

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

Invitation to Bid No. _____

PROJECT MANUAL

**Municipality of Anchorage
Project Management & Engineering Department
4700 Elmore Road
Anchorage, Alaska 99507**

Preliminary Design July 2010

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

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**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

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I

INVITATION TO BID

**MUNICIPALITY OF ANCHORAGE
PURCHASING DEPARTMENT**

Invitation to Bid

No. _____

Sealed bids will be received in accordance with the time schedule shown below by the Municipality of Anchorage at the Purchasing Department, 632 W. 6th Avenue, Suite 520; Anchorage, Alaska, 99501, for:

**Arlene Drive / Pelican Drive / Pelican Court / Kingfisher Drive Road Reconstruction
R.I.D.**

consisting of approximately _____ S.Y. of Sidewalk and Concrete Apron Removal and Replacement; _____ S.Y. of Curb Ramps; _____ L.F. of Curb and Gutter Removal and Replacement; _____ Tons of A.C. Pavement; _____ S.Y. of Pavement Removal; _____ Catch Basins; _____ Storm Drain Manhole; _____ L.F. of Storm Pipe Removal and Replacement; and other related miscellaneous appurtenances.

ESTIMATED CONSTRUCTION COST: Between \$7,000,000 and \$9,000,000

Site Visit(s) at _____

Pre-Bid Conference at _____

Bids Opened at _____

Post-Bid Conference at _____

At the above-indicated time, the bids will be opened publicly and read. Bids must be received by the Purchasing Officer prior to the time fixed for opening of the bids to be considered. Time of receipt will be as determined by the time stamp in the Purchasing Office, Suite 520.

Drawings, specifications, and contract documents may be examined and will be available for pickup at 632 W. 6th Avenue, Suite 520; Anchorage, Alaska; Monday through Friday, 8 a.m. until 12 noon and 1 p.m. until 5 p.m. These documents are available for sale on a non-refundable basis at \$ _____ per set.

Fees stated above include parcel post charges (4th class mail). Should expedited handling be desired, Federal Express or equivalent service will be utilized on a collect-on-delivery basis.

The Municipality of Anchorage reserves the right to reject any and all bids and to waive any informalities in the bids. No bidder may withdraw his bid after the hour set for the opening of bids or before the Award of Contract unless said award is delayed for a period exceeding forty-five (45) days from the time of the opening.

The Municipality of Anchorage shall not be responsible for bid preparation costs, nor for costs, including attorney fees, associated with any (administrative, judicial, or otherwise) challenge to the determination of the lowest responsive and responsible bidder and/or Award of Contract, and/or rejection of bids. By submitting a bid, each bidder agrees to be bound in this respect and waives all claims to such costs and fees.

Contracts shall be awarded by written notice issued by the Purchasing Officer to the lowest responsive and responsible bidder; however, preference will be given to local bidders in compliance with Anchorage Municipal Code, Section 7.20.040.

A Pre-Bid Conference will be held at the above-indicated time in the Purchasing Office for the purpose of answering any questions bidders may have and to consider any suggestions they may wish to make. Any changes resulting from this conference will be made by Addendum immediately following the conference. This conference is held for the benefit of the bidders. It is requested that some person of authority from the office of the prospective bidder attend this meeting.

The Municipality of Anchorage assumes no responsibility for any interpretations or presentations made by any of its officers or agents unless such interpretations or presentations are made by written addendum to this Invitation to Bid.

Bonding requirements are per M.A.S.S.B./M.A.S.S. or as per Special Provisions.

PUBLISH ONE TIME

Date _____

LPO _____

Fred Kaltenbach
Acting Purchasing Officer

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

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II

SPECIAL PROVISIONS

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

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SPECIAL PROVISIONS

SECTION 95.01 LOCATION AND SCOPE

All proposed Work is located within the Municipality of Anchorage corporate limits and is more particularly located on the design drawings. The Work included under this Contract consists of furnishing all labor, materials, equipment, supervision, and other facilities necessary to successfully complete the Work set forth in the Drawings and Specifications. It is the responsibility of the bidder to prepare the bid so that all materials and/or fittings shall harmoniously conform to the intent of the Contract Drawings, Specifications, and Special Provisions.

Below are the schedules of Work that are presented in the Bid Proposal of this Contract:

SCHEDULE	DESCRIPTION
A	Street Improvements
B	Storm Drain Improvements
C	Lighting Improvements

**SECTION 95.02 REFERENCE TO MUNICIPALITY OF ANCHORAGE STANDARD
SPECIFICATIONS**

This Contract is subject to and hereby incorporates by reference the Municipality of Anchorage Standard Specifications, dated 2009, Revision 1, hereinafter referred to as M.A.S.S.; the Alaska Sign Design Specifications (ASDS) as adopted and amended by the Municipality; the Municipality of Anchorage Sign Manual; the Alaska Traffic Manual (ATM) - Manual on Uniform Traffic Control Devices (MUTCD) Millennium Edition, with the Alaska supplement, dated January 17, 2003; the National Electrical Safety Code (NESC) as amended and adopted by the Municipality; the National Electrical Code as amended and adopted by the Municipality of Anchorage; and the 1994 Edition of the Standard Specifications for Structural Supports for Highway Sign, Luminaires and Traffic Signals. When conflicts exist between M.A.S.S. and MUTCD, the requirements of M.A.S.S. and these Special Provisions shall govern.

SECTION 95.03 TIME OF COMPLETION

This Project shall be completed within one-hundred eighty (180) calendar days after the Notice-to-Proceed is issued.

SECTION 95.04 MODIFICATIONS AND/OR ADDITIONS TO MUNICIPALITY OF ANCHORAGE standard SPECIFICATIONS

The following listed provisions of M.A.S.S. are amended as hereinafter stated:

A. DIVISION 10 STANDARD GENERAL PROVISIONS

Add the following Section:

SECTION 10.00 ALL APPLICABLE M.A.S.S. ARTICLES

Delete all references to and requirements for compliance with Anchorage Municipal Code Chapter 7.60 the Disadvantaged/Women Owned Business (DBE/WBE) program and specifications.

SECTION 10.04 SCOPE OF WORK

Article 4.17 Utilities

Alaska Communication Systems (ACS) - Larry Smith, 564-1812

Anchorage Water & Wastewater Utility (AWWU) – Joe Sanks, 564-2717

AT&T Alascom – Kay Witt, 264-8461

Chugach Electric Association (CEA) – Gary Meadows, 762-4618 or 242-2191

ENSTAR Natural Gas - Joe Lepley, 264-3748

GCI Cable - Joe Whittaker, 868-8551

Municipal Light & Power (ML&P) – Marty Smith, 263-5236

Municipal Street and Storm Drain Maintenance, Shawn Dooley, 343-8195 or 317-7018

Municipal Traffic Signals Section – Mike Sickler, 343-8363

Solid Waste Services (SWS) – Brian Vanderwood, 343-6258 or 317-6863

Article 4.22 Work Order Issued Under “Day Labor” Type Contracts

THE CONTRACTOR SHALL NOT ACCEPT ANY INDIVIDUAL PROJECT OR WORK ORDER UNDER THIS CONTRACT IN EXCESS OF \$50,000 WITHOUT THE PRIOR CONSENT OF THE PURCHASING OFFICER, OR HIS/HER DESIGNEE. THIS CONDITION IS A MATERIAL ASPECT OF THE CONTRACT.

Notwithstanding the notice requirements of M.A.S.S. Section 10.05, Article 5.28 - Termination of Contract by Owner violations of this provision constitutes an immediate and material breach of the contract terms and may result in the

termination of this contract for default by the Contractor without further administrative action

SECTION 10.05 CONTROL OF WORK

Article 5.27 Liquidated Damages

The Owner may withhold from any progress payment the sum of \$_____ per day as Liquidated Damages for each and every calendar day that the Substantial Completion Date is delayed beyond the Contract Completion Date. After substantial completion, the Owner may withhold out of any progress payment the sum of \$_____ per day as Liquidated Damages for each and every calendar day that the Final Acceptance Date is delayed beyond the Contract Completion Date. If no money is due Contractor, the Owner will have the right to recover said sums from Contractor, the Surety, or both.

