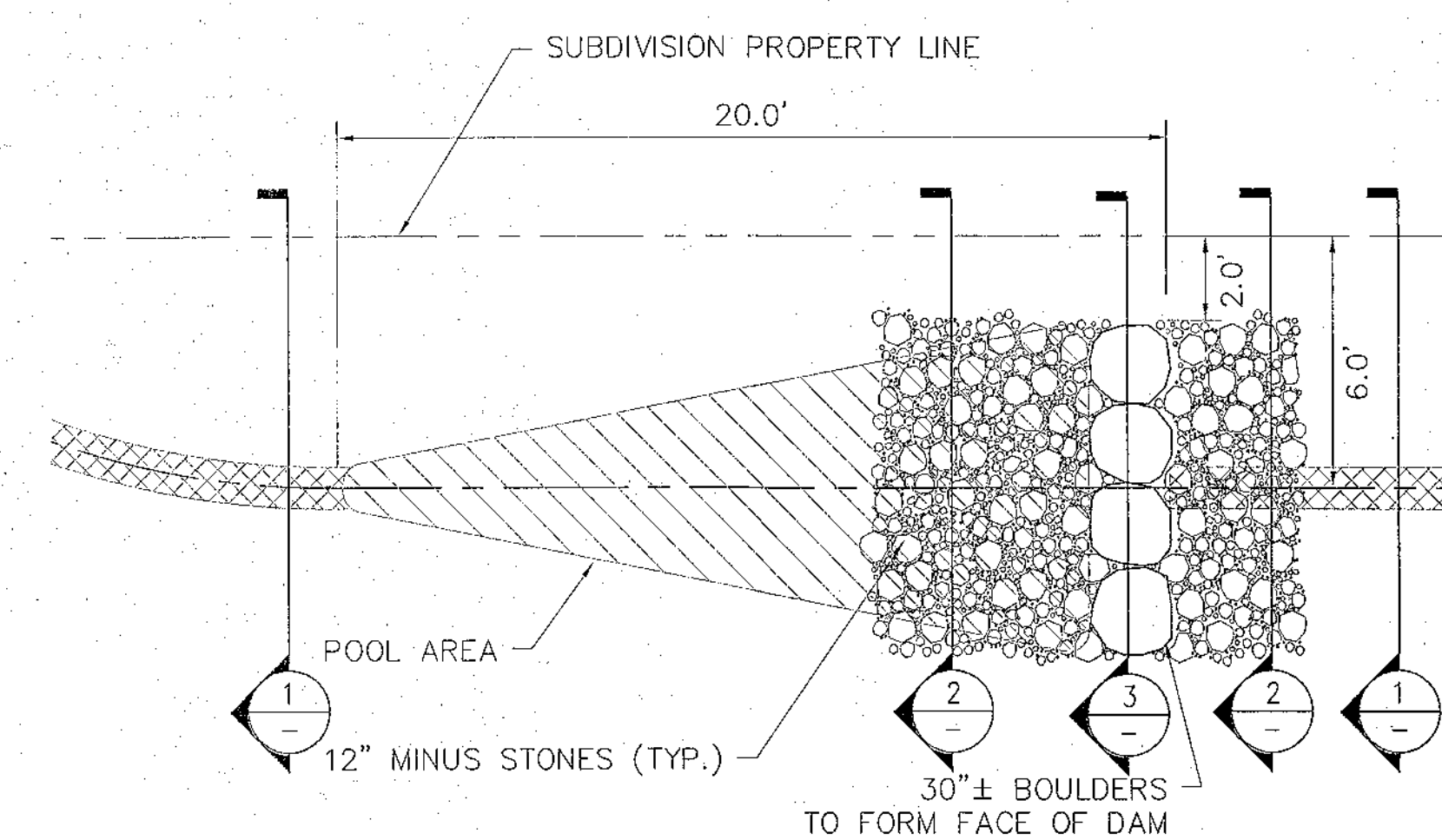
**VISTA DEL SOL SUBDIVISION:
GRADING & STORMWATER
PLAN**

**SITE GRADING PLAN 1
& TYP LOT GRADING
PLAN**

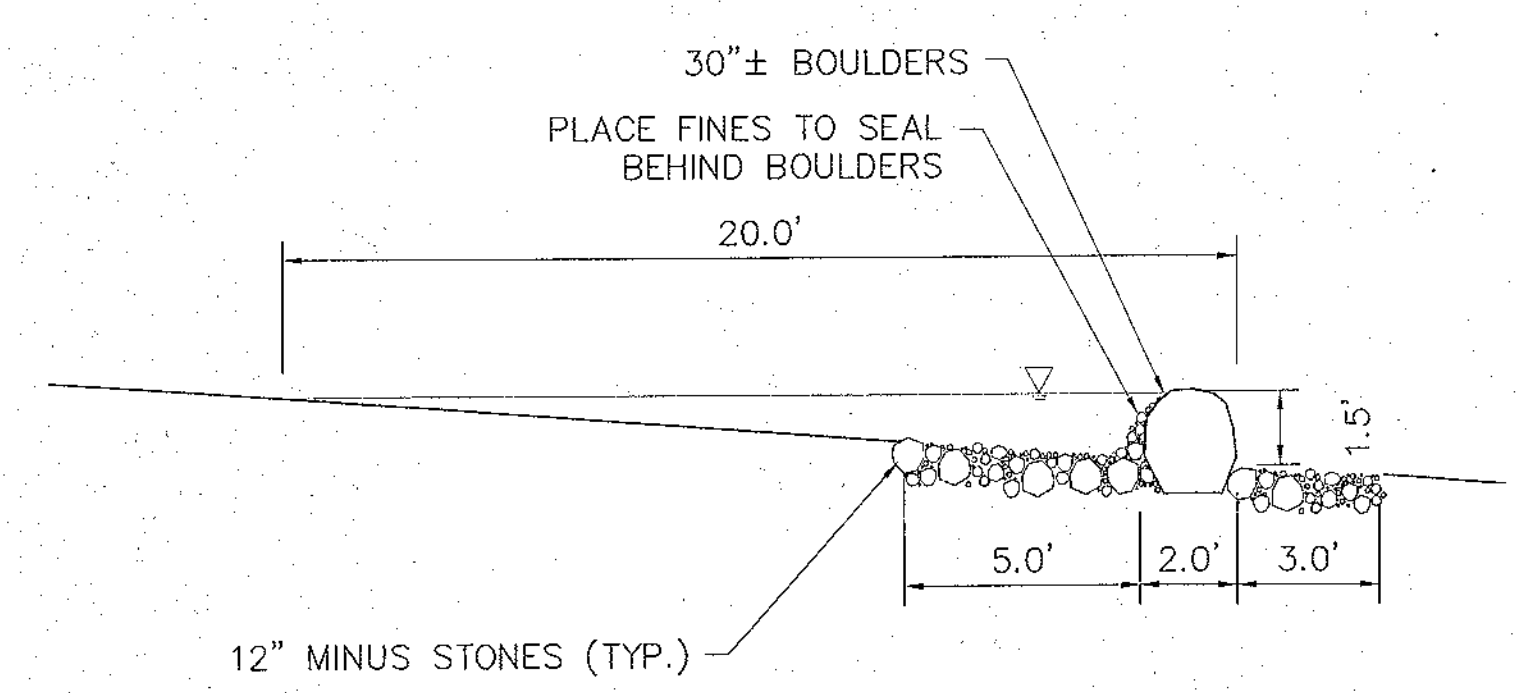
SHEET NO.
8
of
13



