

**ALASKA DEPARTMENT OF NATURAL RESOURCES**

**DIVISION OF FORESTRY  
*SOUTHEAST AREA*  
HAINES STATE FOREST**

**BABY BROWN TIMBER SALE**

***DRAFT* TIMBER SALE CONTRACT**

*NSE-1549*

**ADL 108447**

## TABLE OF CONTENTS

<b>1. <u>DEFINITIONS</u></b>	<b>1</b>
<b>2. <u>SALE OF MERCHANTABLE TIMBER</u></b>	<b>3</b>
<b>3. <u>RESERVATIONS</u></b>	<b>3</b>
<b>4. <u>RIGHTS OF ENTRY AND USE</u></b>	<b>3</b>
<b>5. <u>TERM OF CONTRACT</u></b>	<b>3</b>
<b>6. <u>PAYMENTS</u></b>	<b>4</b>
A. <u>TOTAL STUMPAGE PAYMENT</u>	4
B. <u>STUMPAGE PAYMENTS</u>	4
C. <u>REDETERMINATION OF PAYMENT</u>	4
D. <u>REDETERMINATION METHOD</u>	4
E. <u>INITIAL STUMPAGE FEE</u>	4
F. <u>STUMPAGE DEPOSIT</u>	4
<b>7. <u>PASSAGE OF TITLE</u></b>	<b>5</b>
<b>8. <u>COMPLIANCE WITH LAWS AND OTHER REQUIREMENTS</u></b>	<b>5</b>
A. <u>COMPLIANCE WITH LAWS</u>	5
B. <u>RESPONSIBILITY FOR ACQUISITION OF PERMITS, AUTHORIZATIONS AND APPROVALS</u>	5
C. <u>NOTIFICATION OF VIOLATION</u>	5
<b>9. <u>SCALING AND LOG ACCOUNTABILITY</u></b>	<b>5</b>
A. <u>SCALING</u>	5
B. <u>CHECK SCALE</u>	6
C. <u>BRANDING AND PAINTING LOGS</u>	6
D. <u>TRUCK TRIP TICKETS</u>	6
<b>10. <u>TIMBER OPERATIONS</u></b>	<b>6</b>
A. <u>OPERATING PLAN REQUIREMENTS</u>	6
B. <u>TIMBER UTILIZATION STANDARDS</u>	6
C. <u>SLASH DISPOSAL</u>	7
D. <u>REFORESTATION</u>	7
E. <u>ROADS</u>	7
F. <u>MAINTENANCE</u>	7
G. <u>FIRE</u>	7
H. <u>TIMBER TRESPASS</u>	8
I. <u>STATE INSPECTIONS</u>	8
J. <u>EMERGENCY REPAIRS BY THE STATE</u>	8
K. <u>FACILITIES CONSTRUCTION</u>	8
L. <u>USE OF TIMBER SALE AREA</u>	8
M. <u>FISH SPAWNING WATERS</u>	8
N. <u>ARCHEOLOGICAL SITES</u>	8
O. <u>MONUMENTS AND MARKERS</u>	9
<b>11. <u>RISK MANAGEMENT</u></b>	<b>9</b>
A. <u>INDEMNIFICATION</u>	9
B. <u>INSURANCE REQUIREMENTS</u>	9
C. <u>RISK OF LOSS</u>	9
D. <u>PERFORMANCE BOND</u>	9
<b>12. <u>ENVIRONMENTAL COMPLIANCE, PROTECTION AND SAFETY</u></b>	<b>9</b>
A. <u>HAZARDOUS MATERIALS</u>	9

B.	<u>FUEL STORAGE, FUELING, MAINTENANCE AND SPILL PREVENTION.</u>	10
C.	<u>SANITATION.</u>	10
D.	<u>IMMEDIATE CLEANUP OF ENVIRONMENTAL CONTAMINATION.</u>	10
<b>13.</b>	<b><u>DEFAULT BY PURCHASER</u></b>	<b>10</b>
A.	<u>EVENTS OF DEFAULT BY PURCHASER.</u>	10
B.	<u>NOTICE OF DEFAULT/CURE/TERMINATION.</u>	10
C.	<u>REMEDIES.</u>	11
<b>14.</b>	<b><u>INTERIM AND FINAL ACCOUNTING</u></b>	<b>11</b>
<b>15.</b>	<b><u>RIGHTS AND OBLIGATIONS UPON EXPIRATION OR TERMINATION OF CONTRACT</u></b>	<b>11</b>
<b>16.</b>	<b><u>NOTICES AND PARTIES' REPRESENTATIVES</u></b>	<b>12</b>
<b>17.</b>	<b><u>ASSIGNMENT OF CONTRACT</u></b>	<b>12</b>
<b>18.</b>	<b><u>LIENS</u></b>	<b>12</b>
<b>19.</b>	<b><u>REPRESENTATIONS AND WARRANTIES</u></b>	<b>13</b>
A.	<u>STATE.</u>	13
B.	<u>PURCHASER.</u>	13
<b>20.</b>	<b><u>VALID EXISTING RIGHTS</u></b>	<b>14</b>
<b>21.</b>	<b><u>GENERAL PROVISIONS</u></b>	<b>14</b>
<b>EXHIBIT A</b>	<b>BABY BROWN TIMBER SALE AREA MAP</b>	<b>16</b>
<b>EXHIBIT B</b>	<b>LEGAL DESCRIPTION</b>	<b>17</b>
<b>EXHIBIT C</b>	<b>LOGGING REQUIREMENTS</b>	<b>18</b>
<b>EXHIBIT D</b>	<b>OPERATING PLAN REQUIREMENTS</b>	<b>21</b>
<b>EXHIBIT E</b>	<b>ROAD CONSTRUCTION AND MAINTENANCE REQUIREMENTS</b>	<b>22</b>
<b>EXHIBIT F</b>	<b>PROPOSED LAYOUT MAPS</b>	<b>23</b>
<b>EXHIBIT G</b>	<b>INSURANCE POLICIES</b>	<b>24</b>
<b>EXHIBIT H</b>	<b>APPROVED OPERATING PLAN</b>	<b>25</b>

**STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY  
SOUTHEAST AREA, HAINES OFFICE  
P.O. BOX 263  
HAINES, AK 99827**

**BABY BROWN TIMBER SALE**

**DRAFT TIMBER SALE CONTRACT**

**NSE-1549  
ADL 108447**

The State of Alaska, represented by the Director, Division of Forestry, Alaska Department of Natural Resources or his authorized representative under authority of Alaska Statutes, Title 38, Public Lands, Chapter 05, Alaska Land Act, Article 4, entitled "Disposal of Timber and Materials, hereinafter called the STATE, does hereby agree to sell, and XXXXXXXXXXXXXXXXXX, hereinafter called the PURCHASER, does hereby agree to purchase timber as designated herein, subject to the following terms and conditions. This Contract is effective as of \_\_\_\_\_ ("Effective Date").

In consideration of the mutual covenants and agreements herein contained and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, the STATE and PURCHASER hereby agree as follows:

1. **DEFINITIONS**

Definitions shall include all terms defined by 11 AAC 71.910 Definitions and the following. If there is a conflict of definition the regulations shall govern.

A. "Construction Materials" includes rock, sand, gravel and other construction materials located in the Timber Sale Area.

B. "Environmental Contamination" means pollution resulting from the "release" [as that term is defined in AS 46.03.826(9)] of a "Hazardous Material."

C. "Hazardous Material" means hazardous substances or materials as defined in Alaska Statutes 46.03.826 and 46.08.900, in 42 U.S.C. § 9601-9657 (CERCLA), in 42 U.S.C. § 9601 (RCRA) and in 40 C.F.R. U.S.C. § 302, as such statutes and regulations may be amended from time to time, and any hazardous and toxic substance, material or waste which is or becomes regulated by any governmental authority. Without limiting the forgoing, "Hazardous Material" includes hydrocarbon fuels such as diesel oil and gasoline, and lubricating oil.

D. "Forest Land Use Plan" (FLUP) is a planning document prepared by the STATE prior to the harvest of timber containing the specific details on the location, access, harvest methods, duration and proposed reforestation requirements for each sale of timber.

E. "Laws" mean all applicable federal, state or local statutes, regulations, rules, ordinances or permits, orders, directives, and amendments thereto, in effect during the Term of this Contract and as they legally change over time.

F. "MBF" means one thousand board feet, Scribner (long log) log scale rule.

G. "Merchantable Sawlog," is a No. 4 or better sawlog which is at least 12 feet long plus

trim, at least 6 inches in diameter inside the bark at the small end with at least 50% net scale according to the Official Rules of the Log Scaling & Grading Bureaus developed and authored by The Northwest Log Rules Advisory Group.

H. “Merchantable Timber” is all timber, harvested or unharvested, which contains at least one Merchantable Sawlog and all Utility Logs harvested or unharvested located within the Timber Sale Unit(s) designated by the State within the Timber Sale Area as depicted in Exhibit A that will be harvested in accordance with the approved Operating Plan. This excludes all timber in designated retention areas.

I. “Operating Plan” means the document developed by the PURCHASER and approved by the STATE in order to communicate the PURCHASER’S planned schedule for road construction and harvesting operations, referenced in Section 10 (Timber Operations) herein.

J. “PURCHASER” means the purchaser of timber, purchaser’s agent, employees, representatives, contractors, subcontractors or other individuals or entities operating on behalf of PURCHASER.

K. “Road Standards” means road and bridge construction, maintenance, and closeout standards required herein and by Law.

L. “Roads and Related Transportation Facilities” include all roads, bridges, landings, culverts, and any other transportation facility PURCHASER is authorized to use or to construct pursuant to this Timber Sale Contract.

M. “Slash” means all woody debris resulting from PURCHASER’s Timber Operations or from construction of roads and related transportation facilities or other improvements.

N. “Timber” means all trees, living or dead, standing or down, located within the Timber Sale Area.

O. “Timber Harvest Settings” means the sub-units of Merchantable Timber located within the Timber Sale Unit, as designated by PURCHASER in the approved Operating Plan (Exhibit C).

P. “Scaling Bureau” means a certified Log Scaling and Grading contractor acting as a third party scaling organization for the purpose of scaling and grading logs according to the Official Log Grading and Scaling Rules developed and authored by the Northwest Log Rules Advisory Group.

Q. “Timber Harvest Unit(s)” means the unit(s) of Merchantable Timber located within the Timber Sale Area, as designated by the State in Exhibits A and B.

R. “Timber Sale Area” means the real property upon which it is reasonably necessary for PURCHASER to conduct Timber Operations under this Contract as depicted on Exhibit A and described in Exhibit B. In the event of any conflict between Exhibit A and B, Exhibit B will control.

S. “STATE Land” means land owned by the State of Alaska, and interests and resources in the land, including improvements to the land.

T. “Utility Logs” are logs that do not meet the minimum requirements of No. 4 or better sawmill grades, but are suitable for the production of firm useable pulp chips to an amount of not

less than 50% of the gross scale with a minimum gross diameter of 6 inches on the small end, minimum gross length of 12 feet, plus trim.

2. SALE OF MERCHANTABLE TIMBER

STATE sells to PURCHASER, and PURCHASER purchases from STATE, all of the Timber, whether standing or down, within the Timber Sale Area as depicted on Exhibit A and described in Exhibit B, at the price and upon the terms set forth herein, whether harvested or not, subject to the provisions under Section 11C (Risk of Loss).

3. RESERVATIONS

The STATE reserves the right to permit other compatible uses of the lands in the contract area which do not unduly impair the PURCHASER'S operations under this contract, as determined by the STATE. The PURCHASER will avoid using the access roads when doing so could damage the roads. Use of access roads may be suspended during breakup or other wet weather conditions at the discretion of the State. The STATE hereby reserves the right to use any road constructed by the PURCHASER under this contract for any and all purposes in connection with the protection and administration of State lands. Roads constructed and/or used by the PURCHASER under this contract may be used by third parties in connection with the utilization of STATE or other resources adjacent to the road; provided, that on spur roads, such use shall not materially interfere with the operations of the PURCHASER.

4. RIGHTS OF ENTRY AND USE

During the Term of this Contract and to the extent it is legally authorized to do so, the STATE hereby grants to PURCHASER the non-exclusive right to enter upon and use the Timber Sale Area and associated access routes across STATE land solely in accordance with the terms of the approved Operating Plan and other applicable provisions of this Contract.

The granted rights include the right to construct Roads and Related Transportation Facilities to and within the Timber Sale Area and to use Construction Materials within the Timber Sale Area. Road construction will be as flagged and depicted on Exhibits A and F, unless otherwise specifically approved in writing by the STATE. Said rights will be exercised as reasonably necessary and at PURCHASER's cost in strict accordance with the approved Operating Plan, applicable provisions of Law, and other applicable provisions of this Contract. Construction Material rights granted hereunder shall not be used to provide benefits to parties other than PURCHASER. The PURCHASER will compensate the STATE for any value lost through unauthorized use of Construction Material.

PURCHASER shall fell, yard, remove, scale, and pay the applicable stumpage fee for all Merchantable Timber harvested in association with the rights of entry and use granted herein.

5. TERM OF CONTRACT

The Term of this Contract shall commence upon the Effective Date and terminate on **XXXX** or the date that all obligations under this Contract have been completed, whichever is earlier. Notwithstanding the above, Timber Operations shall cease on or before **XXXX** except as provided otherwise herein.

If PURCHASER is prevented or delayed from performing any of its obligations under this Contract by reason of fire, strikes, riots and civil commotions, war and acts of public enemies, storms, floods, and other unusual climatic conditions, including droughts, and acts of God, and any other such cause which is similar in nature to the foregoing and which is beyond the control of PURCHASER ("Force Majeure") the Term shall be automatically extended for the period that such Force Majeure continues in effect plus an additional reasonable period thereafter, to be mutually agreed upon in writing by the STATE and PURCHASER, to allow for harvest and removal of the Timber within the Timber Sale Area. All other terms and conditions of this Contract will remain in effect during periods of Force Majeure. Lack of funds on the part of PURCHASER, adverse market conditions, STATE approval or assistance delays, and/or similar conditions shall not constitute Force Majeure.

In the event that PURCHASER desires to extend the term of this Contract for reasons other than Force Majeure, such extension may be granted by the STATE, at the STATE's sole discretion, in consideration for the advance payment of \$1,000.00 USD. The total extension time may not exceed one year. If the contract is extended, the State may enter into redetermination of the stumpage fees with the Purchaser if it deems it in the State's best interest.

## 6. PAYMENTS

A. Total Stumpage Payment. PURCHASER shall pay stumpage fee payments to the STATE as set forth below. The stumpage fee payments are due the STATE without regard to whether the harvest and marketing of the Merchantable Sawlogs and Utility Logs was or will be profitable for PURCHASER. The PURCHASER agrees to pay the STATE periodic stumpage fee payments based on log scale calculations for Sitka Spruce Sawlog, Western Hemlock Sawlog and Utility (all species) and as described in Section 9 (Scaling and Log Accountability). Stumpage fees will be as follows, according to PURCHASER bid amounts for:

Species	Rate per thousand board foot(mbf)	Scale Unit
Spruce Sawlog	\$XXXX/mbf	Net Scribner
Hemlock Sawlog	\$XXXX/mbf	Net Scribner
Utility	\$XXXX/mbf	Net Utility

B. Stumpage Payments. Payments must be delivered to the State's representative as listed in Section 16 (Notices). PURCHASER will prepare and submit to the STATE by the 10<sup>th</sup> day of each month, a report which provides volume produced in the previous month, from log scale, by species. Report will show volumes produced by species and total of quarterly payments and total to date of volumes and stumpage paid. Stumpage Payments must be made to the STATE by the last day of the month period basis following log scaling and as long as the contract is effective. No log volume may be removed from the sale area until payment for log volume has been made to the STATE.

C. Redetermination of Payment. The State may redetermine the stumpage payment due the STATE in the following conditions:

1. Contract extension.
2. Work was or is to be performed by the PURCHASER at the State's written request outside the scope of the original timber sale contract.
3. The PURCHASER changes the agreed upon market venue for the timber harvested from the sale as outlined in the PURCHASER's proposal sheet in Exhibit D (Operating Plans).

D. Redetermination Method. The State will redetermine the stumpage payment based on the existing conditions at the time that the redetermination occurs. Redetermination will not change the meaning or intent of the contract. The STATE and PURCHASER will negotiate to an agreement of redetermined payment in good faith. In the event that PURCHASER and the STATE cannot agree on the redetermined rates, the existing contract will govern all actions.

E. Initial Stumpage Fee. An initial stumpage payment of twenty-eight thousand dollars (\$28,000.00 USD) is due prior to the start of harvest activities or at the time of contract signing if the anticipated start of harvest operations is less than 30 days from the date of contract signing. The payment shall be made to the STATE in the form of cashier's check and may be considered applicable to the first regular stumpage payment due, and/or subsequent stumpage payments until equal value has been accounted to the amount of the initial payment.

F. Stumpage Deposit. A Stumpage Deposit shall be made to the STATE prior to timber falling operations. The deposit may be in the form of cashier's check, money order, time certificate of deposit (with automatic renewal) in the State's name in trust for the purchaser, or surety made payable to the

STATE. The amount of the stumpage deposit will be determined by the estimated level of productivity described in the Timber Sale Plan of Operations and based on the value of the harvest of 2 months of timber volume at the sale contract award amount. If the level of productivity increases over the term of the contract, a corresponding increase to the stumpage deposit amount must occur.

7. PASSAGE OF TITLE

A. Subject to Section 11 (Risk Management) herein, title to the Merchantable Timber within the Timber Sale Area shall pass from the STATE to Purchaser upon scaling and payment for logs as documented on Certified Scaling Certificates produced by the Scaling Bureau approved by the STATE. The risk of loss or damage to the Merchantable Timber shall be allocated as provided in Section 11 herein.

8. COMPLIANCE WITH LAWS AND OTHER REQUIREMENTS

A. Compliance with Laws. PURCHASER must carry out all Operations, in compliance with the Law. Responsibility for operating in compliance with Laws and rectifying any instances of non-compliance rest solely with PURCHASER. The PURCHASER must also comply with the specific requirements of applicable laws specified in this contract that apply to this timber sale.

B. Responsibility for Acquisition of Permits, Authorizations and Approvals. PURCHASER is responsible for the acquisition of necessary permits, licenses, fees and other regulatory approvals at its cost.

C. Notification of Violation. Within twenty-four (24) hours of PURCHASER's knowledge, PURCHASER must notify the STATE and applicable regulating agencies of any regulatory or permit violations that have occurred as a result of actions by PURCHASER, or PURCHASER's agent, representatives, contractors, subcontractors, or other individuals or entities operating on behalf of PURCHASER.

9. SCALING AND LOG ACCOUNTABILITY

A. Scaling.

(1) Scaling Point. All logs produced from the Timber Sale Area shall, unless otherwise agreed in writing, be scaled at a site designated in the approved Operating Plans. Purchaser shall use its best efforts to ensure that logs are scaled within thirty (30) days of harvest. If deductions are made for rot, check or other defects resulting from Purchaser delays in scaling exceeding ninety (90) days, Stumpage Fees shall be paid to the STATE as if the rot, check or other defect was not present.

(2) Scaling Rules. Scaling will be performed using the Scribner Log Rule in accordance with the "Official Log Scaling and Grading Rules" of the Log Scaling and Grading Bureaus as developed and authored by the Northwest Log Rules Advisory Group, and by a recognized third party scaling and grading bureau, or methodology agreed to by the Purchaser and the STATE. Purchaser shall contract for and provide the STATE with written evidence of such scaling arrangements before any Merchantable Timber is felled within the Timber Sale Area and a copy of the contract shall be provided to the STATE prior to commencement of Timber Operations.

(3) Cost of Scaling and Delivery of Scale Documents. Purchaser shall pay the cost of scaling, and instruct the third-party scaler to provide copies of the daily scale tickets that identify individual loads of logs and weekly scale summary sheets to the STATE and Purchaser within one (1) week after scaling. Purchaser shall also instruct the third party scaler to provide copies of scale summary sheets for every four (4) week period on a calendar month basis to the STATE and Purchaser within ten (10) business days of the end of each calendar month. Summary scale sheets shall include gross and net volumes by species, sort and grade, subtotaled for each Timber Harvest



Unit within the Timber Sale Area. Within thirty (30) days of completion of scaling for a calendar year, Purchaser shall deliver to the STATE a certified annual scaling summary of the total gross and net Sawlog and Utility Log volumes by species, sort and grade, by Timber Harvest Unit.

B. Check Scale. Upon the request of the STATE or Purchaser, a check scale may be made to determine the accuracy of the original scale. Purchaser agrees to make logs available for check scaling at reasonable locations designated by the STATE. The STATE agrees to carry out check scaling promptly so as not to unreasonably delay log transfer, rafting, towing, and loading operations. If the difference in scale is less than five percent (5%), then the cost of rescale shall be paid by the STATE. If the check scale exceeds the original scale by five percent (5%), the original scaled volume shall be adjusted by the difference between the check scale and original scale, and the cost of the check scale shall be paid by the Purchaser.

C. Branding and Painting Logs. Before being removed from the Timber Sale Area, all logs shall be hammer branded on one end with a log brand registered with the State of Alaska Department of Natural Resources, Division of Forestry. Purchaser is responsible for registering such brands with the Division of Forestry. Purchaser shall also paint one end of each log with a color designated by the STATE, if there are logs being scaled at the same location from property not owned by the STATE.

D. Truck Trip Tickets. Each load of logs shall be identified by a unique three (3) part truck trip ticket, one part affixed to the load, one part to the STATE (to be attached to the scale ticket and delivered to the STATE on a weekly basis), and one remaining in the book. Unless requested by the STATE, truck trip ticket books shall be retained by Purchaser for the Term of this Contract. Truck trip tickets shall include date, logger's name, truck driver's name, Timber Harvest Unit, brand, destination and log or piece count by species. Truck trip tickets shall be numbered sequentially and numbers shall not be duplicated. Purchaser shall provide the STATE with the series of book and ticket numbers assigned to this Contract, and shall account for any gaps in the series of numbers when the truck trip tickets are provided to the STATE.

## 10. TIMBER OPERATIONS

A. Operating Plan Requirements. Unless otherwise provided for, PURCHASER shall be responsible for performing based on existing road and unit layout and design. Purchaser must do so in strict compliance with applicable Laws, the FLUP and the approved Timber Sale Operating Plan. The PURCHASER must prepare and submit to the STATE on or before the execution of this contract, a written Timber Sale Operating Plan meeting the requirements of Exhibit C and providing for the orderly and progressive development of all operations necessary to complete this contract. The Timber Sale Operating Plan is ineffective until it is APPROVED by the STATE, which must occur prior to the start of operations. Operating without a representative on site and an approved and logging plan is grounds for suspension. This plan must be updated annually and whenever there is a change in the PURCHASER'S operation.

B. Timber Utilization Standards. Unless otherwise mutually agreed upon by the STATE and PURCHASER, PURCHASER must conduct its Timber Operations in accordance with the following Utilization Standards:

- (1) PURCHASER must harvest Timber in such a manner as will ensure that all the Merchantable Timber designated for harvest within the Timber Sale Area is utilized;
- (2) Except as otherwise set forth below, PURCHASER must ensure that stumps left after logging are cut as low to the ground as practicable, and in any event are not higher than eighteen (18) inches above the ground on the side of the stump where the elevation of the ground is the highest. High stumps must be paid for by the PURCHASER at the rate of \$5.00 per stump, which sum shall be regarded as fixed, agreed, and liquidated damages;
- (3) PURCHASER must vary log lengths to provide for as complete a utilization of all the Merchantable Timber in the Timber Sale Area as is practicable; and
- (4) The STATE shall have the right to require PURCHASER to remove unyarded Merchantable Timber that has been left on the ground from the Timber Sale Area;

(5) The Purchaser shall have the option to leave utility logs decked at the landings on this sale or remove them from the sale area at the PURCHASER's discretion during the time of this Contract. At no time may these utility decks obstruct the STATE's future use of the land. Under no circumstances may a log deck be located so as to obstruct or hinder water quality. Title remains with the State until logs are removed from the Sale Area. At no time may the utility decks remain beyond the end of a road closed as required by the State.