SECTION 10.06 LEGAL RELATIONS AND RESPONSIBILITIES

Article 6.1 Laws to be Observed

Add the following paragraph:

Owner is not aware of any contaminated material within the project limits. If such material is encountered, Contractor shall notify the Engineer immediately for direction. This will be treated as a changed condition, unless the contamination was caused by Contractor's operation.

SECTION 10.07 MEASUREMENT AND PAYMENT

Add the following Article:

Article 7.0 Payments to Contractors and Subcontractors

This Contract is funded (in part or in its entirety) by the State of Alaska; therefore, the Provisions of Alaska Statute 36, Section 36.90, Article 3, entitled "Public Construction Contract Payment," apply.

B. DIVISION 20 STANDARD CONSTRUCTION SPECIFICATIONS FOR EARTHWORK

SECTION 20.01 GENERAL

Article 1.6 Subsurface Investigation

Add the following paragraph:

The soils information for the project is located in Section V.

SECTION 20.03 EXPLORATORY TEST PITS

Article 3.1 General

Add the following:

Work under this Section also consists of furnishing a vacuum truck, operator, and all related supplies in order to dig and fill exploratory test holes as directed by the engineer.

Article 3.2 Materials

Add the following:

Contractor shall furnish a vacuum truck capable of excavating test holes to a minimum depth of 12 feet (12').

Article 3.4 Measurement

Add the following:

Work performed under this Section is measured by the cost per hour for all personnel, equipment, and supplies necessary for the completion of said Work, measured to the nearest quarter hour. Down time or delays caused by equipment failure is included in the measurement and no additional payment will be made.

Article 3.5 Basis of Payment

Add the following:

ITEM	UNIT
Vacuum Truck	Hourly

SECTION 20.04 CLEARING AND GRUBBING

Article 4.2 Construction

Add the following:

Following staking but prior to beginning clearing and grubbing operations, the Contractor shall schedule a field visit by the Municipal Forrester, through the Engineer, to review clearing limits and the Contractor's procedure for protecting existing trees. Following the Forrester's review, Contractor shall modify clearing limits and protection procedures as directed by the Engineer.

The Contractor shall root prune the trees where roots extend into the area to be excavated. In cases where more than one-third of the root mass will be removed as a result of excavation, the entire tree shall be removed. Contractor shall install temporary bracing during construction for trees at risk of falling due to excavation. Trees shall remain braced until the root system is backfilled. Contractor shall regularly water exposed root systems and cover them with a waterproof sheet until backfilled. Contractor shall ensure bark, branches, and roots, of plants are adequately protected at all times from damage including sun, drying winds, and frost. All root

pruning, hazard tree analysis, back bracing and backfilling around existing trees shall be accomplished under the supervision of the Forrester or his designee.

The Contractor is responsible for protecting all trees and shrubs outside the clearing limit line for the duration of the project. The Contractor shall erect a clearly visible fence to protect the vegetation to remain. Vegetation to remain shall be completely enclosed by the fence. Temporary fencing shall be supported by posts placed not more than ten feet on center. The temporary fence material may be orange plastic or any other material that will provide a clear visual indication of the clearing limits and have the durability to withstand construction activities for the duration of the work. In the event that the fence is damaged, it shall be the Contractor's responsibility to repair the fencing within 24 hours. No stockpiling or equipment traffic is allowed within the fenced area for the duration of the project.

SECTION 20.31 REMOVAL, PROTECTION, AND/OR RESTORATION OF STRUCTURES AND OBSTRUCTIONS

Article 31.1 General

The Work under this Section consists of performing all the work identified in the Plans on sheets DM1 through DM6, and the removal, protection and restoration of miscellaneous items encountered during the course of the work.

Article 31.2 Construction

The Contractor shall remove existing structures and obstructions in a manner to prevent damage to remaining trees and all surrounding items which are not designated for removal. The Contractor shall dispose of designated materials at a Contractor-provided site. Some existing walls may require partial removal and reconstruction. The materials necessary to reconstruct these walls shall be retained and protected by Contractor for re-use. If the materials are not suitable for re-use the Contractor shall provide similar materials at no additional cost to the Owner.

Article 31.3 Measurement

All work necessary to complete this item shall be measured as one complete work unit as accepted by the Engineer. All elements of the Work shown on Plan Sheets DM1 through DM6 which are not specifically included in separate bid items shall be incidental to this bid item.

Contractor shall submit a Schedule of Values for this bid item in accordance with Article 10.05.3 Construction Progress Schedule and Schedule of Values.

Article 31.4 Basis of Payment

Payment for this Work shall be in accordance with Division 10.00 Standard General Provisions, Section 10.07 Measurement and Payment, of this Specification and shall include full payment for all Work described in this Section.

Payment shall be made under the following unit:

ITEM	UNIT
Removal, Protection, and/or Restoration of Structures and Obstructions	Lump Sum

C. DIVISION 30 STANDARD CONSTRUCTION SPECIFICATIONS FOR PORTLAND CEMENT CONCRETE

D. DIVISION 40 STANDARD CONSTRUCTION SPECIFICATIONS FOR ASPHALT SURFACING

SECTION 40.01 GENERAL

Add the following Articles:

Article 1.7 Asphalt Price Adjustment

This provision provides a price adjustment for asphalt cement material by:

1. an increase to the contract amount, or
2. a deduction from the contract amount.

The provision shall apply to asphalt concrete pavement which:

- is a major bid item as defined in M.A.S.S. Division 10, Section 10.04, Article 4.5 – Increased Quantities;
- is placed in the second or later year of the contract;
- conforms to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement; and
- is paid pursuant to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement and Section 40.07 – Stone Mastic Asphalt Concrete Pavement.

This provision shall only apply to cost changes in the asphalt cement material that occurs between the date of bid opening and the date the asphalt material is incorporated into the project.

The asphalt price adjustment shall only apply when there is more than a seven and one-half percent (7.5%) increase or decrease in the Alaska Asphalt Material Price Index from the date of the bid opening to the date the asphalt material is incorporated into the project.

As used in this Article, the Alaska Asphalt Material Price Index is calculated bi-monthly on the first and third Friday of each month, and will remain in effect from the day of calculation until the next bi-monthly calculation. The Alaska Asphalt Material Price Index is posted on the ADOT&PF's Statewide Materials website, and is calculated according to the formula posted therein.

The Asphalt Price Adjustment (APA) payment is cumulative and is calculated with each progress payment. Asphalt material price index in effect on the last day of the pay period is used to calculate the price adjustment for asphalt cement material incorporated into the project during that pay period. The Municipality will increase or decrease payment under this contract by the amount determined with the following asphalt cement material price adjustment formula:

$$\text{APA} \{ \text{price}^{\text{increase/decrease}} \} * = [(\pm \text{IPP} \mp \text{IB}) - (0.075 * \text{IB})] * Q * \% \text{AC}$$

Where,

Q = quantity of asphalt concrete pavement incorporated into the project during the pay period, in tons, and documented by weight tickets;

IB = Index at bid: the bi-monthly Alaska asphalt material price index in effect on date of bid, in dollars per ton;

IPP = Index at Pay Periods: the bi-monthly Alaska asphalt material price index in effect on the last day of the pay period, in dollars per ton; and

%AC = percentage asphalt cement content in the asphalt concrete pavement, as determined by the average asphalt cement content in project's asphalt concrete quality control testing.

* Note: a negative price adjustment (APA) results in a price reduction to the Contract.

Method of measurement for determining quantity, Q, is the weight of asphalt concrete pavement material that conforms to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement and is incorporated into the project.

No asphalt price adjustment will be paid based on estimated quantities.

Contingent Sum payment shall be made on the following basis:

The final asphalt price adjustment on a project is the aggregate of the price adjustments paid on a project's respective progress pay estimates, i.e.,

$$\text{APA} = \text{APA}_1 + \text{APA}_2 + \dots + \text{APA}_n$$

Where n = partial payment estimate number.