CREEK PROFILE
SCALE: 1"=10'



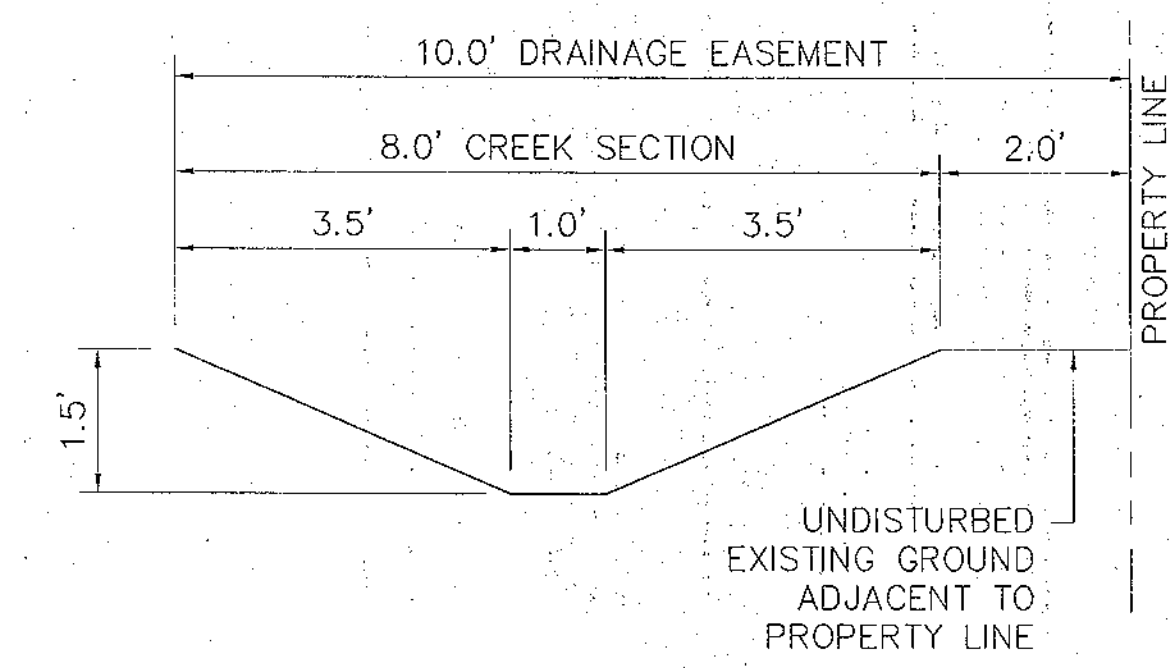
TYPICAL STEP POOL - PLAN VIEW
SCALE: 1"=4'



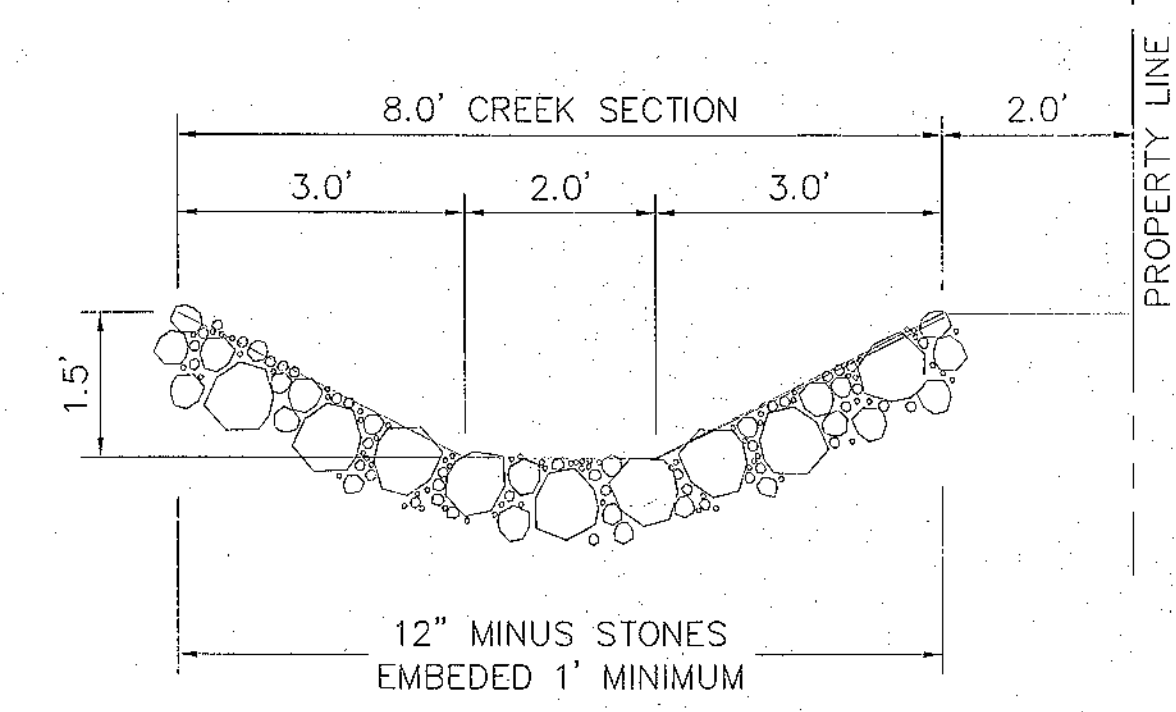
TYPICAL STEP POOL - PROFILE VIEW
SCALE: 1"=4'

