Erosion and Sediment Control Plan

For

Kodiak Airport

Runway Safety Area Extension

Project No. 53587

AIP No. 3-02-0158-017-2014

And

Devils Creek Culvert Repair

Project No. 57474

AIP No. 3-02-0158-1_-2014

Kodiak, Alaska

Alaska Department of Transportation & Public Facilities
Central Region
4111 Aviation Drive
P.O. Box 196900
Anchorage, Alaska USA 99519-6900

Project Manager: Morgan Merritt, PE

Prepared by: John Wahl, PE

ESCP Preparation Date: March, 2014

*The following Erosion and Sediment Control Plan (**ESCP**) has been prepared by the Alaska Department of Transportation and Public Facilities (**DOT&PF**) to assist bidders in successfully planning their construction means and methods to comply with the 2011 Alaska Construction General Permit (**ACGP**), United States Army Corps of Engineers (**USACE**) 404/10 Permit, Alaska Department of Environmental Conservation (**ADEC**) 401 Water Quality Certification, and other permits associated with this project. This document is not intended to be all inclusive of the best management practices (**BMP**'s) that will be required to reduce the potential for sediment discharge during construction and comply with permit conditions or construction specifications. This ESCP is intended to guide contractors during the bidding process and assist in the preparation of the contractor's Storm Water Pollution Prevention Plan (**SWPPP**) that must be approved prior to commencing construction after award. The contractor is responsible for the risk assessment analysis, planning, preparation and implementation of the SWPPP.*

TABLE OF CONTENTS

SECTION 1 - GENERAL INFORMATION 1
1.0 Permittee (5.3.1) 1
2.0 Storm Water Contacts (5.3.2) 2
2.1 Contact Information for SWPPP Preparation 2
3.0 Project Information (5.3.3) 3
3.1 Project Information 3
3.2 Project Site-Specific Conditions (5.3.3) 3
3.3 Reference Documents Available 4
4.0 Nature of Construction Activity (5.3.4) 6
4.1 Scope of Work 6
4.2 Project Function (5.3.4.1) 7
4.3 Sequence and Timing of Soil-disturbing Activities (5.3.4.2) 7
4.4 Size of property and total area expected to be disturbed (5.3.4.3) 7
4.5 Identification of all potential pollutant sources (5.3.4.5) 8
5.0 Site Maps (5.3.5) 9
6.0 Discharges 10
6.1 Locations of Other Industrial Storm Water Discharges (5.3.8) 10
6.2 Allowable Non-Storm Water Discharges (1.4.2; 4.2.7; 5.3.9) 10

SECTION 2 – COMPLIANCE WITH STANDARDS, LIMITS, AND OTHER APPLICABLE REQUIREMENTS 11
7.0 Documentation of Permit Eligibility Related to Total Maximum Daily Loads (3.2, 5.6) 11
7.1 Identify Receiving Waters (5.3.3.3) 11
7.2 Identify TMDLs (5.6.1) 11
8.0 Documentation of Permit Eligibility Related to Endangered Species (3.3, 5.7) 13
8.1 Information on endangered or threatened species or critical habitat (5.7.1) 13
9.0 Historic Properties (5.11.3) 14
10.0 Applicable federal, state, tribal, or local requirements (4.13) 15

SECTION 3 – CONTROL MEASURES 16
11.0 Control Measures/Best Management practices (4.0; 5.3.6) 16
11.1 Minimize amount of soil exposed during construction activity (4.1.2) 16
11.2 Maintain natural buffer areas (4.1.3) 16
11.3 Control storm water discharges and flow rates (4.1.4) 17
11.3.1 Protect steep slopes (4.1.5) 17
11.4 Storm drain inlet protection measures (4.2.1) 18
11.5 Water body protection measures (4.2.2) 18
11.6 Down-slope sediment controls (4.2.3) 18
11.7 Stabilized construction vehicle access and exit points (4.2.4) 19
11.8 Dust generation and track-out from vehicles (4.2.5) 19
11.9 Soil stockpiles (4.2.6) 19
11.10 Sediment basins (4.2.8) 20
11.11 Dewatering (4.3) 20
11.12 Soil stabilization (4.4, 5.3.6.3) 20
11.13 Treatment chemicals (4.5; 5.3.6.4) 20
11.14 Active Treatment System information (4.5.4.3) 20
11.15 Good housekeeping measures (4.7) 21
11.15.1 Washing of equipment and vehicles (4.7.1) 21
11.15.2 Washout of applicators/containers used for paint, concrete, and other materials (4.7.4) 21
11.15.3 Fertilizer or pesticide use (4.7.5) 22
11.16 Spill notification (4.8) 22
11.17 Construction and Waste Materials (5.3.7) 22
11.18 .Permanent/Post-Construction BMPs 23

SECTION 4 - INSPECTIONS, MONITORING, AND RECORDKEEPING 24

12.0 Inspections (5.4; 6.0) 24
12.1 Inspection schedules (5.4.1.2; 6.1; 6.2) 25
12.2 Inspection form or checklist (5.4.1.3; 6.7) 25
12.3 Corrective action procedures (5.4.1.4; 8.0) 26
12.4 Inspection recordkeeping (5.4.2) 26
13.0 Monitoring Plan (If Applicable) (5.5; 7.0) 26
13.1 Determination of Need for Monitoring Plan 26
13.2 Monitoring Plan Development ..... **Error! Bookmark not defined.**
13.3 Monitoring Considerations ..... **Error! Bookmark not defined.**
14.0 Post-Authorization Records (5.8) 26
14.1 Additional Documentation Requirements (5.8.2) 27
14.1.1 Records of employee training (4.12; 5.8.2.9) 27
15.0 Maintaining an Updated SWPPP (5.9) 27
15.1 Log of SWPPP Modifications (5.9.2) 27
15.2 Deadlines for SWPPP Modifications (5.9.3) 28
16.0 Additional SWPPP Requirements (5.10) 28
16.1 Retention of SWPPP (5.10.1) 28
16.2 Main entrance signage (5.10.2) 28
16.3 Availability of SWPPP (5.10.3) 28
16.4 Signature and certification (5.10.4) 28

APPENDICES

Appendices that are marked with (ESCP) are to be filled out by the Design. All other appendices are to be filled out by the SWPPP writer and will not be included in the ESCP.

Appendix A – Site Maps and Drawings
- o ESCP Plan, 1-6 of 7
- o ESCP Details, 7 of 7

Appendix B – BMP Details
Appendix C – Project Schedule
Appendix D – Supporting Documentation: – see Section 3.3
- o Record of Determination
  Runway Safety Area Improvements At Kodiak Airport, Kodiak, Alaska
  Federal Aviation Administration
  Approved: September 12, 2013

Appendix E – Delegation of Authority, Subcontractor Certifications, Project Staff Tracking and Personnel Qualifications
Appendix F – Permit Conditions
- o Copies of Signed Notices of Intent
- o Confirmations of Delivery of NOIs to DEC
- o Copies of Letters from DEC Authorizing Coverage, with DEC NOI Tracking Numbers
- o Copy of 2011 Alaska Construction General Permit

Appendix G – Grading and Stabilization Records
Appendix H – Monitoring Plan (if applicable) and Reports
Appendix I – Training Records
Appendix J – Corrective Action Log and Delayed Action Item Reports
Appendix K – Inspection Records
Appendix L – SWPPP Preparer's Site Visit
Appendix M – SWPPP Amendment Log
Appendix N – Daily Record of Rainfall
Appendix O – Hazardous Material Control Plan (HMCP)
Appendix P – Treatment Chemicals/Active Treatment Systems (if applicable)
Appendix Q – Other:
- o Anti-Degradation Analysis (if applicable)
- o Correspondence with Regulatory Agencies
- o Notices of Termination

SECTION 1 - GENERAL INFORMATION

1.0 PERMITTEE (5.3.1)

The Department of Transportation & Public Facilities (DOT&PF) is the project permittee. Upon the approval of the contractor's Storm Water Pollution Prevention Plan (SWPPP) by DOT&PF, the contractor will be required to submit a Notice of Intent (NOI) and obtain permit coverage as an operator. The contractor's contact information as well as contact information for all subcontractors must be included in the contractor's SWPPP. All subcontractors will be required to sign a certification (DOT&PF Form 25D-105) that they have read the Alaska Construction General Permit (ACGP) and the contractor's SWPPP and will adhere to their terms and conditions.

2.0 STORM WATER CONTACTS (5.3.2)

The contractor will need to identify the qualified person responsible per Section 5.3.2 of the ACGP and include the documentation of their qualifications in the appendices of the SWPPP.

2.1 Contact Information for SWPPP Preparation

The following people may be contacted for questions when writing the SWPPP:

Name	Phone	Email
Mary Nan Cunningham DOT Erosion & Sediment Control Advisor, AKDOT&PF	(907) 269-0450	mary.cunningham@alaska.gov
Josh James Engineering Assistant II, AKDOT&PF	(907) 269-0459	joshua.james@alaska.gov

3.0 PROJECT INFORMATION (5.3.3)

3.1 Project Information

Project/Site Name: Kodiak Airport Improvements

Project State Number/Federal Number: 53587, AIP No. 3-02-0158-01x-201x

Project Street/Location: West Rezanof Drive

City: Kodiak **State:** Alaska **Zip Code:** 99615

Borough or Subdivision: **Kodiak Island Borough**

Latitude: 57º 45' 59.9" N (degrees, minutes, seconds)

Longitude: 152º 29' 37.9" W (degrees, minutes, seconds)

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____) ☐ EPA Web site ☐ GPS

☒ Other (please specify): Kodiak Airport, Airport Layout Plan

3.2 Project Site-Specific Conditions (5.3.3)

Mean annual precipitation: 77.04 inches based on data from 1973 to 2012. (Kodiak WSA Airport (504998), Western Region Climate Center, http:/www.wrcc.dri.edu)

Size of the 2-yr, 24-hr storm event (in inches): 3.18". (USCOE, ERDC/EL TR-07-24, Regional Supplement to the DOE Wetland Delineation Manual: Alaska Region)

Soil Type(s) and Slopes: Offshore soils in the safety area extension areas consist mainly of sands and gravels.

The current safety areas are primarily silty sands and gravels. Onshore areas of safety area construction are generally silty sands and gravels.

The safety areas will have slopes of less than 3%. Embankment will have side slopes of 2:1 when vegetation covered and up to 1.5:1 when armor stone covered.

Landscape Topography: The airport is bounded by Chiniak Bay to the east, the Buskin River to the north and Woman's Bay to the south and steep mountainous terrain to the west. The airport itself is built on relatively flat outwash planes of the Devils Creek and Buskin River further enhanced in WWII by blasting rock to enlarge the flat plane.

Drainage patterns: Drainage west of the airport is drained by Devil's Creek which enters the airport property southwest of the west end of Runway 7-25. It then drains to the east and crosses under Runway 7-25 at approximately Sta. 115+00. From there, it runs to the north and drains into the Buskin River.

Within the airport east of Devil's Creek, drainage is provided by a series of ditches, culverts, catch basins and sheet drainage. Surface drainage is generally from the west and southwest to the east and north. Drainage in the infields of the airport between the service roads, taxiways and runways is provided by a series of catch basins and culverts.

A catch basin east of the threshold of Runway 36 provides drainage of the safety area east of the runway. The outfall for the catch basin is to the southeast, emptying into St. Paul Harbor. Extension of the safety area will recontour the area feeding this catch basin and block the existing outfall. The project will recontour the safety area, relocate the catch basin, if required, and provide a new outlet for the catch basin.

The infield bounded by the three runways is drained by a culvert that crosses under Runway 18-36 south of Runway 7-25. It then flows east via a ditch along the edge of Runway 7-25. This project will extend the safety area of Runway 7-25 to the east and will require relocation of the ditch to provide a new outlet into St. Paul Harbor.

Type of Existing Vegetation: The airport surfaces are generally grass covered. Airport areas to be disturbed as part of this project are grass covered.

Approximate growing season: May 15 to October 1

Seeding Dates: May 15 to August 15

Clearing Window: May 1 to July 15

Fish Window: No in-water work below the high tide line (Elevation 11.7') will be allowed between April 1 and July 15

Historic site contamination evident from existing site features and known past usage of the site: Known areas of site contamination are present on the airport and USCG Base Kodiak. A detailed list and evaluation of the sites is included in the Final EIS and ROD prepared by the FAA for this project. This data is available at the FAA project website at the following URL:

http://www.kodiakairporteis.com/documents/documents.htm

Additional information about these sites is available on the DEC Division of Spill Prevention and Response website: http://dec.alaska.gov/spar/csp/db_search.htm.

These areas will need to be addressed in the Hazardous Material Control Plan.

3.3 Reference Documents Available

Listed below are the reference documents available for this project. Please contact the Project Engineer for assistance in obtaining these documents.