C. Slash Disposal. PURCHASER must comply with all applicable Laws relating to the disposal or accumulation of slash and with the conditions set forth in Exhibit C.

D. Reforestation. The parties anticipate that reforestation requirements will be met through natural regeneration. Except as provided in Exhibit C (Logging Requirements), the STATE is responsible for all reforestation obligations required under applicable Laws. PURCHASER must take reasonable actions to facilitate natural regeneration, as described in the approved Operating Plan. Notwithstanding any of the above, PURCHASER is responsible for reforestation of areas where PURCHASER's Timber Operations have materially damaged or impeded an area's ability to naturally regenerate.

E. Roads. PURCHASER must, at its cost, construct, reconstruct, and improve roads in accordance with applicable laws, the FLUP, the approved Operating Plan and the Road Construction and Maintenance Requirements in Exhibit E. It is the responsibility of the PURCHASER to enter into agreements with adjoining land owners as to any shared use maintenance requirements, or fees, paid by PURCHASER on roads owned or maintained by other entities, including, but not limited to private, federal, state and local landowners or administrators. PURCHASER must obtain all necessary road use permits, agreements and approvals prior to commencing operations. All borrow and waste areas utilized in the construction or maintenance of the roads and facilities by the PURCHASER require the submittal of development plans and approval by the State prior to development. The location and construction of all landings must be submitted to and approved by the State prior to use and construction by the Purchaser unless they are already identified on the approved timber sale unit maps. The PURCHASER is responsible for all repairs and mitigation deemed necessary by the State due to unauthorized roads and landings. PURCHASER must additionally pay stipulated damages of \$1,000.00 USD for each unauthorized construction development. This provision does not supersede any applicable penalties under the Alaska Forest Resources and Practices Act (AFR&PA) (AS 41.17, 11 AAC 95).

F. Maintenance. During the Term of this Contract, PURCHASER, at its cost, must maintain the Timber Sale Area, Roads and Related Transportation Facilities, and all other improvements used by PURCHASER in connection with this Contract, in a clean, sanitary and safe condition and in accordance with applicable Laws, the approved Operating Plan, and the provisions of this Contract. PURCHASER may share maintenance obligations with other Authorized Users of the Timber Sale Area, subject to the terms and conditions of joint use agreements that are approved in writing by the STATE. Cleanup measures and other maintenance must be kept reasonably current with timber harvest operations.

G. Fire. The PURCHASER must take all necessary precautions for the prevention of forest fires and shall be responsible for the suppression costs of any and all destructive or uncontrolled fires occurring within or without the contract area resulting from any and all operations involved in the removal of the timber under the provisions of this contract. AS 41.15.050 established the fire season from April 1 - September 30, inclusive, during each year. AS 41.15.080 requires every person owning or operating a sawmill or logging camp or other commercial plant or operation on forested lands to post and keep displayed at all times in a conspicuous place upon the building or ground of the milling, logging, or commercial operation a copy of AS 41.15.050-080 and AS 41.15.140.

(1) Prevention and Suppression. During the Term of this Contract, PURCHASER must make every effort to prevent and suppress fires within the Timber Sale Area. Unless otherwise required herein, or prevented by circumstances, over which PURCHASER has no control, PURCHASER must place its equipment, employees, contractors, and employees of contractors at the disposal of any authorized government employee for the purpose of fighting forest fires within or near the Timber Sale Area.

(2) Presence of Fire Equipment. PURCHASER must ensure that both the road building crew and logging crews have adequate firefighting equipment and training for use on site when operating in the Timber Sale Area, pursuant to the approved Operating Plan. In the event of "extreme fire danger," PURCHASER must maintain a fire watch at the active Timber Operation areas for a minimum of one hour after work has stopped for the day, unless the STATE suspends Timber Operations until the fire danger is reduced.

(3) Reporting. PURCHASER must report all fires to the Alaska Division of Forestry in Haines at (907) 766-2120 immediately after becoming aware of a fire or imminent threat of fire.

H. Timber Trespass. Unless otherwise agreed, PURCHASER may not fell or damage any tree not within the boundary of the Timber Sale Area. PURCHASER shall be liable for all trespass damages and must properly locate its operations within the Timber Sale Area. In the event of trespass damage to State timber outside of the Timber Sale Area, the STATE will appraise the damage and assess PURCHASER the cost of such appraisal plus treble damages (triple stumpage), at the sole discretion of the STATE. This provision does not supersede any applicable penalties associated with the Alaska Forest Resources and Practices Act (AFR&PA) under AS 41.17, 11 AAC 95, nor does it supersede any remedies other landowners may have under applicable laws.

I. STATE Inspections. The STATE and its representatives, shall at all times have access to observe and inspect the Timber Operations of PURCHASER and must be furnished such information, documentation and assistance by PURCHASER as may be reasonably requested by the STATE for the purpose of ensuring compliance with this Contract and applicable Laws. PURCHASER must complete additional work as requested by the STATE, consistent with the approved Operating Plan and requirements of this Contract.

J. Emergency Repairs by the STATE. In the event PURCHASER refuses to make a repair of an emergency nature to improvements or structures in the Timber Sale Area after requested to do so by the STATE or regulatory agency, except when these emergency repairs result from the gross negligence of STATE, the STATE shall be entitled to make the repairs and bill PURCHASER for the actual cost of making such repairs. Emergency repair of improvements or the sale area necessary to keep the Purchaser in compliance with federal, State, and local laws and regulations is the PURCHASER'S responsibility. If the emergency repairs are not required by law or in this contract, the State will reimburse the purchaser for the cost of repairs. All emergency work covered by this contract must be authorized in writing by the STATE prior to commencing unless prevailing conditions will cause imminent and significant irreparable damage to the State's resources.

K. Facilities Construction. Any improvements or transportation facilities, including sawmills, buildings, bridges, roads, etc., constructed by the PURCHASER in connection with this sale and within the sale area or on other State land leased for the purpose, must be done in accordance with standard or special plans approved by the STATE. Bonding may be required on each improvement. The STATE neither expressly nor implicitly warrants its improvement estimates. Estimates will be made for the sole purpose of establishing the minimum bid, and are not to be used for other purposes.

L. Use of Timber Sale Area. The PURCHASER may only use the Timber Sale Area for actions related to the harvest of Merchantable Timber. The Timber Sale Area may not be used for any other commercial purpose. Existing facilities owned by the STATE in the sale area, including but not limited to roads, bridges, gates, culverts, and signs may be used by the PURCHASER in connection with this sale without further approval unless such use is limited or prevented elsewhere in this contract. Existing improvements used by the PURCHASER must be kept in good repair by the PURCHASER.

M. Fish Spawning Waters. All operations in connection with this contract adjacent to lakes, streams, or important fish waters must be conducted so as to avoid stream silting and must not interfere with the passage of fish or injure the spawning grounds, in accordance with AS 41.14.

N. Archeological Sites. If, during the course of operations, any physical remains of historic, archaeological, or paleontological nature are discovered, work in that immediate vicinity must cease and the State must be notified. The Alaskan Historic Preservation Act prohibits the appropriation, excavation, removal, injury, or destruction of any historic, prehistoric or archaeological resources of the State.

O. Monuments and Markers. The Purchaser must protect all known land survey monuments and witness trees and markers from damage or obliteration. If monuments or markers are destroyed, the PURCHASER must pay the costs of restoration. No painted, blazed or tagged tree which marks the boundary of the sale area or cutting units may be cut unless approved in writing by the State. The PURCHASER must pay the STATE stipulated damages of \$100.00 USD for each boundary tree and leave tree that is cut or damaged, as determined by the Forester-in-Charge. Assessed damages are not limited to the bond amount.

11. RISK MANAGEMENT

A. Indemnification. PURCHASER shall defend, indemnify, and hold the State harmless from any and all claims, demands, suits, loss, liability and expense, for injury to, or death of persons and damage to, or loss of property arising out of, or connected with the exercise of the privileges granted the PURCHASER by this contract.

B. Insurance Requirements. PURCHASER, its contractors and subcontractors must purchase, at its own expense, and maintain in force at all time during the Term of this Contract the policies of insurance specified in Exhibit G from an insurer qualified to do business in Alaska. Where specific limits are shown, it is understood that they are the minimum acceptable limits, and if the policies contain higher limits, the STATE and the additional insured hereunder shall be entitled to those higher limits. The policies must each name the STATE as an additional insured. The STATE must be provided with certificates of insurance and copies of the policies, a minimum of fifteen (15) days prior to commencing Timber Operations. The policies must provide that coverage shall not be canceled, limited, or allowed to expire until after thirty (30) days written notice has been given to the STATE. The STATE shall have the right, at its option, to pay any delinquent premium on any of the policies if necessary to prevent a cancellation, non-renewal or material alteration thereof; and PURCHASER must within five (5) business days, reimburse the STATE'S expenditure. In the event that any insurance policy is canceled or the policy is materially changed, PURCHASER must immediately notify the STATE and cease Timber Operations until certificates of insurance are delivered to and approved in writing by the STATE. The STATE reserves the right to reasonably increase the required insurance coverage limits to be in accordance with the current industry standards by giving 30 days written notice to PURCHASER.

C. Risk of Loss. The risk of loss by fire, windstorm, or other cause of any standing, decked or down Merchantable Timber within the Timber Sale Area shall be borne by the holder of title to the timber or logs. The State is not obligated to supply, nor is the PURCHASER obligated to accept and pay for, other timber in place of the destroyed or damaged timber. The loss or damage to timber removed from the sale area under the contract is borne by the Purchaser. This section alone does not relieve either party of liability for negligence.

D. Performance Bond. At the time of executing this contract, PURCHASER must deposit with the STATE Eighty thousand dollars (\$80,000.00 USD) in the form of a cashier's check, money order, time certificate of deposit (with automatic renewal) in the State's name in trust for the purchaser, or surety made payable to the STATE. Bonding must conform to 11 AAC 71.095. If cash is used for the Performance Bond it will be placed by the State in a separate state account and all interest on the Performance Deposit shall accrue to the benefit of STATE. If PURCHASER is in default under this Contract and has received notice of such default from the STATE, but has failed to cure such default, the STATE may apply said Performance Bond to pay for the performance of the default obligation and any of the STATE's expenses or damages incurred as a result of PURCHASER's default. PURCHASER shall remain liable for any deficiency that remains after application of the Performance Bond to any amount owed and within ten (10) days of STATE's said application, PURCHASER must deposit that sum of money necessary to maintain a Performance Bond of Eighty thousand dollars (\$80,000.00 USD).

12. ENVIRONMENTAL COMPLIANCE, PROTECTION AND SAFETY

A. Hazardous Materials. PURCHASER must not cause or permit to be brought upon, stored or used in or about the Timber Sale Area, or the Roads and Related Transportation Facilities by

PURCHASER, its agents, employees, contractors, or invitees, any Hazardous Materials without the prior written consent of the STATE, which will not be unreasonably withheld by the STATE so long as PURCHASER demonstrates to the STATE's satisfaction that such Hazardous Materials are reasonably necessary to PURCHASER's Timber Operations and will be used, kept, and stored in a manner that complies with all Laws regulating any such Hazardous Materials.

B. Fuel Storage, Fueling, Maintenance and Spill Prevention. The STATE hereby consents that PURCHASER may bring upon, and use necessary fuel, lubricating oil, hydraulic fluids, explosives and anti-freeze substances in the Timber Sale Area, and the Roads and Related Transportation Facilities, during the Term of this Contract only to the extent such items are transported, used, and disposed of in a manner that complies with all Laws and the terms of this Contract. PURCHASER must maintain and use mobile fuel storage, refueling and maintenance facilities (including facilities for the collection of waste oil) and must do so in accordance with all applicable Laws. No fixed tank storage is allowed on the sale area. The PURCHASER must have adequate absorbent and cleanup materials on site and in all vehicles and machinery used in the Timber Sale Area to contain spills related to fueling, maintenance and repair operations and damage likely to be sustained in the course of operations. *Mobile fuel storage facilities must not be parked within 300 feet of water bodies. Refueling of equipment must not occur on the active flood plain of a water body or within 300 feet of an anadromous fish stream.* Vehicle maintenance, campsites, and/or storage and stockpiling of material on the surface ice of lakes, ponds or rivers are prohibited.

C. Sanitation. The sale area must be maintained in a clean and sanitary condition during the operations of the PURCHASER. Any foreign materials or wastes such as cans, bottles, barrels, garbage, equipment, equipment parts, or other debris resulting from this operation must be removed from the sale area as they are used and at the latest, upon completion of operations on any cutting unit.

D. Immediate Cleanup of Environmental Contamination. In the event PURCHASER becomes aware of any Environmental Contamination within the Timber Sale Area, PURCHASER must immediately notify the STATE and the Alaska Department of Environmental Conservation of any such Environmental Contamination and (unless provided for otherwise in a STATE-approved joint use Contract between PURCHASER and other Authorized Users of the Timber Sale Area) must immediately take all actions at its sole expense as are necessary to contain and cleanup Environmental Contamination in a manner consistent with the requirements of Law. Without limiting PURCHASER's containment and cleanup obligations herein, to the extent that it is economically reasonable to do so, PURCHASER must return the affected area to the condition existing prior to the introduction of any such Hazardous Materials.

### 13. DEFAULT BY PURCHASER

A. Events of Default by PURCHASER. Any of the following shall be deemed an event of default by PURCHASER ("Event of Default"):

- (1) Any representation or warranty made by PURCHASER that proves to be false in any material respect;
- (2) PURCHASER's failure or refusal to perform, fulfill, or observe any provision in this Contract or State law, or PURCHASER's breach of any covenant in this Contract; or
- (3) If PURCHASER has a receiver appointed for all or any significant part of its assets, becomes insolvent, files a petition in bankruptcy or for reorganization, liquidation, or relief under any bankruptcy, insolvency, or debtor laws, or makes an assignment for the benefit of creditors, or if a petition is filed against it in bankruptcy or under insolvency or debtor laws.

B. Notice of Default/Cure/Termination. In the event of default under Section 13.A. (Events of Default by PURCHASER) above, the STATE will serve written notice on PURCHASER that states

the ground or grounds upon which default is alleged and demand a cure. In the event of a default by PURCHASER for failure to make payments of Stumpage Fees, or Performance Bond, or for failure to obtain or maintain insurance as required herein, Timber Operations must cease immediately upon PURCHASER's knowledge of the default or upon notice from the STATE, whichever is earlier. If the default is not cured within thirty (30) business days of written notice to PURCHASER, the STATE may suspend or terminate this Contract by serving written notice on the PURCHASER stating that this Contract is suspended or terminated. If an Event of Default is of any nature other than the defaults identified in the previous sentence and if (i) the default is not cured, or (ii) reasonable steps are not taken to diligently execute a cure within thirty (30) business days of notice, or within 48 hours in the case of obligations which the STATE or an authorized regulatory agency has declared to be of an emergency nature, the STATE may suspend or terminate this Contract by serving written notice on PURCHASER stating that the Contract is suspended or terminated. Failure of the STATE to strictly enforce at any time any of the provisions of this Contract shall not be construed to be a waiver or affect the right of the STATE to thereafter strictly enforce such provision.

C. Remedies. In addition to the above, if an Event of a Default by PURCHASER occurs under this Contract through no fault of the STATE, the STATE, at its election, shall be entitled, after written notice to PURCHASER and the cure periods set forth above have expired: (i) to suspend the operations under this Contract until the breach is cured; (ii) to terminate this Contract and recover any and all damages including incidental and consequential damages; (iii) to terminate this Contract and retain the Bid Deposit, any Stumpage Payments, the Performance Deposit and all other fees and deposits paid by PURCHASER, plus all interest accrued thereon, as liquidated damages and not as a penalty; (iv) to seek specific performance of this Contract; and (v) to pursue any and all remedies in addition to or by way of alternative to the foregoing available at law or in equity.

14. INTERIM AND FINAL ACCOUNTING

Upon the expiration of this Contract or within ten (10) business days of the completion of all remaining obligations of PURCHASER, whichever is earlier, there must be a final accounting between the parties. The following amounts must be computed by both parties: any unpaid completion costs; amounts due to STATE under Section 10J (Emergency Repairs) of this Contract; and any other amount due the STATE or PURCHASER pursuant to this Contract. Within thirty (30) days after all calculations have been made and approved by both parties, and final accounting inspections have been completed by STATE and applicable regulatory agencies, the party indebted to the other must pay the outstanding balance owed to the other party, at which time any remaining Performance Deposit shall be released or refunded.

Upon completion of all PURCHASER obligations under this Contract, the STATE will execute a written release, releasing PURCHASER from any further obligations under this Contract, except those that specifically survive termination of this Contract.

15. RIGHTS AND OBLIGATIONS UPON EXPIRATION OR TERMINATION OF CONTRACT

A. Rights in Timber Sale Area. Upon the termination or expiration of this Contract, any claim or right PURCHASER may have in and to the Timber Sale Area, to any Merchantable Timber or logs remaining in the Timber Sale Area or to the Roads and Related Facilities and the Timber Sale Areas shall terminate.

B. Obligation to Remove. Within thirty (30) days of completion or termination of PURCHASER's Timber Operations, whichever is earlier, PURCHASER must remove from the Timber Sale Area and the Roads and Related Transportation Facilities, all equipment, materials, chemicals, goods, supplies, machinery, cable, wastes, buildings, structures, and any other items or improvements placed thereon by PURCHASER. The Timber Sale Area and the Roads and Related Transportation Facilities must be left free of all litter, debris, and all foreign materials generated by PURCHASER's operations. PURCHASER's removal thereof must be made in a manner that does not leave the Timber Sale Area in a dangerous or unsafe condition and allows for reasonable concurrent uses during the removal period. If the above items are not so removed, they may either be removed from the Timber Sale Area at PURCHASER's expense or shall become property of the STATE if the STATE so elects.

16. NOTICES AND PARTIES' REPRESENTATIVES

All notices, requests, elections, consents or other communications that may be or are required to be given pursuant to this Contract to either of the Parties are effective only if given in writing and sent by certified mail, return receipt requested, by personal delivery to the other Party or by verbally confirmed facsimile copy, and shall be deemed received on the earlier of actual receipt or five (5) days after being deposited in the mail, postage prepaid, addressed to the STATE or PURCHASER at the following addresses:

To the STATE:

Southeast Area Forester  
Southeast Area  
Department of Natural Resources, Division of Forestry  
2417 Tongass Avenue, Suite 213  
Ketchikan, AK 99901

Phone No.: (907) 225-3070

Fax No. (907) 247-3070

STATE Field Representative:

Department of Natural Resources, Division of Forestry  
Haines State Forest Office  
P.O. Box 263  
Haines, AK 99827

Phone No.: (907) 766-2120

Fax No. (907) 766-3225

To: PURCHASER:

To: Purchaser's Field Rep.

Name:

Name:

Address:

Address:

City, State, Zip

City, State, Zip

Phone No.:

Phone No.:

Fax No.:

Fax No.:

Attention:

Attention:

Either party may change its representative or its field representative and its address for the purposes of this Section 16 (Notices and Parties' Representatives) by giving notice of such change to the other party in the manner provided in this Section 16 (Notices and Parties' Representatives).

17. ASSIGNMENT OF CONTRACT

This contract may not be assigned by the PURCHASER without written consent to such assignment first having been obtained from the STATE and the necessary amendment made to the contract.

18. LIENS

PURCHASER must pay or cause to be paid promptly when due any claim, debt or charge against PURCHASER, which might become a lien against any of the STATE's assets associated with this

Contract. PURCHASER must not suffer or permit any such lien or encumbrances of any kind to be filed against or upon any equipment, improvements, logs, the Timber or the property from which the same are cut, or from the proceeds thereof, regardless of whether the basis of such lien is a claim against PURCHASER or against an employee, agent, supplier, or subcontractor of PURCHASER.

PURCHASER must keep the Timber Sale Area and Timber free and clear of any and all mechanics, loggers, labor or materialmen's liens arising from the performance of labor upon or the furnishing of materials to the Timber Sale Area. PURCHASER may contest the validity of any such lien that may be filed by providing reasonable security to the STATE. PURCHASER must post notices of the STATE's non-responsibility pursuant to AS 34.35.065 and AS 34.35.150.

19. REPRESENTATIONS AND WARRANTIES

A. STATE. As additional consideration for this sale, the STATE hereby represents, warrants, and disclaims warranties, as follows, which representations, warranties and disclaimers shall survive the expiration of this Contract:

- (1) It is duly authorized to enter into this Contract;
- (2) It makes no warranties, express or implied, as to the access, availability, operability, value, total volume that may be cut in the Timber Sale Area, type, species distribution, grade, quantity, quality, merchantability or fitness for a particular use concerning the Timber and the Timber Sale Area.
- (3) Its approval of the Operating Plan is not a warranty that the plan is economic, safe, or meets the requirements of Law;
- (4) It does not warrant the accuracy of any title, appraisals, timber cruises, investigations or other presale documents or evaluation the STATE has prepared;
- (5) It does not warrant any risk associated with previous mining activity on the land;
- (6) It does not warrant any other item that extends beyond the written contents of this Contract.

B. PURCHASER. As additional consideration for this purchase, PURCHASER hereby represents and warrants as follows, which representations and warranties shall survive the expiration of this Contract:

- (1) It has read the above STATE warranty section with care and in its entirety and understands it completely;
- (2) It has had an unrestricted opportunity to review documents received from the STATE related to this timber sale which are not subject to the attorney-client privilege and has carefully inspected the Timber Sale Area and all Timber on the Timber Sale Area, and except for the STATE's Representations and Warranties set forth in Section 19A (STATE Representations and Warranties) above, PURCHASER is purchasing the Merchantable Timber and accepting the Timber Sale Area "AS IS;"
- (3) It has independently considered and made its own determination concerning the physical, legal and economic facts related to the access to and operations within the Timber Sale Area, barging and towing, log transport, log storage and transfer, raft delivery conditions, fuel transport and storage, availability of camps and sort yards, matters of title, government regulation, the construction of the required Roads and Related Transportation Facilities, the harvest of the Timber (and the ease or difficulty in harvesting it), the value, volume, grade, species distribution, type, quality and merchantability of the Timber and the economic feasibility and operability of the Timber and PURCHASER's ability to harvest the Timber, and all other matters related to the harvest and sale of the Timber. PURCHASER assumes each, every and all risks related to the Merchantable Timber and the Timber Sale Area;
- (4) It further assumes all risks related to the quantity or quality of rock, sand, gravel, stone or other construction materials in the Timber Sale Area;
- (5) It is in good standing in accordance with the Laws of the State of Alaska;
- (6) It is qualified to do business in the State of Alaska;
- (7) It is duly authorized to enter into this Contract and all agreements and documents



contemplated hereby, and to make the representations and warranties set forth herein. When executed and delivered by PURCHASER, this Contract shall constitute a legal, valid and binding obligation of PURCHASER that the person executing this Contract for and on behalf of PURCHASER is duly authorized to do so, and that neither the execution of this Contract nor its performance by PURCHASER will conflict with or result in the breach of any other instrument, covenant or undertaking of PURCHASER;

(8) All submissions to the STATE made in relation to this Contract are true and correct;

(9) It is entering into this Contract based upon its own knowledge and information of the Timber, of the Timber Sale Area and of the timber business, and not because of any inducement or representation of the STATE, or any representative of the STATE;

(10) It is experienced in the logging industry, has independently reviewed all applicable Laws and has a sufficient working familiarity with such Laws to enable it to obtain necessary permits and comply with same; and

(11) It has consulted with an attorney of PURCHASER's own choosing concerning the contents of this Contract.

20. VALID EXISTING RIGHTS

The rights granted to PURCHASER under this Contract are subject to all valid existing rights in existence on the Effective Date whether or not made of record, including without limitation, easements, rights-of-way, reservations or other interests in land.