NOTES:

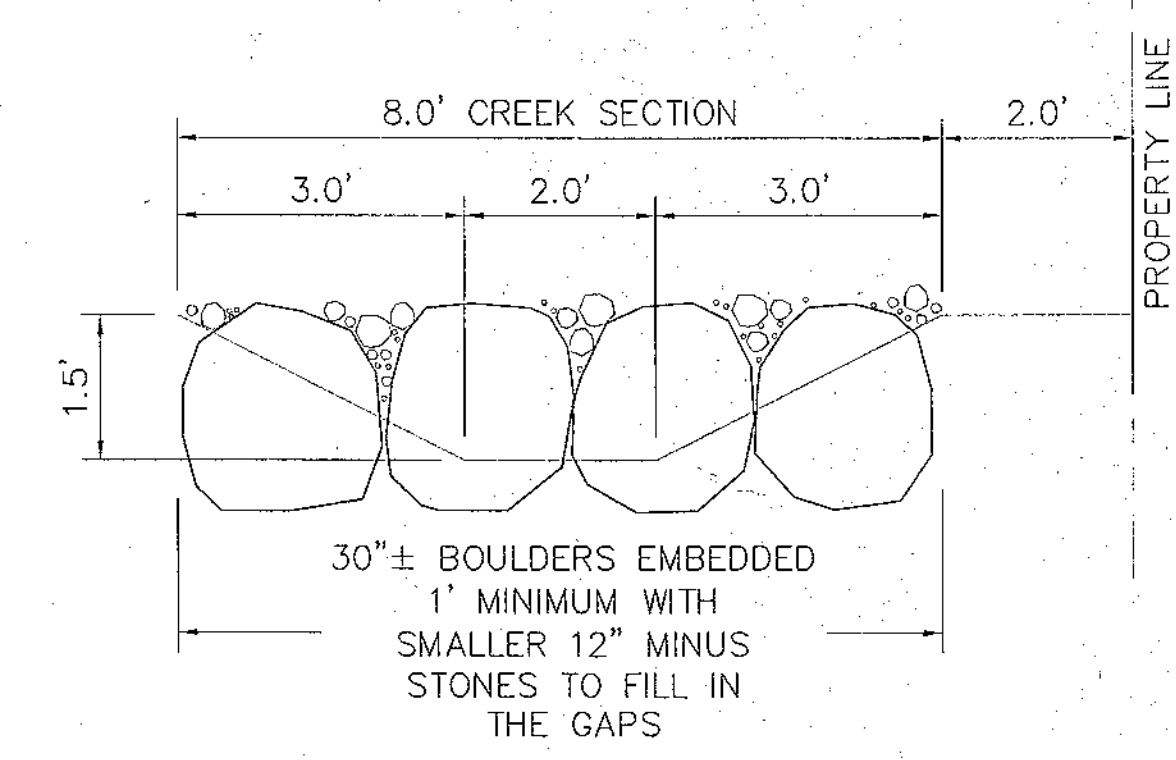
1. PROPOSED GRADE ELEVATIONS AT THE CENTERLINE OF CREEK REALIGNMENT ARE APPROXIMATE ONLY. SURVEY DATA IN THIS AREA WAS LIMITED AND ACTUAL ELEVATION OF THE CREEK SHOULD BE BASED ON EXISTING ELEVATIONS AT THE PROPERTY LINE. CREEK GRADE SHALL BE 1.5' LOWER THAN ADJACENT EXISTING GRADE AS SHOWN ON TYPICAL CREEK SECTION 1.
2. DEPENDING ON ACTUAL TOPOGRAPHY, CREEK PROFILE OR ALIGNMENT MAY NEED TO BE ADJUSTED. RESULTING CREEK LOCATION MAY REQUIRE A REVISION TO THE DRAINAGE EASEMENT.