- Project Specific Permits – located in an appendix of the Standard Modifications & Special Provisions Package
- Geotechnical Report – Geotechnical Report, Kodiak RSA Expansion, Project No. 58579, January, 2013, prepared by ADOT&PF
- Environmental Commitment Memo - available at preconstruction meeting

- Final Environmental Impact Statement and Record of Determination prepared by the FAA for this project – available on the FAA project website at http://www.kodiakairporteis.com/documents/documents.htm

4.0 NATURE OF CONSTRUCTION ACTIVITY (5.3.4)

4.1 Scope of Work

The Proposed Action will:

* Extend the runway safety area for Runway 7-25 to the east by 600';
* Install an Engineered Material Arrestor System (EMAS) at the east end of the safety area extension;
* Reconfigure the lighting for the west end of Runway 25 to provide 1,000'+ of safety area beyond the end of the runway;
* Relocate Runway 18 threshold by 240' to the south to provide 240' of safety area prior to the threshold of Runway 18 and 240' beyond the north end of Runway 36;
* Extend the Runway 18-36 embankment by 600' to the south;
* Relocate the threshold of Runway 36 by 240' to the south to provide 360' of safety area prior to the threshold of Runway 36 and beyond the end of Runway 18;
* Reconfigure Taxiways A and B to conform to the new relocated threshold of Runway 36;
* Install an EMAS at the north of the Runway 18-36 safety area;
* Restripe Runway 18-36, Taxiway A and Taxiway B;
* Relocate the access road at the south end of the Runway 18-36 safety area;
* Relocate the access road at the threshold of Runway 25;
* Rehabilitate the Devils Creek culvert;
* Construct a dike around the inlet for the Devils Creek culvert;
* The waters of Devils Creek will be diverted into one of the twin tubes at a time to allow construction to take place in the dry tube. When the first tube is reconstructed, the water will be diverted to that tube so the adjacent tube can be rehabilitated.

Phases of construction will include the following:

Phase 1A – This phase will construct the embankments and shore protection for the safety area extension off of the east end of Runway 7-25. This work will be performed during the 2014 construction season.

Phase 1B – This phase will finish final grading of the safety area; construction and paving of a blast pad and EMAS pad; installation of the EMAS and construction of a service road. This work will be performed during the 2015 construction season.

Phase 2A - This phase will construct the embankments and shore protection for the safety area extension off of the east end of Runway 18-36. This work will be performed during the 2014 construction season.

Phase 2B – This phase will finish final grading of the safety area; construction and paving of a southern extension of the runway; construction and paving of a new connecting taxiway; construction and paving of a blast pad; and construction of a service road. This work will be performed during the 2015 construction season.

Phase 2C – This phase will include relocation of runway 18-36 by 240' to the south; construction of the EMAS; remarking of Runway 18-36, Taxiway A and Taxiway B. This work will be performed immediately following Phase 2B.

Phase 3 – This phase will include rehabilitation of the Devils Creek culvert by repairing and repaving the invert and walls of the twin-box PCC culvert and construction of a dike at the culvert entrance to increase the hydraulic capacity of the culver.

4.2 Project Function (5.3.4.1)

The purpose of this project is to provide approved safety area beyond the ends and prior to the thresholds of Runways 7, 18, 25 and 36. The project will rehabilitate the Devil's Creek culvert to increase its service life, construct a dike at the culvert entrance to increase its hydraulic capacity to handle a 1% storm event.

4.3 Sequence and Timing of Soil-disturbing Activities (5.3.4.2)

Phases 1A and 2A may be performed concurrently. Both phases are expected to begin by July, 2014 be completed during the 2014 construction season.

Phases 1B and 2B may be performed concurrently and are expected to begin by May, 2015. Phase 2C must be completed following Phase 2B. Phase 3 is expected to begin in July, 2014. All work shall be completed by October 31, 2015.

The FEIS and ROD for the project prohibits work below mean high water (MHW) between April 1 and July 15 to protect fish habitat.

The contractor will be required to finish, either temporary or final stabilized, individual areas prior to moving on to the next area. The contractor will be required to prepare a detailed schedule for review and approval prior to commencement of construction activities and is to be included in the SWPPP. The schedule will detail the sequence of activities and describe the stabilization schedule.

4.4 Size of property and total area expected to be disturbed (5.3.4.3)

The following are estimates of the construction site:

Description	Number	Remarks
Total project area:	**186** acres	Total area of the airport property
Construction-site area to be disturbed:	**49** acres	Includes: Offshore Embankment (R/W 7-25) – 10 acres Offshore Embankment (R/W 18-36 – 9 acres Onshore Construction (R/W 7-25) – 2 acre Onshore Construction (R/W 18-36 – 10 acres Staging and Stockpile Areas – 18 acres
Percentage impervious area BEFORE construction:	**10**%	
Runoff Coefficient BEFORE construction:	**0.15**	Uplands only

Percentage impervious area AFTER construction:	**40**%	
Runoff coefficient AFTER construction:	**0.50**	Safety area and runway/taxiway surfaces.

The values shown in the table above were calculated with the information available at the time of the final design. The contractor's values will be different due to staging areas, batch plants, material stockpiles, etc. The Alaska Highway Drainage Manual was used to calculate the Runoff Coefficient. If a discrepancy is found, contact the Project Engineer to request further information.

4.5 Identification of all potential pollutant sources (5.3.4.5)

Potential sources of sediment to storm water runoff:

- Construction of project embankments.
- Stockpiling of waste materials
- Construction vehicle tracking, from off-site construction activities by others
- Wash water and dust from removal of striping and pavement markings
- Wash water from pavement grooving (P-621)
- Airborne dust from construction activities

Potential pollutants and sources, other than sediment, to storm water runoff:

- Vehicle and equipment fluids, including oil, grease, fuel, solvents, and coolants
- Materials and production plants associated with paving operations
- Materials and production plants associated with concrete work
- Best management Practices (BMP) materials
- General site litter and waste

5.0 SITE MAPS (5.3.5)

Site map(s) and drawings will be located in appendix 4.

6.0 DISCHARGES

The asphalt plant and crushing operations will be located off of airport property.

6.1 Locations of Other Industrial Storm Water Discharges (5.3.8)

The contractor is required to identify discharges from related support activities. Portable batch plants located on department supplied property must be included in the contractor's SWPPP and related inspections. If the DOT&PF is not a CGP operator for the site or sites listed in this subsection, then describe the sites and BMPs for them in a separate SWPPP2. In this section, explain which areas are covered within this SWPPP and which are covered within a separate SWPPP2. Also provide information on where the SWPPP2 is available for review.

6.2 Allowable Non-Storm Water Discharges (1.4.2; 4.2.7; 5.3.9)

The contractor must list all allowable non-storm water discharges and describe how the discharges will be minimized and managed to reduce pollution to storm water in the contractor's SWPPP. Identified non-storm water discharges for this project include:

- Water used to wash vehicles where detergents are not used
- Pavement wash waters where spills or leaks and toxic or hazardous materials have not occurred and where detergents are not used
- Wash water resulting from pavement grooving
- Pavement water resulting from the hydroblasting of the Runway 18-36 pavements for removal of the existing painted markings.
- Water resulting from the hydroblasting of the Devil's Creek culvert.

SECTION 2 – COMPLIANCE WITH STANDARDS, LIMITS, AND OTHER APPLICABLE REQUIREMENTS

7.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TOTAL MAXIMUM DAILY LOADS (3.2, 5.6)

A search of the "Alaska's Final 2010 Integrated Water Quality Monitoring and Assessment Report" found listings for the Buskin River and St. Paul Harbor. Each is listed a Category 3 for which there is insufficient or no data and information to determine whether any designated use is attained.

7.1 Identify Receiving Waters (5.3.3.3)

Description of receiving waters: Waters that may be affected by this project include the Buskin River, Devils Creek, and St. Paul Harbor. These are all USACOE-defined Waters of the U.S. The Buskin River borders the northern edge of the Kodiak Airport. St. Paul Harbor borders the east and south borders of the airport. Devils Creek enters airport property on the west side and goes under Taxiway D and runway 7-25 before running onto the Buskin River.

Storm water to the north of Runway 7-25 and east of Devil's Creek surface drains to the north and northeast and discharges into the Buskin River. Storm water to the west of Devil's Creek enters Devil's Creek and discharges into the Buskin River. Storm water to the south of Runway 7-25 and east of Devil's Creek and north of approximately Sta. 35+00 of Runway 18-36 is collected by a series of storm drains and drainage ditches where it flows to the south and into St. Paul Harbor. Storm water for Runway 18-36 between approximately Sta. 20+00 and Sta. 35+00 either surface drains to the east to St. Paul Harbor or is collected by ditches and storm drains and is discharged into St. Paul Harbor. Drainage to the south of Sta. 20+00 and east of Runway 18-36 surface drains to St. Paul Harbor.

There are no stream crossings on the project.

Outstanding Natural Resource Waters (2.1.5):

The Alaska Department of Environmental Conservation (ADEC) must be consulted, at least 30 days prior to construction activities, when determining requirements for water quality analysis on all projects that meet the following:

- Will or may discharge storm water to a Tier 3 water body

DEC has not yet produced a list of designated Tier 3 waters, also known as Outstanding Natural Resource Waters (ONRW), but has developed interim criteria

Will storm water from the proposed project discharge into a water body within or within a mile upstream of a national or state park or wildlife refuge?

☐ Yes ☒ No

7.2 Identify TMDLs (5.6.1)

Is an EPA-established or approved TMDL published for the receiving water(s) listed in Section 7.1?

☐ Yes ☒ No

On November 30, 2013, HDR reviewed the Alaska Department of Environmental Conservation's (ADEC) 2010 Water Quality Monitoring and Assessment Reports to identify impaired water bodies in the proposed project area. There were no bodies of water in the project area found to be impaired waters with an established and EPA-approved TMDL.

8.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO ENDANGERED SPECIES (3.3,5.7)

8.1 Information on endangered or threatened species or critical habitat (5.7.1)

Are endangered or threatened species and critical habitats on or near the project area?

☒ Yes ☐ No

Describe how this determination was made: An extensive review of endangered and threatened species and critical habitat was made during preparation of the Kodiak Airport Safety Area Extension EIS. This included extensive consultation with resource agencies. The complete FEIS and approved ROD can be found at:

http://www.kodiakairporteis.com/documents/documents.htm

Steller's eiders (*Polysticta stelleri*), Northern Sea Otters (*Enhydra lutris kenyoni*), Kittlitz's murrelets (*Brachyramphus brevirostris)*, and yellow-billed loons (Gavia adamsii), are noted in the EIS as being on or near the project area. Through completion of a Biological Assessment, the FAA determined that the Project is not likely to adversely affect any Federally-listed species and/or their designated critical habitat. The USFWS and the NMFS concurred with the FAA's determination in letters dated May 31, 2013 and July 10, 2013, respectively (see Appendix A of the ROD).

Will species or habitat be adversely affected by storm water discharge?

☒ Yes ☐ No

An extensive review of species and critical habitat was made during preparation of the Kodiak Airport Safety Area Extension EIS. This included extensive consultation with resource agencies. The complete FEIS and approved ROD can be found at:

http://www.kodiakairporteis.com/documents/documents.htm

Sediments will be directly released into marine waters during placement of fill and indirectly through discharge of sediment-laden stormwater runoff. Increases in sediment loads can affect sea otter and Steller's eider food resources by smothering benthic invertebrates. Placement of silt curtains and the actions specified in a construction SWPPP will minimize sedimentation. If sedimentation does occur and forage availability is reduced, listed species are likely to respond by dispersing short distances to other suitable habitat areas.

9.0 HISTORIC PROPERTIES (5.11.3)

SHPO consultation was completed on: May 9, 2012 as part of the FAA EIS process.

Are there any historic sites on or near the construction site?

☒ Yes ☐ No

A review of historical, architectural, archeological and cultural resources was conducted in preparation of the EIS for this project. The full document can be found at the FAA web site for this project at:

http://www.kodiakairporteis.com/documents/documents.htm

If cultural or paleontological resources are discovered after the initial commencement of construction activities, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://dnr.alaska.gov/parks/oha/index.htm), is to be notified immediately at (907) 269-8721.

It is the Contractor's responsibility, thru the Project Engineer, to get clearance for material and disposal sites that have not been assessed during the EIS phase of the project.

10.0 APPLICABLE FEDERAL, STATE, TRIBAL, OR LOCAL REQUIREMENTS (4.13)

The project will comply with all applicable Federal, state, and local requirements for soil erosion control and storm water management.

The contractor will be responsible for obtaining all necessary permits and clearances for material and disposal sites, and/or equipment storage areas in accordance with the ACGP for Stormwater Discharges from Construction Activities.

SECTION 3 – CONTROL MEASURES

11.0 CONTROL MEASURES/BEST MANAGEMENT PRACTICES (4.0; 5.3.6)

The contractor will use structural controls to stabilize disturbed portions of the site against erosion. BMPs detailed in the Alaska SWPPP Guide (2004, or as currently amended) will be used during construction to minimize erosion. Erosion and sediment control measures and other protective measures shall be maintained in effective operating condition by the contractor. All BMPs will be inspected at the frequency stated in Section 12. If required site inspections identify BMPs that are not operating effectively, maintenance shall be performed by the contractor as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of storm water controls.

The contractor, with approval from the project engineer, may modify the BMP selection in the field as conditions require. Any modifications after the approval and certification of the SWPPP will require a SWPPP amendment. All installed BMPs must be reflected on plan sheets along with dates of installation and removal. All BMPs must have a description included in the SWPPP and the details source must be cited. BMP details and source documents are located in Appendix B.