E. DIVISION 50 STANDARD CONSTRUCTION SPECIFICATIONS FOR SANITARY SEWERS

F. DIVISION 55 STANDARD CONSTRUCTION SPECIFICATIONS FOR STORM DRAIN SYSTEMS

SECTION 55.22 OIL AND GRIT SEPARATOR

Article 22.1 General

The Work under this section consists of performing all operations pertaining to constructing storm drain oil and grit separators, complete with manhole structure, frames, covers, and diversion apparatus as shown on the Drawings, or as the Engineer directs.

Article 22.2 Description

The oil and grit separator is a below-grade structure consisting of a prefabricated diversion apparatus fastened securely to the inside of a concrete storm drain manhole. The separator is designed to remove oil and sediment from stormwater and to bypass flows during peak events to prevent scour of accumulated sediment.

Contractor shall furnish and install three oil and grit separators,

Stormceptor Model STC900 and Model STC2400 manufactured by:

Pacific Stormwater Consulting
800 NE Tenney Road, Suite 413
Vancouver, WA 98685
Phone: 503-572-9894
FAX: 503-296-2023

Local Contact:
D & S Concrete, Inc.
2140 East Dimond Boulevard
Anchorage, AK 99507
Phone: 907-349-6031
FAX 907-349-4597

Vortechs Model 7000 manufactured by:

Contech Stormwater Solutions
Phone: (800) 548-4667 x155
FAX: (800) 561-1271

Local Contact:
Contech Construction Products, Inc.
111 E. 100th Avenue
Anchorage, AK 99515
Phone: 907-344-1144
FAX 907-344-1174

or approved equal.

Article 22.3 Materials

The storm drain manhole shall conform to the requirements of M.A.S.S. Section 55.05 Manholes and Catch Basin Manholes and the Plans. The diversion apparatus shall conform to the requirements of the oil and grit separator manufacturer's specifications.

Article 22.4 Construction

Contractor shall install the separator in accordance with M.A.S.S. Section 55.05 Manholes and Catch Basin Manholes and with the separator unit manufacturer's specifications.

Contractor shall backfill around the manhole with a minimum of 3 feet Type II Classified Fill and Backfill to the full depth of the manhole, compacted in accordance with M.A.S.S. Section 20.21 Classified Fill and Backfill.

Article 22.5 Measurement

Oil and grit separator is measured as a complete unit in place and shall include the concrete manhole, diversion apparatus, frames and covers.

Article 22.6 Basis of Payment

Payment for this Work is in accordance with M.A.S.S. Section 55.01 General, Article 1.5 Payment – General, as amended in the specifications, and will include full payment for all Work described in this section.

Payment will be made under the following unit:

ITEM	UNIT
Oil and Grit Separator (Model STC 900)	Each
Oil and Grit Separator (Model STC 2400)	Each
Oil and Grit Separator (Model Vortechs 7000)	Each

SECTION 55.23 HEAT TRACE SYSTEM

Article 23.7 Measurement

Add the following items:

Heat Trace systems shall be measured as units complete in place. Measurement includes all terminations, marking, and incidental supplies as required to meet the provision of this sections.

The Heat Trace Control Panel shall be measured as units complete in place. Measurement includes all foundations, enclosures, control devices, terminations, marking, and incidental supplies as required to meet the provision of this sections.

Trenching, conduit, conductors and load centers shall be measured and paid under Division 80.

Article 23.8 Basis of Payment

Delete the Subsection in its entirety and replace with the following:

Payment for this Work is in accordance with M.A.S.S. Section 55.01 General, Article 1.5 Payment – General, as amended in the specifications, and will include full payment for all Work described in this section.

Payment will be made under the following unit:

ITEM	UNIT
Heat Trace	Ft
Heat Trace Control Panel	Each
Heat Trace WP Junction Box	Each

SECTION 55.24 FILTER ROCK DRAIN

Article 24.1 General

The Work under this section consists of performing all operations pertaining to constructing filter rock drains, complete with connections to the subdrain system as shown on the Drawings, or as the Engineer directs.

Article 24.2 Description

The filter rock drains are a below-grade structure located near the bottom of the street structural section consisting of drain rock surrounded by geotextile and graded to drain to the subdrain system. The filter rock drain is intended to remove groundwater from the upslope side of the street section and drain to the subdrain system.

Article 24.3 Materials

The drain rock shall conform to the requirements of M.A.S.S. Section 20.18 Drain / Filter Rock and the Plans. The geotextile shall conform to the requirements of M.A.S.S. Section 20.25 Geotextile and the Plans.

Article 24.4 Construction

Contractor shall install the filter rock drains in accordance with M.A.S.S. Division 55 Storm Drain Systems.

Article 24.5 Measurement

Filter rock drains are measured by linear foot and shall include all drain rock, geotextile and excavation.

Article 24.6 Basis of Payment

Payment for this Work is in accordance with M.A.S.S. Section 55.01 General, Article 1.5 Payment – General, as amended in the specifications, and will include full payment for all Work described in this section.

Payment will be made under the following unit:

ITEM	UNIT
Filter Rock Drain	LF

- G. **DIVISION 60 STANDARD CONSTRUCTION SPECIFICATIONS FOR WATER SYSTEMS**
- H. **DIVISION 65 STANDARD CONSTRUCTION SPECIFICATIONS FOR CONSTRUCTION SURVEY**
- I. **DIVISION 70 STANDARD CONSTRUCTION SPECIFICATIONS MISCELLANEOUS**

SECTION 70.12 TRAFFIC MAINTENANCE

Amend the following Article:

Article 12.6 Public Notice

Delete the first paragraph, inclusive of the list of local officials and transportation organizations, and replace with the following:

The Work Site Traffic Supervisor shall give notices of changes, delays, or lane/road closures to the following local officials and transportation organizations including, but not limited to:

- | | |
|--|---------------|
| 1. Anchorage Chamber of Commerce | 272-2401 |
| 2. Alaska Travel Industry Association | 929-2842 |
| 3. Alaska Trucking Association | 276-1149 |
| 4. Alaska State Troopers | 428-7200 |
| 5. Alaska Court System | 264-8232 |
| 6. Anchorage Police Department | 786-8500 |
| 7. Anchorage Fire Department | 267-4950 |
| 8. Local Emergency Medical Services | 267-4950 |
| 9. Anchorage Public Transportation | 343-8253/8386 |
| 10. ASD Pupil Transportation | 742-1207 |
| 11. U.S. Postal Service | 266-3261 |
| 12. MOA Parks and Recreation | |
| 13. Local Schools and Universities | |
| 14. Volunteer Fire Departments (applicable if operating in the project area) | |
| 15. Local Solid Waste Utilities | |
| 16. Commercial Vehicle Enforcement | 365-1203 |

- J. **DIVISION 75 STANDARD CONSTRUCTION SPECIFICATIONS FOR LANDSCAPING IMPROVEMENTS**

**K. DIVISION 80 STANDARD CONSTRUCTION SPECIFICATIONS FOR
INSTALLATION AND REMOVAL OF TRAFFIC SIGNALS AND
ILLUMINATION**

SECTION 80.07 CONDUIT

Article 23.4 Basis of Payment

Add the following:

ITEM	UNIT
Steel Conduit (1", 2")	FT

SECTION 80.10 CONDUCTORS

Article 23.4 Basis of Payment

Add the following:

ITEM	UNIT
(1C, 3C), (#6, #8, #10, #14) (XHHW-2)	FT

SECTION 80.23 LUMINAIRES

Article 23.4 Basis of Payment

Add the following:

ITEM	UNIT
Luminaire, (Street Light) (80 LED 140W) (Type 2, Type 3)	Each
Luminaire, Reinstall Existing	Each