21. GENERAL PROVISIONS

A. Contractors. All Contractors and subcontractors engaged by PURCHASER to perform Timber Operations relating to this Contract, must be approved in advance by STATE; however, STATE shall not unreasonably withhold its approval. PURCHASER must require, by contract, all such contractors and subcontractors to abide by the terms and conditions of this Contract, and PURCHASER must provide them with relevant provisions of this Contract.

B. Delivery of Payments. All payments must be delivered to the STATE or to PURCHASER respectively at the addresses set forth in the Section 16 (Notices and Parties' Representatives). PURCHASER shall not be entitled to any abatement, deductions or offsets of any amount due to STATE. All past due amounts owed the STATE shall accrue interest at the interest rate of 10.5% per annum until payment is received by the STATE.

PURCHASER:    Company *Name*:  
                         Address

PURCHASER

By: \_\_\_\_\_  
Title: \_\_\_\_\_

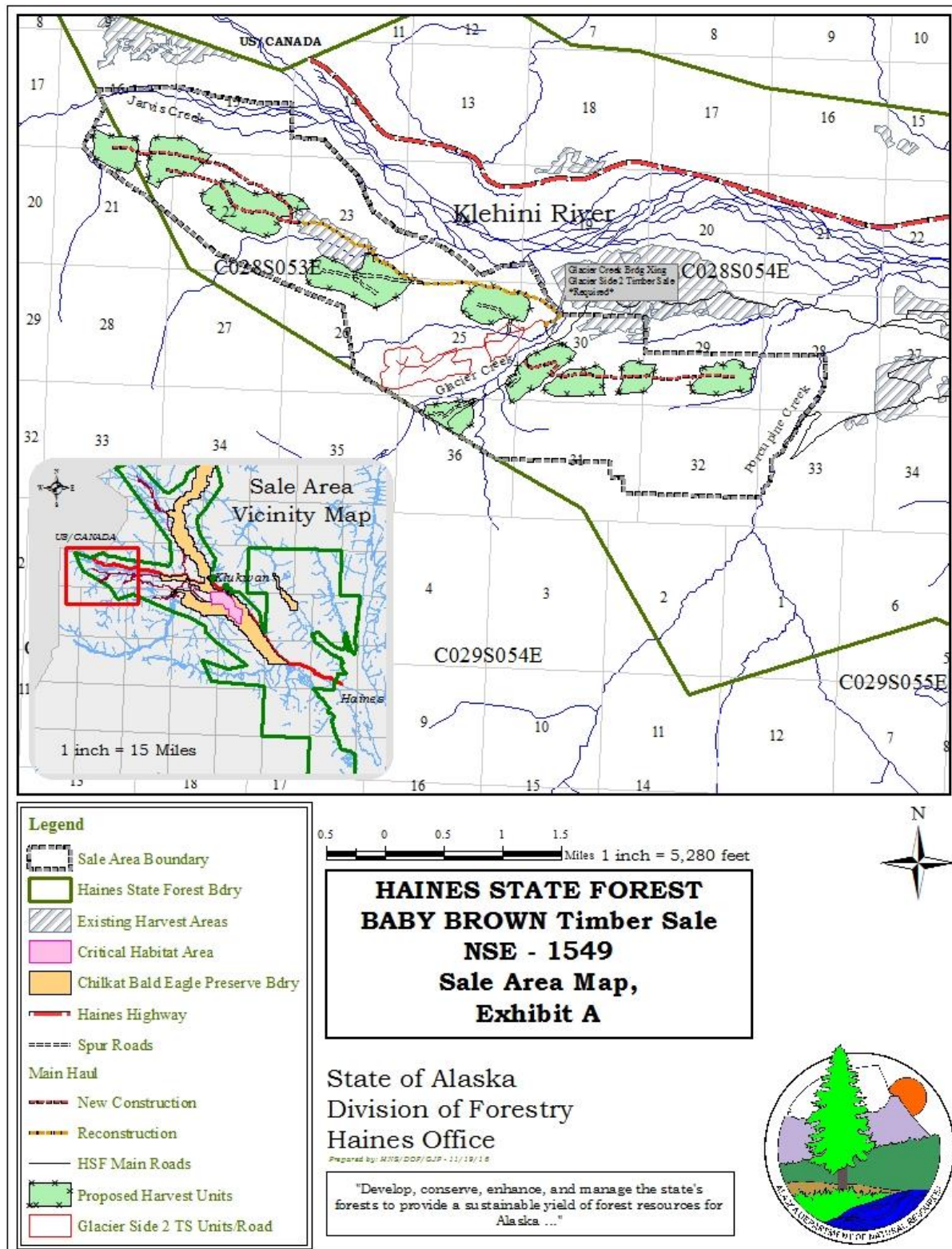
The Foregoing Instrument was acknowledged before me \_\_\_\_\_, of and on behalf of the State of Alaska, Department of Natural Resources Division of Forestry on this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

The Foregoing Instrument was acknowledged before me by \_\_\_\_\_ the \_\_\_\_\_ of \_\_\_\_\_, a \_\_\_\_\_ Corporation as \_\_\_\_\_ of and on behalf of the Corporation on this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

PAGE 15

# EXHIBIT A

# BABY BROWN Timber Sale Area Map



**EXHIBIT B****LEGAL DESCRIPTION****BABY BROWN TIMBER SALE NSE-1549****Property Description:**

The timber sale is located approximately 37 air miles northwest of Haines, Alaska on the south side of the Klehini River drainage between Porcupine and Jarvis Creeks. The sale area, consisting of 4,992 acres, more or less, is legally defined as within portions of:

Sections 14, 15, 16, 21, 22, 23, 24, 25, 26, 27 and 36 of Township 28 South, Range 53 East; and Sections 19, 28, 29, 30, 31, 32 and 33 of Township 28 South, Range 54 East, Copper River Meridian.

The Timber Sale Area includes only the area described above and as depicted in Exhibit A: Baby Brown Timber Sale Area Map.

In this Timber Sale Area nine “harvest areas” have been identified composing approximately 1,482 acres. The sale is designated for the harvest of approximately 19.7 million board feet of timber from 855 acres, more or less, within the nine “harvest areas” shown on the attached Timber Sale Area Map in Exhibit A, which is made a part hereof.

The harvest of timber under this contract will occur only in the “Harvest Units” as designed and marked on the ground and contained in the Forest Land Use Plan created for this sale. The Harvest Units designed for the sale in the Forest Land Use Plan shall be constructed and applied substantially on the proposed unit design depicted in Exhibit F herein.

## EXHIBIT C

## Logging Requirements

### BABY BROWN TIMBER SALE NSE-1549

#### Harvest Prescription:

The predominant harvest method will be selective with areas of clear-cut acreage dispersed throughout the harvest units. The harvest methods will be partially based on the operators' ability to yard timber with either ground based or cable systems. Site specific characteristics such as terrain, soils, and water bodies will be addressed in the Forest Land Use Plans identifying sites that will require either cable or ground based operations. Areas within harvest units without specific designations of harvest method in the Forest Land Use Plans will mutually be agreed upon and identified per harvest methods by the purchaser and the STATE in the Timber Sale Operations Plan.

The Purchaser's operations on the TIMBER SALE must at all times comply with the Best Management Practices as outlined in the Alaska Forest Practices Act and Regulations for public lands and the Forest Land Use Plan for the timber sale.

1. Leave Tree designations for Standing Cull and Utility.
  - A. Obvious cull trees with clear presence of conks (fungus fruiting bodies indicating the presence of wood defect) along the bole of the tree. These trees are designated as leave trees for the purpose of this contract;
  - B. Timber deemed non merchantable (or Cull) are trees containing log lengths that fail to meet the minimum requirements for the lowest sawmill grade and will not meet the minimum net/gross ratio of 33 1/3% sound wood when cruising rules apply.
2. Landings must be located, constructed, and operated in a manner that
  - A. avoids surface and standing waters;
  - B. minimizes the use of marshes and non-forested muskegs;
  - C. prevents logs and vegetative debris from entering surface and standing waters; and
  - D. minimizes the sedimentation of surface and standing waters.
3. An operator must locate and construct a landing according to the following standards:
  - A. when choosing the site of a landing, an operator must consider the effects of the landing location and provide for a logging layout that will reduce the overall adverse effects on the operation;
  - B. the design of a landing must minimize the need for side casting or fill;
  - C. a landing must be no larger than necessary for safe operation of the equipment and decking of logs;
  - D. where slopes have a grade greater than 67 percent, are unstable, or are in a slide-prone area, fill material used in construction of a landing must be free from loose stumps and excessive accumulations of slash, and must be mechanically compacted in layers if necessary to prevent soil erosion and mass wasting;
  - E. a truck road, a skid trail, or a fire trail must be out sloped or cross drained uphill of the landing and the water diverted onto the forest floor away from the toe of any landing fill;
  - F. a landing must be sloped, water barred, ditched or otherwise constructed and maintained to minimize accumulation of water on the landing; and
  - G. any excavated material from the construction of a landing may not be placed where it is likely to result in degradation of surface water quality.
4. To maintain bank integrity, an operator must minimize disturbance of residual trees, brush,

and similar understory vegetation adjacent to surface and standing waters. An operator must also, where feasible, avoid disturbing roots, stumps, and deadfalls embedded in the bed or bank of surface waters, and standing waters larger than one-half acre.

5. In a riparian area, an operator must, where feasible and necessary, leave high stumps to prevent felled and bucked timber from entering surface waters.
6. The division will, in its discretion, require stabilization, to the extent feasible, of disturbed banks to prevent soil erosion and degradation of water quality.
7. If a tree is felled into nonfish-bearing surface or standing waters, the operator must remove the tree and its debris at the earliest feasible time, to the extent necessary to avoid degradation of water quality.
8. An operator may not buck or limb a tree or any portion of a tree lying between the banks of surface waters, except as necessary to remove the bole, limbs, or small debris from the water as required by 11 AAC 95.290(e) or this section.
9. If feasible, an operator
  - A. may not fell trees into a riparian timber retention area; and
  - B. must fell each tree in a direction that minimizes damage to trees retained in a partial cut.
10. During yarding, an operator must keep all logs fully suspended above or yarded away from surface waters where feasible, in light of the necessary equipment being reasonably available to the operator and the importance of the surface water to fish habitat and water quality, unless full suspension or split yarding would likely cause greater degradation of surface water quality or impact to fish habitat than cross-stream yarding.
11. The following standards apply to cable yarding operations:
  - A. when feasible, an operator must use maximum available deflection;
  - B. where feasible, an operator must use uphill yarding techniques;
  - C. where downhill yarding is used, an operator must use deflection to lift the leading end of the log and minimize downhill movement of slash and soils;
  - D. when yarding parallel to surface waters, and when in or near a riparian area, an operator must make an effort to minimize soil disturbance and to prevent logs from rolling into surface waters or the riparian area; and
  - E. when yarding across marshes and non-forested muskegs, an operator must make an effort to minimize damage to vegetative cover.
12. The Purchaser may utilize only logging systems detailed in the Operating Plan. The number of skidding routes through an area must be minimized.
13. An operator may not use a tracked skidder, a wheeled skidder, or a logging shovel during saturated soil conditions if degradation of surface and standing water quality is likely to result.
14. An operator must minimize damage from skidding to the stems and root systems of retained timber. The PURCHASER must protect residual trees and seedlings during harvest operations. No more than 25 percent of the residual stand may be damaged. Residual trees or existing spruce regeneration that in the judgment of the STATE are unnecessarily damaged during felling and/or skidding operations must be paid for by the PURCHASER in accordance with the following: Liquidated damages for residual trees greater than 4 ½ feet tall is set at the rate of \$50 (fifty dollars) per tree. The PURCHASER must fell, skid or slash

all damaged residual stems after the main harvest operations for that unit has been completed, as directed by the STATE. Damaged stems are defined as stems with broken tops, stems that are leaning more than 30 degrees off vertical, and stems that have more than one-third of the cambial surface (circumference) exposed from skidding scars

15. When using tracked and wheeled vehicles, an operator must:
  - F. use puncheon where significant ground disturbances may contribute to sedimentation of surface water;
  - G. locate skid trails to minimize degradation of surface water quality;
  - H. use water bars or other appropriate techniques as necessary to prevent or minimize sedimentation;
  - I. keep skid trails to the minimum feasible width; and
  - J. outslope skid trails where feasible, unless an inslope is necessary to prevent logs from sliding or rolling downhill off the skid trail.
16. Upon the completion of operations at a site, a skid trail must be water-barred according to the standards set out in 11 AAC 95.315 or otherwise stabilized to prevent erosion from entering surface waters.
17. An operator may not use a tracked or wheeled skidder on a slope where this method of operations is likely to cause degradation of surface and standing water quality.
18. The tops of all trees felled, and not yarded to the landing, must be lopped and scattered in such a manner as to lay away from residual trees. Non-merchantable trees cut for skid roads, landings, etc., are to be treated as slash unless otherwise directed by the STATE. "Lopping" means that the top is cut into segments not greater than 3 feet in length, and treated as slash. Slash must be treated so that the slash height does not exceed two feet above the ground. All heavy accumulations of slash occurring at the landing must be piled. Slash must be wind-rowed or piled adjacent to the landing for burning by the PURCHASER as an on-going process during harvest. The PURCHASER must obtain the necessary open burning permits for slash burning prior to igniting the slash. The PURCHASER must notify the Division of Forestry in Haines at (907) 766-2120 prior to igniting any fires intended for slash disposal.
19. Existing recreational trails affected by harvest operations must be cleared of slash and logging debris by the operator in such a manner as to leave the trail safe for normal recreational use. Harvest operations must leave the ground surface in a condition that freely drains and in a surface condition like or better than prior to harvest operations. Trails impacted by the PURCHASER must be cleared daily of logging debris and signed as detailed in Exhibit E by the PURCHASER to maintain safe conditions in the Sale Area or as required by the State.
20. Harvest activities must cease when snow depth in any and all active harvests units averages 12 inches or more in depth unless an approved scarification plan has been included in the Timber Sale Operations Plan. All required scarification as described in the Timber Sale Operations Plan will be performed at the expense of the contractor.

The default standard of scarification on all acreage requiring treatment will be as follows:

- A. 50% exposed mineral soils distributed uniformly over the unit.

## EXHIBIT D

## OPERATING PLAN REQUIREMENTS

### BABY BROWN TIMBER SALE NSE-1549

The Operating Plan must comply with the requirements of the Alaska Forest Resources and Practices Act (FRPA) under AS 41.17, the Alaska Land Act under AS 38.05, and 11 AAC 71.300. The Operating Plan must provide the STATE with sufficient information to allow the STATE to understand the Timber Operations, as they will occur in the field. The Operating Plan must include identification of any areas of concern identified by the PURCHASER, including any potential conflicts with FRPA. The information required in the "Operating Plan" must also provide the STATE with the following information:

- A. Overall Description of Operating Plan.
  - (1) Timber Harvest schedules, to include specifications of the number of the settings and associated access development by year. Start and stop dates for operations such as cutting, road building, hauling, logging, scaling and any periods without operations longer than 60 days;
  - (2) Fire planning, including an area-wide action plan and list of adequate equipment maintained in the Timber Sale Area to suppress fires;
  - (3) An area-wide control plan for Hazardous Substances; and
  - (4) Copy of road use and maintenance agreements.
- B. Details of Operating Plan.
  - (1) Method and schedule of timber harvest by settings for the plan year, and the estimated volume by month to be harvested during the plan year. This must be identified on the unit maps and in writing.
  - (2) Details of road construction and maintenance, including a summary of areas of concern and actions to be taken to manage the concern due to slope or other considerations along with specific pit and waste areas plans.
  - (4) Details of the seasonal closeout plan, including Roads and Related Transportation Facilities and other pertinent information. Also, the annual plan under this Contract must provide for closeout activities, including putting roads to bed and full clean-up.
  - (5) Locations of log scaling areas, log transfer facilities, camp facilities or local operations office; and copies of any required road or land use contracts.
  - (6) Names, addresses, business licenses, proof of insurance and contact persons for all contractors. The plan must state the task and percentage of the work that each contractor will perform for the Purchaser.

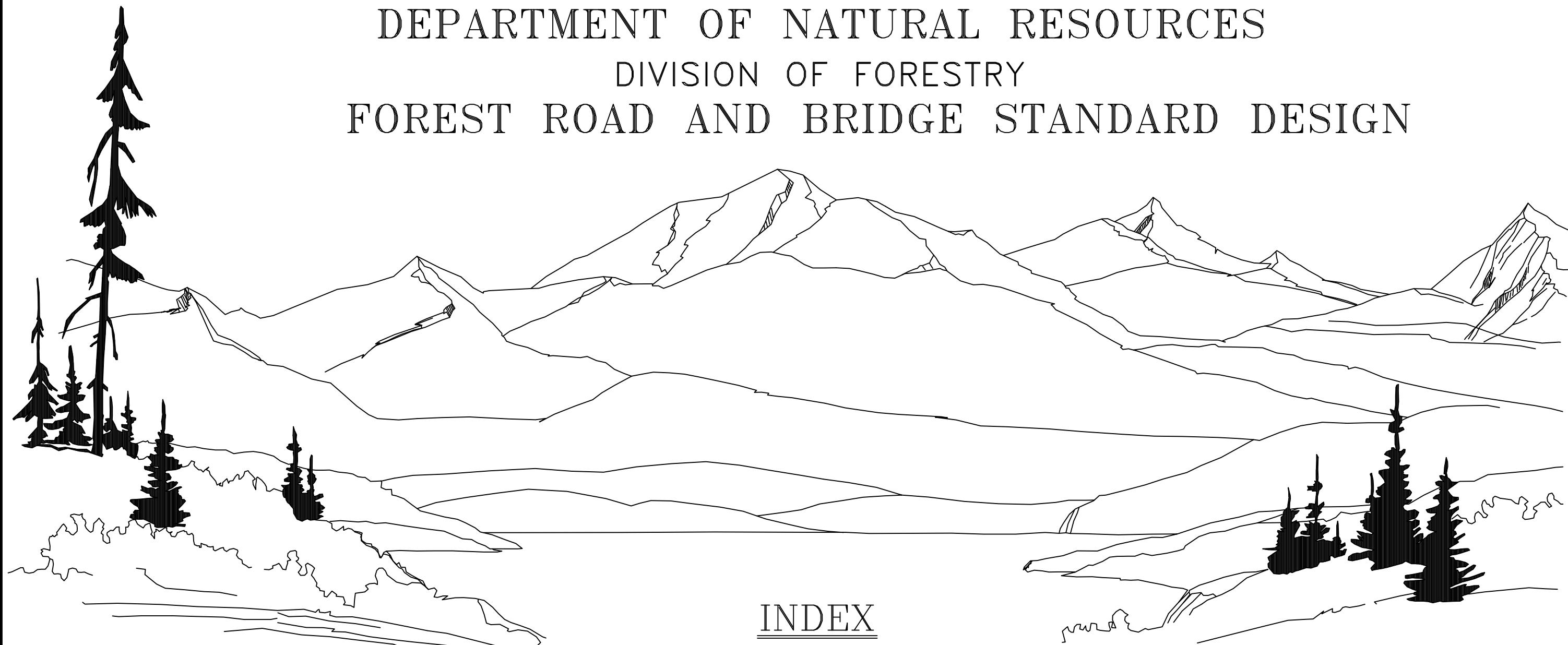


**EXHIBIT E**

**ROAD CONSTRUCTION AND MAINTENANCE REQUIREMENTS**

BABY BROWN TIMBER SALE NSE-1549

STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY  
FOREST ROAD AND BRIDGE STANDARD DESIGN



INDEX

<input type="checkbox"/> A-01.00	TITLE SHEET	<input type="checkbox"/> N-01.00	BRIDGE PROJECT NOTES
<input type="checkbox"/> A-02.00	FOREST ROAD PERFORMANCE STANDARDS	<input type="checkbox"/> N-02.00	STANDARD PRECAST CONCRETE AND TIMBER ABUTMENTS
<input type="checkbox"/> B-01.00	TYPICAL SECTIONS	<input type="checkbox"/> N-03.00	STANDARD PRECAST CONCRETE ABUTMENT
<input type="checkbox"/> B-02.00	TYPICAL SECTIONS	<input type="checkbox"/> N-04.00	STANDARD MODULAR BIN AND WELDED WIRE ABUTMENT DETAILS
<input type="checkbox"/> B-03.00	WINTER ROAD SECTION	<input type="checkbox"/> N-05.00	MISCELLANEOUS STANDARD DETAILS
<input type="checkbox"/> E-01.00	CULVERT DETAILS	<input type="checkbox"/> N-06.00	STANDARD LOG ABUTMENT
<input type="checkbox"/> E-02.00	ROADWAY DETAILS	<input type="checkbox"/> N-07.00	STANDARD TIMBER SILL WITH GEOCELL FOUNDATION
<input type="checkbox"/> H-01.00	TYPICAL SIGN PLACEMENT		TRAFFIC CONTROL DETAILS
<input type="checkbox"/> H-02.00	SIGN DETAILS	<input type="checkbox"/> S-01.00	



Revisions			
No.	Date	Description	By

STATE OF ALASKA  
Department of Natural Resources  
Division of Forestry

Approved: \_\_\_\_\_

Project Engineer or Forester \_\_\_\_\_ Date \_\_\_\_\_

Project or Contract No. \_\_\_\_\_

FOREST ROAD PERFORMANCE STANDARDS

1. ALL ROADS SHALL BE BUILT TO THE STANDARDS LISTED WITHIN THIS PERFORMANCE STANDARD UNLESS THE PROJECT ENGINEER HAS DETERMINED THAT A SITE SPECIFIC DESIGN IS PRUDENT. THE PERFORMANCE STANDARD FOR ADNIR FOREST ROADS AND THE ADNIR FOREST ROADS STANDARD DRAWINGS CONVEY THE DEPARTMENT'S INTENT. IN THE EVENT OF A CONFLICT BETWEEN DOCUMENTS, THE PROJECT ENGINEER WILL DETERMINE THE ORDER OF PRECEDENCE.
2. REFERENCE THE FOLLOWING RESOURCES FOR ADDITIONAL INFORMATION:

A. ALASKA FOREST RESOURCES & PRACTICES REGULATIONS (FRPA), 11 AAC 95, OCTOBER 2013;

B. ALASKA STATUTE 41.17, FOREST RESOURCES AND PRACTICES.
3. ROAD LOCATION AND CLASSIFICATION ARE IDENTIFIED IN THE TIMBER SALE CONTRACT OR THE BID DOCUMENTS. DEVIATION FROM THESE DOCUMENTS IS PERMITTED ONLY WITH THE WRITTEN PERMISSION OF THE PROJECT ENGINEER.
4. REGARDLESS OF REGION, ROADS WILL BE CLASSIFIED AS PRIMARY, SECONDARY, OR SPUR.