If existing BMPs need to be modified, or if additional BMPs are necessary for any reason, implementation shall be completed by the contractor before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation shall be documented by the contractor in the SWPPP and alternative BMPs shall be implemented as soon as possible.

Sediment control structures will be monitored to ensure continuous structural integrity. Sediment from sediment traps will be removed by the contractor when design capacity has been reduced by 50 percent. Collected sediments will be removed and placed in designated disposal areas off of airport property, as approved by the Engineer.

All exposed project slopes and fills that are susceptible to erosion will be stabilized at the earliest practicable date. Ditch lining will be placed on fill slopes to minimize potential soil erosion. See the attached P-152 specification for the Platinum Airport, which is being used as an example of how slope lining would be integrated into the design.

Any areas that become damaged will be regraded, as necessary, during the life of the project.

11.1 Minimize amount of soil exposed during construction activity (4.1.2)

Minimization of soil exposure will be compliant with the ACGP. Existing vegetation (approximately 5 feet in width) around the perimeter of the site will be preserved as much as possible to prevent soil from leaving the site. Along with the existing vegetation, fiber rolls, or other appropriate BMPs will be installed according to the manufacturer's specifications or the detail sheets in Appendix B.

11.2 Maintain natural buffer areas (4.1.3)

Are stream crossings or waters of the U.S. located within or immediately adjacent to the property?

☒ Yes ☐ No

The project is surrounded by waters of the U.S on the east and south and by the Buskin River to the north. Devils Creek traverses the airport. The project will include constructing embankment fills into the waters of Womens Bay and St Paul Harbor and repairing the culvert that carries Devils Creek under the airport.

11.3 Control storm water discharges and flow rates (4.1.4)

Structural practices shall be used to limit runoff and pollutants from exiting the site. Perimeter control will include fiber rolls and silt fence. These or other similar BMPs will be used to provide adequate protection to minimize silty runoff and other pollutants from migrating off-site.

Fiber rolls shall be placed in a manner to prevent surface flow from entering or exiting active work sites. In general, fiber rolls should be provided as follows:

- Along uphill perimeter edge of all disturbed areas to divert water from entering the project area.
- Along the top of the slope or top of embankments to control water running onto the down slope.
- Along drainage ditches, channels, swales, etc. that traverse disturbed areas or carry runoff from disturbed areas to act as ditch dikes. Fiber rolls will be spaced at a maximum of 10 feet apart in steeper areas.

  BMP Description**:** Fiber Rolls AK-8
  BMP Type: Structural
  Source: AKDOT&PF SWPPP Guide 2-2011.
  Installation Schedule: Install prior to ground disturbing activities. When approved by the Engineer, fiber rolls may be left in place to decompose, or may be spread and seeded.
  Maintenance and Inspection: Inspect fiber rolls to ensure they have not deteriorated and remove sediment before it reaches 50 percent of capacity.
  Responsible Staff: SWPPP Manager / Storm Water Lead

  BMP Description**:** Silt Fence AK-18
  BMP Type: Structural
  Source: AKDOT&PF SWPPP Guide 2-2011.
  Installation Schedule: Install prior to ground disturbing activities. Remove when disturbed area is permanently stabilized or sediment protection is no longer needed.
  Maintenance and Inspection: Inspect silt fence to ensure is has not collapsed or undermined or otherwise compromised and remove sediment before fence function is compromised.
  Responsible Staff: SWPPP Manager / Storm Water Lead

11.3.1 Protect steep slopes (4.1.5)

Will steep slopes be present at the site during construction? ☒ Yes ☐ No

Slopes will be stabilized as soon as practicable, but at least within seven (7) days of the temporary or permanent cessation of construction. The only steep slopes on the site will be concrete or stone armored; therefore, additional slope protection should not be required. If slope protection becomes necessary then surface roughening and terracing and rolled erosion control products shall be used to protect the slopes.

BMP Description: Surface Roughening and Terracing AK-12
BMP Type: Structural
Source: AKDOT&PF SWPPP Guide 2-2011

Installation Schedule: Perform Surface Roughening after fill has reached final grade or as needed for stabilization. Immediately seed and mulch roughened areas to obtain optimum seed germination and growth.
Maintenance and Inspection: Check the seeded slopes for rills and washes. Fill these areas slightly above the original grade, then reseed and mulch as soon as possible
Responsible Staff: SWPPP Manager / Storm Water Lead

BMP Description: Rolled Erosion Control Products (RECP's) AK-14
BMP Type: Structural
Source: AKDOT&PF SWPPP Guide 2-2011
Installation Schedule: Use RECP's after fill has reached final grade or as needed for stabilization.
Maintenance and Inspection**:** RECP's will be inspected at the frequency stated in Section 12. Irrigate as necessary to establish/maintain vegetation.
Responsible Staff: SWPPP Manager / Storm Water Lead

11.4 Storm drain inlet protection measures (4.2.1)

Install protection such as fiber rolls surrounding the catch basin inlet such that sediment does not enter the drainage system and flow into the inlet is not blocked.

BMP Description: Fiber Rolls AK-8
BMP Type: Structural
Source: AKDOT&PF SWPPP Guide 2-2011
Installation Schedule: Install prior to ground disturbing activities. When approved by the Engineer, fiber rolls may be left in place to decompose, or may be spread and seeded
Maintenance and Inspection: Inspect fiber rolls to ensure they have not deteriorated and remove sediment before it reaches 50 percent of capacity.
Responsible Staff: SWPPP Manager / Storm Water Lead

BMP Description**:** Inlet Protection AK-19
BMP Type: Secondary
Source: AKDOT&PF SWPPP Guide 2-2011.
Installation Schedule: Install prior to ground disturbing activities. Remove when disturbed area is permanently stabilized or sediment protection is no longer needed.
Maintenance and Inspection: Inspect inlet protection for sediment accumulation and remove accumulated sediment if needed.
Responsible Staff: SWPPP Manager / Storm Water Lead

11.5 Water body protection measures (4.2.2)

BMP Description: Floating Silt Curtain (Turbidity Curtain)
BMP Type: Structural
Source: USACOE, EP-1110-1-16, Appendix C, BMP-27, Turbidity Curtain
Installation Schedule: Install prior to placing fill material in open water.
Maintenance and Inspection: Inspect silt curtain to ensure that sediment does not enter the bay. Silt curtains must be securely anchored without gaps that allow sediment bypass.
Responsible Staff: SWPPP Manager / Storm Water Lead

11.6 Down-slope sediment controls (4.2.3)

No down-slope sediment controls will be used for this project since sediment will be retained on site with the use of inlet controls and vegetative buffers.

11.7 Stabilized construction vehicle access and exit points (4.2.4)

Any rubber tire operating on bare soils will require a stabilized entrance / exit prior to driving on paved surfaces. Tracked equipment must be cleaned prior to operating on paved surfaces. The existing gravel surfaces will be used for the stabilized access and exit points.

Do not haul on or across paved surfaces (even when closed) unless authorized by the Airport Manager and approved by the Engineer in writing and included in the approved SPCD. Ensure all vehicles that must cross the AOA to perform inspections, temporary marking maintenance, or other required activities are swept clean, and checked for loose equipment, tools, or other objects that could become FOD.

Keep all active runway and taxiway areas swept clean of materials spilled by contractor operations. Remove all material spills from the active runways, taxiways, and aprons immediately to avoid damage to aircraft. Station adequate cleaning equipment at the job site for immediate cleanup of any material spills on all active runway, taxiway and apron surfaces. Assure that all loose material and debris has been removed from the sides of haul vehicles before leaving or entering the site in order to minimize spills of material on airport or road surfaces. Clean all spilled materials off airport operational surfaces before opening to aircraft. Clean all existing runway and taxiway lights, as well as temporary lighting, before opening to aircraft.

When trucks will be traversing an AOA, the driver or an assigned laborer shall sweep off excess material that accumulates on the outside of the trucks during loading. Hand-sweep each truck before leaving the work areas.

BMP Description**:** Vehicle Tracking Entrance/Exit AK-21
BMP Type: Structural
Source: AKDOT&PF SWPPP Guide 2-2011.
Installation Schedule: Install prior to hauling activities. Remove when hauling is complete or when surfaces are paved.
Maintenance and Inspection: Inspect for sediment accumulation and material displacement.
Responsible Staff: SWPPP Manager / Storm Water Lead

11.8 Dust generation and track-out from vehicles (4.2.5)

The contractor will be required to remove any debris including soil and rock from roadways, service roads, runways and taxiways. Any material tracked will be swept up daily.
Material tracked by construction equipment must be swept back into the project area or picked up by a vacuum truck. The contractor is prohibited from sweeping and washing sediment into storm drains or ditch drains.

11.9 Soil stockpiles (4.2.6)

Will soil stockpiles be at the site during construction? ☐ Yes ☒ No

Stockpiled materials at the airport will consist mainly of processed armor rock, underlayer stone and other processed material. These materials are non-erodable.

11.10 Sediment basins (4.2.8)

Will a sediment basin be required during construction? ☐ Yes ☒ No

11.11 Dewatering (4.3)

Will excavation dewatering be conducted during construction? ☐ Yes ☒ No

11.12 Soil stabilization (4.4, 5.3.6.3)

A contractor shall stabilize all disturbed areas of the site to minimize on-site erosion, sedimentation and the resulting discharge of pollutants. Applicable stabilization control measures are not limited to: temporary seeding, mulching, and slope lining. The contractor shall consider the selection and implementation of control measures and the sequence of project construction as they apply to the project site.

For any portion of the site where a contractor has established temporary grading in that portion of the site and for areas where clearing, grading, excavating or other earth disturbing activities have temporarily ceased the contractor must initiate temporary stabilization measures as soon as practicable or within seven (7) calendar days since the area has a mean annual precipitation of more than forty (40) inches.

The contractor shall identify the anticipated dates of fall freeze-up and spring thaw for the site and use those dates to plan for winter shutdown. Frozen ground, by itself, is not considered an acceptable control measure for stabilization. Where temporary stabilization by the 7th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable following the actual spring thaw.

BMP Description: Slope Lining
BMP Type: Structural
Source: AKDOT&PF, Standard Specifications for Airport Construction, Specification Item P-152ak, Slope Lining
Installation Schedule: As soon as practicable, but at least within seven (7) days, on all portions of the site where construction activities have temporarily or permanently ceased.
Maintenance and Inspection: Slope lining areas will be inspected at the frequency stated in Section 12
Responsible Staff: SWPPP Manager / Storm Water Lead

11.13 Treatment chemicals (4.5; 5.3.6.4)

Will treatment chemicals be used to control erosion and/or sediment during construction?

☐ Yes ☒ No

11.14 Active Treatment System information (4.5.4.3)

Will an ATS be used as a control measure at the site?

☐ Yes ☒ No

11.15 Good housekeeping measures (4.7)

11.15.1 Washing of equipment and vehicles (4.7.1)

Will equipment and vehicle washing and/or wheel wash-down be conducted at the site?

☒ Yes ☐ No

Vehicle maintenance and washing will be done off site when possible. If equipment / vehicle washing is required the use of detergents is prohibited. The minimum amount of water necessary to accomplish the task will be used to reduce the volume of discharge. Runoff will be monitored for oil sheen and if observed the washing will cease and oil absorbent pads or booms will be deployed as necessary to prevent sheen from discharging to receiving systems.

Will equipment and vehicle fueling or maintenance be conducted at the site?

☒ Yes ☐ No

The contractor will not maintain equipment or perform fueling operations within 100 feet of a water body. Additional information on maintenance practices is located in the HMCP in Appendix N.

BMP Description: Vehicle & Equipment Maintenance AK-23
BMP Type: Non-Structural
Source: AKDOT&PF SWPPP Guide 2-2011
Installation Schedule: Continuously during construction.
Maintenance and Inspection: Examine vehicles for excess grease accumulations, especially when the weather warms up, removing and properly disposing of excess grease to prevent discharge
Responsible Staff: SWPPP Manager / Storm Water Lead

11.15.2 Washout of applicators/containers used for paint, concrete, and other materials (4.7.4)

Will washout areas for trucks, applicators, or containers of concrete, paint, or other materials be used at the site?

☒ Yes ☐ No

The contractor shall provide a designated concrete washout area. All wash water from concrete activities will be placed in the concrete washout area. The washout area may be moved during the construction process but the location must be kept current on the site map. Concrete wash water may not be discharged with stormwater. The washout must have sufficient capacity for the scheduled activities. Cured concrete may be broken up and used as fill or disposed of offsite. Excess water may be mixed with sand or cement if evaporation is not practical.

BMP Description: Concrete Washout AK-24
BMP Type: Structural
Source: AKDOT&PF SWPPP Guide 2-2011
Installation Schedule: Install prior to concrete activities.
Maintenance and Inspection: Verify that the concrete washout lining is secure and intact. Check for and replace straw bales as needed. Check for evidence of overtopping. Pump and properly dispose of slurry if overtopping is anticipated.