END OF SPECIAL PROVISIONS

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

III

SUBMITTAL LIST

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

SUBMITTAL LIST

Job #: _____ Contractor: _____

Submittal Number	Rev.	Description
10.04.9		Private Property Disposal Site Permission; Fill Permit
10.04.12		Property Owner 48-Hour Closure Notice
10.04.13		Street Closures; Traffic Control Plan
10.04.15		Temporary Erosion and Sediment Control Plan
10.04.17		Utility Notification Verification
10.04.19		Record Drawings
10.04.20		Operating and Maintenance Manuals
10.05.3		Construction Progress Schedule
10.05.3		Schedule of Values
10.05.4		Notice of Unusual Working Hours
10.05.7		Proposed Substitutions
10.05.9		Contractor's Authorized Representatives and Employees
10.05.10		Subcontractor's List
10.06.9		Certificate of Insurance
10.06.12		Certified Payroll

20.13.2		Trench Excavation Notice to Engineer and AWWU.
20.29		Evidence of Jacking and Auger Methods
20.30		Trench Sheeting/Shoring Submittal
30.01.9		Concrete Temperature Maintenance Procedure Proposal
40.02.2		Certified Analysis of Asphalt for Seal Coat from Refining Laboratory
40.04.2		Certified Analysis of Asphalt for Tack Coat from Refining Laboratory
40.04.3		Tack Coat Test Strip and Notification
40.04		Certified Analysis of Asphalt for Tack Coat From Refinery Laboratory
40.05		Certified Analysis of Asphalt for Crack and Joint Sealant From Laboratory
40.06.2		Certified Analysis of Asphalt for A.C. Pavement from Refining Laboratory
40.06.3		Asphalt Job Mix Formula for A.C. Pavement
40.06.4		Contractor's Certificate of Compliance for bituminous paver segregation mechanism installation
40.07		Job-Mix Formula for Stone Mastic Asphalt Concrete
40.07		Certified Analysis of Stone Mastic Asphalt Concrete From Refinery Laboratory
40.09.2		Certified Analysis of Asphalt for Bituminous Surface Treatment from Refining Laboratory
60.02.3		Survey Notes Submittal
70.10.2		Manufacturer's Warranty for Preformed Pavement Traffic Marking Tape
70.10.3		Manufacturer's Recommendations for Application of Preformed Pavement Traffic Marking Tape
70.12		Traffic Control Plan (TCP)
70.12		Identify Work-Site Safety Supervisors/Telephone Number
70.12		Proof of Advertisements
70.12		Street Closures - Traffic Control Plan
70.12		Identify I.M.S.A./A.T.S.S.A. Person and Telephone Number

75.02.4		Landscape Maintenance Schedule
75.03.2		Topsoil Analysis Test Reports
80.01.3		Electrical Equipment and Materials Submittal
80.01.3		Record Drawings
80.01.5		Traffic Signal Maintenance Name and Telephone Number
80.05.1		Wind Stress Certification Submittal
80.17.2		Controller Unit Documentation
80.17.7		Controller Unit, Aux. Equipment, and Cabinet Submittal
80.18		Loop Detector Test Reports
80.23.2		Luminaire Lens Certified Compliance
80.25		Falsework Lighting Submittal

NOTE: The above list of submittals is not all inclusive. In addition to the above, the Contractor is required to comply with all submittal requirements as required or identified in the plans, specifications, M.A.S.S., or as directed by the Engineer.

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER DRIVE
ROAD RECONSTRUCTION R.I.D.**

06-019

SUBMITTAL LIST

Job #: _____

Contractor: _____

Submittal Number	Rev.	Description

NOTE: The above list of submittals is not all-inclusive. In addition to the above, the Contractor is required to comply with all submittal requirements as required or identified in the plans, specifications, M.A.S.S., or as directed by the Engineer.

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

IV

SPECIAL DETAILS

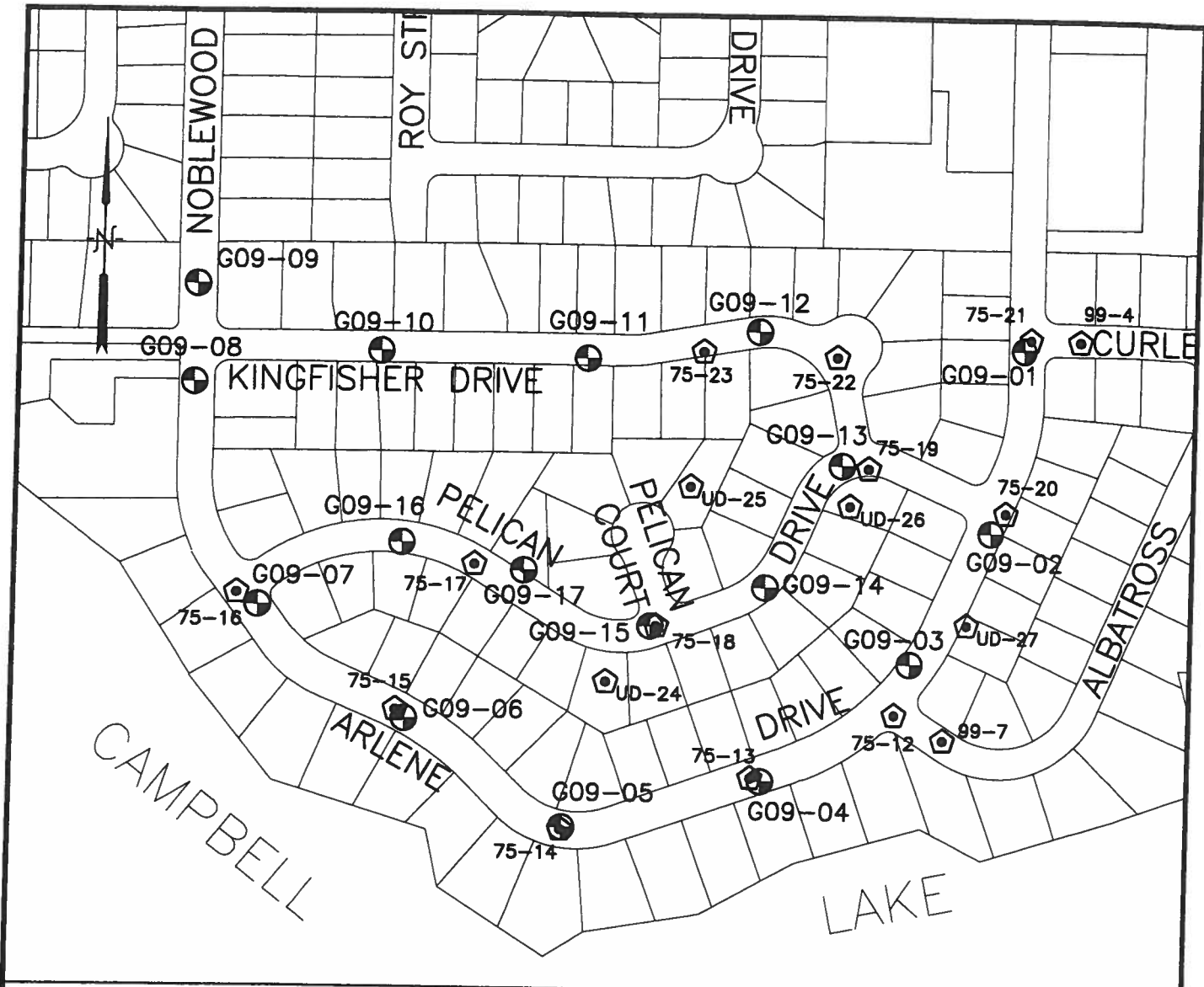
**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**



06-019

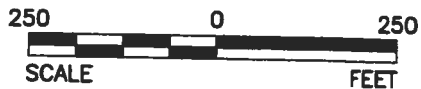
V

SOILS INFORMATION



LEGEND

- 
G09-01 GOLDER 2009 BOREHOLE LOCATION
(THIS INVESTIGATION)
- 
75-14 HISTORIC BOREHOLE LOCATION
(BOREHOLE DATE AND NUMBER,
UD = UNDATED)



REFERENCE

BASEMAP FROM RESOURCE DATA, INC.,
ANCHORAGE, ALASKA, MOA BASEMAPS ONLINE.