A. A PRIMARY ROAD IS A HIGH USE PERMANENT ROAD WITH THE FOLLOWING CHARACTERISTICS:

I. MINIMUM 16 FOOT WIDE RUNNING SURFACE;

II. TYPICALLY SINGLE LANE;

III. VERTICAL GRADE: MAXIMUM FAVORABLE GRADE IS 10%, MAXIMUM ADVERSE GRADE IS 6%;

IV. MINIMUM HORIZONTAL CURVE RADIUS OF 360 FEET; AND

V. DESIGN SPEED OF 40 MPH.

B. A SECONDARY ROAD IS A MODERATE TO LOW USE, YEAR ROUND, PERMANENT ROAD WITH THE FOLLOWING CHARACTERISTICS:

I. MINIMUM 14 FOOT WIDE RUNNING SURFACE;

II. SINGLE LANE;

III. VERTICAL GRADE: MAXIMUM FAVORABLE GRADE IS 10%, MAXIMUM ADVERSE GRADE IS 8%;

IV. MINIMUM HORIZONTAL CURVE RADIUS OF 140 FEET; AND

V. DESIGN SPEED OF 25 MPH.

C. A SPUR ROAD IS A TEMPORARY, LOW USE ROAD WITH THE FOLLOWING CHARACTERISTICS:

I. MINIMUM 14 FOOT WIDE RUNNING SURFACE;

II. SINGLE LANE;

III. VERTICAL GRADE: MAXIMUM FAVORABLE GRADE IS 20%, MAXIMUM ADVERSE GRADE IS 12%;

IV. MINIMUM HORIZONTAL CURVE RADIUS OF 50 FEET; AND

V. DESIGN SPEED OF 15 MPH.

D. A WINTER ROAD SUPPORTS VEHICLE TRAFFIC DURING WINTER MONTHS ONLY. IT IS CONSTRUCTED USING FROST, SNOW, AND/OR ICE. WINTER ROADS HAVE THE FOLLOWING CHARACTERISTICS:

I. MINIMUM 14 FOOT WIDE RUNNING SURFACE;

II. SINGLE LANE;

III. VERTICAL GRADE: MAXIMUM FAVORABLE GRADE IS 10%, MAXIMUM ADVERSE GRADE IS 10%;

IV. MINIMUM HORIZONTAL CURVE RADIUS OF 75 FEET; AND

V. DESIGN SPEED OF 20 MPH.

5. CROWN or SLOPE TRAVELED WAY OR ROADBED 3–5% FOR ALL SECTIONS.

6. ALL FILL SLOPES SHALL BE 2:1 (OR FLATTER) AND ALL CUT SLOPES SHALL BE 1:1 (OR FLATTER) IN COMMON MATERIAL OR 1/4:1 (OR FLATTER) IN BEDROCK. TERRACED SLOPES ARE PERMITTED IF THEY FIT WITHIN THE RIGHT-OF-WAY.

7. UTILIZE APPROVED MATERIAL LOCATED WITHIN THE RIGHT-OF-WAY TO CONSTRUCT THE ROAD. IF SUFFICIENT MATERIAL IS NOT AVAILABLE OR OF SUITABLE QUALITY, THE PROJECT ENGINEER MAY AUTHORIZE THE IMPORT OF BORROW. IN GENERAL,ALL ROADS EXCEPT WINTER ROADS ARE TYPICALLY CONSTRUCTED AS FOLLOWS:

A. REGION I ROADS HAVE A 12 –24" SUBGRADE CONSISTING WELL-GRADED ANGULAR STONE WITH A D50 OF 3 INCHES OR GREATER (SHOT ROCK) OR A POORLY GRADED NATURAL SAND AND GRAVEL MIX WITH A MAX GRAIN SIZE OF 12" (PIT RUN GRAVEL). IF AUTHORIZED BY THE PROJECT ENGINEER, THAT MATERIAL MAY ALSO BE USED AS THE RUNNING SURFACE.

B. REGION II AND III ROADS HAVE A 12–24" SUBGRADE CONSISTING OF SAND, GRAVEL ROCK, OR COMBINATIONS THEREOF CONTAINING NO MUCK, PEAT, FROZEN MATERIAL, ROOTS, SOD, OR OTHER DELETERIOUS MATTER (DOT&PF TYPE "C" MATERIAL). THE PROJECT ENGINEER MAY AUTHORIZE THE USE OF NATIVE MATERIAL FROM DITCHES. A SURFACING MATERIAL MEETING THE REQUIREMENTS OF DOT&PF TYPE E–1 MATERIAL MAY BE REQUIRED.

8. CLEARING LIMITS WILL VARY WITH GROUND CONDITIONS. CLEAR AS NECESSARY TO MEET ROAD TYPICAL CROSS SECTIONS AND SAFE SIGHT DISTANCE AS DIRECTED BY THE PROJECT ENGINEER AND SUBJECT TO THE CONDITIONS IN THE CONTRACT DOCUMENTS.

9. DURING ROAD CLEARING OPERATIONS, ALL MERCHANTABLE TIMBER WITHIN THE CLEARING LIMITS SHALL BE FELLED, LIMBED AND DECKED. MERCHANTABLE TIMBER SHALL BE DECKED ALONG THE ROAD IN A MANNER THAT DOES NOT CREATE A HAZARD TO THE PUBLIC. LOGS SHALL BE DECKED IN AN ORDERLY MANNER AND NOT OBSTRUCT SURFACE WATERS. LOG DECKS SHALL BE CONFIGURED TO EFFICIENTLY AND SAFELY LOAD LOG TRUCKS; LOG DECKS GENERALLY SHALL BE CONSOLIDATED IN A MANNER THAT FACILITATES THE LOADING OF FULL LOADS WITHOUT LOG TRUCK MOVEMENT. UNMERCHANTABLE TIMBER AND DEBRIS SHALL BE TREATED AS APPROVED IN THE OPERATING PLAN UNLESS DIRECTED OTHERWISE IN WRITING BY THE PROJECT ENGINEER.

10. PRIOR TO BURNING CONSTRUCTION DEBRIS, CONTACT DOF AND THE LOCAL WILDLAND FIRE JURISDICTIONAL AGENCY FOR WRITTEN APPROVAL.

11. DITCHES SHALL BE 2’ WIDE MINIMUM OR AS REQUIRED FOR ADEQUATE DRAINAGE AND SNOW STORAGE AS DETERMINED BY THE PROJECT ENGINEER.

12. PRELIMINARY LOCATION OF DRAINAGE STRUCTURES ARE IDENTIFIED IN THE BID DOCUMENTS. ADDITIONAL DRAINAGE STRUCTURES MAY BE REQUIRED.

A. FORDING OF ANY STREAM BY ROADS SHALL BE IN ACCORDANCE WITH 11 AAC 95.295 (C) AND 95.305.

B. MINIMUM CULVERT DIAMETER IS 18".

C. CULVERTS MUST EXTEND A MINIMUM OF 36" BEYOND THE TOE OF FILL ON BOTH SIDES OF THE ROAD.

D. CULVERT ENDS SHALL BE CONSTRUCTED TO PREVENT SCOUR OF THE ROAD BED.

13. FISH PASSAGE LOCATIONS ARE IDENTIFIED IN THE BID DOCUMENTS.

A. FISH PASSAGE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALASKA DEPARTMENT OF FISH AND GAME PERMIT AND GUIDELINES.

B. CHANGES TO THE COURSE OF AN ANADROMOUS FISH BEARING WATERWAY MUST BE APPROVED, IN WRITING, BY THE ALASKA DEPARTMENT OF FISH AND GAME.

C. OBTAIN WRITTEN PERMISSION FROM ALASKA DEPARTMENT OF FISH AND GAME PRIOR TO FORDING ANADROMOUS FISH WATERS.

D. THE INLET AND OUTLET OF FISH PASSAGES SHALL MATCH THE NATURAL COURSE OF THE STREAM CHANNEL.

E. DO NOT PERCH CULVERT ENDS.
14. CONTROL OR PREVENT EROSION, SILTATION, WATER DEGRADATION AND POLLUTION PER AS 41.17 AND 11 AAC95 (FRPA) AND AS SPECIFIED IN THE DRAWINGS FOR SITE SPECIFIC CONCERNS or AS DIRECTED BY THE ENGINEER. AT A MINIMUM, FRPA BMP'S SHALL BE USED FOR EROSION CONTROL AND MAINTENANCE AND ARE A REQUIREMENT OF ALL CONTRACTS.
15. TURNOUTS SHALL BE PLACED ON PRIMARY ROADS AT INTER-VISIBLE LOCATIONS OR AS DETERMINED BY THE PROJECT ENGINEER. TURNAROUNDS SHALL BE PLACED ON SECONDARY AND SPUR ROADS AT LOCATIONS DETERMINED BY THE PROJECT ENGINEER. SEE SHEET E–02.00 FOR TURNOUT AND TURNAROUND DETAIL.
16. INSTALL SIGNAGE AS DIRECTED BY THE PROJECT ENGINEER.

A. AT A MINIMUM, SIGNS WILL BE INSTALLED AT THE FOLLOWING LOCATIONS:

I. R1–1 SIGNS AT ALL STOP CONTROLLED INTERSECTIONS;

II. D–10 SERIES SIGNS AT FULL MILE INTERVALS ALONG PRIMARY AND SECONDARY ROADS;

III. OM–3 SERIES OBJECT MARKERS AT ALL OBSTACLES AND HAZARDS E.G. BRIDGE ENDS; AND

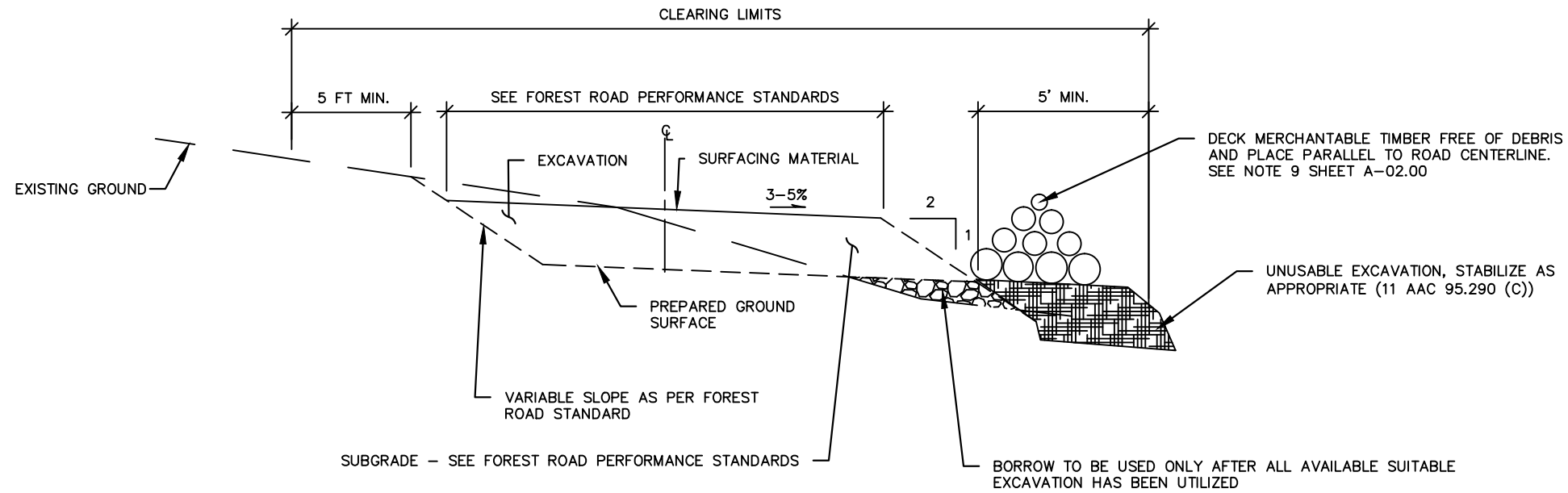
IV. "ACTIVE LOGGING ROAD..." SIGN AT ENTRANCE TO THE ROAD.
17. YEAR ROUND ROADS ARE NOT TO BE USED FOR HAULING OPERATIONS WHEN ROADS ARE NOT SAFE, SUSCEPTIBLE TO EXCESSIVE DAMAGE OR UNREASONABLE WEAR, AS DETERMINED BY THE PROJECT ENGINEER. LAYER IS TOO THIN TO PREVENT SURFACE DEFORMATION.

GEOMETRIC STANDARDS		
ROAD CLASSIFICATION	DESIGN SPEED (MPH)	MIN. HORIZONTAL CURVE RADIUS
PRIMARY OR MAIN HAUL ROADS	35	360’
SECONDARY ROAD	20	140’
SPUR ROAD	10	50’
WINTER ROAD	15 OR BY CLASSIFICATION	75’

MINIMUM HORIZONTAL CURVE RADIUS TAKEN FROM EXHIBIT 16 OF THE AASHTO *GUIDELINES FOR GEOMETRIC DESIGN OF VERY LOW VOLUME LOCAL ROADS (ADT<400)* \_  
USING A TRACTION COEFFICIENT OF 0.5 FOR NON-WINTER ROADS AND 0.4 FOR WINTER ROADS.

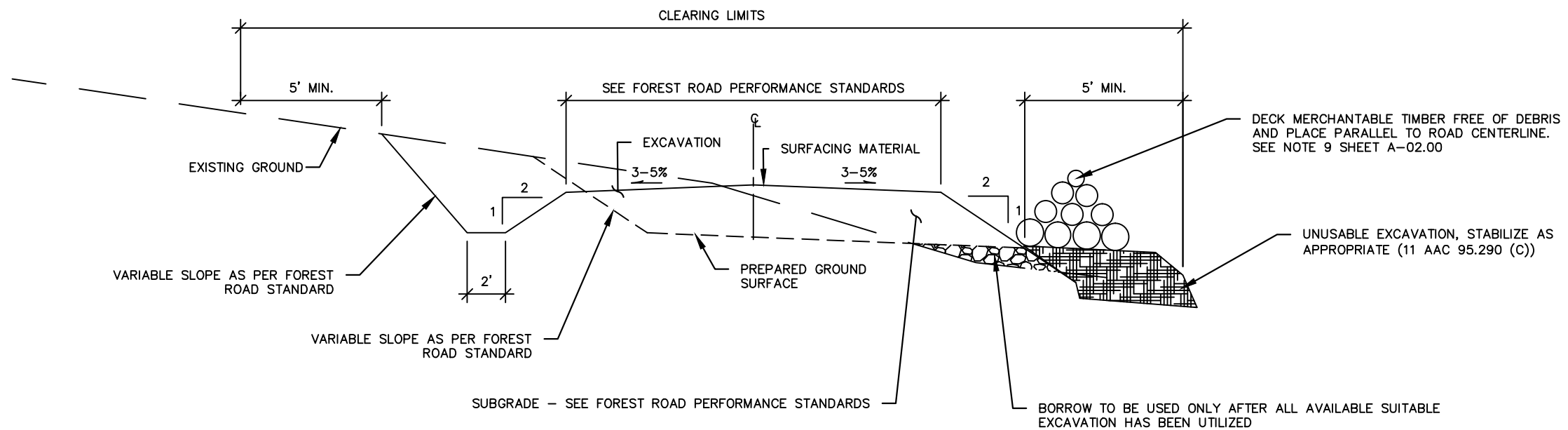
Revisions			
No.	Date	Description	By
1	11/5/2015		GS





### TYPICAL SIDEHILL SECTION - NO DITCH

NOT TO SCALE

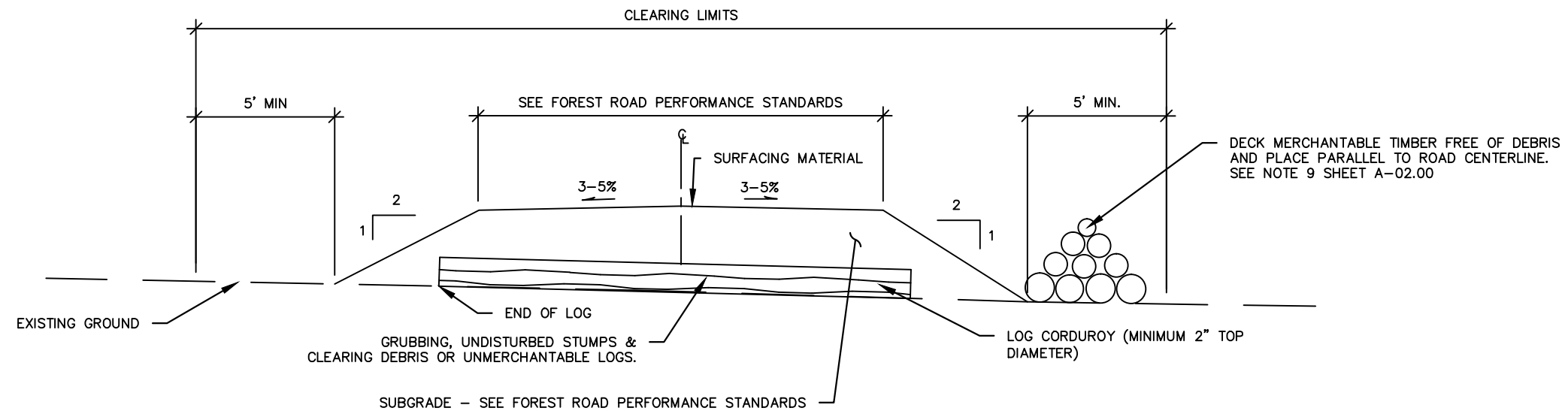


### TYPICAL SIDEHILL SECTION - WITH DITCH

NOT TO SCALE

Revisions			
No.	Date	Description	By
1	11/6/2015		GS



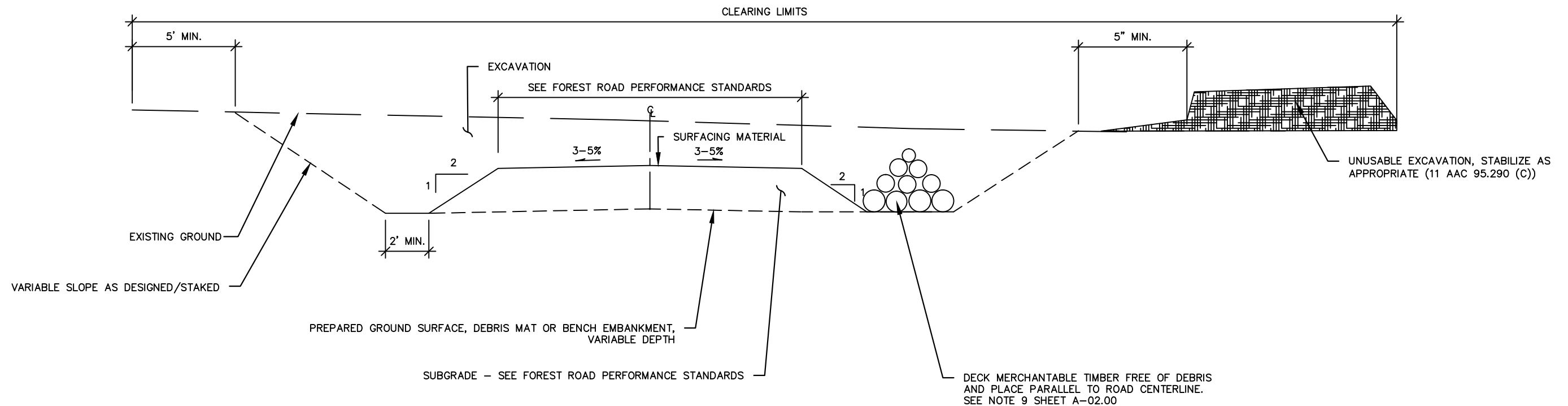


**NOTES:**

1. IF CROSS DRAINAGE IS A CONCERN PLACE A LAYER OF GEOTEXTILE FABRIC ON TOP OF LOGS.

### TYPICAL OVERLAY SECTION

NOT TO SCALE

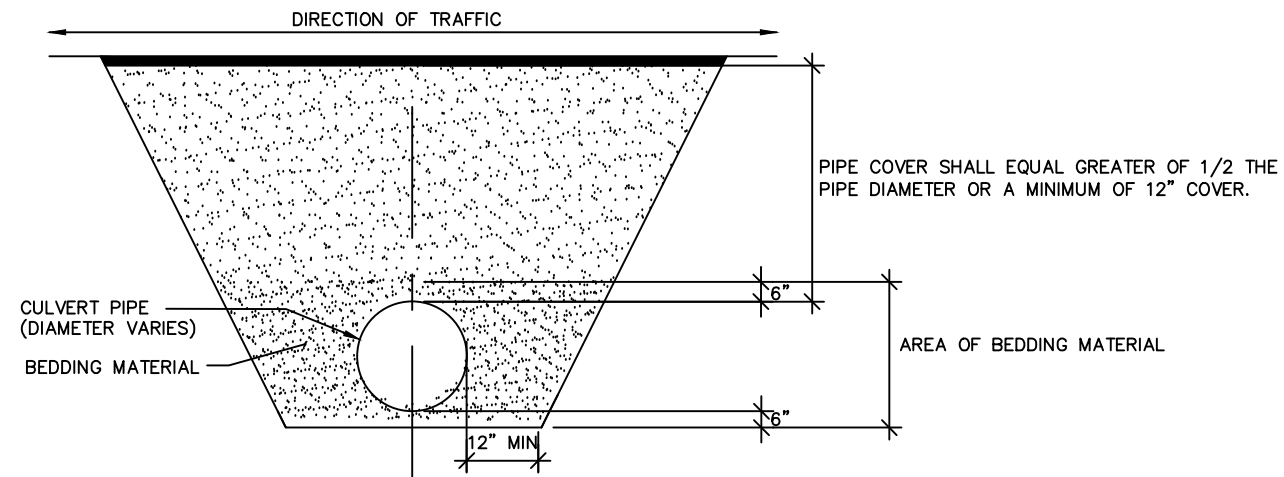


### TYPICAL THRU-CUT SECTION

NOT TO SCALE

Revisions			
No.	Date	Description	By



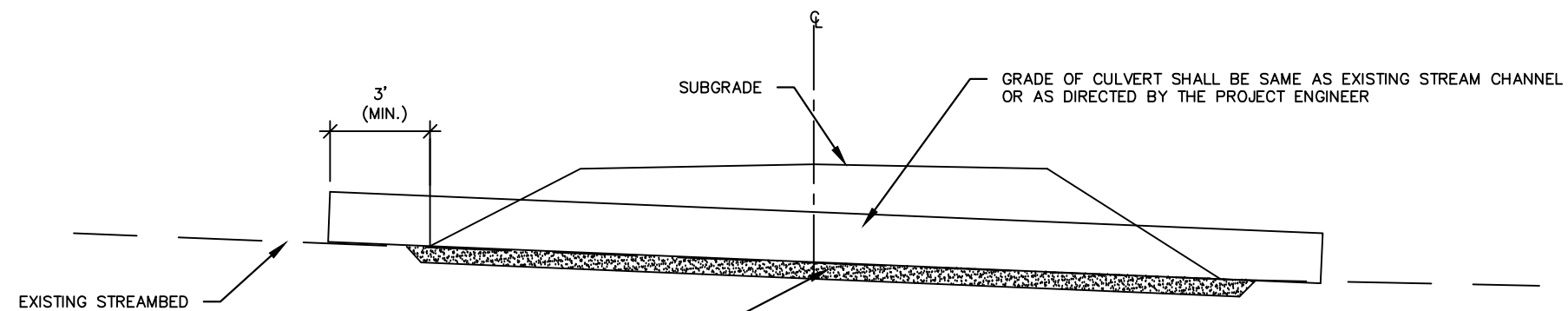


**TYPICAL CULVERT TRENCH SECTION**

NOT TO SCALE

**NOTES:**

1. CULVERT JOINTS SHALL HAVE WATERTIGHT GASKETS AND SHALL NOT LEAK.
2. CULVERT PLACEMENT SHALL BE APPROVED BY THE PROJECT ENGINEER BEFORE BACKFILLING.
3. ALL USABLE MATERIAL (COMMON EXCAVATION) SHALL BE USED AS BACKFILL FOR EMBANKMENT CONSTRUCTION.
4. SIDE SLOPES SHALL BE EXCAVATED AT 0.5H:1V OR FLATTER IN ACCORDANCE WITH ALL APPLICABLE SAFETY REQUIREMENTS.
5. BEDDING MATERIAL SHALL AT A MINIMUM MEET THE SAME REQUIREMENTS AS THE SUBGRADE MATERIAL. DO NOT PLACE ROCKS LARGER THAN 6 INCHES IN DIAMETER AGAINST CULVERT. PLACE AND COMPACT BEDDING IN LIFTS TO ADEQUATELY SUPPORT THE PIPE.
6. FOLLOW MANUFACTURE'S REQUIREMENTS FOR INSTALLATION UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER.
7. WHEN JOINING TWO PIPES TOGETHER, THE MINIMUM LENGTH OF PIPE TO BE JOINED SHALL BE SIX FEET.