Responsible Staff: SWPPP Manager / Storm Water Lead

11.15.3 Fertilizer or pesticide use (4.7.5)

Will fertilizers or pesticides be used at the site? ☐ Yes ☒ No

11.16 Spill notification (4.8)

The contractor understands that the CGP does not authorize the discharge of hazardous substances or oil resulting from an on-site spill. All spills will be addressed in accordance with federal, state, and local requirements. The contractor shall prepare a HMCP, to address incidental and reportable spills, materials management practices, along with response procedures and equipment. HMCP guidance is provided in Appendix O.

The implementation of the management practices and controls contained in the SWPPP will prevent or minimize the discharge of hazardous substances or oil in storm water discharges from the construction site.

When a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 Code of Federal Regulations (CFR) Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period:

- The contractorwill call 911 and provide notice to the ADEC (269-3063) and the National Response Center at 800–424–8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as site staff have knowledge of the discharge; and

- The contractor shall modify the SWPPP as required within seven (7) calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. The SWPPP will identify measures to prevent the reoccurrence of such releases and to respond to such releases.

11.17 Construction and Waste Materials (5.3.7)

Thecontractor shall detail materials to be stored on site that could cause pollution in stormwater discharged from the project in the HMCP in Appendix O. Waste disposal procedures must be clearly described prior to SWPPP approval.

All materials and wastes generated as part of this project will be disposed of in approved facilities. Trash and debris will be collected in receptacles with lids to prevent wind from blowing it away. Any garbage that could cause or contribute pollution to stormwater will be protected from rainfall. No solid materials, including building materials, shall be discharged into Waters of the U.S. except as authorized by a Department of the Army Section 404 permit. All solid waste shall be disposed of in an ADEC-approved fashion and in accordance with all applicable local, state, federal or tribal requirements.

If portable toilets are to be used they will be located to avoid accidentally being tipped over. The toilets must be staked or tied down to prevent being blown over. Avoid placement in locations that require the service truck to access any bare soil areas. The locations of dumpsters or trash collection facilities as well as portable toilets shall be noted on the plan sheets.

All areas used for the collection and storage of waste materials must be inspected according to the inspection schedule.

11.18 .Permanent/Post-Construction BMPs

No permanent/post-construction control measures will be installed during the construction process that have not been discussed elsewhere in the ESCP, see Section 11.12.

SECTION 4 - INSPECTIONS, MONITORING, AND RECORDKEEPING

12.0 INSPECTIONS (5.4; 6.0)

The exact field conditions are not known, however this section discusses in general terms the discharge points and locations. The contractor shall perform inspections and compile reports in compliance with the 2011 ACGP, project SWPPP, and Item P-157 Erosion, Sediment, and Pollution Control, of the contract specifications. Inspection details for particular BMPs should be included in Section 11 or appendices. In accordance with the minimum requirements described in the ACGP, the following locations and scope of site inspections will be required:

Location of Inspections

Inspections shall be preformed at the following locations:

- Areas of the site disturbed by construction activity (e.g., areas cleared, graded, or excavated): This will include, but will not be limited to those activities specified in Section 4.0 Nature of Construction Activity;
- Areas used for storage of materials that are exposed to precipitation (sediment/soil stockpiles, etc.);
- Areas where control measures are installed and maintained at the site;
- Areas where sediment and other pollutants have accumulated or been deposited and may have the potential for or are entering the storm water conveyance system;
- Locations where vehicles enter or exit the site;
- Areas where storm water typically flows, including the storm water conveyance system;
- Points of discharge from the site. Where such discharge locations are inaccessible, the nearest downstream location must be inspected to the extent that such inspections are practicable: Including, but not limited to, where new construction intersects with St. Paul Harbor;
- Portions of the site where temporary or permanent stabilization measures have been initiated.

Scope of Inspection

At a minimum, the scope of the site inspection shall include the following:

- Check whether all control measures are installed and operating as intended and determine if any control measures need to be replaced, repaired or maintained;

- Check for the presence of accumulated sediment near the project area boundary that has a potential for being washed outside of the project boundary on locations such as roadways or parking lots, storm water conveyance systems, storm drain inlets, and discharge points,;

- Check for the evidence of, or the potential for spills, leaks, or other accumulations of pollutants on the site entering the storm water conveyance system or waters of the U.S.;

- Describe visible areas where erosion has occurred near the project area boundary that has a potential for being washed outside of the project boundary;

- Identify any locations where new or modified control measures are necessary to meet the requirements in Part 4.0 of the ACGP;

- Identify all points where there is a discharge from the site and describe the conditions that are contributing to that discharge (e.g., recent storm event with failure of a control measure); and

- Any incidents of noncompliance observed and corrective actions taken pursuant to Part 8.0 of the ACGP.

12.1 Inspection schedules (5.4.1.2; 6.1; 6.2)

The Contractor must develop a written site-specific monitoring plan for analytical monitoring that includes all the requirements of ACGP Part 7.0 and follows the applicable DEC Quality.

Inspection frequency: The mean annual precipitation at Kodiak Airport is greater than 40 inches. Therefore, inspection will occur at least twice every seven (7) calendar days. For periods of relatively continuous precipitation or sequential storm event inspections may need to occur more often.

The schedule for site inspections will be established and updated daily as necessary to meet the requirements of the ACGP.Justification for reduction in inspection frequency, if applicable: If the entire site is temporarily stabilized in accordance with Part 4.4 of 2011 ACGP, a permittee may reduce the frequency of inspections to at least once every thirty (30) calendar days and within two business days of the end of a storm event at actively staffed sites that resulted in a discharge from the site.

Estimated date of winter shutdown. For the purposes of this permit, means for planning purposes in the development of the SWPPP and initial planning of control measure maintenance the date in the fall that air temperatures will be predominately below freezing. It is the date in the fall that has an 80% probability that a minimum temperature below a threshold of 32.5 degrees Fahrenheit will occur on or after the given date. This date can be found by looking up the “Fall ‘Freeze’ Probabilities” for the weather station closest to the site on the website www.wrcc.dri.edu/summary/Climsmak.html.

The inspections will be conducted jointly with department personnel as directed by the project engineer. The schedule for site inspections will be established and updated daily as necessary to meet the requirements of the ACGP and provide the department with notice and opportunity to participate in the site inspection.

12.2 Inspection form or checklist (5.4.1.3; 6.7)

Contractor is required to attach the DOT construction form 25D-100 to the contractor’s SWPPP.

12.3 Corrective action procedures (5.4.1.4; 8.0)

The contractor shall be required to document repairs, replacements, and maintenance of BMPs undertaken based on the inspections and maintenance procedures described in this document. A corrective action log will be appended to the updated SWPPP. Entries made should describe actions taken, provide the dates the actions were completed, and identify the person that completed the work.

The contractor shall select qualified individuals to be responsible for inspections, maintenance, and repair activities, as well as the filling out the inspection and maintenance report. Such individuals will be trained in all inspection and maintenance practices necessary for keeping the erosion and sediment controls used on site in good working order as specified in Appendix C of the 2011 ACGP.

Corrective Action Log

The contractor will be required to track all corrective actions of the DOT construction form 25D-112. Corrective actions must be implemented as soon as practicable and for simple corrections that are easily completed, within 24 hours. All required controls must be completed within 7 days. The contractor will be required to schedule the corrective action completion date.

Records will be maintained for a minimum period of at least three (3) years after the permit is terminated.

12.4 Inspection recordkeeping (5.4.2)

The contractor shall maintain a list of records to be kept available at the project site for inspectors to review. Reference Item P-157 of the standard modifications and special provisions to the Standard Specifications for Airport Construction for a complete list of necessary documentation. Records will be maintained for a minimum period of at least three (3) years after the permit is terminated.

13.0 MONITORING PLAN (IF APPLICABLE) (5.5; 7.0)

13.1 Determination of Need for Monitoring Plan

Is there an EPA-established or approved TMDL for Devils Creek, St Paul Harbor, or the Buskin River? ☐ Yes ☒ No

Is the receiving water listed as impaired for turbidity and/or sediment? ☐ Yes ☒ No

No monitoring plan is required for the duration of this project.

14.0 POST-AUTHORIZATION RECORDS (5.8)

Copy of Permit Requirements (5.8.1)

The contractor's SWPPP must contain the following documents:

- copy of 2011 ACGP (5.8.1.1);
- copy or signed and certified NOI form submitted to ADEC (5.8.1.2);
- upon receipt, a copy of letter from ADEC authorizing permit coverage, providing tracking number (5.8.1.3); and

- confirmation of delivery of the Notice of Intent (NOI) to the ADEC or to ADEC's electronic NOI system (5.8.1.4)

These documents must be included in the appendices.

14.1 Additional Documentation Requirements (5.8.2)

- Dates when grading activities occur (5.8.2.1; insert in appendices).
- Dates when construction activities temporarily or permanently cease (5.8.2.2; insert in appendices).
- Dates when stabilization measures are initiated (5.8.2.3; insert in appendices).
- Date of beginning and ending period for winter shutdown (5.8.2.4; insert in appendices).
- Copies of inspection reports (5.5.2; 5.8.2.5; insert in appendices).
- Copies of monitoring reports, if applicable (5.8.2.6; insert in appendices).
- Documentation in support of chemical-treatment processes (4.5; 5.8.2.8; insert in appendices).
- Documentation of maintenance and repairs of control measures (5.8.2.10; 8.1; 8.2; insert in appendices).
- Copy of ADEC Letter of Non-Objection.

14.1.1 Records of employee training (4.12; 5.8.2.9)

The contractor will be required to document staff and subcontractor training at least once per month using DOT&PF construction form 25D-125. Copies of the current qualifications of the superintendent and SWPPP manager must be included in the contractor's SWPPP.

General storm water and BMP awareness training for staff and subcontractors:

During safety meetings and schedule briefings corrective actions from the previous period will be reviewed. The contractor is encouraged to discuss timing of activities and stabilization requirements. Records of the training topics, attendees, and length must be maintained in the contractor's SWPPP.

15.0 MAINTAINING AN UPDATED SWPPP (5.9)

The permittee must modify the SWPPP, including site map(s), in response to any of the following:

- whenever changes are made to construction plans, control measures, good housekeeping measures, monitoring plan (if applicable), or other activities at the site that are no longer accurately reflected in SWPPP (5.9.1.1);
- if inspections of site investigations by staff or by local, state, tribal, or federal officials determine SWPPP modifications are necessary for permit compliance (5.9.1.2); and
- to reflect any revisions to applicable federal, state, tribal, or local laws that affect control measures implemented at the construction site (5.9.1.3).

15.1 Log of SWPPP Modifications (5.9.2)

A permittee must keep a log showing dates, name of person authorizing the change, and a brief summary of changes for all significant SWPPP modifications (e.g., adding new control measures, changes in project design, or significant storm events that cause replacement of control measures). Use DOT&PF construction form 25D-114.

15.2 Deadlines for SWPPP Modifications (5.9.3)

Revisions to the SWPPP must be completed within seven days of the inspection that identified the need for a SWPPP modification or within seven days of substantial modifications to the construction plans or changes in site conditions.

16.0 ADDITIONAL SWPPP REQUIREMENTS (5.10)

16.1 Retention of SWPPP (5.10.1)

A copy of the SWPPP (including a copy of the permit), NOI, and acknowledgement letter from ADEC must be retained at the construction site.

16.2 Main entrance signage (5.10.2)

A sign or other notice meeting the requirements of P-157 must be posted conspicuously near the main entrance of the site. The sign or notice must include a copy of the completed NOI for both the AK DOT&PF and the Contractor. The posting should also give 24-hour contact information for both parties and state where the Contractor's SWPPP is located. This information should be changed and updated to reflect current information.

16.3 Availability of SWPPP (5.10.3)

The permittee must keep a current copy of the SWPPP at the site. The SWPPP must be made available to subcontractors, government and tribal agencies, and MS4 operators, upon request.