SCALE	1" = 250'
CADD	SLA
DATE	12/10/08
CHECK	MRM
DATE	3/5/09
REV.	0

TITLE
BOREHOLE LOCATIONS
 ARLENE RID GEOTECHNICAL INVESTIGATION
 ANCHORAGE, ALASKA

FILE No.	08395136F2R0.DWG
PROJECT No.	083-95136

LOUNSBURY / ARLENE RID GEOTECH / AK

FIGURE **2**

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-01

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/8/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE BLOWS / ft		NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	WATER CONTENT (PERCENT)			
												10		20	30
0		VEGETATION: None													
0.0 - 0.2		Asphalt - 2 in.													Asphalt Coldpatch Flushmount Cap
0.2 - 1.3		Frozen, moist when thawed, gray, poorly graded SAND with gravel and silt (SP-SM, FILL, Nbn, S2-F2)		SP-SM		1	B								
1.3 - 2.0		Frozen, moist when thawed, gray, poorly graded SAND with silt (SP-SM, FILL, Nbn, S2-F2)		SP-SM											
2.0 - 9.0		Frozen to firm, moist to wet when thawed, brownish gray, lean CLAY (CL, Vu, F3-F4)		CL		2	HD	11-11-7	18	12/18					3.18 ft 1/28/09
9.0 - 16.5	8 in. O.D. Hollow Stem Auger	Loose to compact, moist, gray, SILT, slightly plastic (ML, F4)		ML		3	HD	3-4-3	7	9/18					1" schedule 40 PVC
		Pocket Penetrometer = 3.5 tsf				4	HD	7-7-5	12	12/18					
						5	HD	2-2-4	6	15/18					1" schedule 40 PVC hand slotted
		Borehole completed at 16.5 ft.													

Notes:

- Groundwater not encountered while drilling (W.D.).
 Groundwater (frozen) measured at 3.18 ft on 1/28/09 (may have been influenced by surface runoff).
- Swingline information:
 18.5 feet from the mailbox at 9420 Arlene
 56.0 feet from the mailbox at 9421 Arlene

DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-3

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-02

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/8/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE		NOTES WATER LEVELS GRAPHIC								
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT		BLOWS / ft							
													10	20	30	40				
0		VEGETATION: None																		
0.0 - 0.2		Asphalt - 2 in.				0.2														Asphalt Coldpatch
0.2 - 3.3		Frozen, moist when thawed, grayish brown, silty SAND with gravel (SM, FILL, Nbn, F2)		SM			1	B												
3.3 - 5.0		Frozen to loose, wet when thawed, light brown, SILT (ML, Vx, F4)		ML		3.3	2	HD	23-23-8	31										
5.0 - 12.5		Loose, moist, brown, SILT (ML, F4) Pocket Penetrometer = 4.0 tsf		ML		5.0	3	HD	3-3-4	7										
12.5 - 16.5		Loose, moist, gray, SILT (ML, F4) Pocket Penetrometer = 2.5 to 4.0 tsf		ML		12.5		HD	3-2-3	5										
16.5 - 20		Borehole completed at 16.5 ft.					5	HD	3-4-4	8										

Notes:
 1. Groundwater not encountered while drilling (W.D.).

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-4

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-04

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/14/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	WATER CONTENT (PERCENT)				
												10	20		30	40
0		VEGETATION: None														
0.0 - 0.2		Asphalt - 2 in.													Asphalt Coldpatch Flushmount Cap	
0.2 - 4.5		Frozen, moist when thawed, dark brown, poorly graded GRAVEL with silt and sand (GP-GM, FILL, Nbn, S1-F1)		GP-GM		1	B				24	24				
4.5 - 8.5		Frozen, moist when thawed, light brown, lean CLAY (CL, Vs, F3-F4)		CL		2	HD	28-59-59	>100		18	18				
8.5 - 13.0		Loose, moist, light grayish brown, SILT with sand (ML, F4)		ML		3	HD	7-10-10	20		16	18			1 in. Schedule 40 PVC	
13.0 - 16.5		Firm, moist, gray, interbedded SILT and lean CLAY, bedding 1/2 in. to 3 in. (ML and CL, F3-F4)		ML + CL		4	HD	3-3-3	6		18	18			8.1 ft 1/28/09	
16.5 - 20		Borehole completed at 16.5 ft.				5	HD	3-3-3	6		18	18			1 in. Schedule 40 PVC hand slotted	

Notes:
 1. Groundwater not encountered while drilling (W.D.).
 Groundwater measured at 8.1 ft on 1/28/09.
 2. Swagtie Information
 11 ft. to mailbox at 9561 Arlene
 46 ft. to mailbox at 9560 Arlene

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR_ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-6

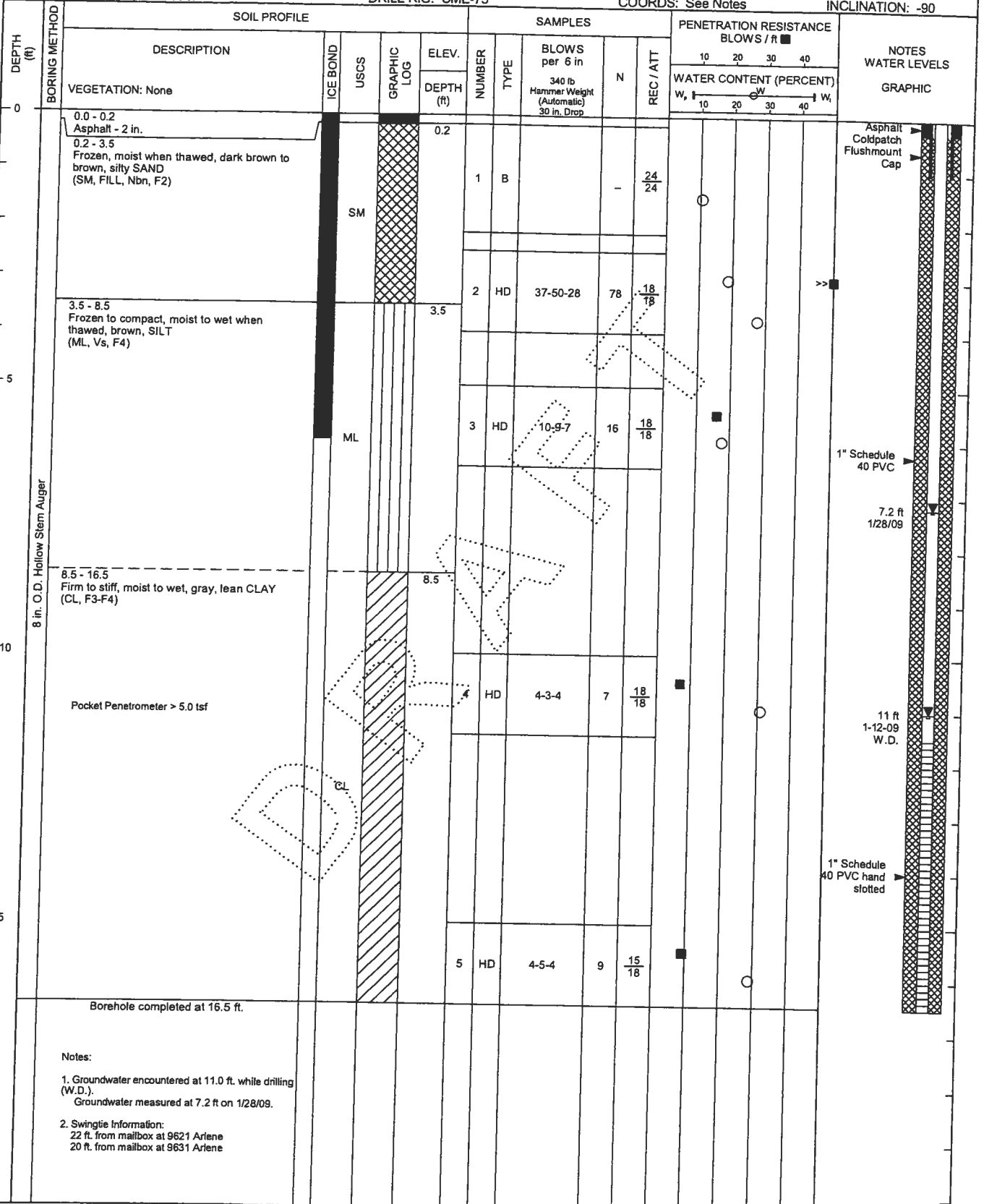
PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-05