**NOTES:**

1. DO NOT PERCH CULVERTS.
2. PLACE CULVERT IN ALIGNMENT WITH THE NATURAL STREAM CHANNEL. WHERE NO CHANNEL IS APPARENT, INSTALL CULVERTS AT SKEW AND SLOPE TO DRAIN OR AS DIRECTED BY THE PROJECT ENGINEER.
3. MINIMUM CULVERT GRADES SHALL BE 5% OR 1/2 OF THE TRIBUTARY DITCH GRADE.
4. CAMBER WILL DEPEND ON SITE CONDITIONS. MAXIMUM CAMBER IS 2% (STEEL OR ALUMINUM CULVERTS) OR 1% (POLYETHYLENE CULVERTS) OF CULVERT LENGTH BY NO MORE THAN 2.5 INCHES AT CENTER.
5. MINIMUM CULVERT DIAMETER IS 18".
6. CULVERT INLETS AND OUTLETS SHALL EXTEND 36 INCHES BEYOND THE TOE OF THE FILL UNLESS OTHERWISE AGREED TO BY THE PROJECT ENGINEER.
7. CULVERTS MUST BE SPACED TO PREVENT POOLING OF WATER CAUSED BY THE PRESENCE OF THE ROADBED.
8. PROVIDE ENERGY DISSIPATORS AT OUTLETS OF STORM DRAIN CULVERTS (FRPA 11 AAC 95.305 (C)).
9. RELIEF CULVERT SPACING WILL DEPEND ON SITE CONDITIONS. PROJECT ENGINEER TO ADVISE.

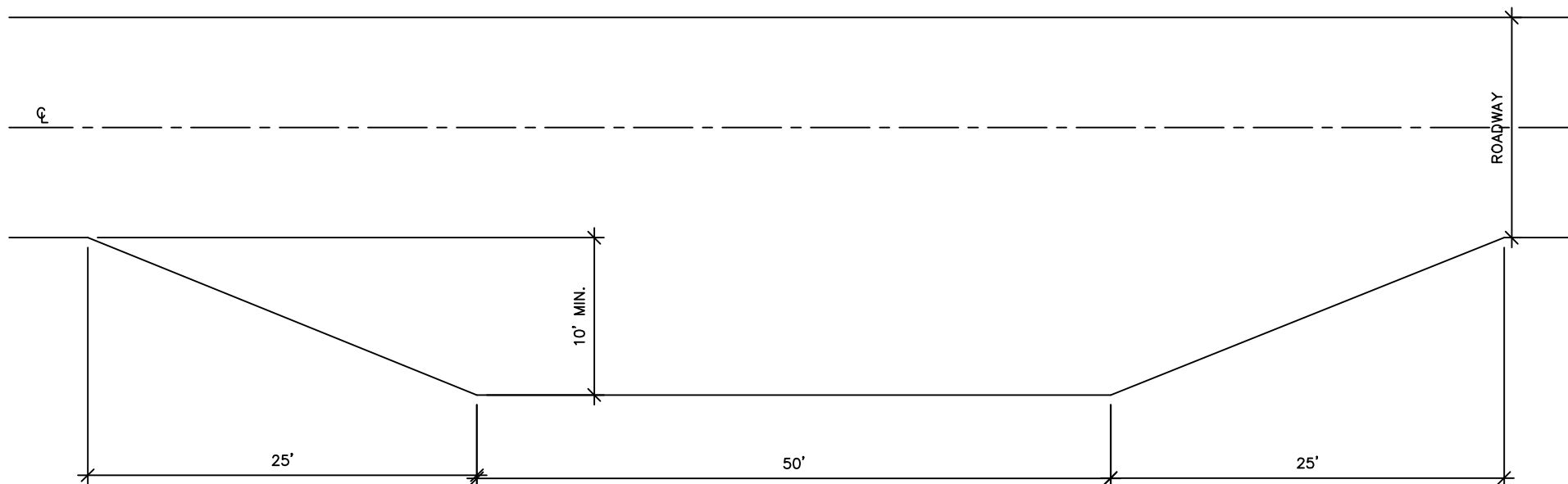
MINIMUM CULVERT SPACING 11 AAC 95.295 (B)		
PERCENT OF LONGITUDINAL GRADE	REGION I	REGION II & REGION III
0 TO 2	SEE NOTE #7	SEE NOTE #7
2 TO 7	1,000	1,500
8 TO 15	800	1,000
OVER 15	600	800

**TYPICAL CULVERT INSTALLATION**

NOT TO SCALE

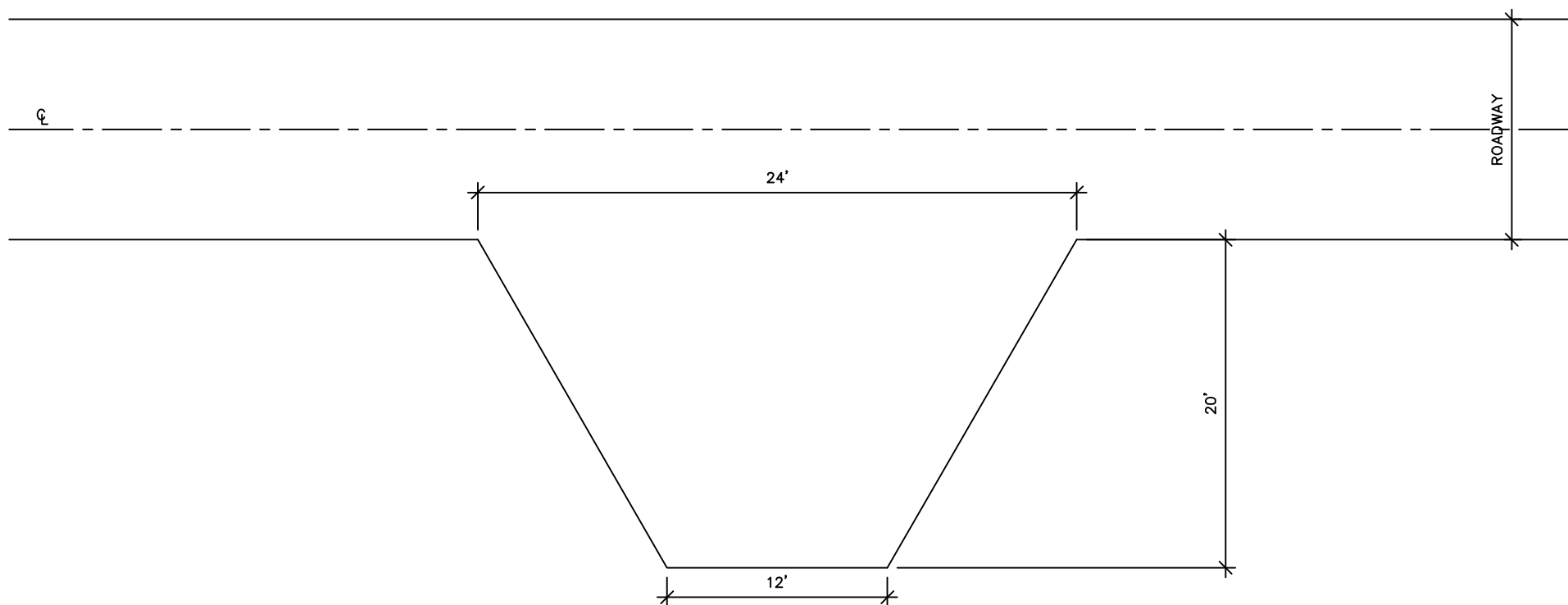
Revisions			
No.	Date	Description	By
0	11/9/2015		GS





### TURNOUT DETAIL

NOT TO SCALE



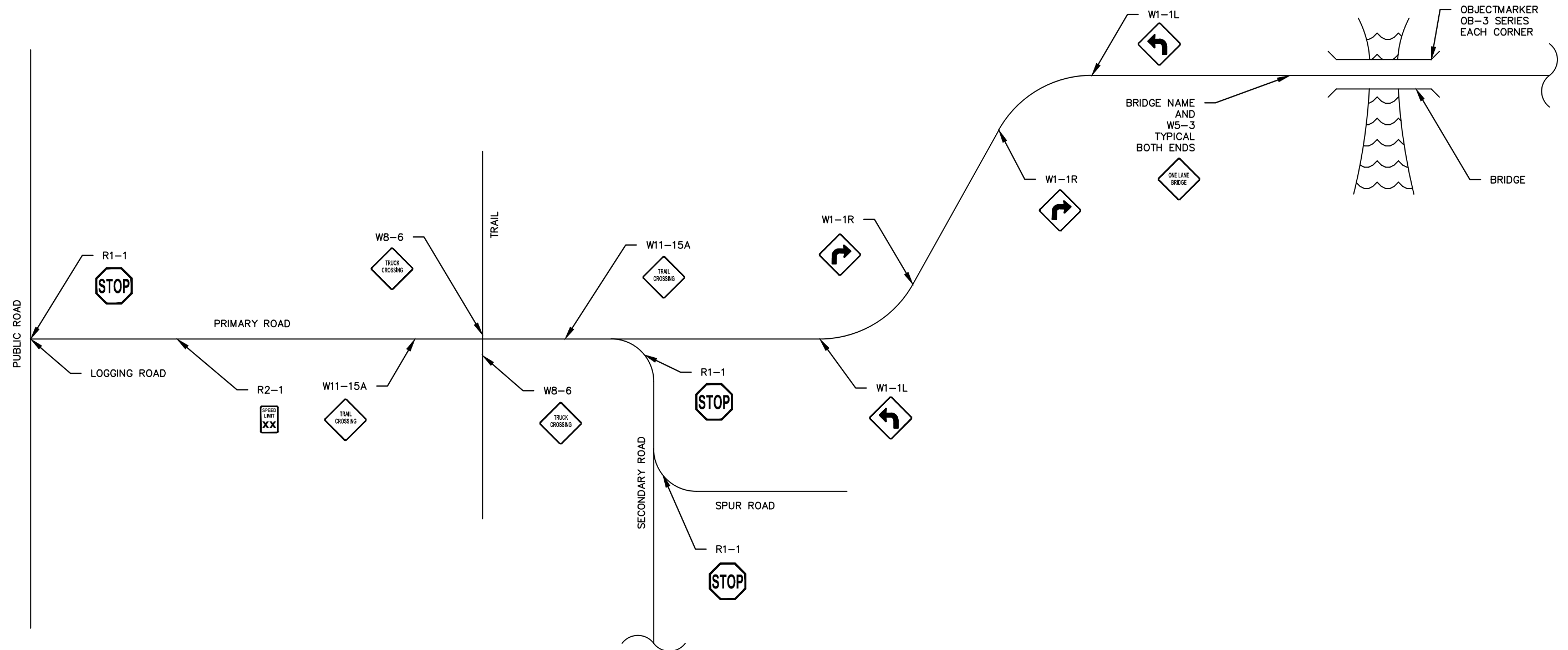
### TURNAROUND DETAIL

NOT TO SCALE

Revisions			
No.	Date	Description	By







**NOTES:**

1. PLACE D10-1 MILE MARKERS EVERY MILE.
2. DIAGRAM ABOVE SHOWS APPROXIMATE PLACEMENT OF SIGNS. PROJECT ENGINEER TO DETERMINE FINAL PLACEMENT BASED ON SITE CONDITIONS.
3. SEE SHEET S-01.00 FOR ADDITIONAL BRIDGE SIGNS.

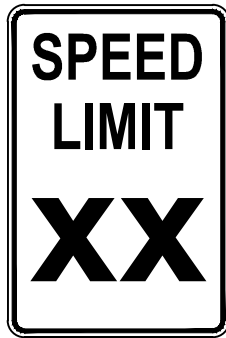
Revisions			
No.	Date	Description	By
1	11/8/2015		GS







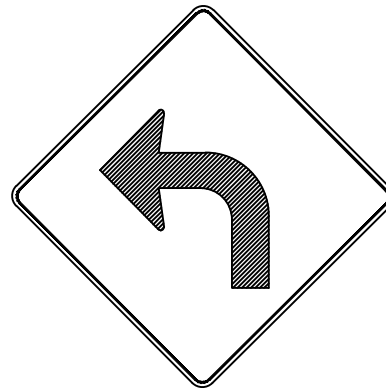
R1-1 (MUTCD)  
24" X 24"  
18"X18"



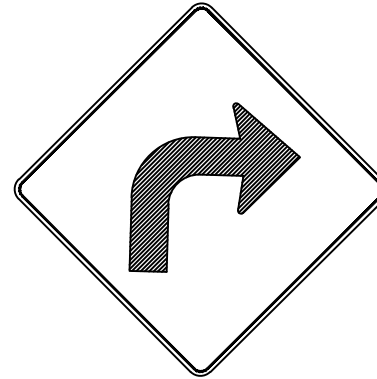
R2-1 (MUTCD)  
18"W X 24"H



D10-1 (MUTCD)  
10" X 18"



W1-1L (MUTCD)  
24" X 24"  
18"X18"



W1-1R (MUTCD)  
24" X 24"  
18"X18"



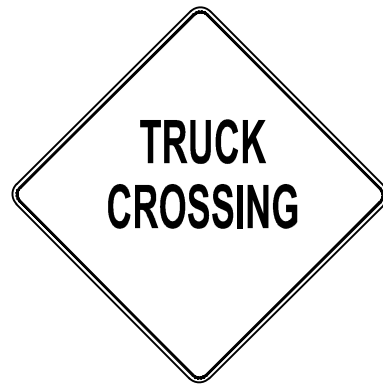
W5-3 (MUTCD)  
24" X 24"



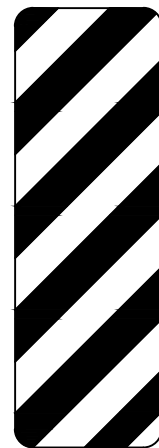
W16-9P (MUTCD)  
24" X 18"



W11-15A (MUTCD)  
24" X 24"



W8-6 (MUTCD)  
24" X 24"



OM-3L (MUTCD)  
12" X 36"



OM-3L (MUTCD)  
12" X 36"



72"X54" BLACK MESSAGE AND BORDER ON WHITE BACKGROUND (CUSTOM)

NOTE: FOR SIGN FRAMING AND POST SPACING SEE ALASKA DEPARTMENT OF TRANSPORTATION STANDARD DETAIL S-00.11

Revisions			
No.	Date	Description	By



BRIDGE PROJECT NOTES

DESIGN OF PREFABRICATED STEEL BRIDGE

THE DESIGN OF THE PREFABRICATED STEEL BRIDGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS". WHEN USING THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS", ALL OCCURRENCES OF THE WORD "SHOULD" SHALL BE REPLACED WITH THE WORD "SHALL". ALL DRAWINGS, SPECIFICATIONS, AND PROJECT SPECIFIC CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ALASKA.

DO NOT PROVIDE A FRACTURE CRITICAL OR NON-REDUNDANT BRIDGE SUCH AS A TRUSS OR TWO-GIRDER BRIDGE SYSTEM.

THE BRIDGE SHALL BE CONFIGURED TO BE TRANSPORTED TO A SITE BY STANDARD HIGHWAY LOG TRUCK OR "LOW BOY" IN MULTIPLE SECTIONS. APPROPRIATE LIFTING POINTS SHALL BE INTEGRATED INTO THE DESIGN TO ALLOW TYPICAL SLINGING AND HANDLING METHODS FOR INSTALLATION AND TRANSPORTATION TO THE SITE.

BRIDGE RAILING POSTS SHALL TIE TO THE DECK STRUCTURE (DECK OR DECK BEAMS) OF THE BRIDGE, NOT THE BRIDGE GIRDERS. CRASH WORTHY RAIL SYSTEMS DESIGNED TO THE LRFD TEST LEVEL 2 STANDARD IS ACCEPTABLE FOR THIS SUBMITTAL. BRIDGE RAILING SHALL BE HOT DIPPED GALVANIZED THRIE BEAM GUARDRAIL MEETING AASHTO HIGHWAY AND BRIDGE SPECIFICATIONS. GUARDRAIL SHALL BE COMPATIBLE WITH DOT 4PF STANDARD THRIE BEAM CONFIGURATIONS.

CLEARLY SPECIFY RELEVANT INFORMATION SUCH AS MEMBER SIZES, GEOMETRY, BEARING REACTIONS, DESIGN LOADS, MATERIAL PROPERTIES AND OTHER DESIGN INFORMATION ON THE DRAWINGS.

DESIGN LOADINGS FOR THE BRIDGE WILL CONFORM TO THE FOLLOWING:

- A.

DEAD LOAD- USE UNIT WEIGHTS AS DEFINED IN THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" MOST RECENT EDITION WITH INTERIM REVISIONS.
- B.

VEHICULAR LIVE LOAD - USE THE OPERATING STRESS LEVEL OF THE AASHTO BRIDGE MAINTENANCE MANUAL FOR HL-93, AND USFS LOADS FOR U80, U102 AND L90 LOADING.
- C.

WIND LOAD - 100 MPH PER AASHTO REQUIREMENTS.
- D.

FATIGUE - USE A SINGLE LANE AVERAGE DAILY TRUCK TRAFFIC (ADTT) OF 20 FOR DESIGN.
- E.

SEISMIC - AS DEFINED IN THE "AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN".
- F.

ERECTION - USE A CONSTRUCTION LOAD FACTOR OF NOT LESS THAN 1.25 FOR ALL LOADS THAT ARE ESSENTIALLY STATIC AND NOT LESS THAN 1.50 FOR ALL OTHER LOADS.
- G.

THERE IS NO DEFLECTION CRITERIA.

MATERIALS

STEEL

CONSTRUCT PREFABRICATED STEEL BRIDGE FROM ASTM A709 GRADE 50T3 OR ASTM A709 GRADE 36T3 PLATE AND STRUCTURAL SHAPES. ASTM A572 STEEL MAY BE SUBSTITUTED FOR A709 IF:

IT MEETS THE CHARPY V-NOTCH, ZONE 3 TEST REQUIREMENTS AS SPECIFIED IN ASTM A709.

FABRICATION CONFORMS TO THE MOST RECENT EDITION OF THE ANSI/AASHTO/AWS BRIDGE WELDING CODE D1.5 WHEN WELDING NEW STEEL BRIDGE GIRDERS, BEAMS AND STRINGERS.

HOT DIP GALVANIZE ALL STRUCTURAL STEEL SHAPES, PLATES, AND BARS IN ACCORDANCE WITH AASHTO M III. REPAIR DAMAGE TO GALVANIZED COATINGS ACCORDING TO ASTM A780 OR AASHTO M 36.

FASTENERS:     ASTM A325. GALVANIZED PER AASHTO M 232.

DECKING:

IF TIMBER DECKING IS USED, BRIDGE SHALL HAVE A PRESSURE TREATED DECK OF AT LEAST 4X12 TIMBERS WITH AN ADDITIONAL UNTREATED RUNNING/WEAR SURFACE OF 3X12 UNTREATED DOUG-FIR. USE GRADE 1 OR BETTER FOR DECKING AND GRADE #2 FOR RUNNING PLANKS.

UNLESS OTHERWISE APPROVED BY THE STATE, ALL TREATED WOOD SHALL BE NEW PRESSURE TREATED PACIFIC DOUG-FIR TIMBERS OR EQUIVALENT MEETING THE DOT 4 PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (SSHG) AND THE AMERICAN WOOD PRESERVERS' ASSOCIATION (AWPA) USE CATEGORY OF UC4B. PENTA BASED PRODUCTS WILL NOT BE ACCEPTED. FABRICATE TIMBER (INCLUDING ALL CUTTING, SHAPING, AND BORING) BEFORE TREATMENT. CAREFULLY TRIM ALL ABRASIONS AND TREAT ALL CUTS IN TREATED MEMBERS ACCORDING TO AWPA STANDARD M 4. BEFORE DRIVING BOLTS, TREAT ALL HOLES BORED AFTER TREATMENT ACCORDING TO THE APPLICABLE AWPA STANDARDS. PLUG REMAINING HOLES WITH TREATED PLUGS.

MATERIALS (CONT.)

CONCRETE:

USE NON-SHRINK, NON-CORROSIVE, NON-METALLIC, CEMENT BASED GROUT MEETING ASTM C-1107, GRADE C. MEET THE REQUIREMENTS OF ASTM 520. DEVELOP A COMPRESSIVE STRENGTH OF 9,000 PSI.

ALL CONCRETE SHALL CONFORM TO DOT 4 PF CLASS A CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

ALL REINFORCING SHALL BE ASTM A 616, GRADE 60.

STRUCTURAL TIMBERS:

APPLY PRESERVATIVE TO ALL STRUCTURAL TIMBER THAT IS EXPOSED TO WEATHER, WATER, OR SOIL. USE THE PRESERVATIVE AND TREATMENT PROCESS OF AASHTO M133 AND "BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC ENVIRONMENTS (BMPs)", PUBLISHED BY THE WESTERN WOOD PRESERVER'S INSTITUTE. USE COPPER NAPHTHENATE WITH A RETENTION OF PRESERVATION CONFORMING TO AWPA USE CATEGORY 4B FOR HIGHWAYS AND BRIDGES.

WELDING:

PERFORM ALL WELDING AND NONDESTRUCTIVE EXAMINATION (NDE) AS SPECIFIED OR SHOWN ON THE PLANS. CONFORM TO THE MOST RECENT EDITION OF THE ANSI/AASHTO/AWS BRIDGE WELDING CODE D1.5 WHEN WELDING NEW STEEL BRIDGE GIRDERS, BEAM AND STRINGERS. CONFORM TO THE MOST RECENT EDITION OF THE STRUCTURAL WELDING CODE AWS D1.1 WHEN WELDING ALL OTHER STEEL STRUCTURES.

AT LEAST 30 DAYS PRIOR TO WELDING, SUBMIT FOR APPROVAL A WELDING PLAN STAMPED AND SIGNED BY THE CERTIFIED WELDING INSPECTOR (CWI) RESPONSIBLE FOR THE QUALITY CONTROL (QC) AND CONSISTING OF THE FOLLOWING DOCUMENTS:

- A.

QUALITY CONTROL PERSONNEL QUALIFICATIONS INCLUDING CWI NUMBER,
- B.

WELDING PROCEDURE SPECIFICATIONS (WPS) USING FORMS IN AWS D1.1, SAMPLE WELDING FORMS,
- C.

PROCEDURE QUALIFICATION RECORDS (PQR), WHEN APPLICABLE, USING FORMS IN AWS D1.1, SAMPLE WELDING FORMS,
- D.

WELDER PERFORMANCE QUALIFICATION RECORDS (WPQR) USING FORMS IN AWS D1.1, SAMPLE WELDING FORMS WITH DOCUMENTATION OF CURRENT WELDER CERTIFICATION,
- E.

SAMPLE DAILY INSPECTION SHEET, AND
- F.

TYPE AND EXTENT OF NDE TO BE CONDUCTED, AS REQUIRED IN THE SSHG SECTION 504.

USING A CWI, PERFORM ALL QUALITY CONTROL INSPECTION NECESSARY TO ENSURE THAT THE MATERIALS AND WORKMANSHIP MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

CORRECT ALL DEFICIENCIES IN MATERIALS AND WORKMANSHIP REVEALED BY QUALITY CONTROL AND QUALITY ASSURANCE REPRESENTATIVES DESIGNATED BY THE STATE.

FURNISH ALL COMPLETED QUALITY CONTROL INSPECTION DOCUMENTS TO THE ENGINEER OR WHEN SPECIFIED, THE QUALITY ASSURANCE REPRESENTATIVE DESIGNATED BY THE STATE.

DO NOT WELD OR TACK BRACKETS, CLIPS, SHIPPING DEVICES OR OTHER MATERIAL NOT REQUIRED BY THE CONTRACT DOCUMENTS TO THE PERMANENT STRUCTURE, UNLESS SHOWN ON THE WORKING DRAWINGS AND APPROVED BY THE ENGINEER.