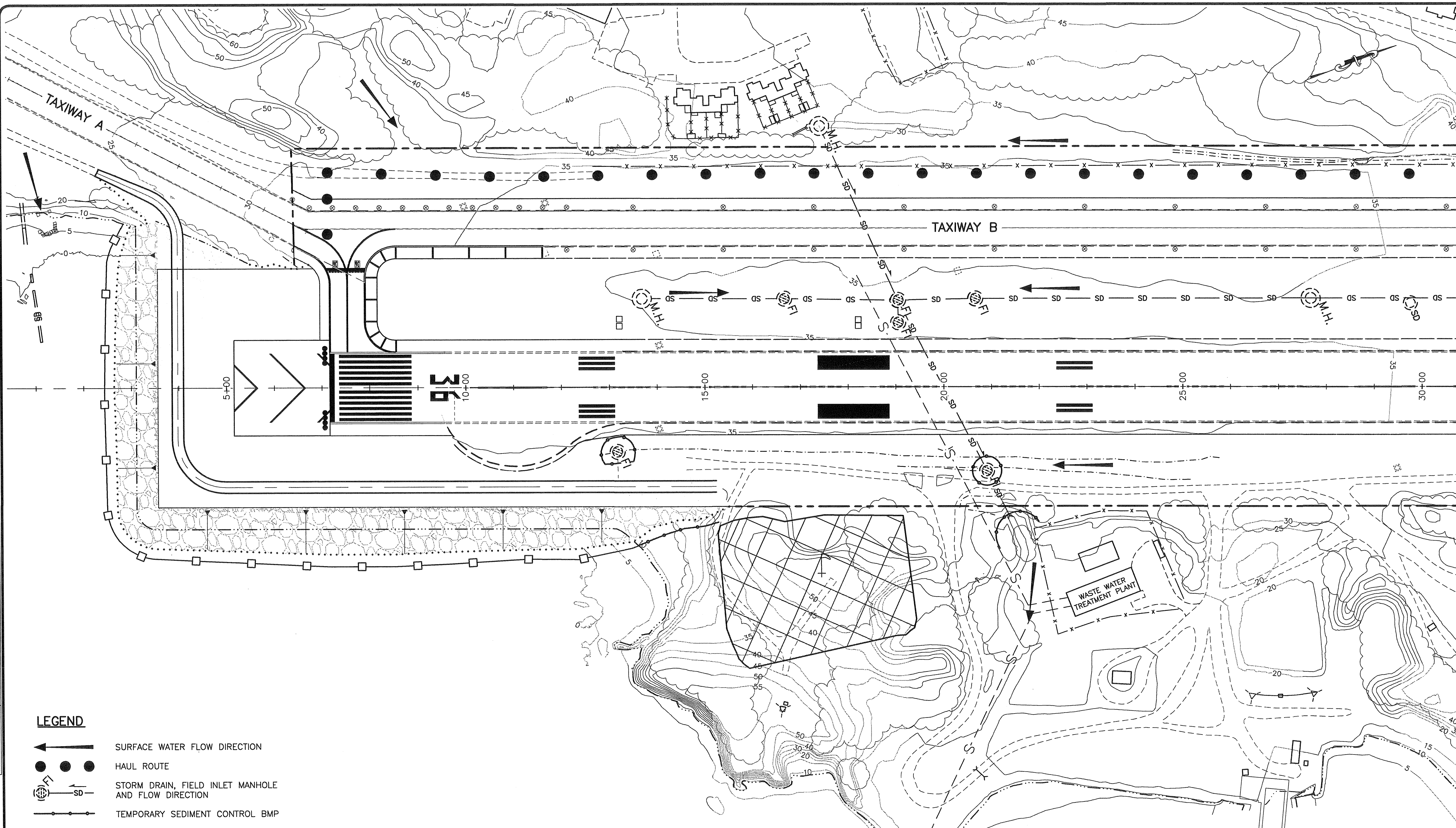
16.4 Signature and certification (5.10.4)

As co-permittees, the SWPPP is signed and certified by both the Contractor and by DOT&PF. DOT&PF requires the use of its forms, instead of those provided as examples in the DEC template. The Contractor must complete the SWPPP Contractor Certification (Form 25D-111) once DOT&PF approves the SWPPP and attach it in Section 16.4. Either the Contractor's corporate officer or their duly authorized representative can certify the SWPPP. If a duly authorized representative certifies, the Delegation of Signature Authority form must be included in Appendix E.

Upon approval, DOT&PF will provide the Contractor with signed DOT&PF forms for the DOT&PF SWPPP Certification (Form 25D-109) and DOT&PF Delegation of Authority (Form 25D-107) for inclusion in the SWPPP.

APPENDIX A

SITE MAPS AND DRAWINGS



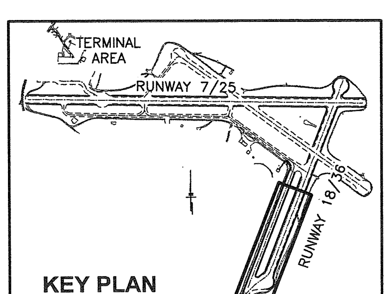
LEGEND

- SURFACE WATER FLOW DIRECTION
- HAUL ROUTE
- STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
- TEMPORARY SEDIMENT CONTROL BMP
- TEMPORARY FLOATING SILT FENCE
- TOE OF SLOPE
- CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.

100 0 100 200
SCALE IN FEET



KEY PLAN

STATE OF ALASKA 49TH John G. Wahl CE 4504 REGISTERED PROFESSIONAL ENGINEER 3/18/14

PREPARED BY: HDR Alaska, Inc.

BY	DATE	REVISION

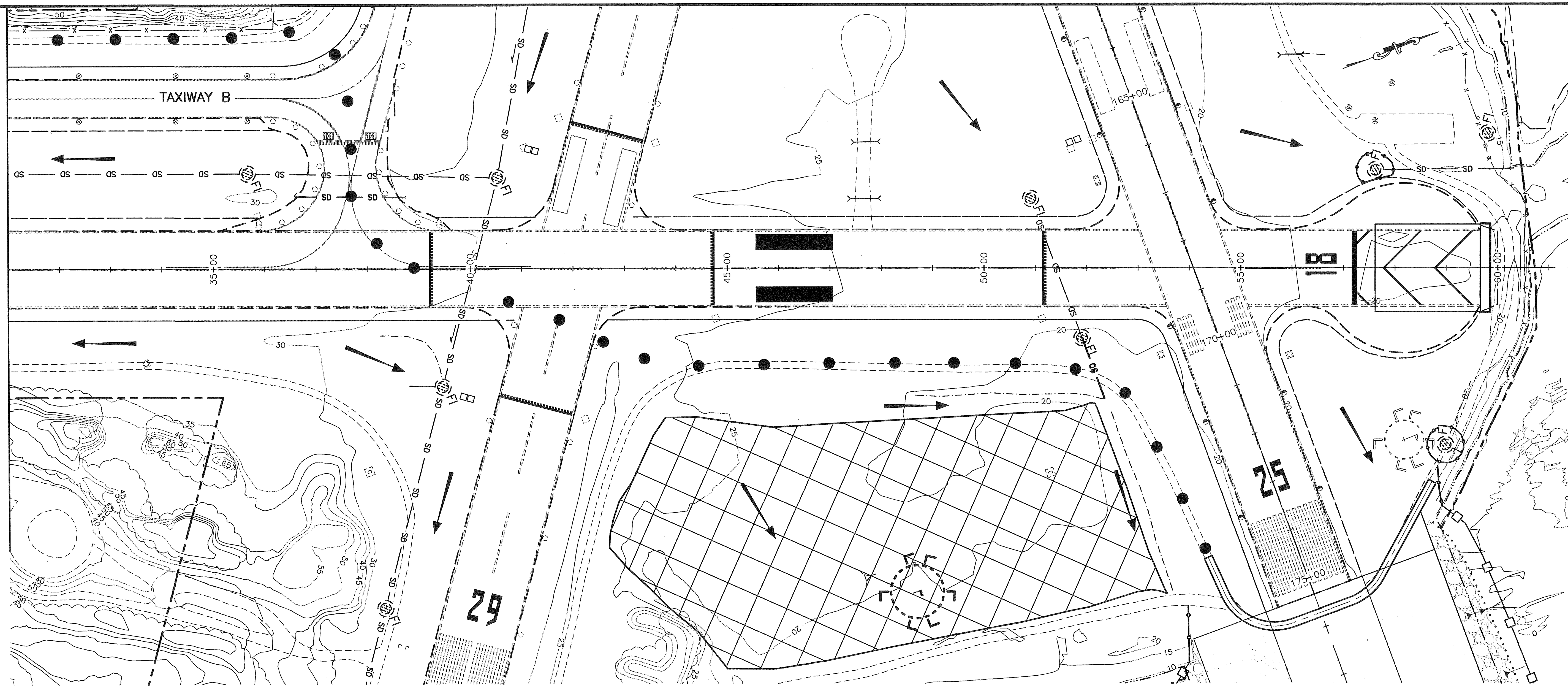
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

DATE: 3/18/2014
SHEET: XA1 OF XA7
AS-BUILT SHEET: OF

Date Revised:	3/13/2014, 10:06 AM
Layout Name:	XA-1
File Path and Name:	C:\pwworking\sea\d0930371\ADQ_EMAS_XA1-XA7_ESCP.dwg
Designed By:	D.G.
Drawn By:	L.W.
Checked By:	J.W.



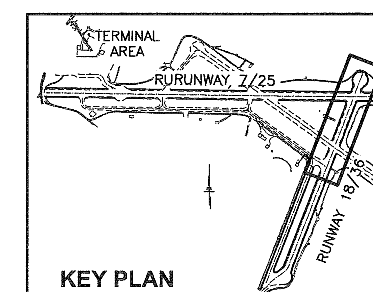
LEGEND

- SURFACE WATER FLOW DIRECTION
- HAUL ROUTE
- STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
- TEMPORARY SEDIMENT CONTROL BMP
- TEMPORARY FLOATING SILT FENCE
- TOE OF SLOPE
- CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.

100 0 100 200
SCALE IN FEET



KEY PLAN

STATE OF ALASKA 49TH John G. Wahl CE 4504 REGISTERED PROFESSIONAL ENGINEER 3/18/14

PREPARED BY: HDR Alaska, Inc.

BY	DATE	REVISION

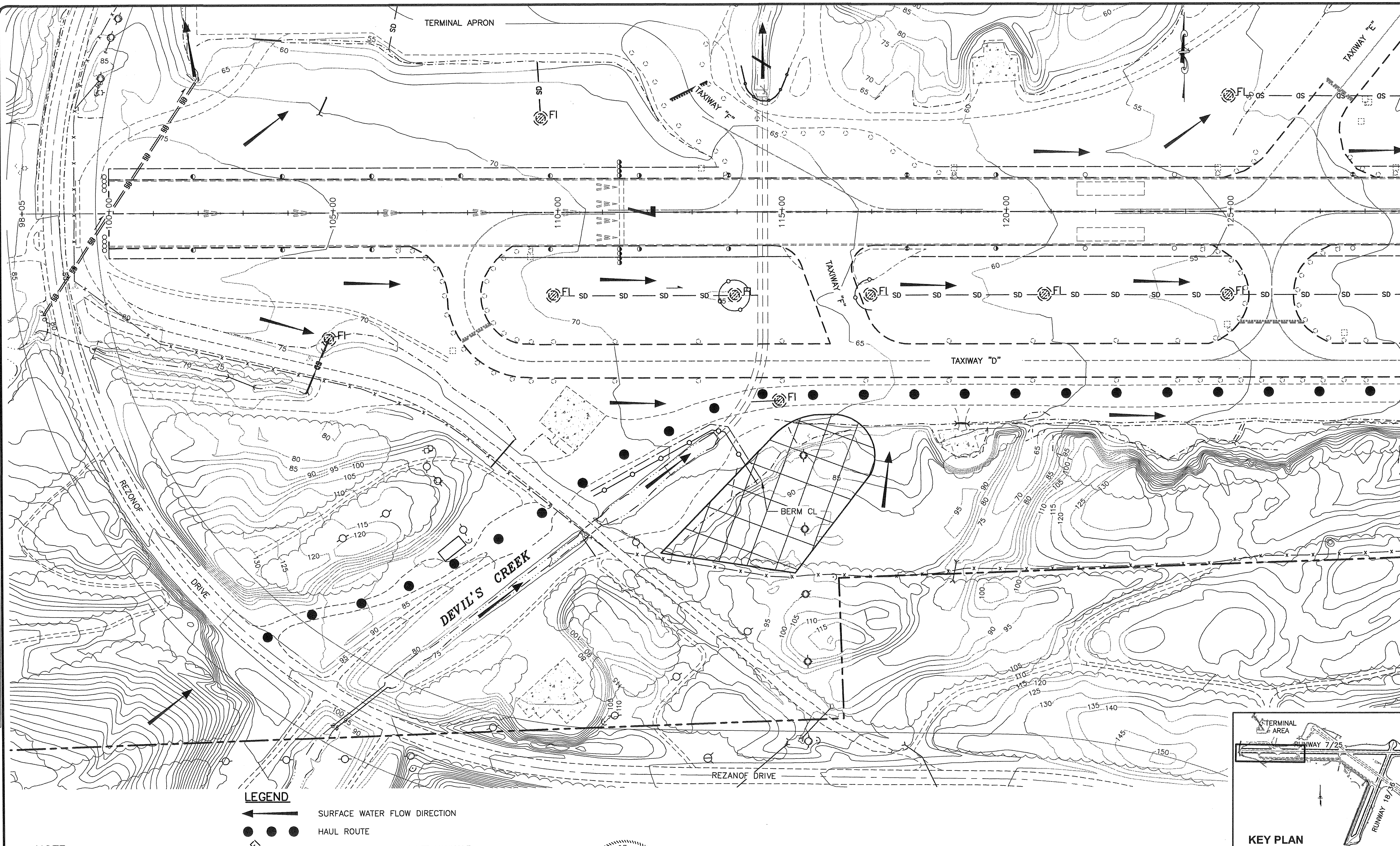
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

DATE: 3/18/2014
SHEET: XA2 OF XA7
AS-BUILT SHEET: OF

Date Revised:	3/13/2014, 10:07 AM	Designed By:	D.G.
Layout Name:	XA-2	Drawn By:	L.W.
File Path and Name:	C:\pwworking\sea\d0930371\ADQ_EMAS_XA1-XA7_ESCP.dwg	Checked By:	J.W.



KEY PLAN

LEGEND

Symbol	Description
(arrow)	SURFACE WATER FLOW DIRECTION
● ● ●	HAUL ROUTE
FI —SD—	STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
—o—o—	TEMPORARY SEDIMENT CONTROL BMP
—□—□—	TEMPORARY FLOATING SILT FENCE
....	TOE OF SLOPE
(hatched box)	CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.