1 TYPICAL CREEK SECTION
1"=2'



2 TYPICAL CREEK SECTION
1"=2'



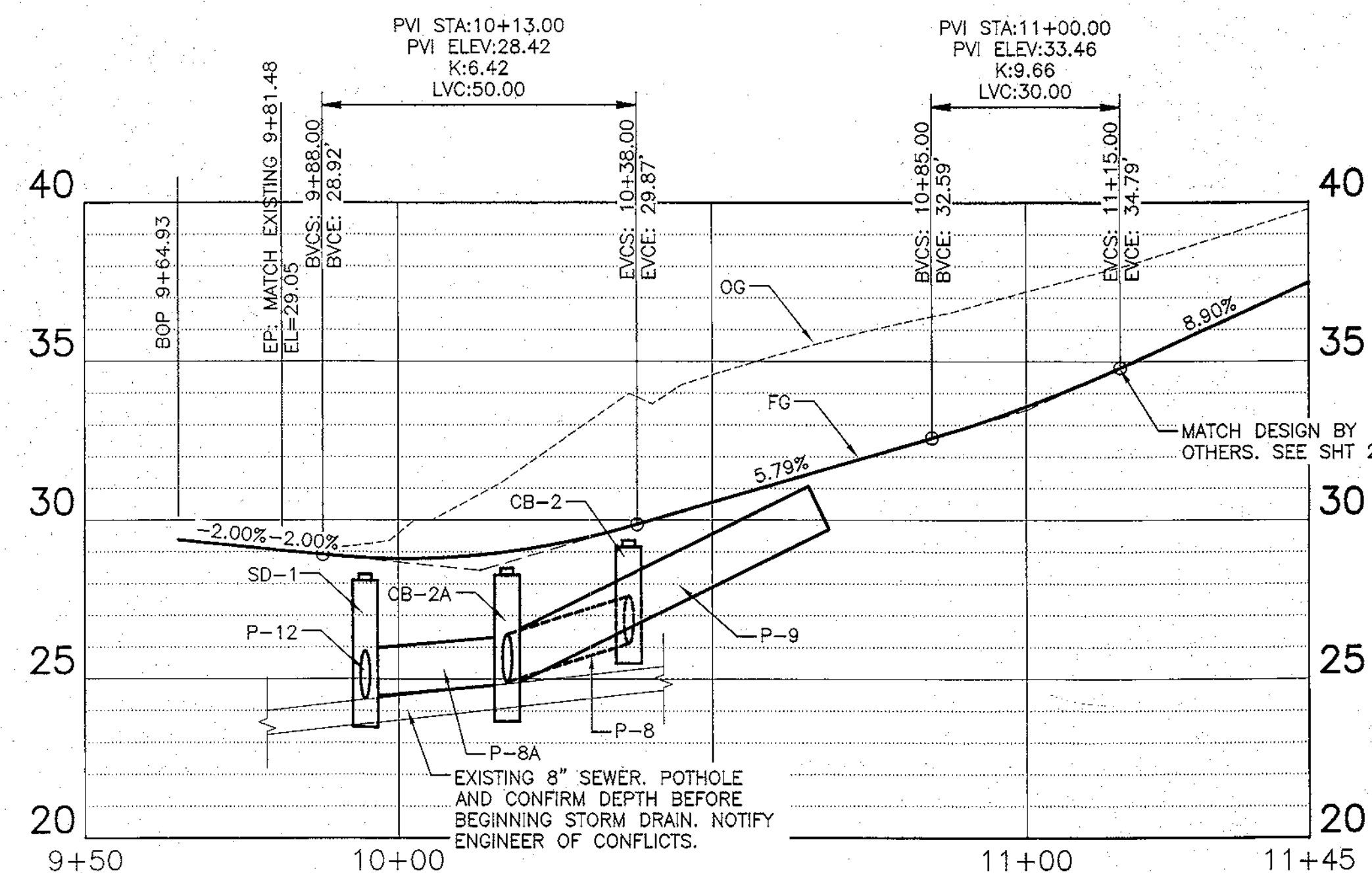
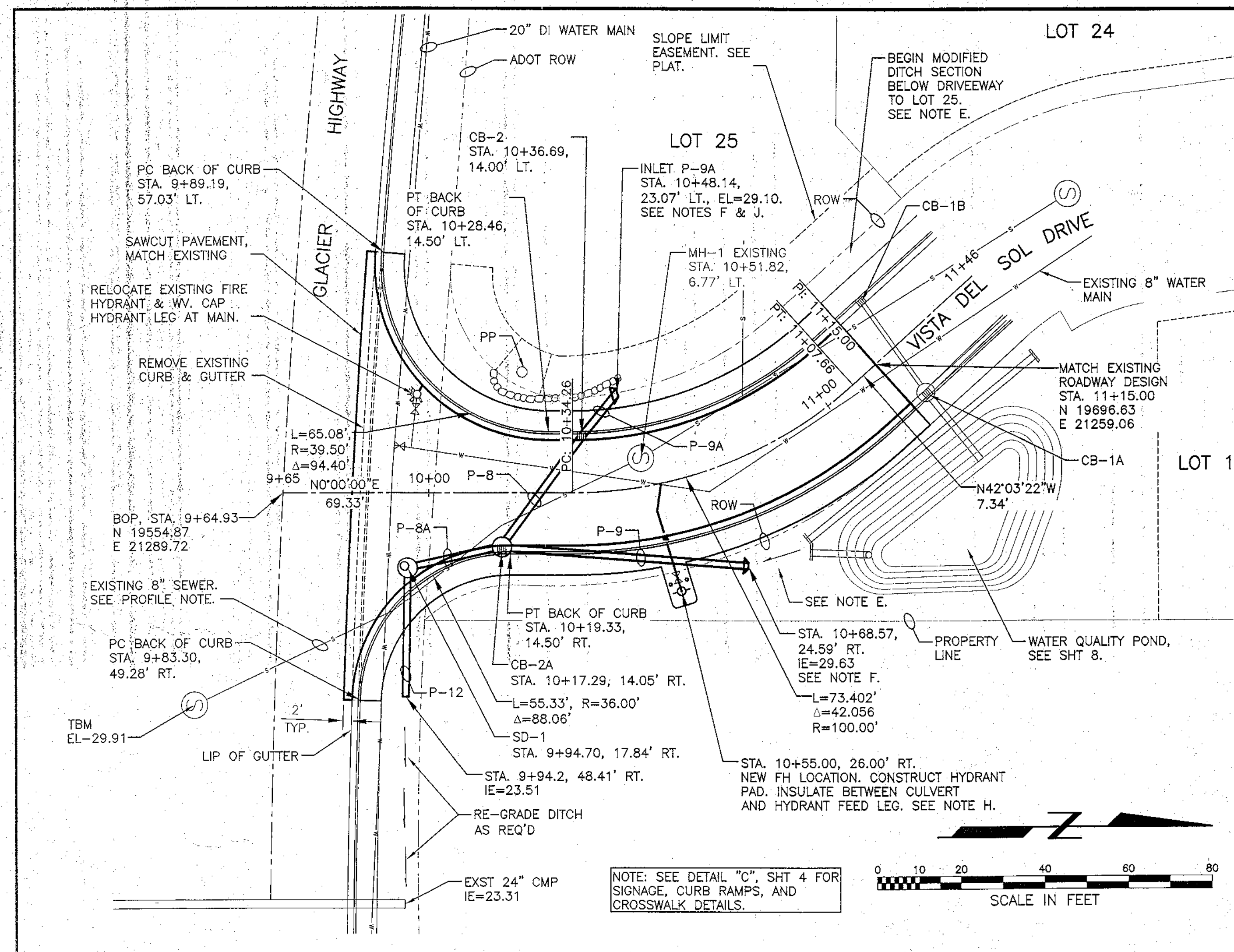
3 TYPICAL CREEK SECTION
1"=2'

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11
of
13



1 INTERSECTION PLAN AND PROFILE
SCALE: HOR: 1"=10'; VERT: 1"=2'

STORM PIPE SUMMARY				
PIPE ID	LENGTH	SIZE	TYPE	SLOPE
P-8	32.0	18"	CPP	0.046
P-8A	23.1	18"	CPP	0.018
P-9	59.0	18"	CPP	0.084
P-9A	13.8	18"	CPP	0.240
P-12	30.6	18"	CPP	0.030

SD-1 OIL SEPARATOR	
FG=	28.17
P-12 IE=	24.38
P-8A IE=	24.48
SEE STD 305. PROVIDE 24" SUMP, MIN.	