SITE SPECIFIC NOTES

EACH END OF THE BRIDGE MUST BE SECURED TO THE ABUTMENT STRUCTURE.

AN EARTH EMBANKMENT CONSTRUCTED FOR USE AS A BRIDGE APPROACH MUST BE PROTECTED FROM EROSION BY USING PLANTED OR SEEDED GROUND COVER, BULKHEADS, ROCK RIPRAP, RETAINING WALLS, OR OTHER EQUALLY EFFECTIVE MEANS.

A BRIDGE MUST BE INSTALLED IN SUCH A WAY AS TO MINIMIZE DISTURBANCE TO THE BED AND BANKS OF A STREAM. NO PART OF THE SUPERSTRUCTURE MAY BE BELOW THE HIGH WATER MARK OF THE STREAM OR OBSTRUCTING THE STREAM'S FLOW BETWEEN ORDINARY HIGH WATER.

EQUIPMENT STREAM CROSSINGS ARE NOT AUTHORIZED WITHOUT PRIOR SPECIFIC STATE APPROVAL. THE PURCHASER/CONTRACTOR MUST SUBMIT WRITTEN PLANS IF CROSSING OF OPEN (UNFROZEN WATERS) IS REQUIRED FOR ROAD CONSTRUCTION.

GENERAL NOTES:

THE BIDDER WILL HAVE THE STRUCTURE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALASKA. PLANS OF THE PROPOSED STRUCTURE WILL BE SUBMITTED AND BE SUBJECT TO APPROVAL OF THE DOF CONTRACTING OFFICER OR HIS DESIGNEE BEFORE FINAL ACCEPTANCE.

PROVIDE AND SECURE A NAMEPLATE TO THE STRUCTURE INDICATING THE BRIDGE MANUFACTURER'S NAME, MAXIMUM LOAD LIMITS, AND YEAR OF FABRICATION.

PROVIDE AN INVENTORY AND OPERATING LOAD RATINGS OF THE BRIDGE IN THE PLAN SUBMITTALS ACCORDING TO THE MOST RECENT VERSION, INCLUDING INTERIM VERSION, OF THE AASHTO MANUAL FOR BRIDGE EVALUATION (MBE). LOAD RATE STEEL AND CONCRETE ELEMENTS USING THE LOAD AND RESISTANCE FACTOR RATING (LRFR) METHOD. LOAD RATE TIMBER ELEMENTS USING THE ALLOWABLE STRESS RATING (ASR) METHOD AND LOAD AND RESISTANCE FACTOR RATING (LRFR) METHODS.

THE BRIDGE SHALL BE DELIVERED WITH ADEQUATE BLOCKING TO KEEP THE STRUCTURE 6 INCHES OFF THE GROUND, LEVEL AND WELL SUPPORTED UNTIL IT IS INSTALLED.

FOUNDATION NOTES

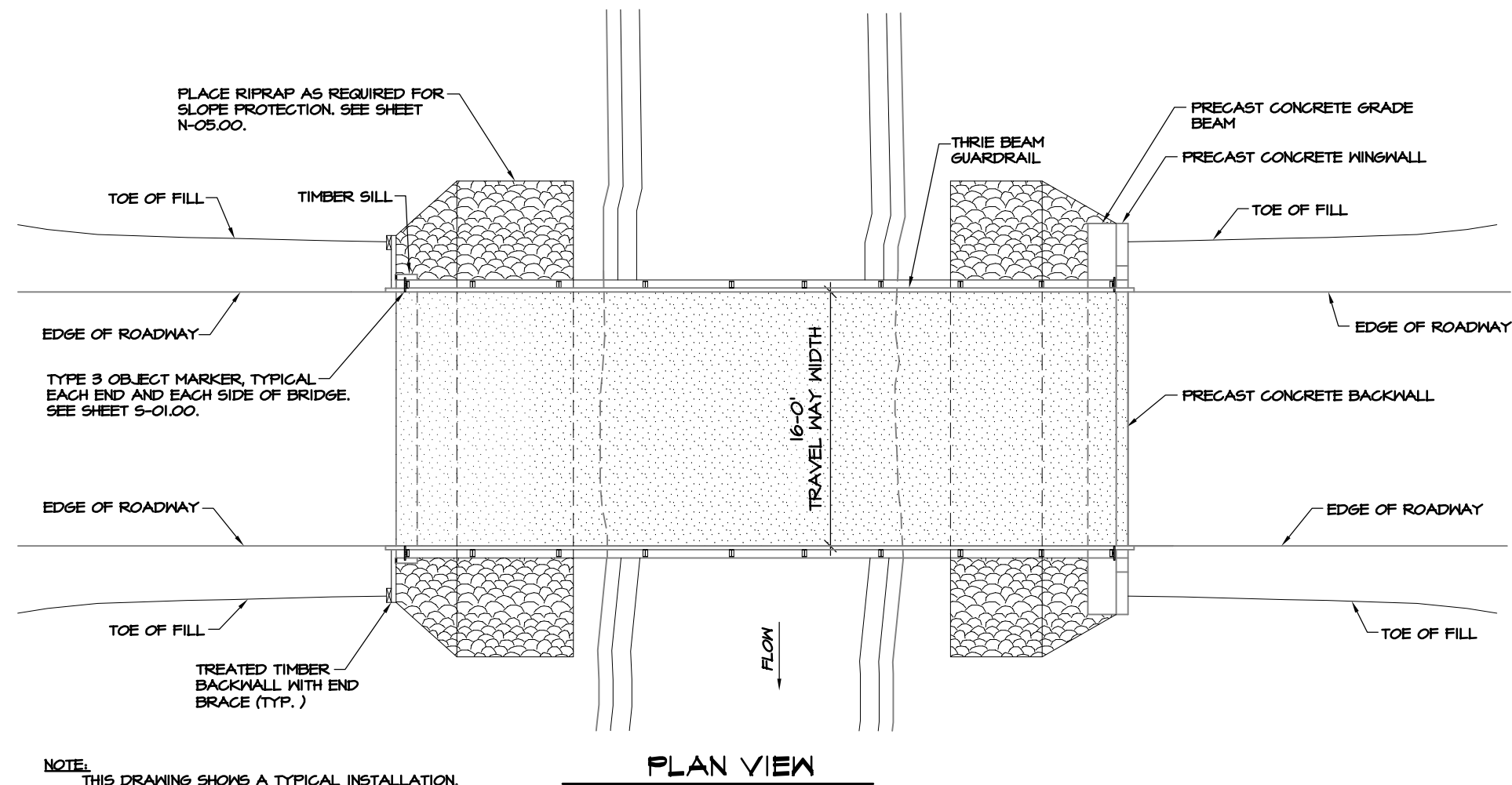
FOUNDATION DESIGN AND DETAILS ASSUME SUBSTRUCTURE UNITS WILL BE PLACED ON COMPETENT SOIL OR BEDROCK CAPABLE OF ACHIEVING A MINIMUM BEARING PRESSURE OF 1500 PSF. IF THIS CRITERIA CANNOT BE MET, CONSULT WITH A LICENSED PROFESSIONAL ENGINEER FOR FURTHER GUIDANCE.

FABRICATION AND INSTALLATION OF GEOCELL FOUNDATION STABILIZATION UNITS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 67I.

FABRICATION AND INSTALLATION OF WELDED WIRE RETAINING WALL SYSTEMS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 516.

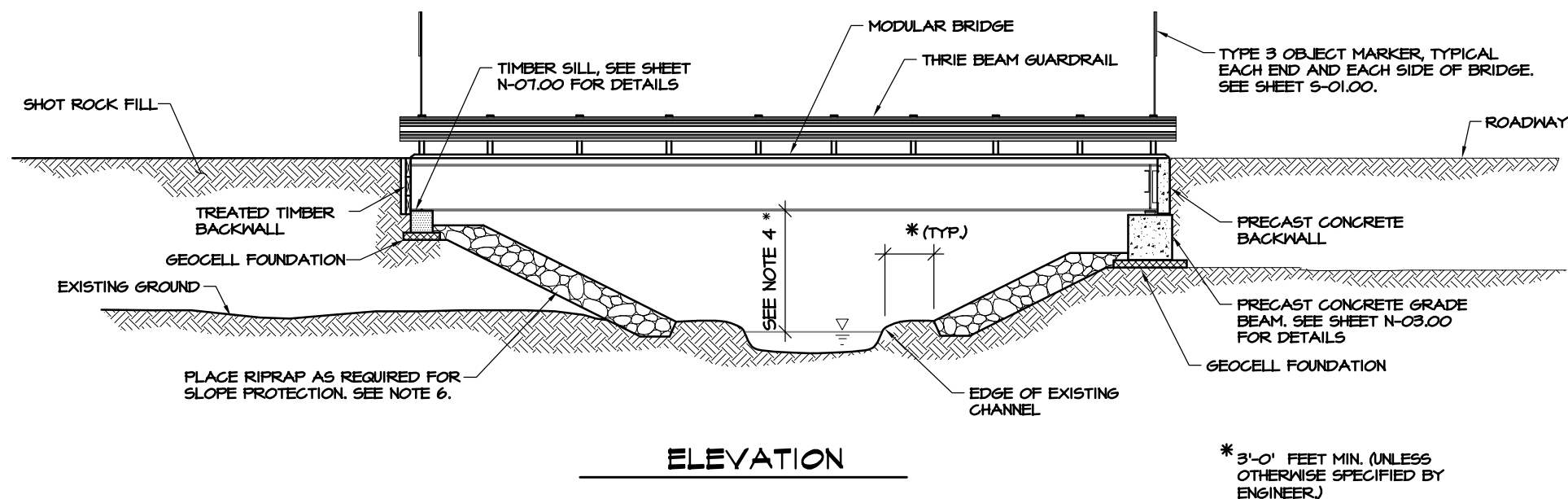
FABRICATION AND INSTALLATION OF BIN WALL ABUTMENT SYSTEMS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 517.

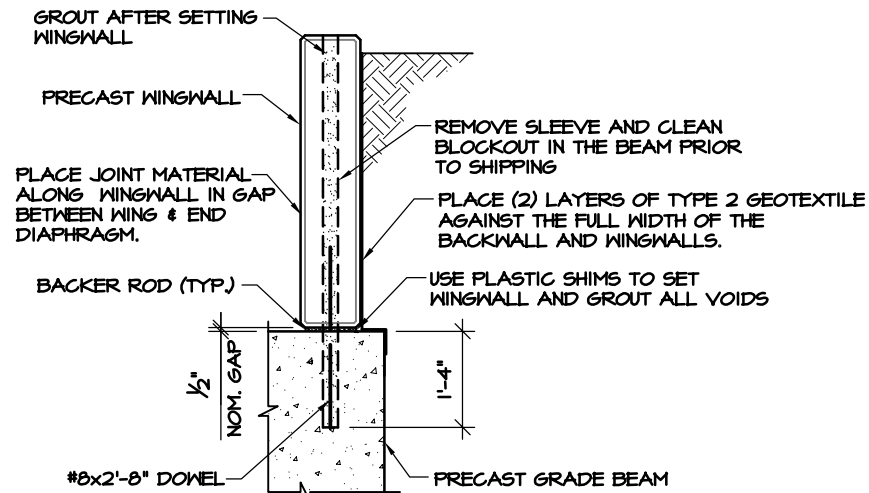




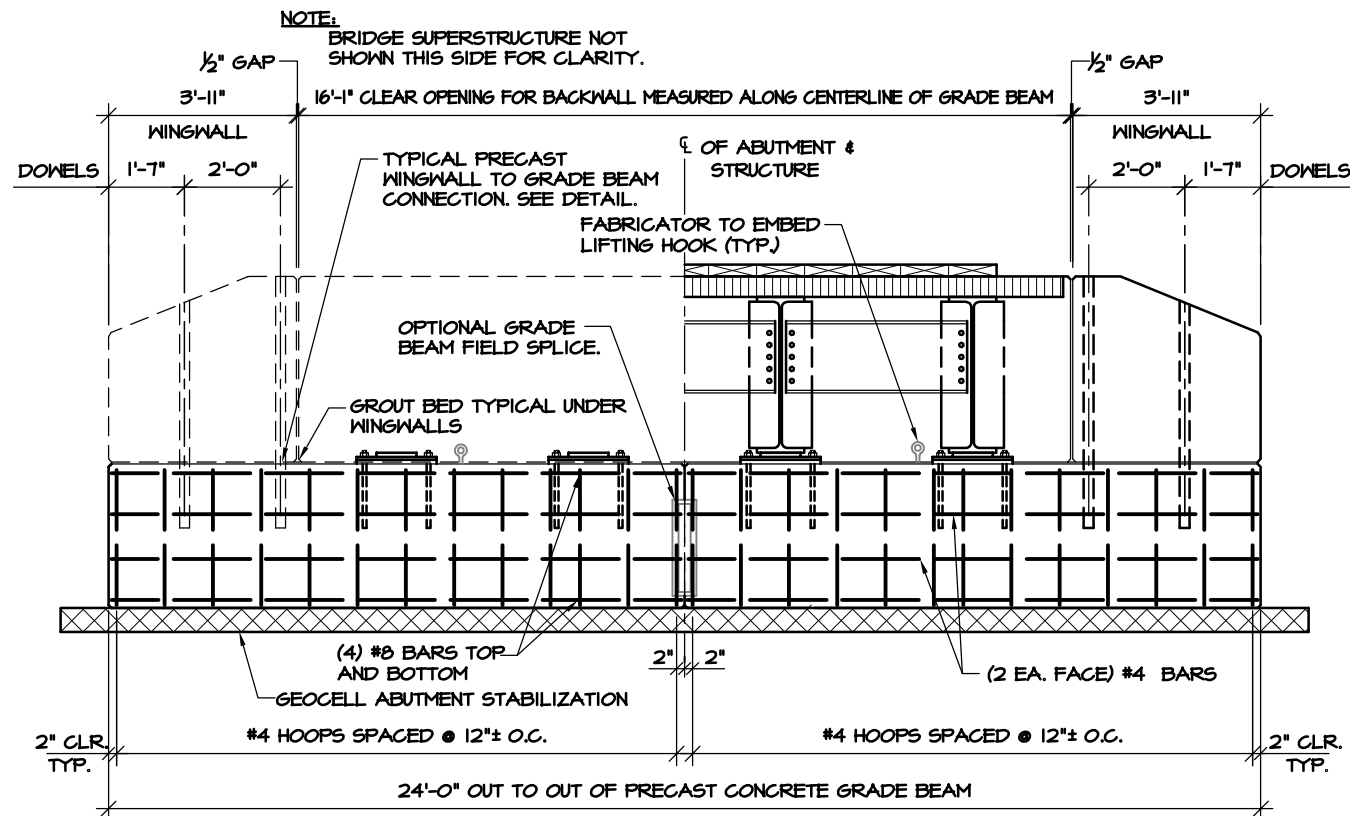
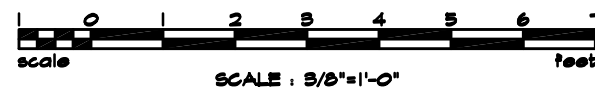
**GENERAL NOTES:**

1. DRAWING IS APPLICABLE FOR SINGLE LANE BRIDGE ONLY, UNLESS OTHERWISE NOTED.
2. SEE SHEET N-01.00 FOR FOUNDATION PARAMETERS.
3. SEE SHEET N-06.00 FOR SILL MATERIAL NOTES.
4. PROVIDE 5 FT. MIN CLEARANCE FROM AVERAGE HIGH WATER MARK FOR ICE AND DEBRIS PASSAGE.
5. WHERE STRUCTURAL EXCAVATION IS REQUIRED, REFER TO DOT & PF SPECIFICATION 205.
6. SEE SHEET N-05.00 FOR RIPRAP DETAILS AND NOTES.

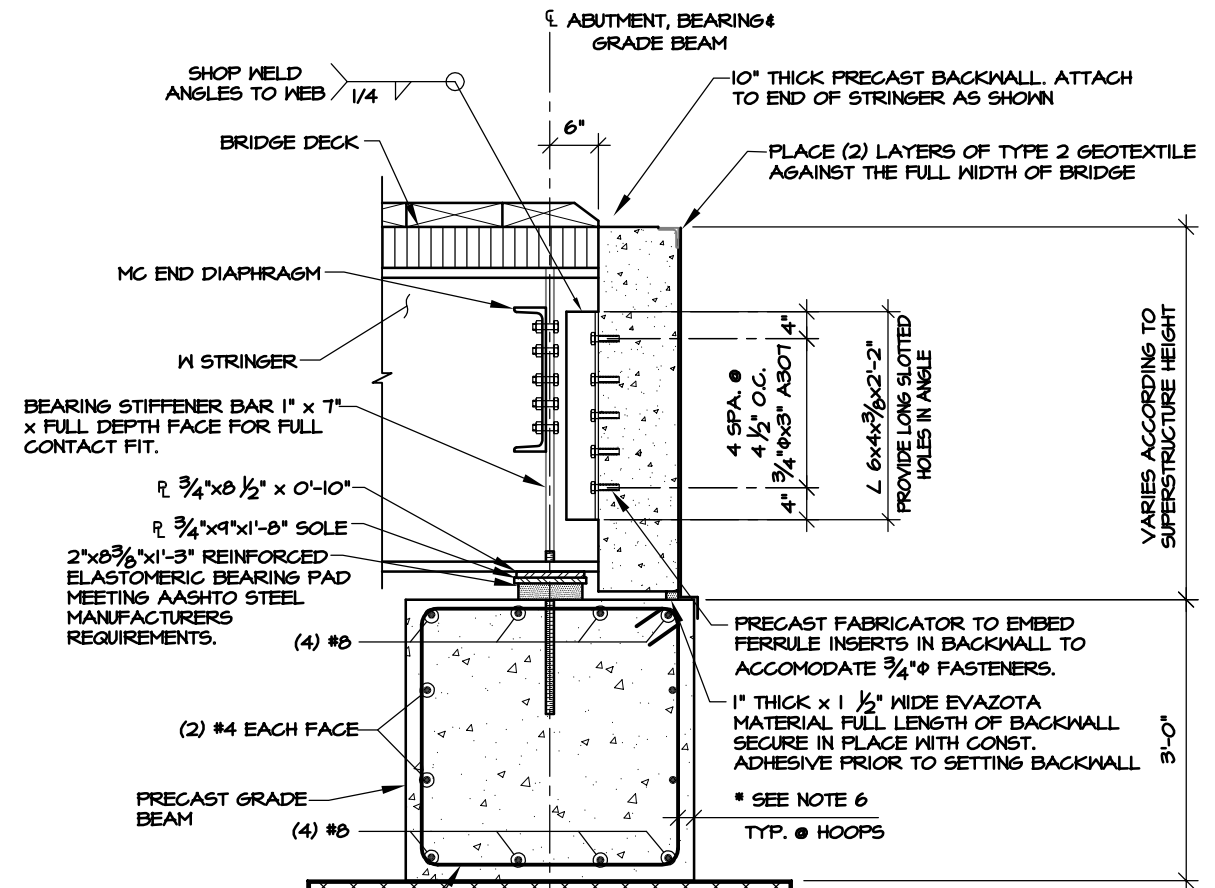
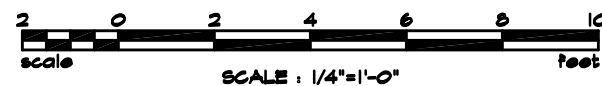




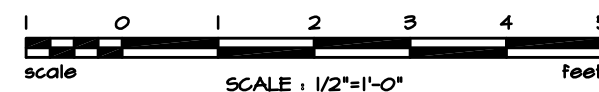
**WINGWALL CONNECTION DETAIL**



**ABUTMENT ELEVATION**



**ABUTMENT SECTION**

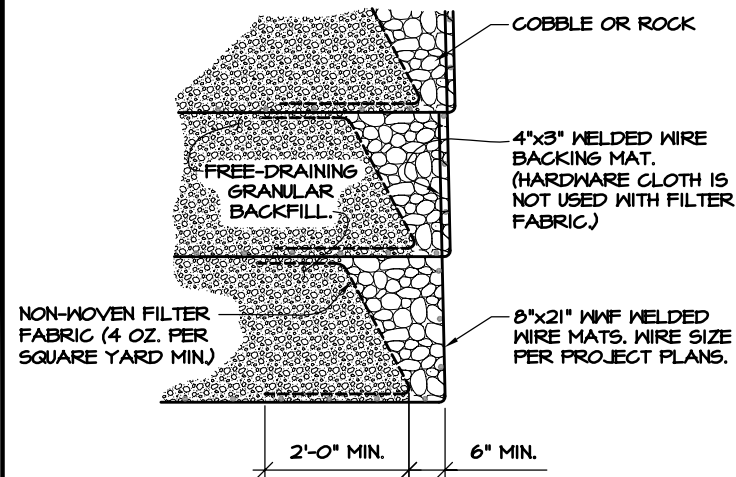


**GENERAL NOTES:**

1. ALL PRECAST CONCRETE SHALL BE CLASS A CONCRETE MEETING DOT & PF STANDARD SPECIFICATION 501 WITH A MINIMUM F'C = 4000 PSI AT 28 DAYS.
2. ALL REINFORCING STEEL SHALL BE THE DEFORMED TYPE MEETING AASHTO M31 (ASTM A615), GRADE 60. BENDING AND SPLICING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI 318.
3. ALL BOLTS SHALL TO BE ASTM A325, GALVANIZED IN ACCORDANCE WITH AASHTO M232.
4. ALL METAL COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
5. GRADE BEAM AND WINGWALL LENGTH SHALL BE EXTENDED TO MEET SITE CONDITIONS AND RETAIN ROADWAY APPROACH FILL.
6. PROVIDE A MINIMUM OF 2" OF CONCRETE COVER OVER REINFORCING STEEL.