100 0 100 200
SCALE IN FEET

STATE OF ALASKA 49TH John G. Wohl CE 4504 3/18/14 REGISTERED PROFESSIONAL ENGINEER

PREPARED BY: HDR Alaska, Inc.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

DATE: 3/18/2014
SHEET: XA3 OF XA7
AS-BUILT SHEET: OF

Date Revised:	3/13/2014, 10:07 AM
Layout Name:	XA-3
File Path and Name:	C:\pwworking\sea\d0930371\ADQ_EMAS_XA1-XA7_ESCP.dwg
Designed By:	D.G.
Drawn By:	L.W.
Checked By:	J.W.

MATCH LINE STA 129+00

MATCH LINE STA 153+00

RUNWAY 11/29

RUNWAY 7/25

TAXIWAY "D"

TAXIWAY "C"

AIRPORT MAINTENANCE BLDG.

REGULATOR AND STANDBY GENERATOR ENCLOSURES

M.H.

FI

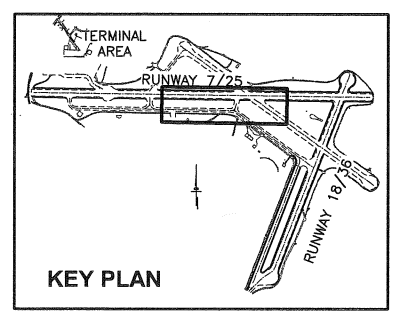
SD

LEGEND

- SURFACE WATER FLOW DIRECTION
- HAUL ROUTE
- STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
- TEMPORARY SEDIMENT CONTROL BMP
- TEMPORARY FLOATING SILT FENCE
- TOE OF SLOPE
- CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.



KEY PLAN

100 0 100 200

SCALE IN FEET

PREPARED BY: HDR Alaska, Inc.

STATE OF ALASKA 49TH John G. Wehl CE 4504 REGISTERED PROFESSIONAL ENGINEER 3/18/14

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

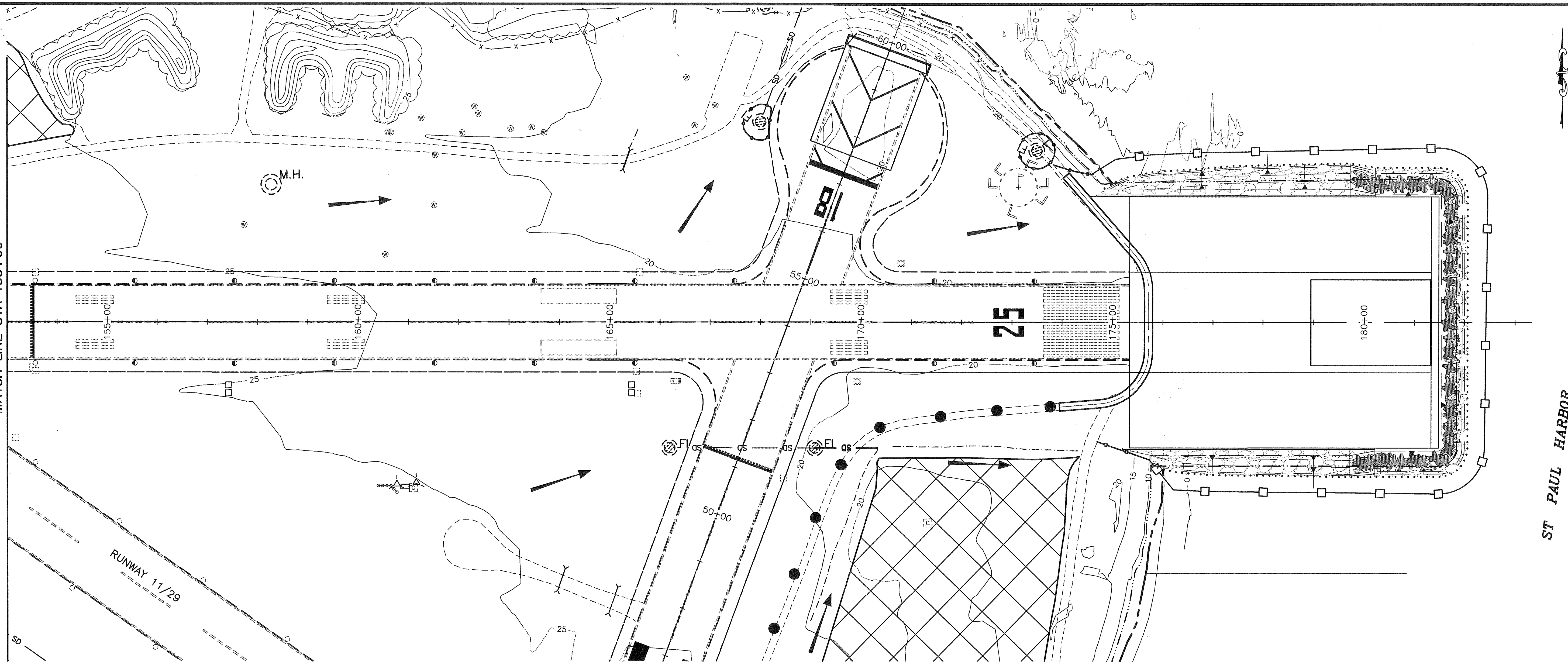
KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

DATE: 3/18/2014
SHEET: XA4 OF XA7
AS-BUILT SHEET: OF

Designed By: D.C.
Drawn By: J.W.
Checked By: J.W.

Date Revised: 3/13/2014, 10:07 AM
Layout Name: XA4
File Path and Name: C:\pwworking\seo\d0930371\A00_EMAS_XA1-XA7_ESCP.dwg



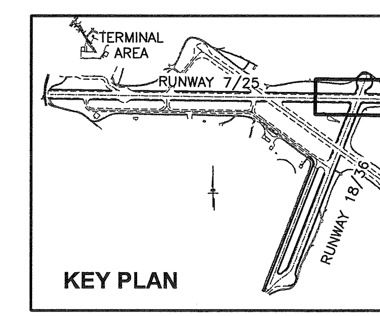
LEGEND

(arrow)	SURFACE WATER FLOW DIRECTION
● ● ●	HAUL ROUTE
FI —SD—	STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
—•—•—	TEMPORARY SEDIMENT CONTROL BMP
—□—□—	TEMPORARY FLOATING SILT FENCE
···········	TOE OF SLOPE
(hatched box)	CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.

100 0 100 200
SCALE IN FEET



STATE OF ALASKA · 49TH · John G. Wahl · CE 4504 · REGISTERED PROFESSIONAL ENGINEER · 3/18/14

PREPARED BY: HDR Alaska, Inc.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

DATE: 3/18/2014
SHEET: XA5 OF XA7
AS-BUILT SHEET: OF

Date Revised:	3/13/2014, 10:07 AM	Designed By:	D.G.
Layout Name:	XA-5	Drawn By:	L.W.
File Path and Name:	C:\pwworking\sea\d0930371\ADQ_EMAS_XA1-XA7_ESCP.dwg	Checked By:	J.W.

Designed By:	D.G.
Drawn By:	L.W.
Checked By:	J.W.
Date Revised:	3/13/2014, 10:07 AM
Layout Name:	XA-6
File Path and Name:	C:\pwworking\sea\d0930371\A0D_EMAS_XA1-XA7_ESCP.dwg

BUSKIN RIVER

LOUISE CREEK

BUSKIN RIVER

REZANOF DRIVE

SD

TERMINAL PARKING

M.H.

M.H.

TERMINAL APRON

FI

SD

TAXIWAY "E"

KEY PLAN

TERMINAL AREA

RUNWAY 7/25

RUNWAY 18/36

LEGEND

- SURFACE WATER FLOW DIRECTION
- STORM DRAIN, FIELD INLET MANHOLE AND FLOW DIRECTION
- TEMPORARY SEDIMENT CONTROL BMP
- TEMPORARY FLOATING SILT FENCE
- TOE OF SLOPE
- CONTRACTOR STAGING AREA

NOTE:

1. EXISTING CONTOURS SHOWN THIS DRAWING ARE 5 FT INTERVALS.

100 0 100 200

SCALE IN FEET

STATE OF ALASKA
49TH
John G. Wahl
CE 4504
REGISTERED PROFESSIONAL ENGINEER
3/18/14

PREPARED BY: HDR Alaska, Inc.

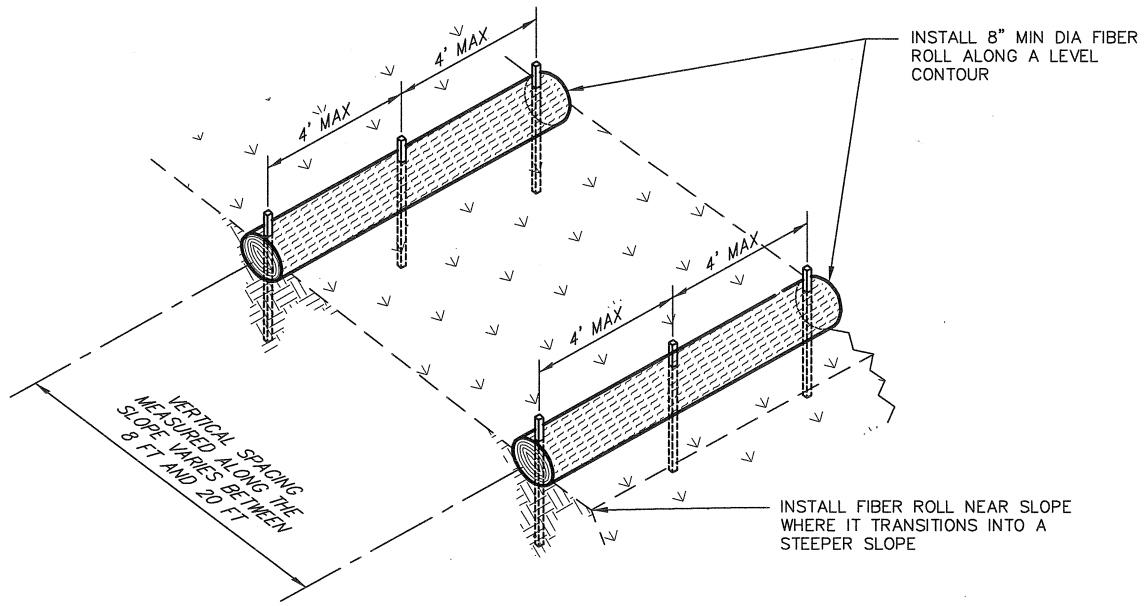
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

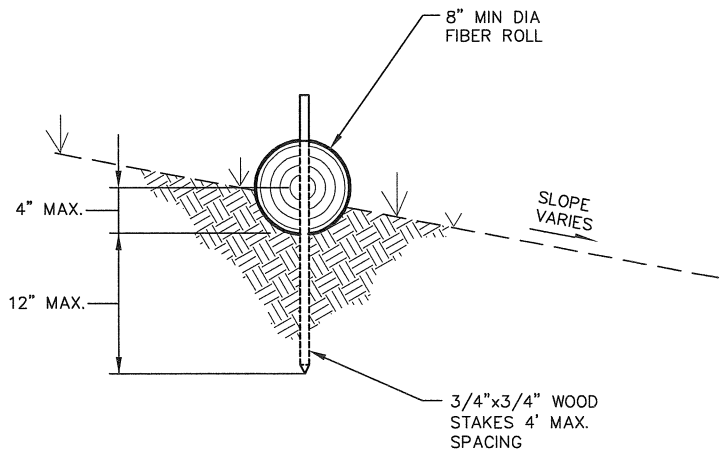
KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014

EROSION & SEDIMENT CONTROL PLAN

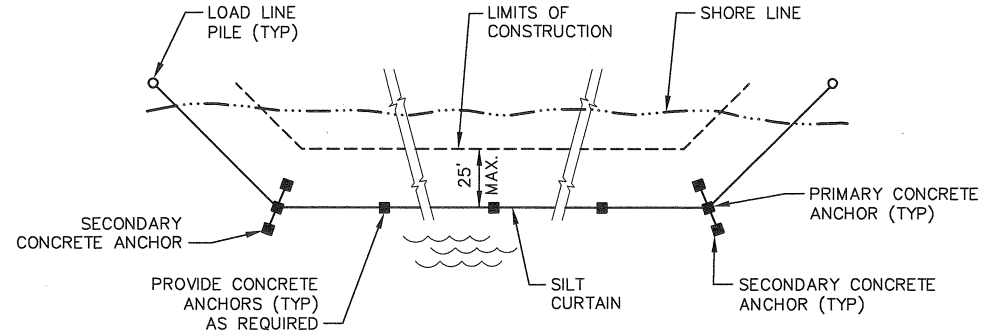
DATE: 3/18/2014
SHEET: XA6 OF XA7
AS-BUILT SHEET: OF



TYPICAL FIBER ROLL INSTALLATION
N.T.S.