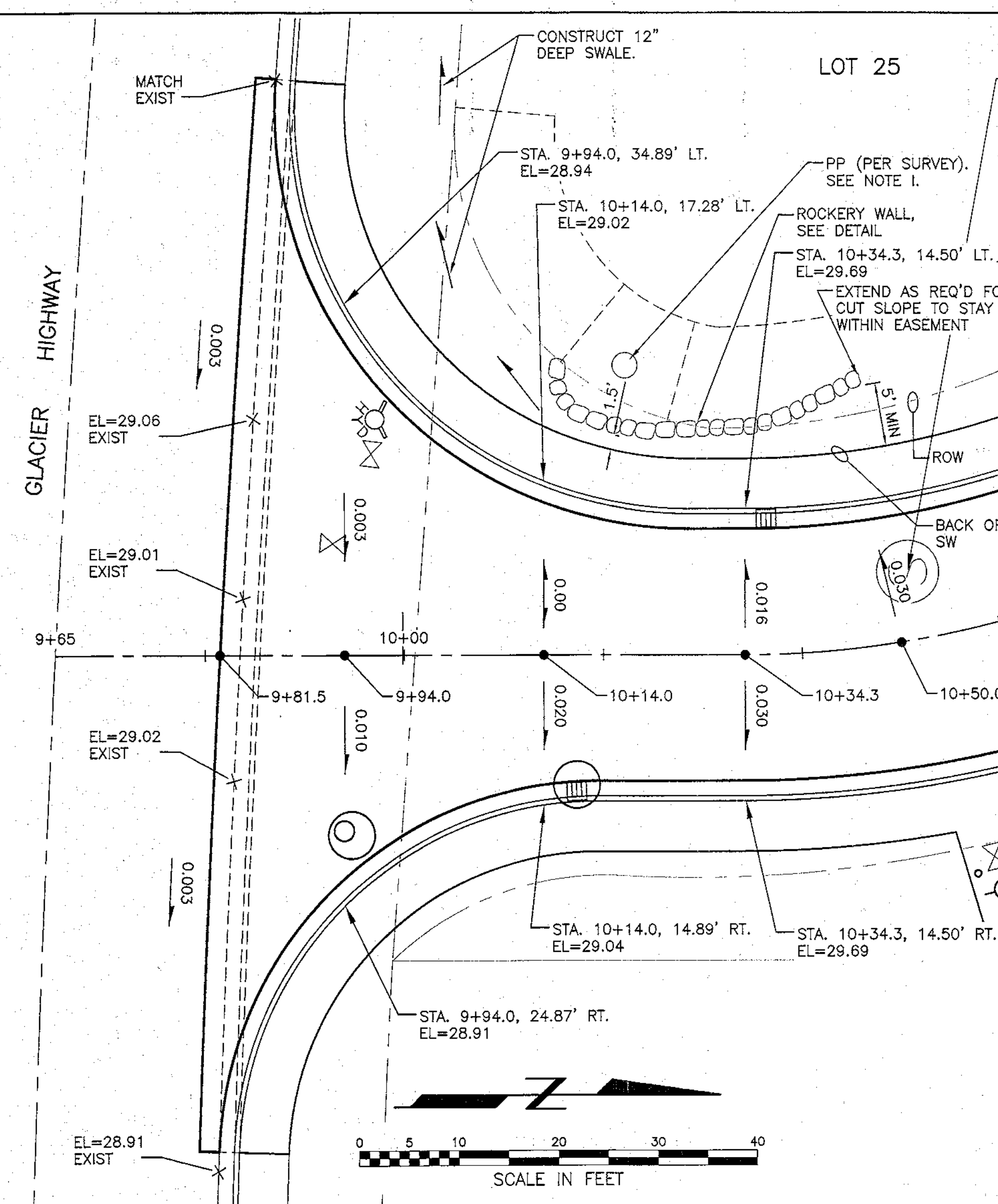
CB-2 TYPE IV	
FG=	29.36
P-8 IE=	26.12
P-9A IE=	26.22
16" SUMP, MIN.	

CB-2A SDMH TYPE I	
FG=	28.48
P-8A IE=	24.73
P-8 IE=	24.83
P-9 IE=	24.83
16" SUMP, MIN.	

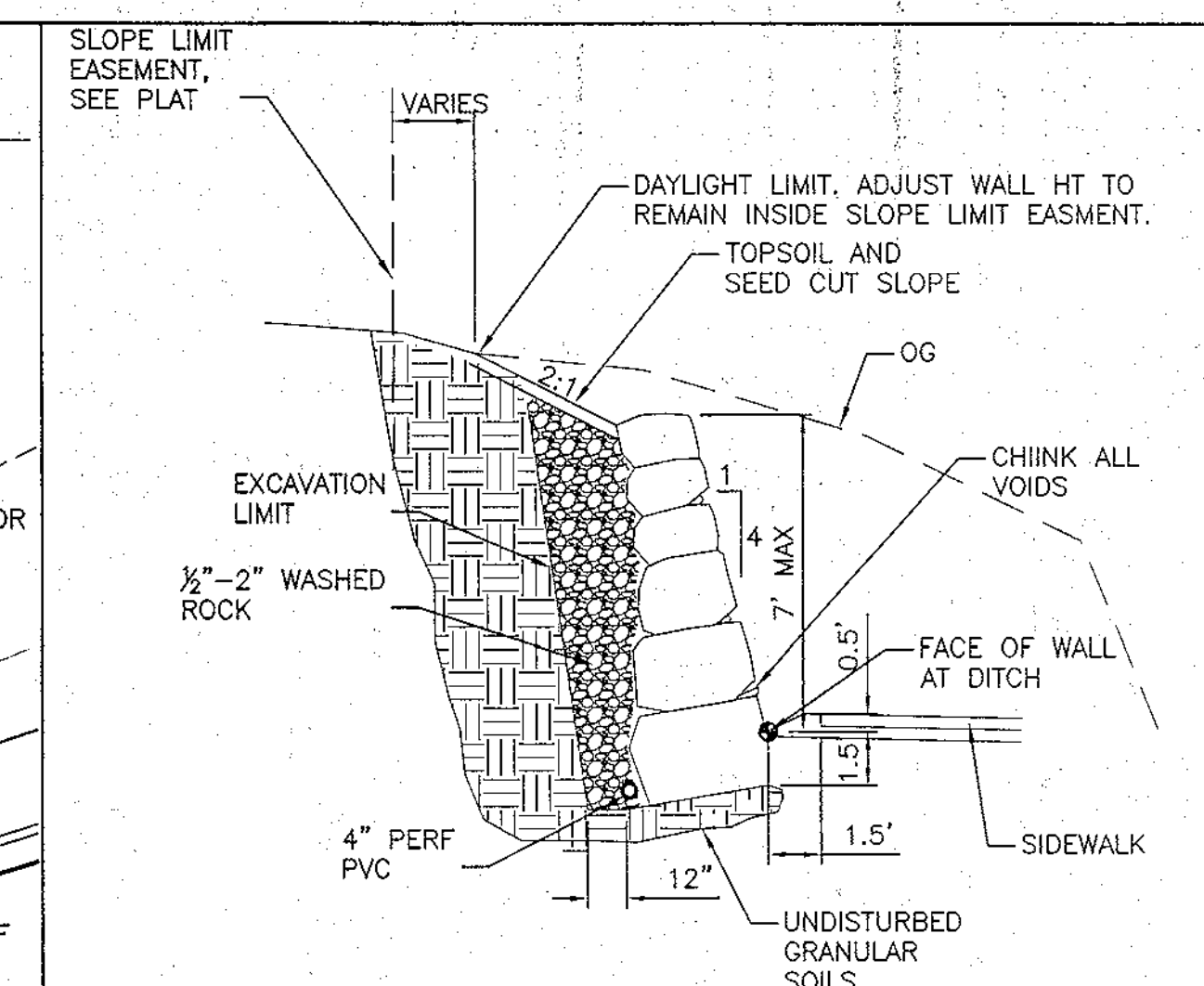
MH-1 (EXISTING)*	
FG=	30.08
* IF ACTUAL STATION / OFFSET IS DIFFERENT FROM PLAN, CONTACT ENGINEER.	