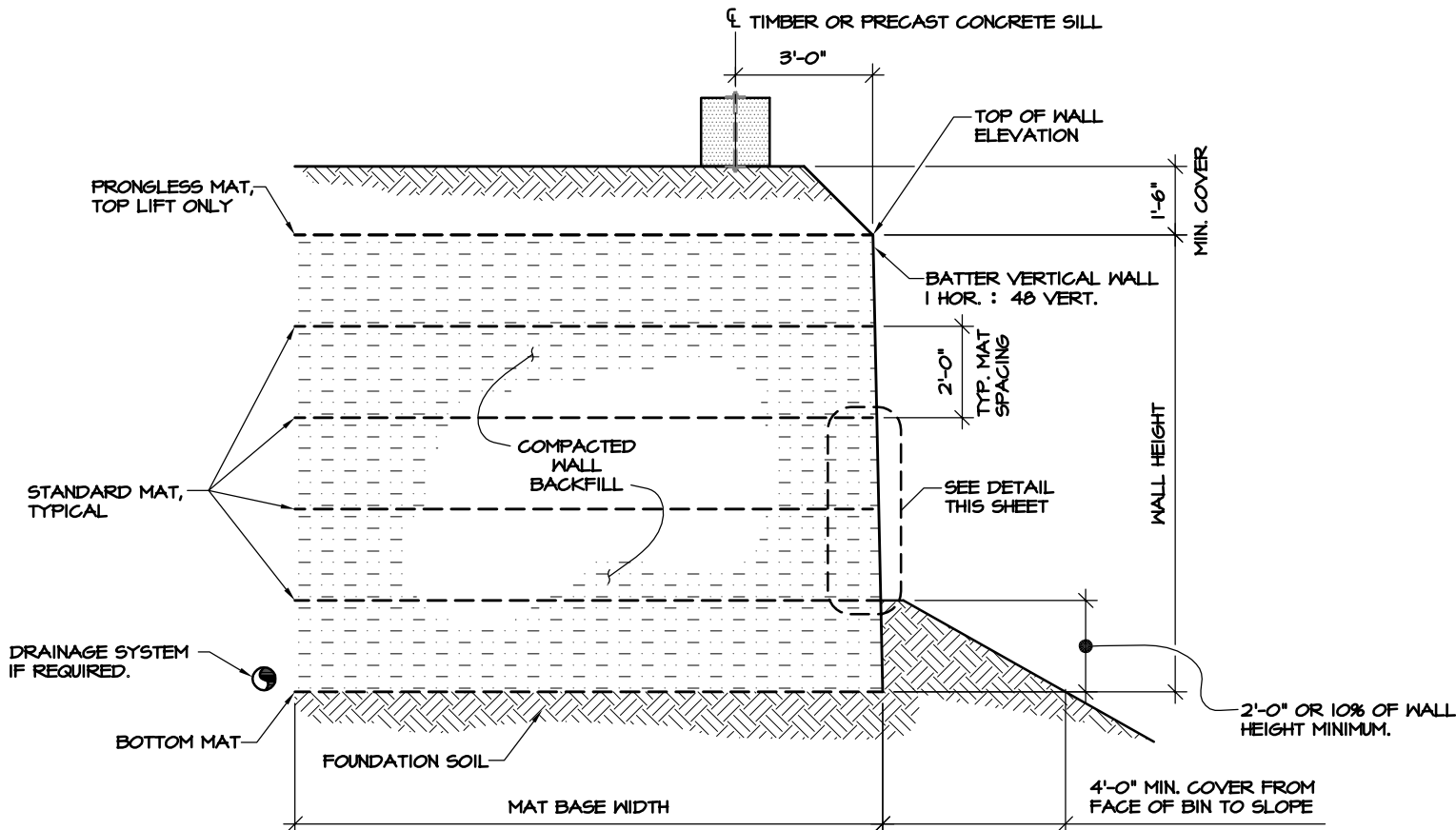
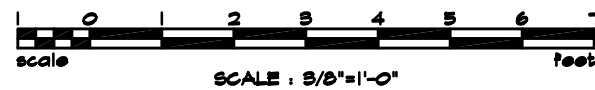




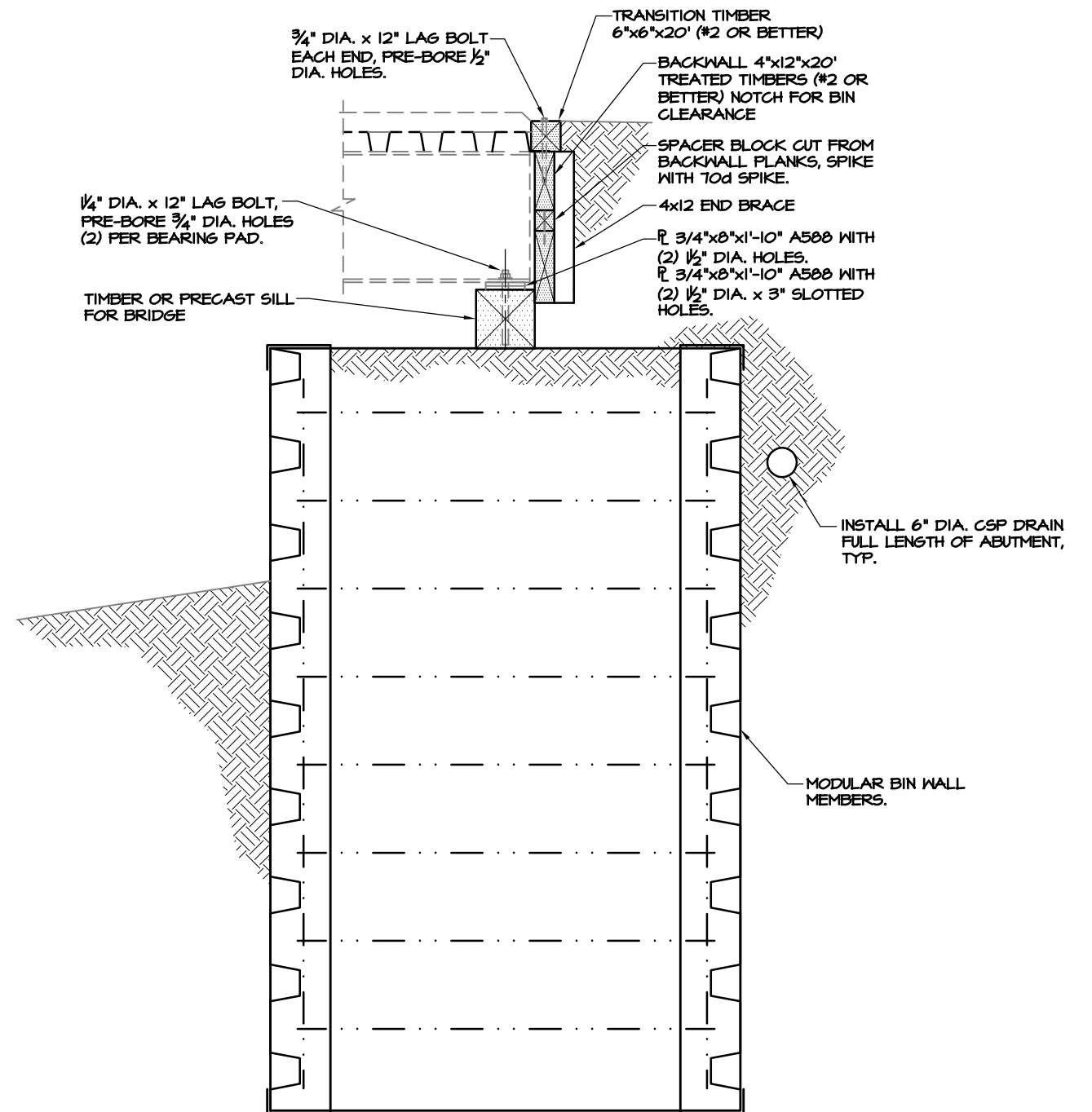
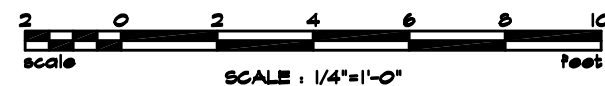
#### GENERAL NOTES:

1. WELDED WIRE RETAINING WALL SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.
2. WELDED WIRE RETAINING WALL DETAILS SHALL BE USED THAT MINIMIZE IMPACTS ON WATERWAYS BY UTILIZING FILTER FABRIC OR HARDWARE CLOTH TO PROTECT FROM INFILTRATION OF FINES AND BY PROVIDING ADEQUATE DRAINAGE BEHIND THE STRUCTURE.
3. ALL METAL COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
4. INSTALL BIN WALL RETAINING ABUTMENT SYSTEM PER MANUFACTURER'S TYPICAL INSTALLATION. FILL INTERIOR OF BIN WITH SELECT GRANULAR BACKFILL MATERIAL 703-2.22 COMPACTED TO 95% DENSITY OR ENGINEER'S APPROVAL. BACKFILL AND COMPACT ADJACENT TO BIN WITH BACKFILL MATERIAL 703-2.15.
5. EROSION CONTROL PLAN IS REQUIRED.

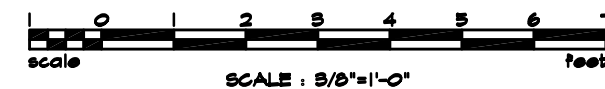
#### WELDED WIRE ROCK FACING DETAIL



#### ELEVATION - WELDED WIRE RETAINING WALL FOUNDATION

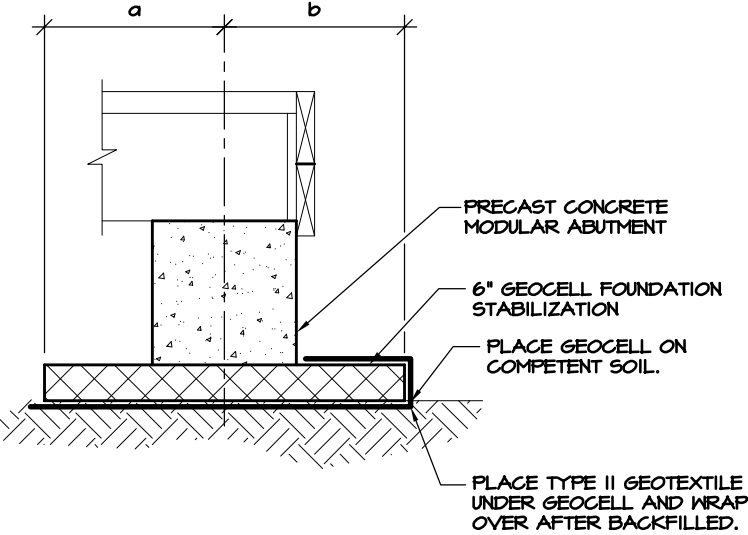


#### SECTION MODULAR BIN WALL ABUTMENT



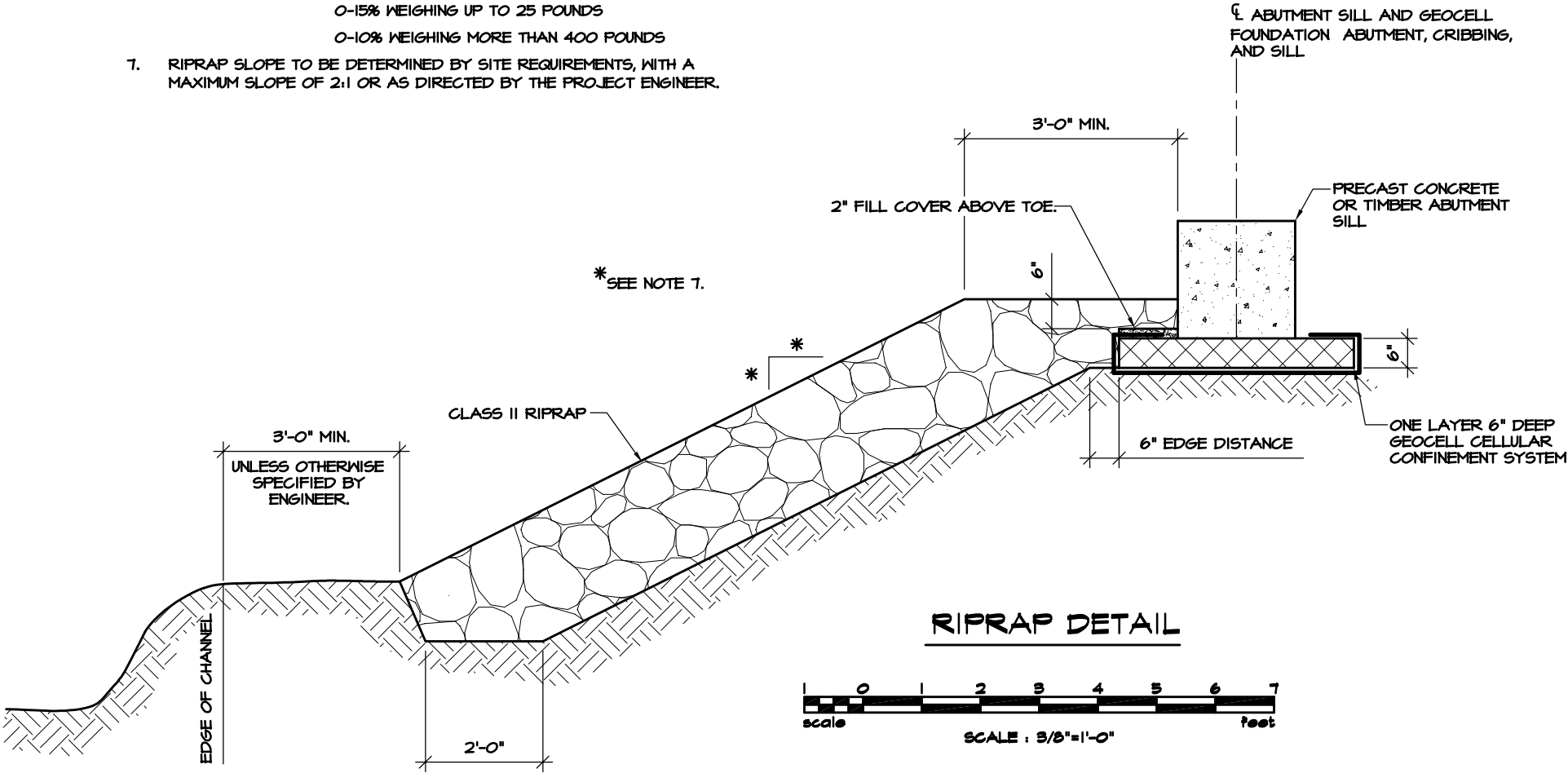
GENERAL NOTES:

1. SEE SHEET N-01.00 FOR FOUNDATION PARAMETERS.
2. ALL GEOTEXTILE SHALL BE TYPE II UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. GEOTEXTILE SHALL BE JOINED BY OVERLAPPING A MINIMUM OF 18 INCHES (UNLESS OTHERWISE SPECIFIED) AND SECURED AGAINST UNDERLYING FOUNDATION MATERIAL USING PINS APPROVED AND PROVIDED BY THE GEOTEXTILE MANUFACTURER.
4. GEOTEXTILE BENEATH RIPRAP SHALL BE PLACED WITH A MINIMUM OVERLAP OF 24 INCHES.
5. SUBGRADE SURFACES ON WHICH FABRIC IS PLACED SHALL BE REASONABLY SMOOTH AND FREE OF ROCKS, CLODS, ROOTS OR OTHER OBJECTS WHICH COULD PUNCTURE THE FABRIC.
6. ALL RIPRAP SHALL BE CLASS II RIPRAP CONFORMING TO THE FOLLOWING CRITERIA, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.  
CLASS II 50-100% WEIGHING 200 POUNDS OR MORE.  
0-15% WEIGHING UP TO 25 POUNDS  
0-10% WEIGHING MORE THAN 400 POUNDS
7. RIPRAP SLOPE TO BE DETERMINED BY SITE REQUIREMENTS, WITH A MAXIMUM SLOPE OF 2:1 OR AS DIRECTED BY THE PROJECT ENGINEER.



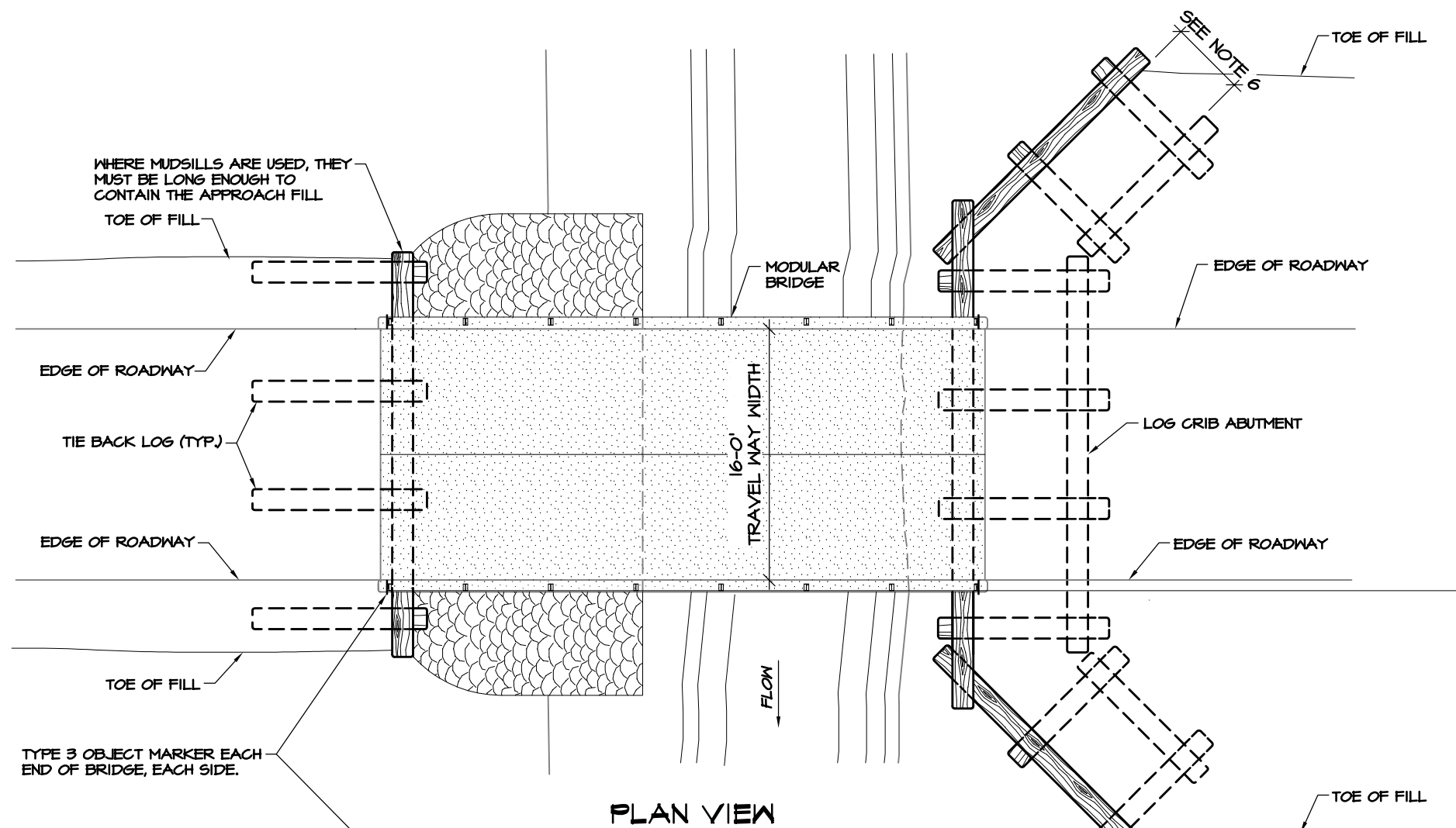
GEOCELL SCHEDULE			
STRUCTURE	SPAN	a	b
CONCRETE ABUTMENT	UP TO 50 FT.	4'-3"	2'-6"
	UP TO 90 FT.	5'-6"	4'-6"

GEOCELL DETAIL

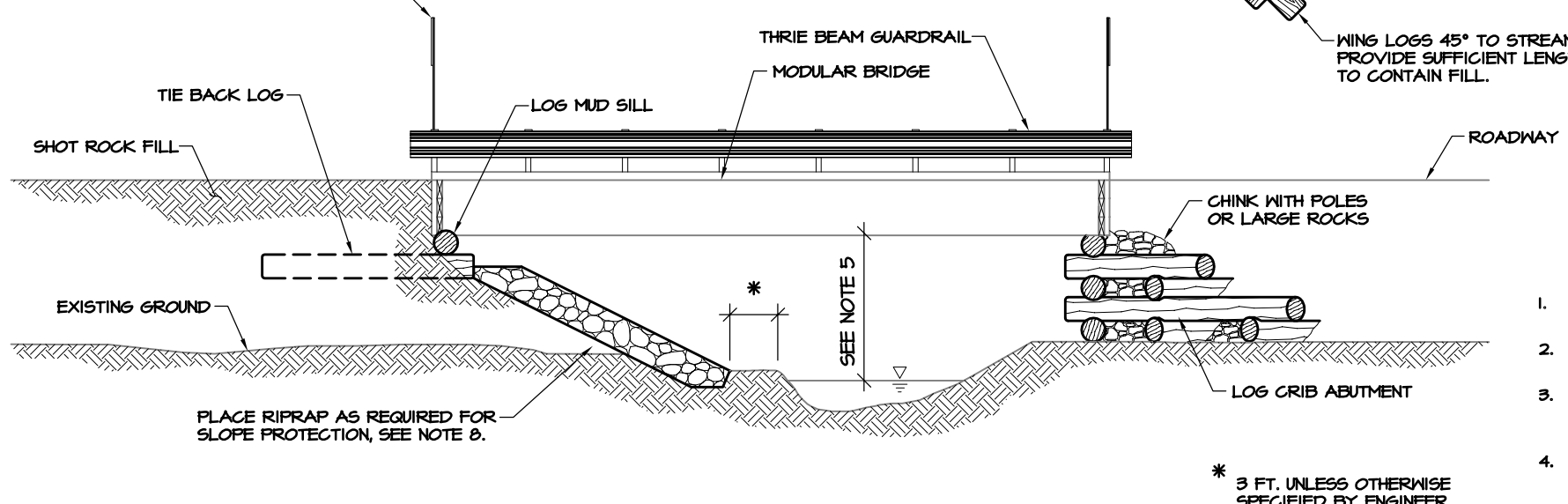


RIPRAP DETAIL

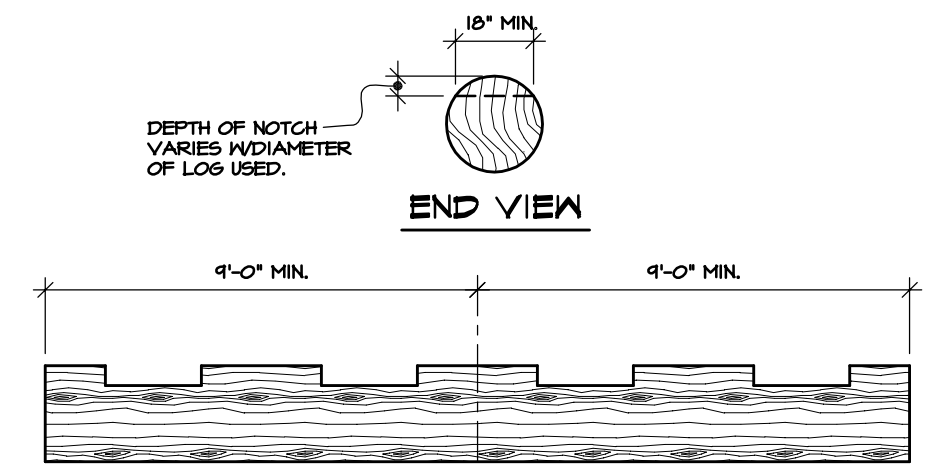




**PLAN VIEW**



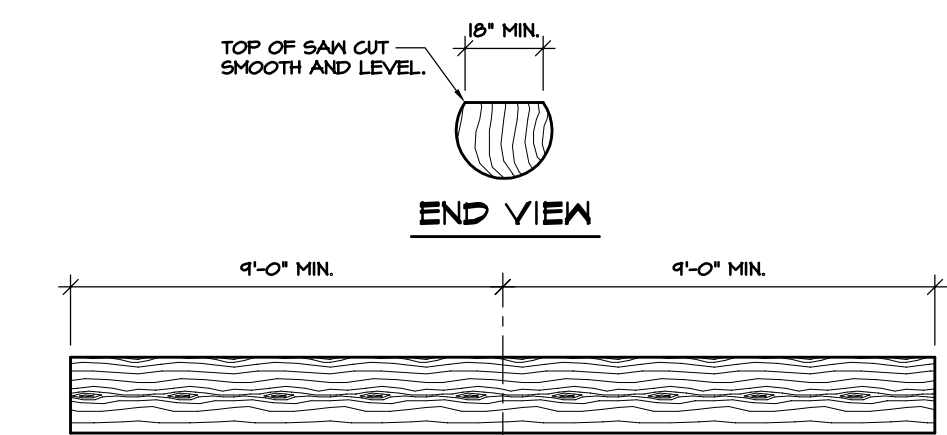
**ELEVATION**



**END VIEW**

**FRONT VIEW**

**TYPICAL NOTCHED LOG SILL**  
NOT TO SCALE



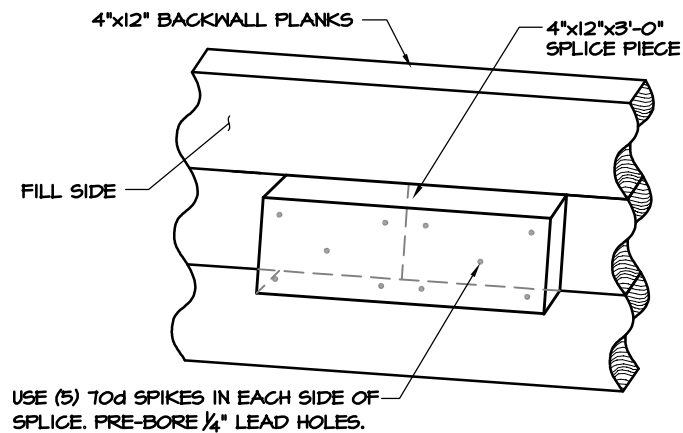
**END VIEW**

**FRONT VIEW**

**TYPICAL FLAT LOG SILL**  
NOT TO SCALE

- GENERAL NOTES:**
1. DRAWING IS APPLICABLE FOR SINGLE LANE BRIDGE ONLY, UNLESS OTHERWISE NOTED.
  2. NATIVE LOG SILL SHOWN THIS SHEET, SAWN TIMBER DETAILS SIMILAR AND SHOWN ON SHEET N-07.00.
  3. LOGS TO BE STRAIGHT, SOUND, AND FREE OF DECAY, EXCESSIVE TWIST (SPIRAL GRAIN MORE THAN 1 IN 8) AND ALL DEFECTS THAT MAY CONSIDERABLY AFFECT STRENGTH.
  4. KNOT SIZE IN THE MIDDLE HALF OF THE LENGTH NOT TO EXCEED 5 INCHES. DO NOT USE SILLS WITH LARGE KNOTS OPPOSITE EACH OTHER.
  5. PROVIDE 5 FT. MIN CLEARANCE FROM AVERAGE HIGH WATER MARK FOR ICE AND DEBRIS PASSAGE.
  6. WIDTH OF CRIBBING SHALL BE EQUAL TO HEIGHT OF FILL OR 5 FOOT MAXIMUM.
  7. WHERE STRUCTURAL EXCAVATION IS REQUIRED, REFER TO DOT & PF SPECIFICATION 205.
  8. ALL RIPRAP SHALL BE CLASS II RIPRAP CONFORMING TO DOT & PF SPECIFICATION 611, UNLESS OTHERWISE NOTED BY THE ENGINEER. SEE MISCELLANEOUS DETAILS SHEET N-05.00 FOR FURTHER DETAILS.