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/12/08 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90



ANC BOREHOLE 083-95136 ARLENE RID.GPJ_GLDR_ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-7

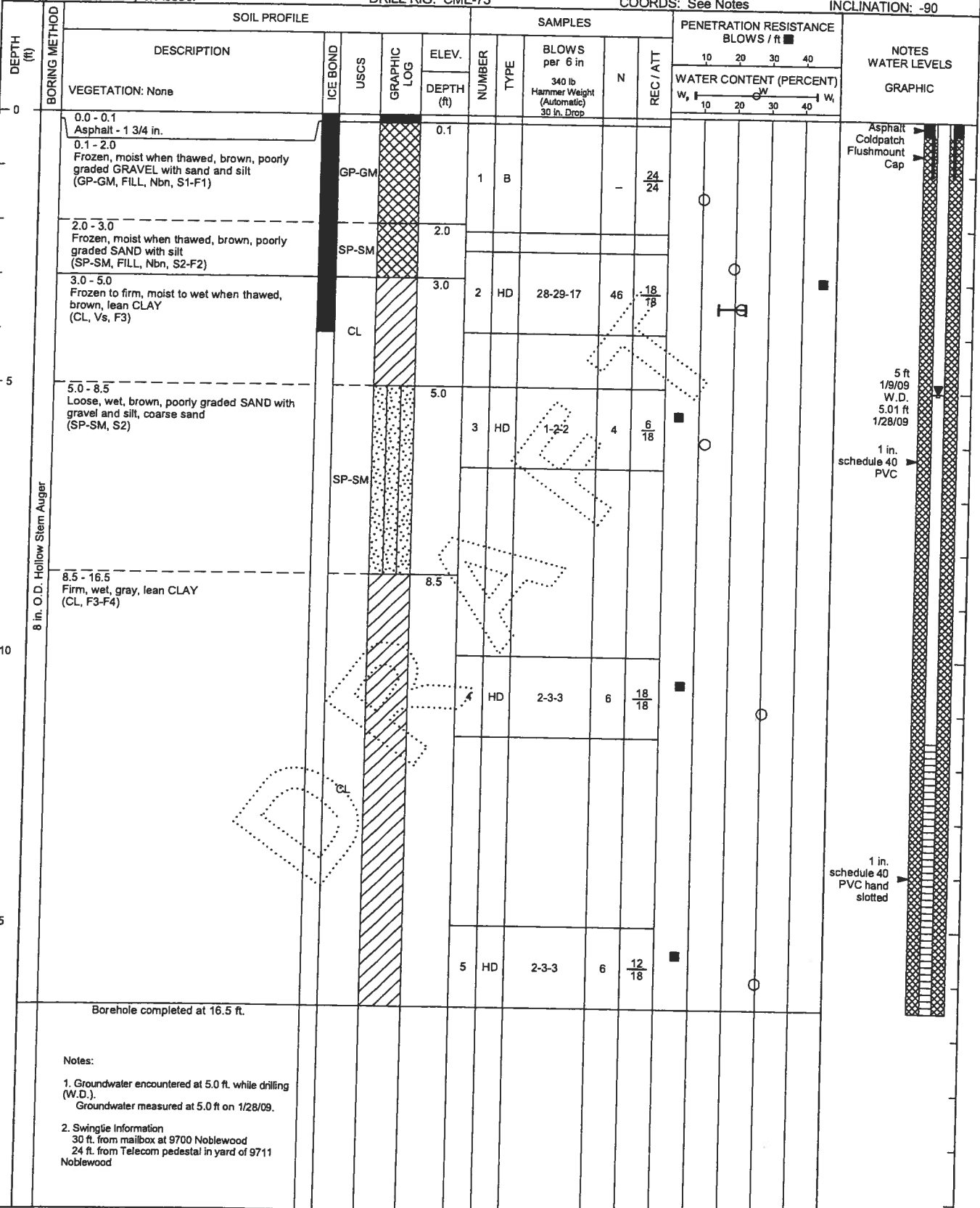
PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-06

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/9/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90



ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR_ ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-8

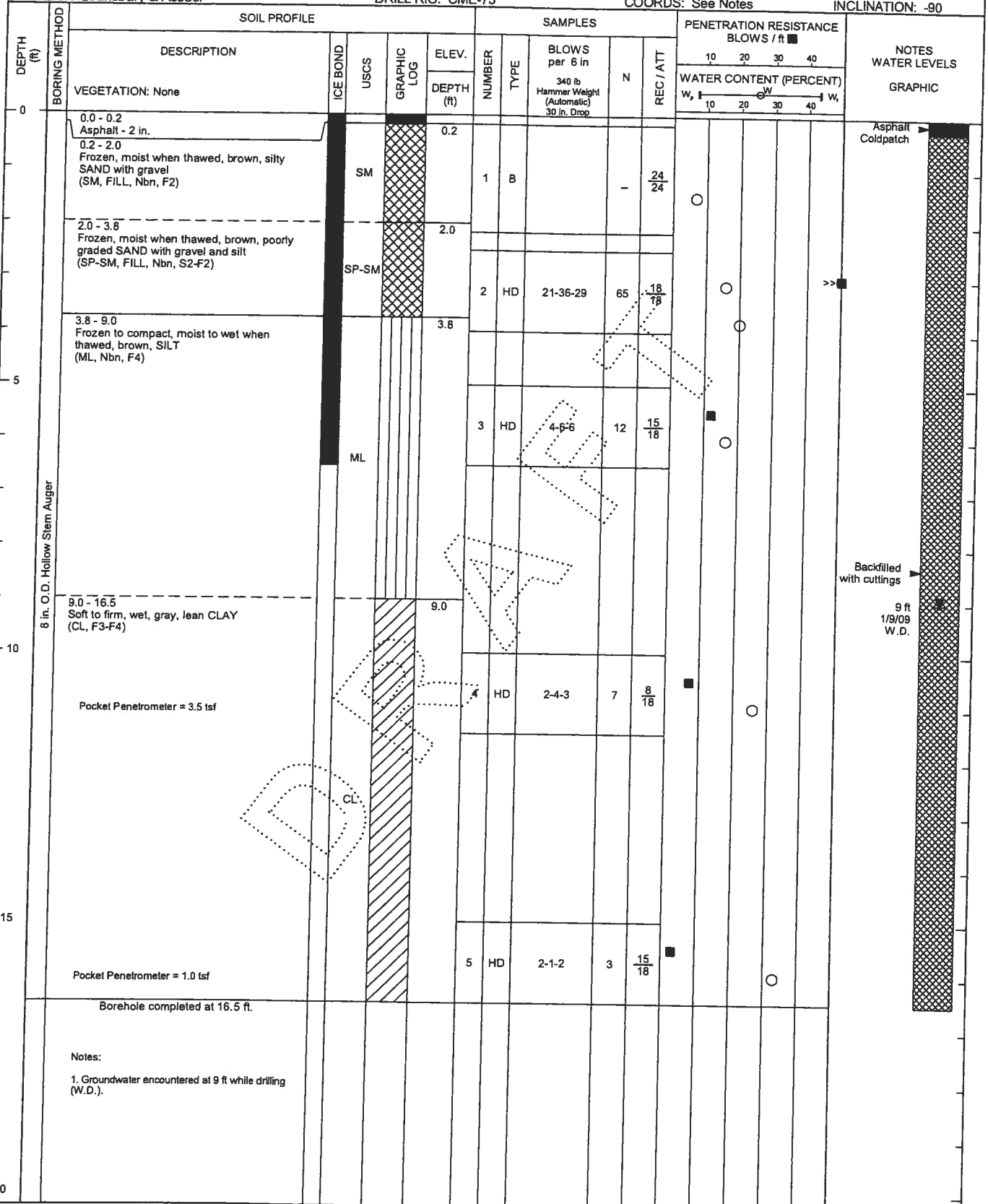
PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-07