NOTES:

- THIS DESIGN IS A REVISION TO THE PLAN AND PROFILE FROM THE BOP TO STA 11+15 AS DESIGNED BY NORTH STAR DESIGN (FEB 2010). THE STORM DRAIN IS ADJUSTED ACCORDINGLY. IT ALSO MODIFIES THE GRADING PLANS BY ADMIRALTY ENGINEERING (6/8/10) BY ELIMINATING THE DITCH BEHIND THE BACK OF SIDEWALK FROM GLACIER HIGHWAY TO STA 10+69, STATION RIGHT AND REVISES THE GRADING FROM GLACIER HIGHWAY TO STA 10+49, STATION LEFT.
- SURVEY PROVIDED BY JW BEAN. VERTICAL CONTROL FOR THIS DESIGN IS THE SEWER MANHOLE LID (EL=29.91) ON THE SOUTH SIDE OF GLACIER HIGHWAY (SEE PLAN). OWNER SHALL CONTACT SURVEYOR FOR HORIZONTAL CONTROL.
- SEE GRADING PLANS (BY ADMIRALTY ENGINEERING) FOR EXISTING GROUND AND FINAL GROUND CONTOURS BEHIND THE SIDEWALK EXCEPT AS NOTED ABOVE. CONTOURS NOT UPDATED WITH THIS PLAN REVISION.
- PIPE AND STRUCTURE NUMBERS PROVIDED ON THE SEWER AND STORM SYSTEMS MATCH NORTH STAR DESIGN FOR CONTINUITY.
- CONSTRUCT DITCH PER ADMIRALTY ENGINEERING (AE) GRADING PLANS DETAIL 1/9, TO INLET OF P-9. DO NOT CONSTRUCT DITCH BELOW P-9 INLET. ALLOW AREA BETWEEN BACK OF SIDEWALK AND PROPERTY LINE TO DRAIN PER EXISTING CONDITIONS.
- INSTALL HEADWALL WITH HINGED TRASH RACK PER CBJ STD 104A.
- LOCATION CALLOUT ON STRUCTURES IN ROADWAY ARE TO CENTER OF STRUCTURE. CALLOUTS TO STRUCTURES IN CURB ARE TO FACE OF CURB.
- RELOCATE FIRE HYDRANT AND VALVE PER CBJ STD 403 & 404. CONSTRUCT HYDRANT PAD PER STD 405.
- COORDINATE WITH AEL&P TO DETERMINE THE MAXIMUM ALLOWABLE DEPTH OF SOIL REMOVAL AT THE BASE OF THE POWER POLE. THIS WILL DETERMINE THE REQUIRED ROCKERY WALL HEIGHT IN THE VICINITY OF THE POLE.
- END "MODIFIED DITCH SECTION" (SEE SHT 9) AT P-9A CULVERT HEADWALL.
- ALL WORK TO BE PERFORMED IN ACCORDANCE WITH ALL CBJ, ADOT, ADEC, AND OTHER APPLICABLE PERMITS.



2 INTERSECTION GRADING PLAN
SCALE: 1"=10'



ROCKERY WALL NOTES:

- ROCK WALL LOCATION AND HEIGHT TO BE CONSTRUCTED AS SHOWN ON THE PLAN AND SECTION.
- WALL SHALL BE LOCATED SO AS TO NOT INFRINGE UPON OTHER PROPERTY OR ANY APPLICABLE PROPERTY LINE SETBACK REQUIREMENTS.
- CONSTRUCT OPTIONAL ROCKERY UNDER SIDEWALK IF REQUIRED FOR CLEARANCE AT POWER POLE.
- ROCKERY WALL CONSTRUCTION REQUIREMENTS:
 - CONSTRUCTION METHODOLOGY SHALL BE IN ACCORDANCE WITH THE "ASSOCIATED ROCKERY CONTRACTORS (ARC) STANDARD ROCK WALL CONSTRUCTION GUIDELINES.
 - CHINK ALL VOIDS 6" OR GREATER IN FACE AND BACK OF WALL BEFORE PLACING SUBSEQUENT LAYER.
 - CONSTRUCT ROCK WALL WITH ROCKS THAT CONFORM TO THE FOLLOWING TABLE:

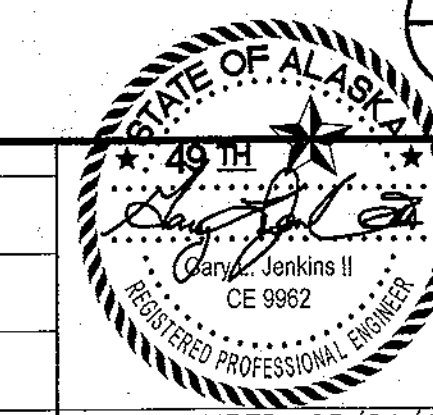
VERTICAL LOCATION	*MINIMUM DIMENSION	MINIMUM WEIGHT
0 TO 3 FT FROM TOP OF WALL	24"	1200 LBS.
3 TO 6 FT FROM TOP OF WALL	30"	2500 LBS.
6 TO 9 FT FROM TOP OF WALL	36"	4000 LBS.