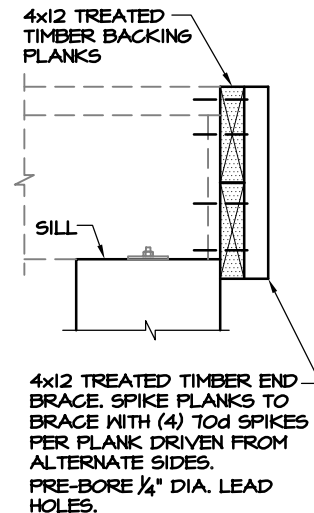




NOTE:  
ALL TIMBER BACKWALL SPLICES SHALL OCCUR WITHIN THE LIMITS OF THE OUTER GIRDERS.

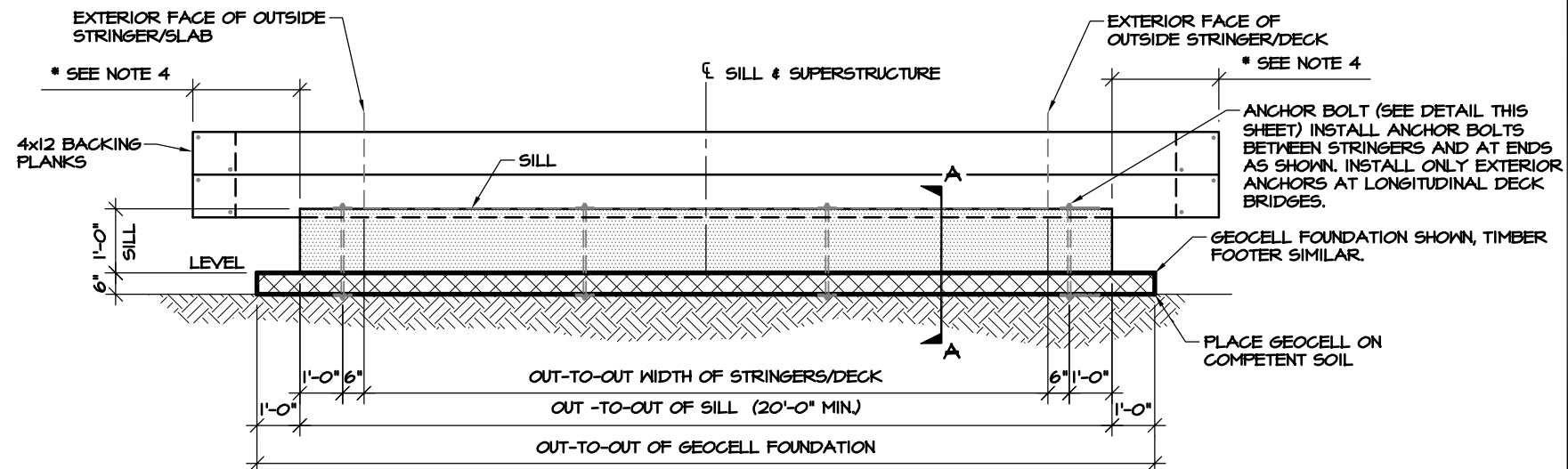
**BACKWALL PLANK SPLICE DETAIL**

NOT TO SCALE

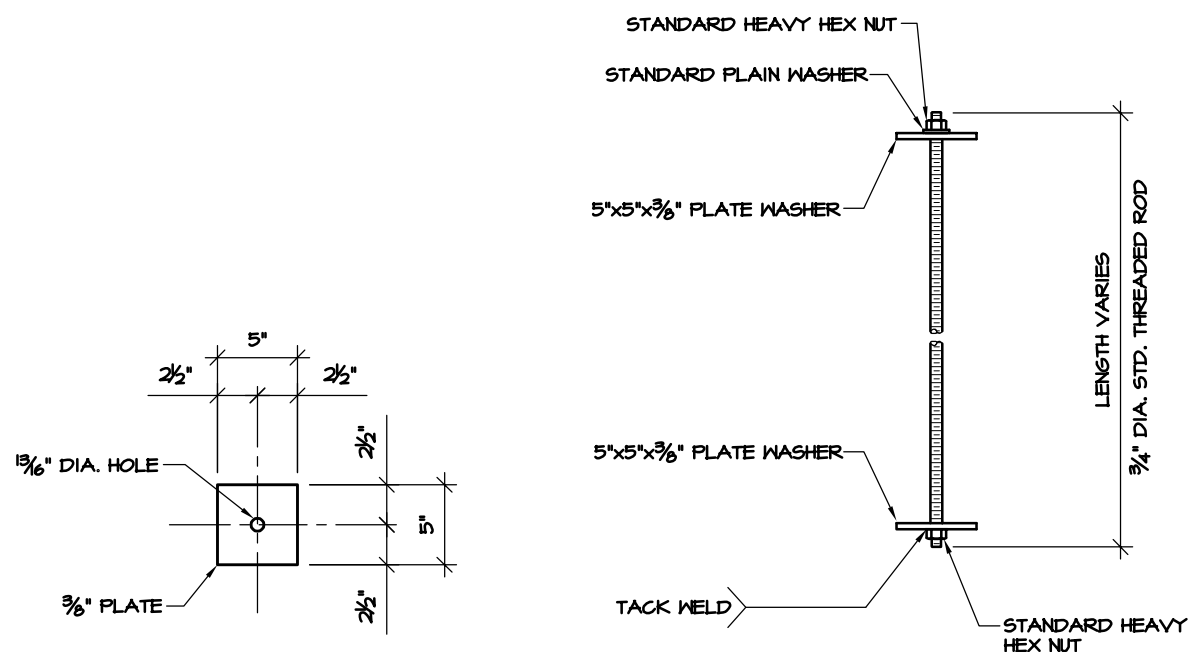
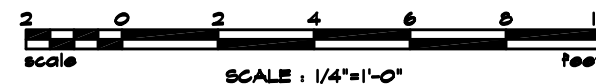


**TREATED TIMBER BACKWALL**

NOT TO SCALE



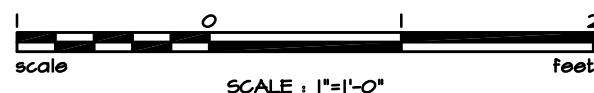
**ELEVATION - GEOCELL FOUNDATION**



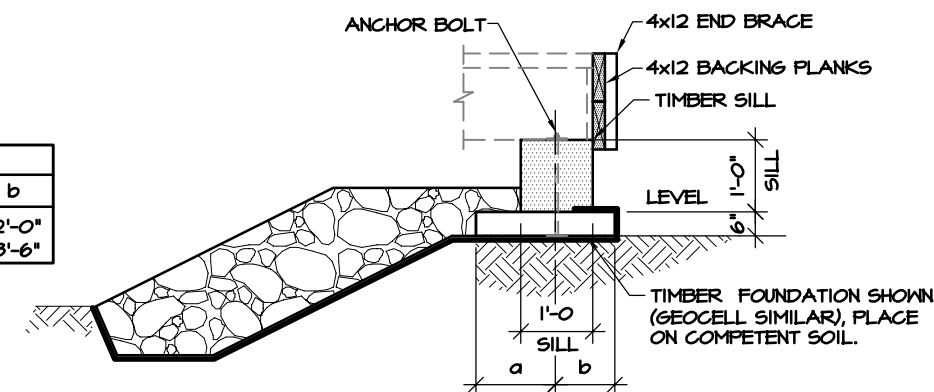
**PLATE WASHER DETAIL**

**ELEVATION**

**ANCHOR BOLT DETAIL**



FOOTING SCHEDULE			
STRUCTURE	SPAN	a	b
TIMBER SILL	UP TO 50 FT.	4'-0"	2'-0"
	UP TO 90 FT.	5'-0"	3'-6"



**SECTION A-A (GEOCELL FOUNDATION)**

**GENERAL NOTES**

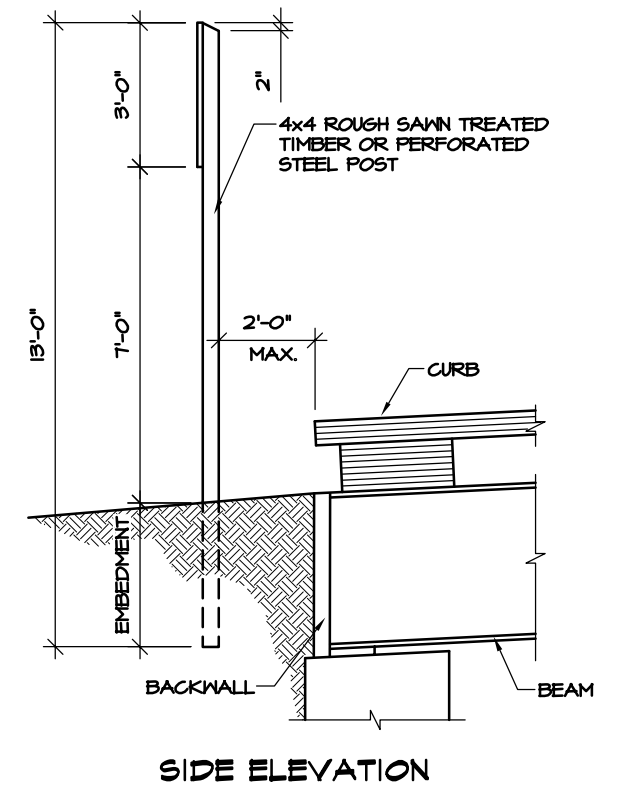
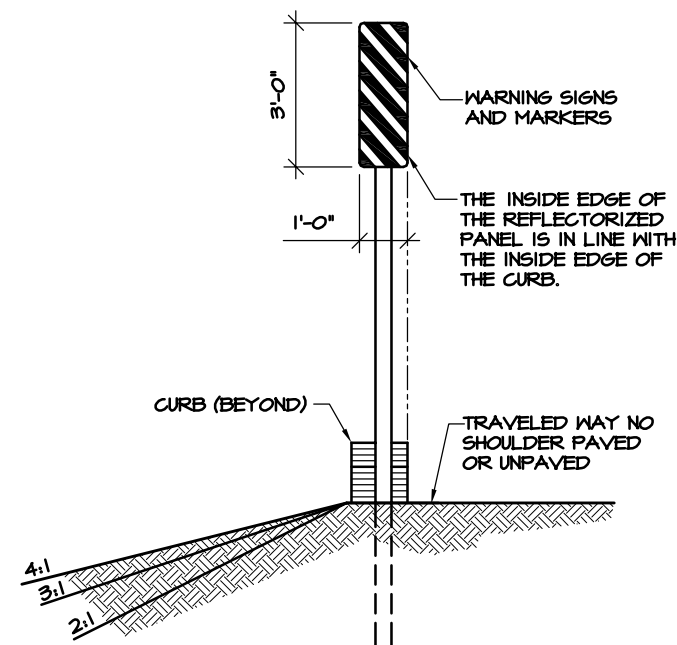
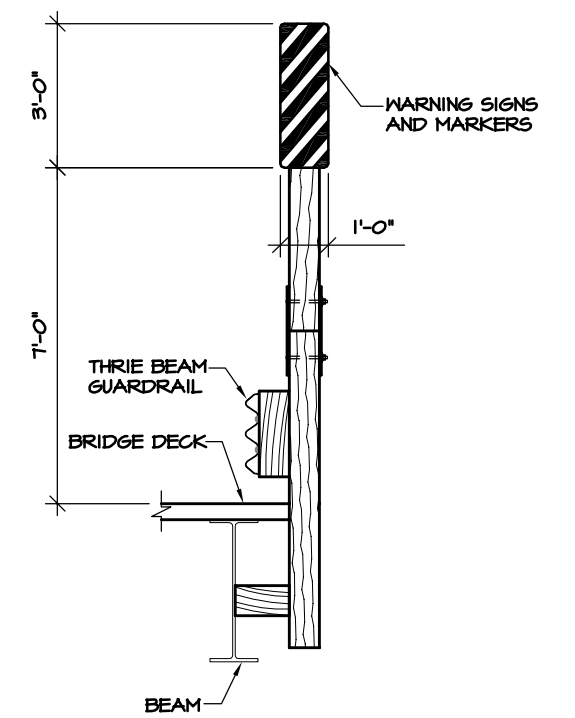
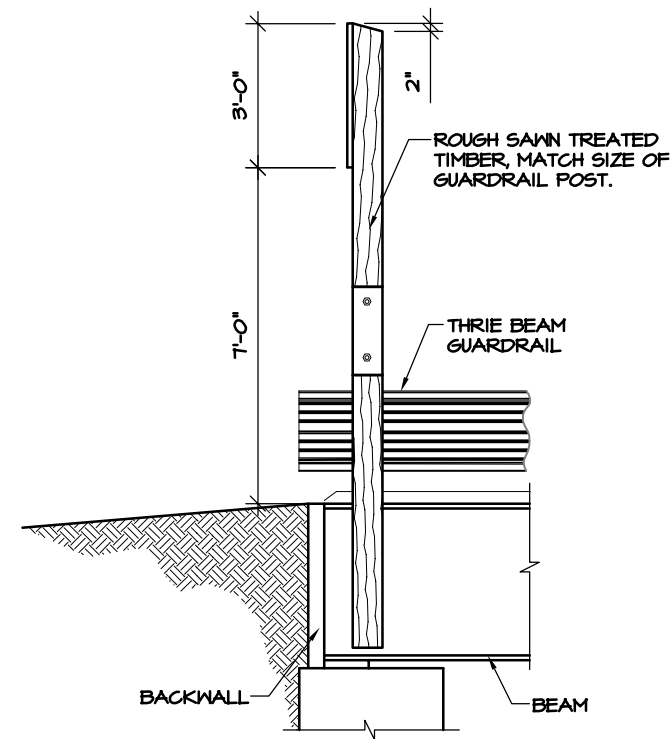
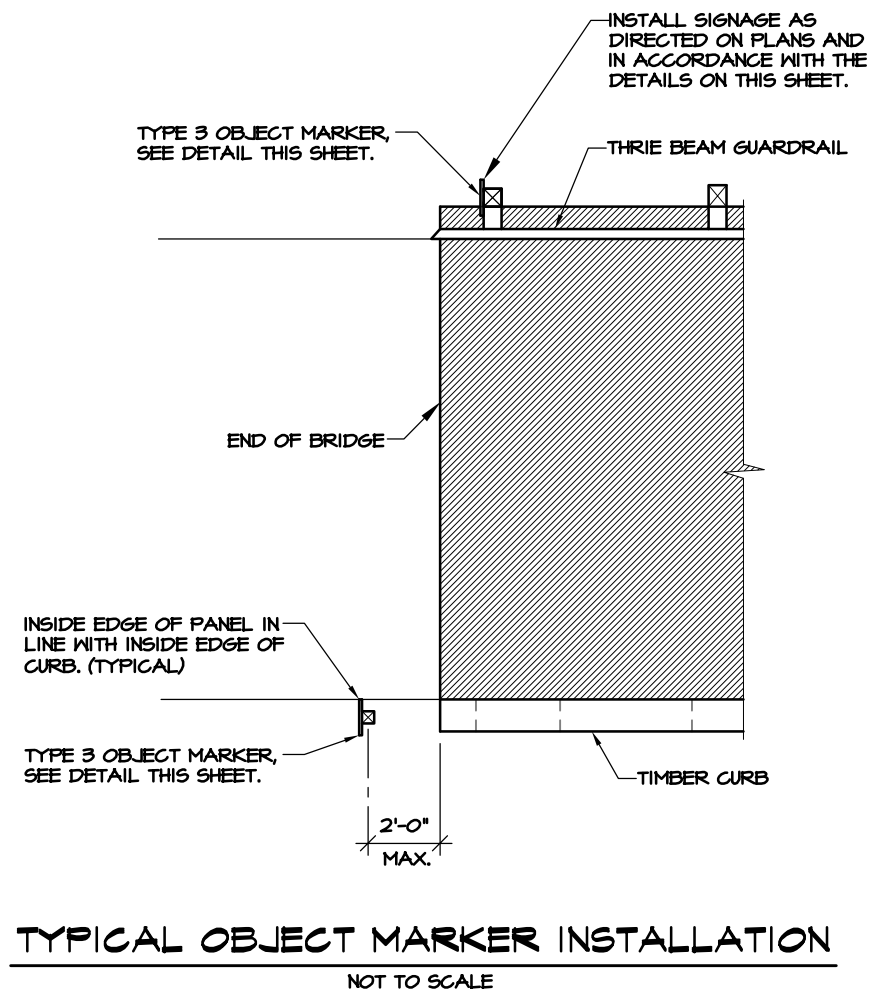
- SEE SHEET N-01.00 FOR TIMBER MATERIAL NOTES.
- ALL TIMBER FOR BACKWALLS AND ASSOCIATED CONNECTIONS SHALL BE ROUGH CUT DOUGLAS FIR OR WESTERN LARCH, GRADED NO. 2 OR BETTER, AND TREATED IN ACCORDANCE WITH AWPA STANDARDS C1 AND C2 FOR GROUND CONTACT WITH PENTACHLOROPHENOL IN PETROLEUM OIL (TYPE A) CONFORMING TO AWPA STANDARD P8, OR CREOSOTE CONFORMING TO AWPA STANDARD P3.
- FIELD CUTS, BORE HOLES, AND DAMAGE IN TREATED TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARDS M4 AND P1.
- WINGWALL LENGTH WILL BE DETERMINED BY AREA FORESTER ACCORDING TO SITE REQUIREMENTS.





# GENERAL NOTES:

1. PROVIDE TYPE OM-3R OR OM-3L OBJECT MARKERS AT EACH CORNER OF THE BRIDGE, EITHER AT EACH ABUTMENT OR AT THE END OF APPROACH RAIL, AS SHOWN ON THE CONTRACT PLANS.
2. WHEN OBJECT MARKERS ARE TO BE PLACED ON TOP OF FINAL GUARDRAIL POST, USE SIMILAR MATERIAL TO SPLICE TO GUARDRAIL POST AS SHOWN ON DOT & PF STANDARD DRAWING S-20.10. OTHERWISE WOOD OR STEEL PERFORATED POSTS MAY BE USED.
3. PLYWOOD OR ALUMINUM AS SPECIFIED IN SECTION T30 OF THE DOT & PF STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION MAY BE USED FOR THE OBJECT MARKER SIGN BASE. IF ALUMINUM IS TO BE USED, PROVIDE A MINIMUM OF 0.080" THICK SHEET ALUMINUM.
4. ALWAYS PLACE INSIDE EDGE OF OBJECT MARKER IN LINE WITH EDGE OF OBSTRUCTION CLOSEST TO ROADWAY.
5. WHEN OBJECT MARKER IS AT THE EDGE OF FLARED APPROACH GUARDRAIL, ENSURE THAT BOTTOM OF OBJECT MARKER SIGN IS A MINIMUM OF 5 FEET CLEAR ABOVE FINISHED ROADWAY EDGE.
6. IF APPROACH GUARDRAIL IS WARRANTED CONSULT "BARRIER GUIDE FOR LOW VOLUME AND LOW SPEED ROADS", PUBLICATION NO. FHWA-CFL/TD-05-004, FOR DESIGN OF NECESSARY CLEAR ZONE.
7. FOR EMBEDMENT LENGTH SEE DOT & PF STANDARD SHEET S-30.03.
8. ATTACH ALL OBJECT MARKER POSTS IN ACCORDANCE WITH DOT & PF STANDARD SHEET S-30.03.



FRONT ELEVATION

OBJECT MARKER TYPE 3 INSTALLATION DETAIL

NOT TO SCALE



**EXHIBIT F**

**PROPOSED LAYOUT MAPS**

**BABY BROWN TIMBER SALE NSE-1549**

Reserved for unit map list [To be attached to signed Contract.]

**EXHIBIT G****INSURANCE POLICIES****BABY BROWN TIMBER SALE NSE-1549**

All of the insurance policies required by this Contract shall be endorsed to provide that such insurance shall apply as primary insurance and that any insurance or self-insurance carried by the STATE or permitting agencies will be excess only and will not contribute to the insurance required by this Contract; shall be endorsed to name the STATE as additional insureds; and shall provide for a waiver of subrogation in favor of the STATE. All endorsements shall refer to this Contract. All insurance shall be on an occurrence and not a "claims made" basis. PURCHASER shall provide and maintain the following:

1. Workers' compensation, industrial accident and/or USL&H insurance for all its employees engaged in work under this Contract, including subcontractors' Workers' Compensation Insurance, Industrial Accident and/or USL&H, including Employer's Liability Insurance in accordance with the Laws of the State of Alaska. The Contractor's policy shall have a waiver of subrogation against the state by the purchaser and all subcontractors associated with the timber sale. The policy will have Employer's Liability Protection at \$500,000 each accident/each employee and \$500,000 policy limit with "Other States" endorsement if the purchaser or subcontractor directly utilizes labor that are residents from outside of the State of Alaska. United States Longshore and Harbor Workers' Act Endorsement, whenever the work involves activity over or about navigable water; and Maritime Employer's Liability (Jones Act) Endorsement with a minimum limit of \$1,000,000 whenever the work involves activity from or on a vessel on navigable water.
2. Commercial general liability insurance, including contractual coverage. With coverage limits not less than one million dollars (\$1,000,000) combined single limit per occurrence and annual aggregate coverage of two million dollars (\$2,000,000) where generally applicable including premises-operations, independent contractors, product/completed operations, broad form property damage, blanket contractual, and personal injury endorsements.
3. Logger's property damage liability, broad form with a limit per occurrence of at least one million dollars (\$1,000,000).

Comprehensive automobile and aircraft liability insurance. Covering all owned, hired, and non-owned vehicles and aircraft with coverage limits not less than one million dollars (\$1,000,000) combined single limit per occurrence bodily injury and property damage.

**EXHIBIT H**

**APPROVED OPERATING PLAN**

**BABY BROWN TIMBER SALE NSE-1549**

To be submitted by PURCHASER, approved by STATE and attached hereto.