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/9/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90



ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-9

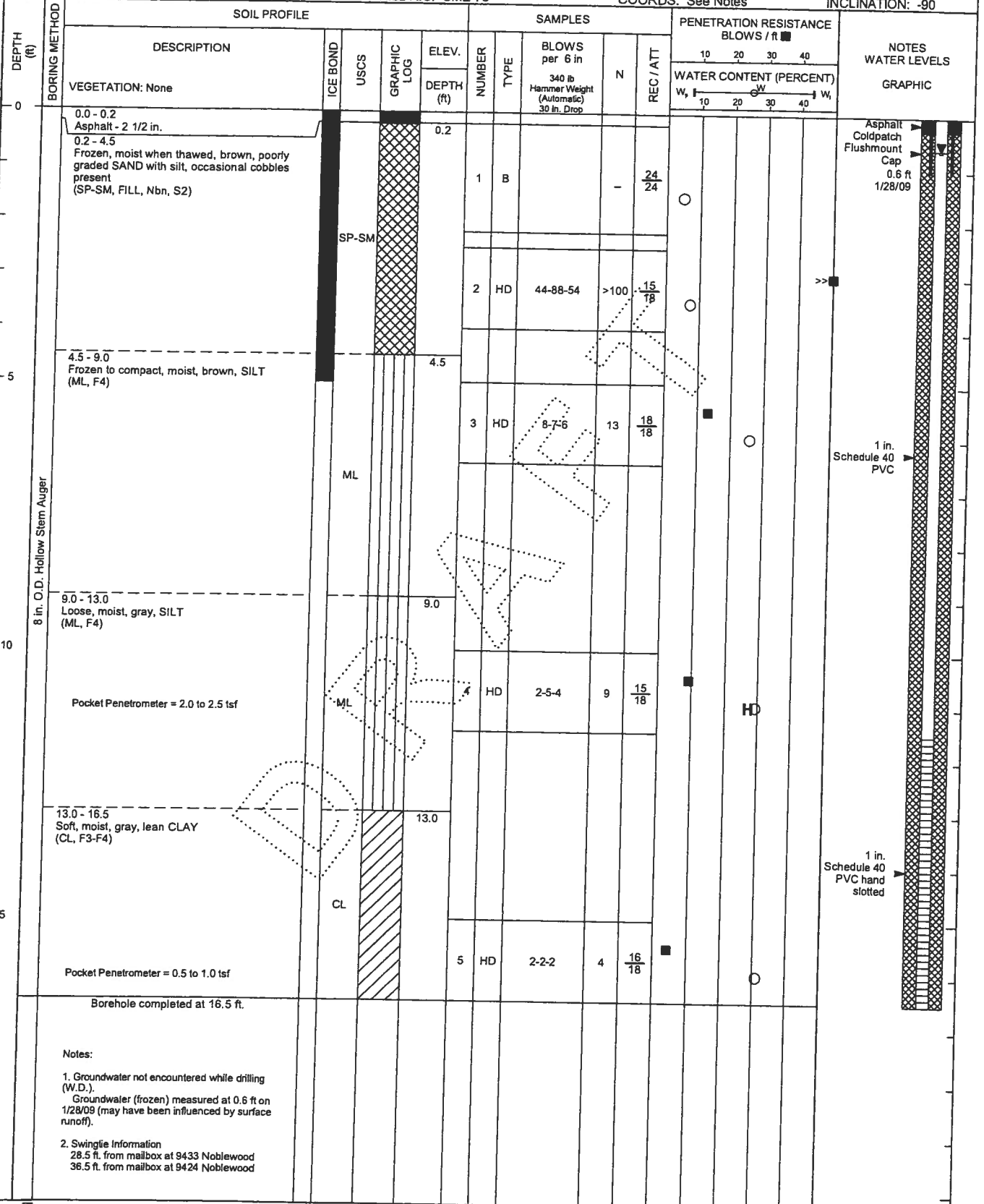
PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-08

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/9/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90



ANC BOREHOLE 083-95136 ARLENE RID.GPJ G.D.R. ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-10

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-09

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/9/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft				
												WATER CONTENT (PERCENT)				
0		VEGETATION: None														
0.0 - 0.2		Asphalt - 2.5 in.													Asphalt Coldpatch	
0.2 - 2.3		Frozen, moist when thawed, brown, poorly graded SAND with gravel and silt (SP-SM, FILL, Nbn, S2-F2)		SP-SM	0.2	1	B				24	24				
2.3 - 16.5		Frozen to stiff, moist to wet when thawed, brown to grayish brown, lean CLAY (CL, NF-Vs, F4)		CL	2.3	2	HD	18-19-21	40		18	18				
						3	HD	7-6-6	12		9	18				
						4	HD	3-4-6	10		16	18			Backfilled with cuttings	
		Pocket Penetrometer = 3.25 tsf														
						5	HD	4-3-6	9		16	18				
		Pocket Penetrometer = 1.5 - 3.75 tsf														
		Borehole completed at 16.5 ft.														
		Notes: 1. Groundwater not encountered while drilling (W.D.).														

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-11

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-10

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/8/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft				
												10	20		30	40
0		VEGETATION: None														
0.0 - 0.2		Asphalt - 2 1/2 in.														
0.2 - 4.5		Frozen, moist when thawed, brown, well-graded SAND with gravel and silt (SW-SM, FILL, Nbn, S2)		SW-SM		1	B				24	24			Asphalt Coldpatch Flushmount Cap	
4.5 - 9.0		Compact, moist, grayish brown, poorly graded SAND with gravel and silt (SP-SM, FILL, S2-F2)		SP-SM		2	HD	28-61-45	>100		18	18				
9.0 - 13.5		Loose, moist to wet, brownish gray, non-plastic SILT (ML, F3)		ML		3	HD	6-6-5	11		8	18			1 in. Schedule 40 PVC	
13.5 - 16.5		Loose, moist, gray, SILT (ML, F4)		ML		4	HD	2-4-4	8		18	18			9 ft 1/8/09 W.D.	
16.5 - 20		Notes: 1. Groundwater encountered at 9.0 ft. while drilling (W.D.). 2. Geofabric found in Sample #2. 3. Flush mount cap was found covered with asphalt patch on 1/28/09; therefore, piezometer was inaccessible for measuring groundwater. 3. Swingline Information 21.5 ft. to mailbox at 3012A Kingfisher 30.0 ft. to mailbox at 3003 Kingfisher		ML		5	HD	3-4-5	9		18	18			1 in. Schedule 40 PVC hand slotted	

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-12

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-11

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger
 DRILLING DATE: 1/8/09
 DRILL RIG: CME-75

DATUM: Ground Surface
 AZIMUTH: n/a
 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC/ATT	BLOWS / ft				
												10	20		30	40
0		VEGETATION: None														
0.0 - 0.2		Asphalt - 2 in.													Asphalt Coldpatch	
0.2 - 2.5		Frozen, moist when thawed, brown, well-graded GRAVEL with silt and sand (GW-GM, FILL, Nbn, S1)		GW-GM		1	B									
2.5 - 5.0		Frozen, moist to wet when thawed, brown, SILT (ML, Vs, F4)		ML		2	HD	21-19-15	34							
5.0 - 8.5		Compact, moist, brown, silty SAND (SM, F4)		SM		3	HD	5-5-6	11							
8.5 - 16.5		Firm, moist, gray, lean CLAY (CL, F3-F4)		CL		4	HD	2-3-4	7							
						5	HD	3-3-4	7							
16.5		Borehole completed at 16.5 ft.														
		Notes: 1. Groundwater encountered at 14.0 ft. while drilling (W.D.).														