*ROCKS SHALL BE FLAT, LEDGER TYPE SHAPE. THE MINIMUM DIMENSION IS THE AVERAGE OF THE LENGTH X WIDTH X DEPTH OF THE ROCK. PLACE LONG DIMENSION PERPENDICULAR TO WALL FACE.

3 ROCKERY WALL SECTION
SCALE: 1"=5'

DRAWING NAME: N:\1330700\Draws\1330700_SHT 12 COORD SET.dwg PLOTTED: May 04, 2012 - 5:21pm

REV.	DATE	BY	REVISIONS	NO.	BASIS OF VERTICAL CONTROL	ELEV.	FIELD BOOKS

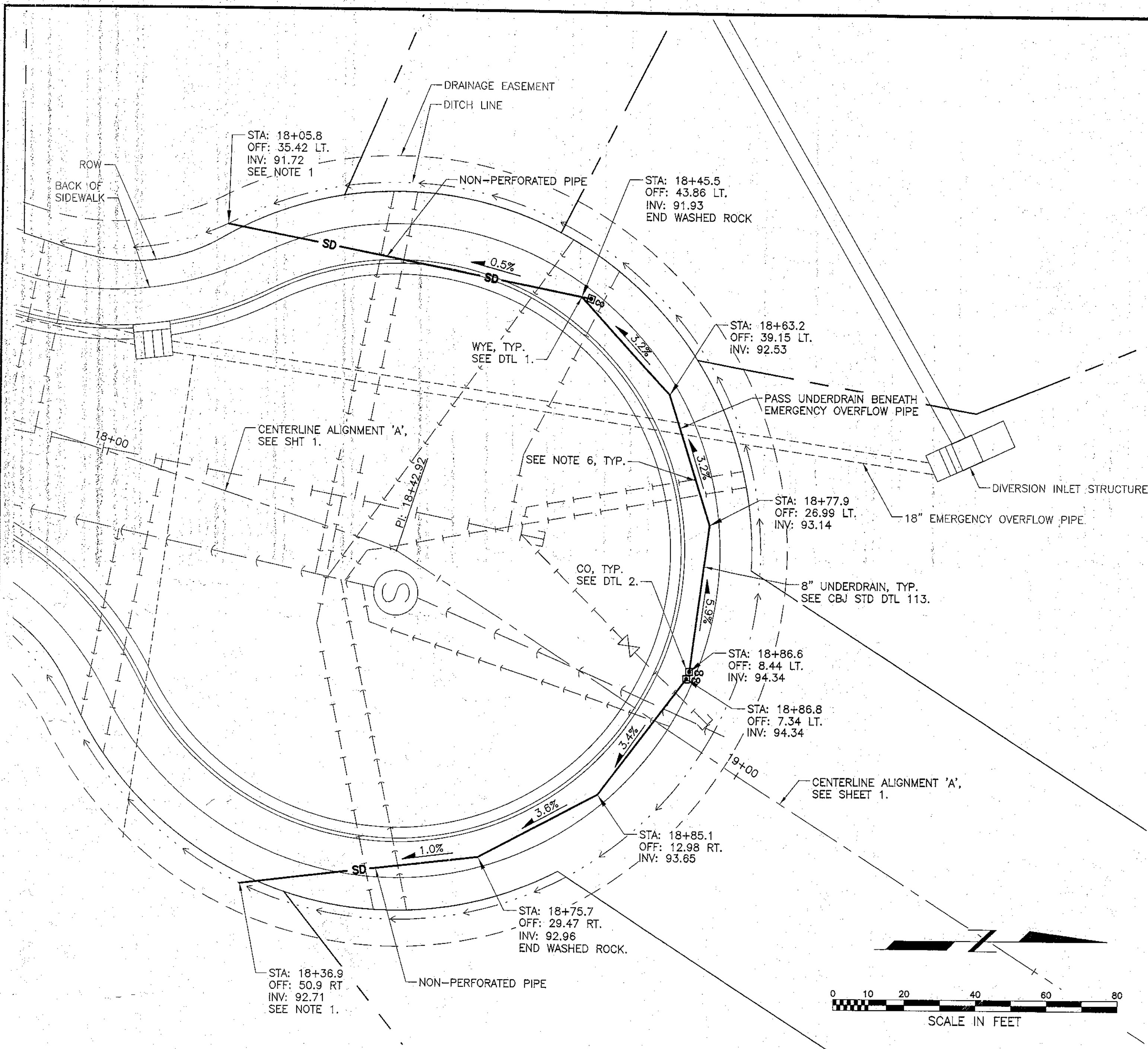


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Phone (907) 276-4245 FAX (907) 258-4653

DURAN CONSTRUCTION COMPANY
OWNER: MARCIANO DURAN

VISTA DEL SOL SUBDIVISION
VISTA DEL SOL DRIVE / GLACIER HIGHWAY
MODIFIED INTERSECTION PLAN & PROFILE
SHEET NO. 12/13
W.O. NO. 1330700