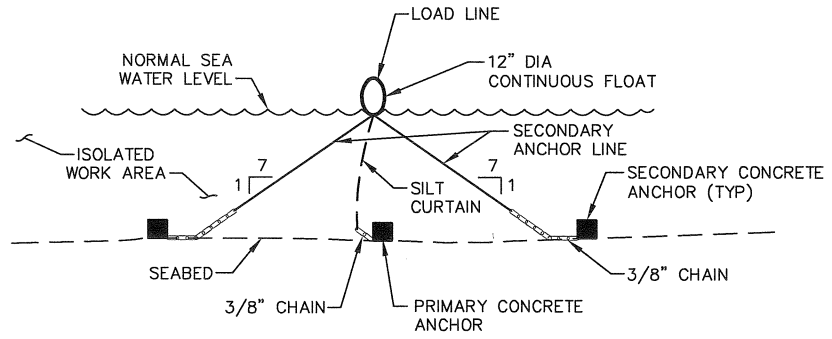


FIBER ROLL ENTRENCHMENT DETAIL
N.T.S.



PLAN VIEW

NOTE:
ALL EXPOSED AND DISTURBED SHORLINE SHALL BE ENCLOSED WITH SILT CURTAIN.



SECTION VIEW

NOTE:
SECONDARY ANCHORS SHALL BE ON ALL CORNERS AS REQUIRED TO SECURE SILT CURTAIN IN PLACE.

FLOATING SILT CURTAIN DETAIL
N.T.S.

Designed By: D.G.
Drawn By: L.W.
Checked By: J.W.

Date Revised: 3/13/2014, 10:07 AM
Layout Name: XA7
File Path and Name: C:\newworking\set\d0930371\A00_EMAS_XA1-XA7_ESCP.dwg

PREPARED BY: HDR Alaska, Inc.

STATE OF ALASKA
49TH
John G. Wohl
CE 4504
REGISTERED PROFESSIONAL ENGINEER
3/18/14

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
KODIAK AIRPORT RSA EXTENSION, 2014
PROJECT No. 53587
AIP No. 3-02-0158-XXX-2014
EROSION & SEDIMENT CONTROL PLAN DETAILS

DATE: 3/18/2014
SHEET: XA7 OF XA7
AS-BUILT SHEET:

APPENDIX B

BMP DETAILS

The Contractor shall add any additional BMP details or instructions that are not included in standard BMPs.

BMP: TURBIDITY CURTAIN

Definition

A floating geotextile material which minimizes sediment transport from a disturbed area adjacent to or within a body of water.

Purpose

To provide sedimentation protection for a watercourse from up-slope land disturbance or from dredging or filling within the watercourse.

Conditions Where Practice Applies

Applicable to non-tidal and tidal watercourses where intrusion into the watercourse by construction activities and subsequent sediment movement is unavoidable.

Planning Considerations

Soil loss into a watercourse results in long-term suspension of sediment. In time, the suspended sediment may travel large distances and affect wide-spread areas. A turbidity curtain is designed to deflect and contain sediment within a limited area and provide enough residence time so that soil particles will fall out of suspension and not travel to other areas.

Turbidity curtain types must be selected based on the flow conditions within the water body - whether it be a flowing channel, lake, pond, or a tidal watercourse. The specifications contained within this practice pertain to minimal and moderate flow conditions where the velocity of flow may reach 1.5 meters per second (5 feet per second), or a current of approximately 6 kilometers per hour (3 knots). For situations where there are greater flow velocities or currents, a qualified engineer and product manufacturer should be consulted.

Consideration must also be given to the direction of water movement in channel flow situations. Turbidity curtains are not designed to act as water impoundment dams and can not be expected to stop the flow of a significant volume of water. They are designed and installed to trap sediment, not to halt the movement of the water itself. In most situations, turbidity curtains should not be installed across channel flows.

In tidal or moving water conditions, provisions must be made to allow the volume of water contained within the curtain to change. Since the bottom of the curtain is weighted and external anchors are frequently added, the volume of water contained within the curtain will be much greater at high tide verses low tide and measures must be taken to prevent the curtain from submerging. In addition to allowing for slack in the curtain to rise and fall, water must be allowed to flow through the curtain if the curtain is to remain in roughly the same spot and to maintain the same shape. Normally, this is achieved by constructing part of the curtain from a heavy woven filter fabric. The fabric allows the water to pass through the curtain, but retains the sediment pollutants. Consideration should be given to the volume of water that must pass through the fabric and sediment particle size when specifying fabric permeability.

Sediment which has been deflected and settled out by the curtain may be removed if so directed by the on-site inspector or the Plan-Approving Authority. However, consideration must be given to the probable outcome of the procedure - will it create more of a sediment problem resuspension of particles and by accidental dumping of the material by the equipment involved? It is, therefore, recommended that the soil particles trapped by a turbidity curtain only be removed if there has been a significant change in the original contours of the affected area in the watercourse. Regardless of the decision made, soil particles should always be allowed to settle for a minimum of 6-12 hours prior to their removal by equipment or prior to removal of a turbidity curtain.

It is imperative that the intended function of the other controls in this chapter, to sediment out of the watercourse, be the strategy used in every erosion control plan. However, when proximity to the watercourse makes successfully mitigating sediment loss impossible, the use of the turbidity curtain during land disturbance is essential.

Design Criteria

1. Type I configuration (see Figure 27-1) should be used in protected areas where there is no current and the area is sheltered from wind and waves.

2. Type II configuration (see Figure 27-1) should be used in areas where there may be small to moderate current running up to 4 km/hr or 1 m/sec (2 knots or 3.5 feet per second) and/or wind and wave action can effect the curtain.

3. Type III configuration (see Figure 27-2) should be used in areas where considerable current up to 6 km/hr or 1.5 m/sec (3 knots or 5 feet per second) may be present, where tidal action may be present and/or where the curtain is potentially subject to wind and wave action.

FIGURE 27-1: TURBIDITY CURTAIN

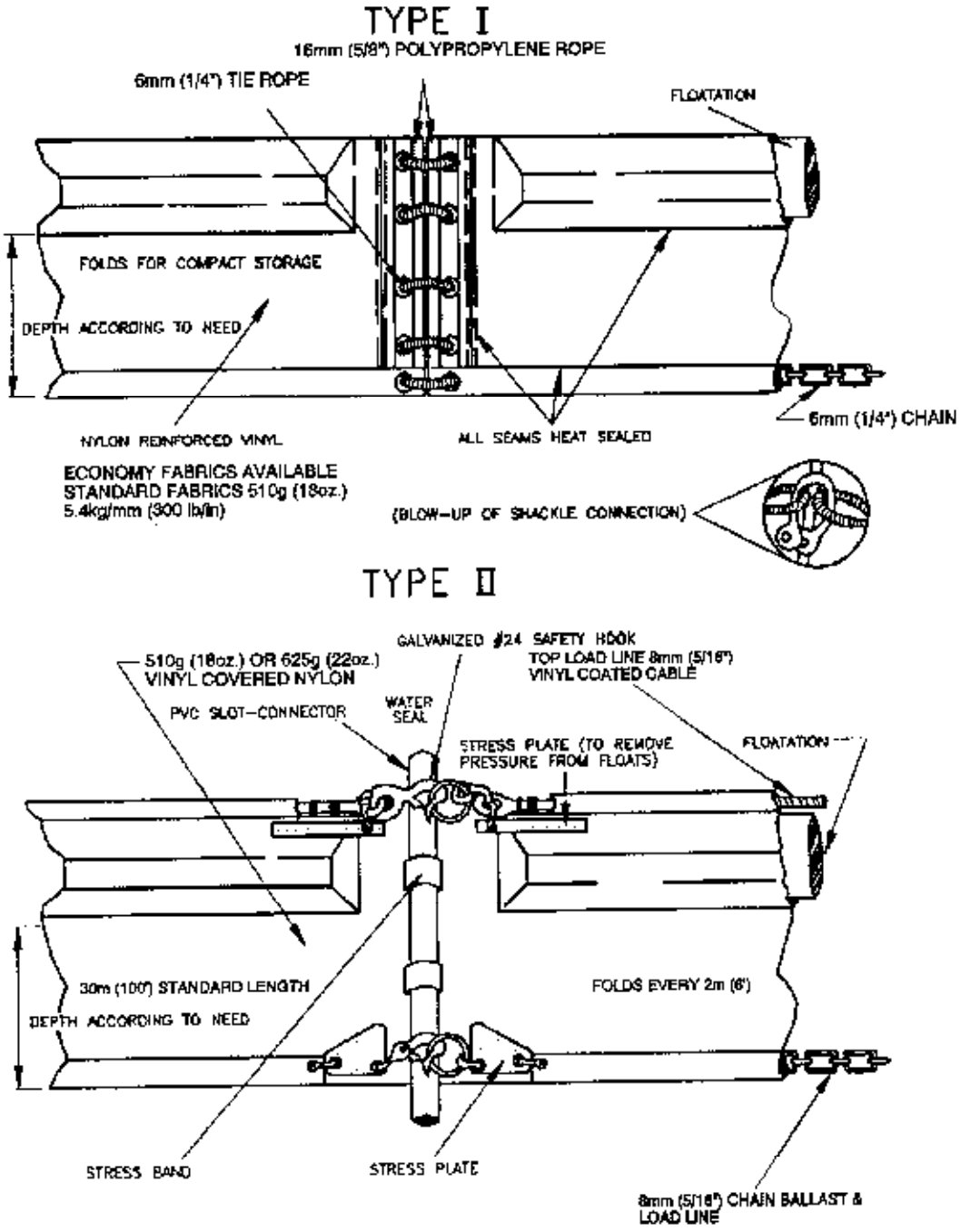
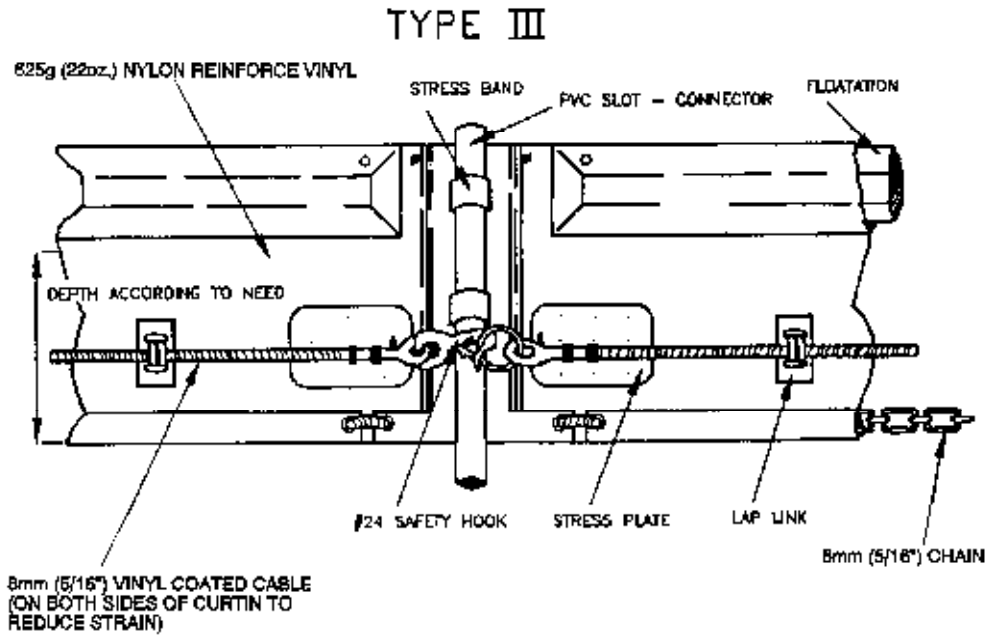
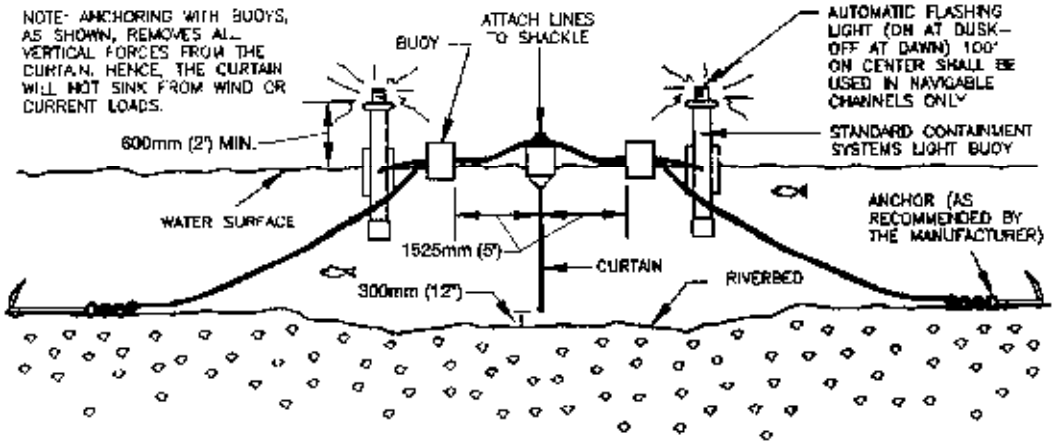


FIGURE 27-2: TURBIDITY CURTAIN



ORIENTATION WHEN INSTALLED (TIDAL SITUATION – TYPE III)



4. Turbidity curtains should extend the entire depth of the watercourse whenever the watercourse in question is not subject to tidal action and/or significant wind and wave forces.