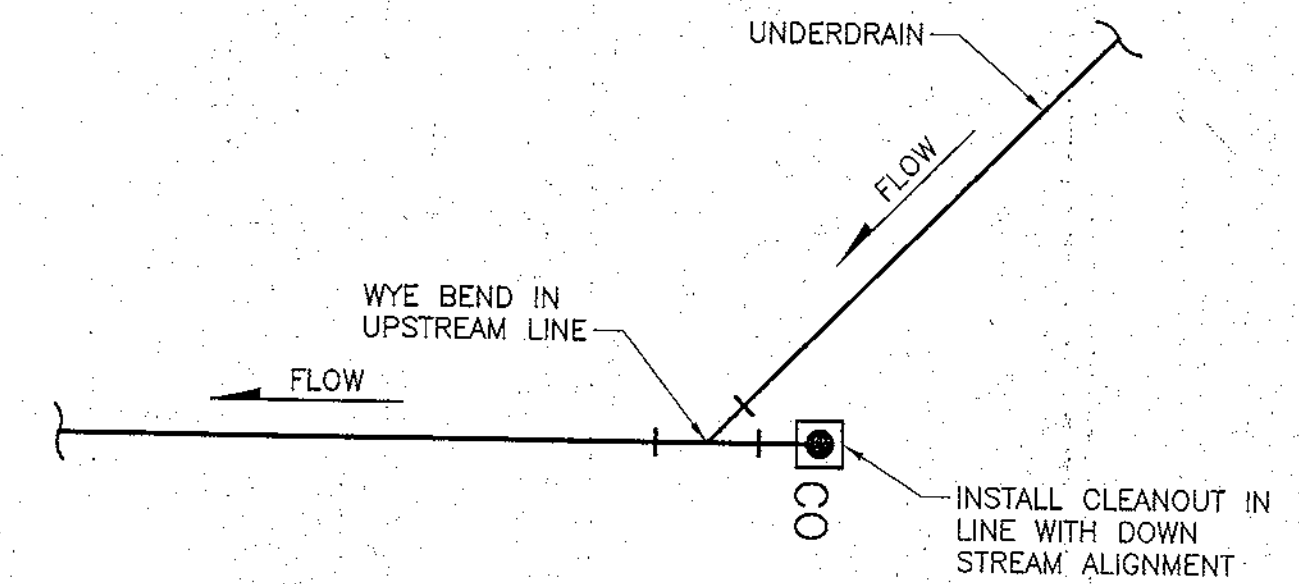
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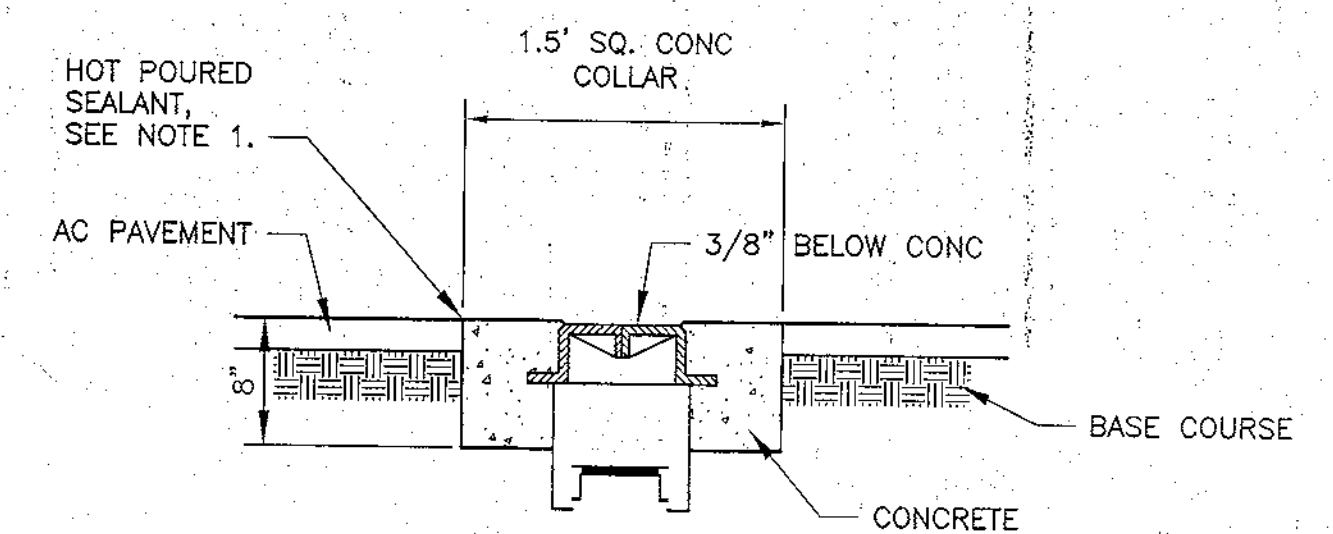
1
13 UNDERDRAIN SYSTEM ABOVE CUL-DE-SAC

NOTES:

1. STATION, OFFSET, AND INVERT ARE APPROXIMATE. ADJUST PIPE OUTLET LOCATION AS REQUIRED TO MAINTAIN SPECIFIED SLOPE SUCH THAT OUTLET DAYLIGHTS INTO BOTTOM OF DITCH.
2. UNDERDRAIN BASED ON THE ROADWAY PROFILE (SHEET 2) AND 3% CROWN THROUGH THE CULDESAC. DIFFERENT GRADING MAY REQUIRE MODIFIED UNDERDRAIN INVERTS.
3. ALL UNDERDRAIN PIPE SHALL BE PERFORATED UNLESS STATED OTHERWISE.
4. UNDERDRAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH CBJ STANDARD DETAIL 113 AND ALL APPLICABLE STANDARD SPECIFICATIONS.
5. ALL ROADWAY, WATER, SEWER, AND STORM DRAIN BY OTHERS. SEE SHEETS 1-5.
6. COORDINATE WATER AND SEWER SERVICE ELEVATIONS WITH UNDERDRAIN TO AVOID CONFLICTS.



1
13 UNDERDRAIN BEND WITH CLEANOUT
SCALE: N.T.S.

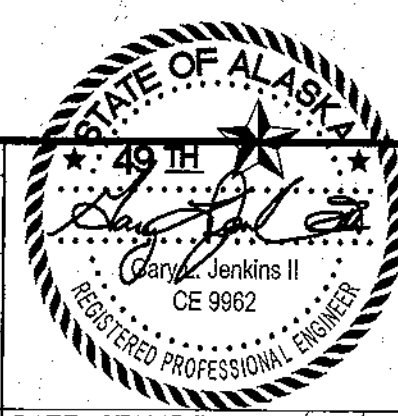


NOTE:

1. HOT POURED SEALANT NOT REQUIRED FOR CONC SIDEWALK.

2
13 CLEANOUT FINISHED GRADE DETAIL
SCALE: N.T.S.

REV.	DATE	BY	REVISIONS	NO.	BASIS OF VERTICAL CONTROL	ELEV.	FIELD BOOKS	SCALE	DATA	DATE STAMPED: 05/04/12
								DESIGN/TOPO: HOR.	DESIGN: GLJ	
								STAKING: VER.	DRAWN: JJJ	
								ASBUILT: GRID	CHECKED: GLJ	



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DURAN CONSTRUCTION
COMPANY
OWNER: MARCIANO DURAN

VISTA DEL SOL SUBDIVISION
VISTA DEL SOL DRIVE CUL DE SAC:
UNDERDRAIN SYSTEM

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13/13
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