5. In tidal and/or wind and wave action situations, the curtain should never be so long as to touch the bottom. A minimum 300 millimeter (1-foot) "gap" should exist between the weighted lower end of the skirt and the bottom at "mean" low water. Movement of the lower skirt over the bottom due to tidal reverses or wind and wave action on the flotation system may fan and stir sediments already settled out.

6. In tidal and/or wind and wave action situations, it is seldom practical to extend a turbidity curtain depth lower than 3 to 4 meters (10 to 12 feet) below the surface, even in deep water. Curtains which are installed deeper than this will be subject to very large loads with consequent strain on curtain materials and the mooring system. In addition, a curtain installed in such a manner can "billow up" towards the surface under the pressure of the moving water, which will result in an effective depth which is significantly less than the skirt depth.

7. Turbidity curtains should be located parallel to the direction of flow of a moving body of water. Turbidity Curtains should not be placed across the main flow of a significant body of moving water.

8. When sizing the length of the floating curtain, allow an additional 10-20% variance in the straight line measurements. This will allow for measuring errors, make installing easier and reduce stress from potential wave action during high winds.

9. An attempt should be made to avoid an excessive amount of joints in the curtain; a minimum continuous span of 15 meters (50 feet) between joints is a good "rule of thumb."

10. For stability reasons, a maximum span of 30 meters (100 feet) between joints (anchor or stake locations) is also a good rule to follow.

11. The ends of the curtain, both floating upper and weighted lower, should "tend well up into the shoreline, especially if high water conditions are expected. The ends should be secured firmly to the shoreline (preferably to rigid bodies such as trees or piles) to fully enclose the area where sediment may enter the water.

12. When there is a specific need to extend the curtain to the bottom of the watercourse in tidal or moving water conditions, a heavy woven pervious filter fabric may be substituted for the normally recommended impervious

geotextile. This creates a "flow-through" medium which significantly reduces the pressure on the curtain and will help to keep it in the same relative location and shape during the rise and fall of tidal waters.

13. Typical alignments of turbidity curtains can be seen in Figure 27-3. The number and spacing of external anchors may vary depending on current velocities and potential wind and wave action; manufacturer's recommendations should be followed.

Construction Specifications

Materials-

1. Barriers should be a bright color (yellow or "international" orange are recommended) that will attract the attention of nearby boaters.

2. The curtain fabric must meet the minimum requirements noted in Table 27-1.

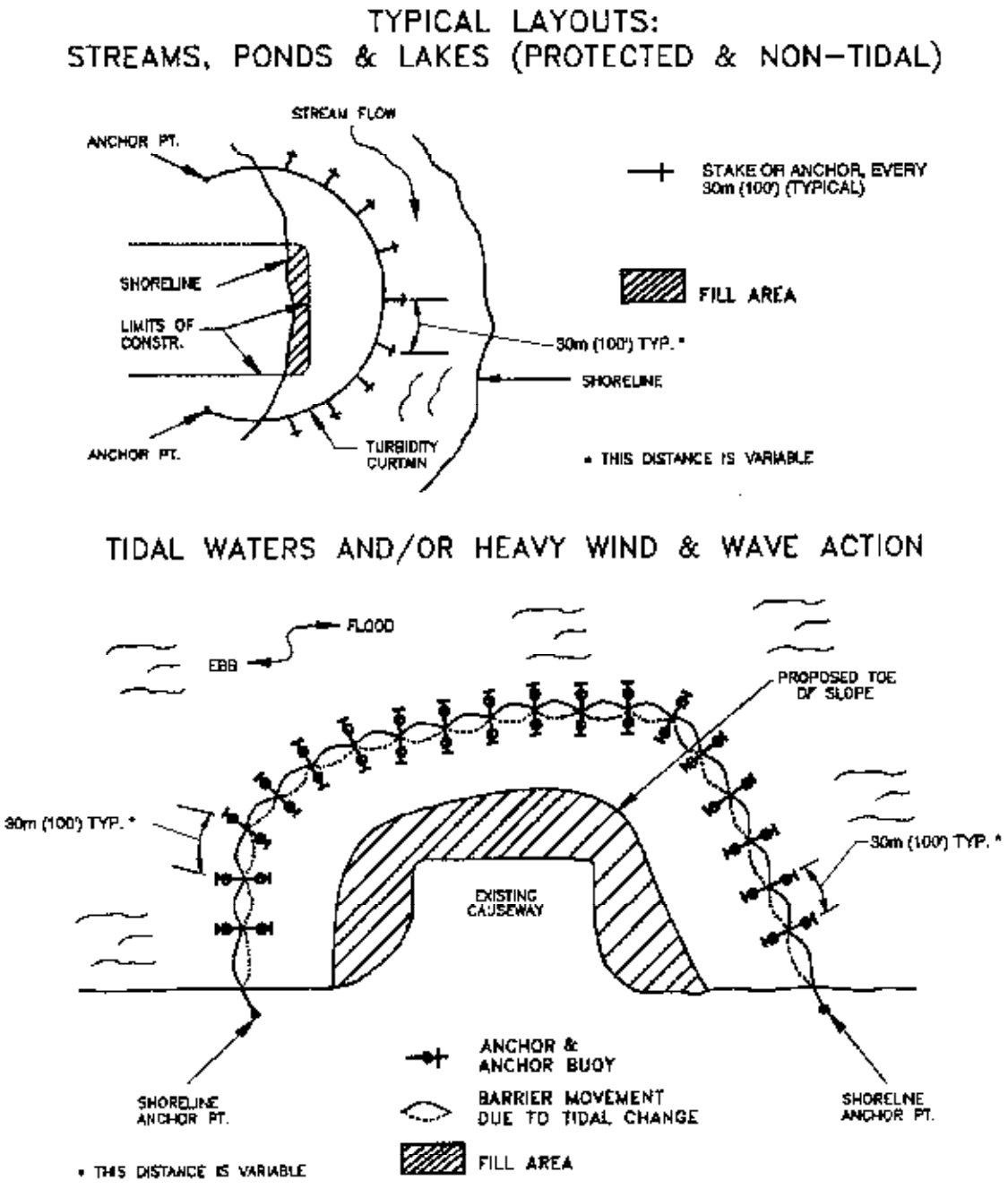
3. Seams in the fabric shall be either vulcanized welded or sewn, and shall develop the full strength of the fabric.

4. Floatation devices shall be flexible, buoyant units contained in an individual floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the weight of the curtain and maintain a freeboard of at least 3 inches above the water surface level (see Figure 27-2).

TABLE 27-1
PHYSICAL PROPERTIES OF TURBIDITY CURTAIN FABRIC

Physical Property	Requirement	
Thickness	45 mills	
Weight	grams per square meter	ounces per square yard
Type I	610	18
Type II	610 or 746	18 or 22
Type III	746	22
Grab Tensile Strength	136 kilograms	300 pounds
UV Inhibitor	Must be included	

FIGURE 27-3: TURBIDITY CURTAIN



5. Load lines must be fabricated into the bottom of all floating turbidity curtains. Type II and Type III must have load lines also fabricated into the top of the fabric. The top load line shall consist of woven webbing or vinyl-sheathed steel cable and shall have a break strength in excess of 4,500 kilograms (10,000 pounds). The supplemental (bottom) loadline shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided as necessary. The load lines shall have suitable connecting devices which develop the full breaking strength for connecting to load lines in adjacent sections (see Figures 27-1 and 27-2 which portray this orientation).

6. External anchors may consist of wooden or metal stakes 50 x 100 millimeters (2 x 4 inch) or 60 millimeter (2.5-inch) minimum diameter wood or 2 kilogram per linear meter steel (1.33 pounds/linear foot) when Type I installation is used; when Type II or Type III installations are used, bottom anchors should be used.

7. Bottom anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse without interfering with the action of the curtain. The anchor may dig into the bottom (grappling hook, plow or fluke-type) or may be weighted (mushroom type) and should be attached to a floating anchor buoy via an anchor line. The anchor line would then run from the buoy to the top load line of the curtain. When used with Type III installations, these lines must contain enough slack to allow the buoy and curtain to float freely with tidal changes without pulling the buoy or curtain down and must be checked regularly to make sure they do not become entangled with debris. As previously noted, anchor spacing will vary with current velocity and potential wind and wave action; manufacturer's recommendations should be followed. See orientation of external anchors and anchor buoys for tidal installation in Figure 27-2.

Installation

1. In the calm water of lakes or ponds (Type I installation) it is usually sufficient to merely set the curtain end stakes or anchor points (using anchor buoys if bottom anchors are employed), then tow the curtain in the furled condition out and attach it to these stakes or anchor points. Following this, any additional stakes or buoyed anchors required to maintain the desired location of the curtain may be set and these anchor points made fast to the curtain. the furling lines should be cut to let the curtain skirt drop.

2. In rivers or in other moving water (Type II and Type III installations) it is important to set all the curtain anchor points. Care must be taken to ensure

that anchor points are of sufficient holding power to retain the curtain under the existing current conditions, prior to putting the furled curtain into the water. Again, anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points. If the moving water into which the curtain is being installed is tidal and will subject the curtain to currents in both directions as the tide changes, it is important to provide anchors on both sides of the curtain for two reasons:

a) Curtain movement will be minimized during tidal current reversals.

b) The curtain will not overrun the anchors and pull them out when the tide reverses.

When the anchors are secure, the furled curtain should be secured to the upstream anchor point and then sequentially attached to each next downstream anchor point until the entire curtain is in position. At this point, and before unfurling, the "lay" of the curtain should be assessed and any necessary adjustments made to the anchors. Finally, when the location is ascertained to be as desired, the furling lines should be cut to allow the skirt to drop.

3. Always attach anchor lines to the flotation device, not to the bottom of the curtain. The anchoring line attached to the floatation device on the downstream side will provide support for the curtain. Attaching the anchors to the bottom of the curtain could cause premature failure of the curtain due to the stresses imparted on the middle section of the curtain.

4. There is an exception to the rule that turbidity curtains should not be installed across channel flows; it occurs when there is a danger of creating a silt build-up in the middle of a watercourse, thereby blocking access or creating a sand bar. Curtains have been used effectively in large areas of moving water by forming a very long sided, sharp "V" to deflect clean water around a work site, confine a large part of the silt-laden water to the work area inside the "V" and direct much of the silt toward the shoreline. Care must be taken, however, not to install the curtain perpendicular to the water current.

5. See Figure 27-3 for typical installation layouts.

Removal

1. Care should be taken to protect the skirt from damage as the turbidity curtain is dragged from the water.

2. The site selected to bring the curtain ashore should be free of sharp rocks, broken cement, debris, etc. so as to minimize damage when hauling the curtain over the area.

3. If the curtain has a deep skirt, it can be further protected by running a small boat along its length with a crew installing furling lines before attempting to remove the curtain from the water.

Maintenance

1. The developer/owner shall be responsible for maintenance of the filter curtain for the duration of the project in order to ensure the continuous protection of the watercourse.

2. Should repairs to the geotextile fabric become necessary, there are normally repair kits available from the manufacturers; manufacturer's instructions must be followed to ensure the adequacy of the repair.

3. When the curtain is no longer required as determined by the inspector, the curtain and related components shall be removed in such a manner as to minimize turbidity. Remaining sediment shall be sufficiently settled before removing the curtain. Sediment may be removed and the original depth (or plan elevation) restored. Any spoils must be taken to upland area and be stabilized.

APPENDIX D

SUPPORTING DOCUMENTATION

Record of Determination
Runway Safety Area Improvements
At Kodiak Airport, Kodiak, Alaska
Federal Aviation Administration
Approved: September 12, 2013

Additional supporting documentation for TMDLs, Endangered Species, and Historical Properties can be found in the Final Environmental Impact Statement for this project prepared by the Federal Aviation Administration. The complete document is available at the following web site:

- http://www.kodiakairporteis.com/documents/documents.htm

APPENDICES E through Q

The contents for the following Appendices shall be provided by the Contractor and added when prepared

Appendix E – Delegation of Authority, Subcontractor Certifications, Project Staff Tracking and Personnel Qualifications

Appendix F – Permit Conditions

- o Copies of Signed Notices of Intent
- o Confirmations of Delivery of NOIs to DEC
- o Copies of Letters from DEC Authorizing Coverage, with DEC NOI Tracking Numbers
- o Copy of 2011 Alaska Construction General Permit

Appendix G – Grading and Stabilization Records

Appendix H – Monitoring Plan (if applicable) and Reports

Appendix I – Training Records

Appendix J – Corrective Action Log and Delayed Action Item Reports

Appendix K – Inspection Records

Appendix L – SWPPP Preparer's Site Visit

Appendix M – SWPPP Amendment Log

Appendix N – Daily Record of Rainfall

Appendix O – Hazardous Material Control Plan (HMCP)

Appendix P – Treatment Chemicals/Active Treatment Systems (if applicable)

Appendix Q – Other:

- o Anti-Degradation Analysis (if applicable)
- o Correspondence with Regulatory Agencies
- o Notices of Termination