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-13

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-12

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/9/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC	
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 In. Drop	N	REC / ATT	BLOWS / ft				
												WATER CONTENT (PERCENT)				
0		VEGETATION: None														
0.0 - 0.1		Asphalt - 1 1/2 in.														
0.1 - 2.5		Frozen, moist when thawed, brown, poorly graded GRAVEL with sand and silt, occasional cobbles present (GP-GM, FILL, Nbn, S1-F1)		GP-GM		1	B								Asphalt Coldpatch Flushmount Cap 0.6 ft 1/28/09	
2.5 - 4.5		Frozen, moist when thawed, brown, poorly graded SAND with gravel and silt (SP-SM, FILL, Nbn, S2-F2)		SP-SM		2	HD	10-26-26	52							
4.5 - 8.5		Frozen to compact, moist, brown, SILT with sand (ML, F4)		ML		3	HD	5-5-7	12						1 in. Schedule 40 PVC	
8.5 - 16.5		Compact, moist, gray, non-plastic SILT (ML, F4)		ML		4	HD	2-5-6	11						1 in. Schedule 40 PVC Hand Slotted	
16.5		Borehole completed at 16.5 ft.														
Notes:		<p>1. Groundwater not encountered while drilling (W.D.). Groundwater (frozen) measured at 0.6 ft on 1/28/09 (may have been influenced by surface runoff).</p> <p>2. Swingtie Information 13.0 ft. to mailbox at 2750 Kingfisher 20.0 ft. to pine tree across same driveway 47.0 ft. to mailbox at 2800 Kingfisher</p>														

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR_ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-14

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

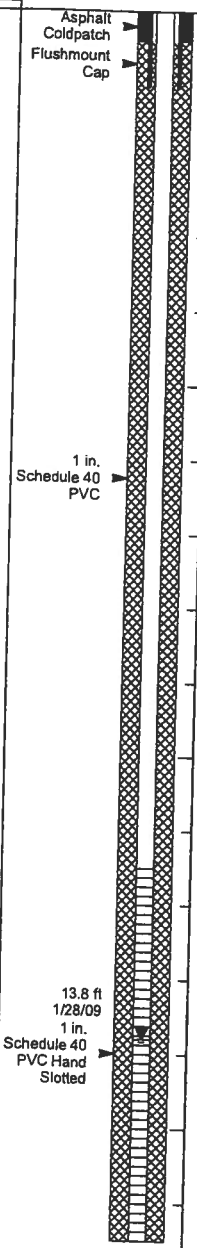
RECORD OF BOREHOLE G09-13

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/12/08 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE		NOTES WATER LEVELS GRAPHIC			
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft				
												10		20	30	40
0		VEGETATION: None														
0.0 - 0.3		Asphalt - 3 in.				0.3										
0.3 - 2.5		Frozen, moist when thawed, dark brown, silty SAND with gravel (SM, FILL, Nbn, F2)		SM			1	B								
2.5 - 4.5		Geofabric Frozen to firm, moist to wet when thawed, gray, lean CLAY (CL, Vr, F3-F4)		CL		2.5										
4.5 - 16.5		Very loose to loose, moist, gray, SILT (ML, F4)				4.5										
		Pocket Penetrometer = 2.5 tsf					3	HD	4-4-3	7	16/18					
		Pocket Penetrometer = 2.0 tsf					4	HD	2-2-2	4	18/18					
		Pocket Penetrometer = 2.0 to 2.5 tsf					5	HD	-3-2	5	18/18					
		Borehole completed at 16.5 ft.														
		Notes: 1. Groundwater not encountered while drilling (W.D.). Groundwater measured at 13.8 ft on 1/28/09. 2. Rod sank 6 inches under weight of hammer while driving sample at 15 ft. 3. Swingtie Information 18 ft. from mailbox at 2710 Pelican 39 ft. from Pelican/Kingfisher street sign														



ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR.ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-15

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-14

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/12/08 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE		NOTES WATER LEVELS GRAPHIC		
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft ■			
												10		20	30
0		VEGETATION: None													
0.0 - 0.2		Asphalt - 2 in.													Asphalt Coldpatch
0.2 - 2.0		Frozen, moist when thawed, brown, poorly graded GRAVEL with sand and silt (GP-GM, FILL, Nbn, S1-F1)		GP-GM		1	B								
2.0 - 3.0		Frozen, moist when thawed, brown, poorly graded SAND with silt (SP-SM, FILL, Nbn, S2-F2)		SP-SM											
3.0 - 7.5		Frozen, wet when thawed, brown, SILT (ML, Vs to Nbn, F4)				2	HD	24-18-10	28	18/18					
7.5 - 16.5		Compact, moist to wet, gray, SILT to sandy SILT (ML, F4)				3	HD	5-5-6	11	18/18					
	8 in. O.D. Hollow Stem Auger			ML											
						4	HD	5-5-5	10	18/18					
				ML											
						5	HD	6-6-6	12	16/18					
16.5		Borehole completed at 16.5 ft.													
		Notes: 1. Groundwater encountered at 11.0 ft. while drilling (W.D.). 2. Swingle Information 9.0 ft straight out from mailbox at 2750 Pelican													

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR_ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-16

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-15

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/14/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC			
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft			WATER CONTENT (PERCENT)		
0		VEGETATION: None															
0.0 - 0.2		Asphalt - 2 in.															Asphalt Coldpatch Flushmount Cap
0.2 - 2.5		Frozen, moist when thawed, brown, poorly graded SAND with silt and gravel (SP-SM, FILL, Nbn, S2-F2)		SP-SM		1	B										
2.5 - 10.0		Geofabric at 2.5 ft. Frozen to compact, moist to wet when thawed, grayish brown, SILT (ML, Vs, F4)				2	HD	17-19-20	39								
10.0 - 16.5		Very loose to loose, moist, gray, SILT (ML, F4) Pocket Penetrometer = 1.25 tsf		ML		3	HD	5-4-5	9								1 in. schedule 40 PVC 6.86 ft 1/28/09
16.5 - 18.5		Pocket Penetrometer = 1.0 tsf		ML		5	HD	2-1-2	3								1 in. schedule 40 PVC hand slotted
18.5 - 20.0		Borehole completed at 16.5 ft.															
		Notes: 1. Groundwater not encountered while drilling (W.D.). Groundwater measured at 6.9 ft on 1/28/09. 2. Swingtie Information 21 ft. from Pelican Dr./Cl. street sign 38 ft. from mailbox at 3800 Pelican Dr.															

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-17

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-16

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/14/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES				PENETRATION RESISTANCE		NOTES WATER LEVELS GRAPHIC						
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT		WATER CONTENT (PERCENT)					
													10	20	30	40		
0		VEGETATION: None																
0.0 - 0.2		Asphalt - 2 in.																Asphalt Coldpatch Flushmount Cap
0.2 - 3.5		Frozen, moist when thawed, dark brown, silty SAND with gravel, occasional cobbles present (SM, FILL, Nbn, F2)		SM		1	B											0.75 ft 1/28/09
3.5 - 11.5		Geofabric at 3.5 ft Frozen to compact, moist to wet when thawed, brown, SILT (ML, Vs, F4)				2	HD	36-46-22	68		18/18							1 in. Schedule 40 PVC
5		Pocket Penetrometer >5.0 tsf				3	HD	8-10-9	19		18/18							1 in. Schedule 40 PVC, hand slotted
10		Pocket Penetrometer = 3.5 to >5.0 tsf		ML		4	HD	3-4-6	10		18/18							
11.5		Borehole completed at 11.5 ft.																
15		Notes: 1. Groundwater not encountered while drilling (W.D.). Groundwater (frozen) measured at 0.75 ft on 1/28/09 (may have been influenced by surface runoff). 2. Swingtie Information 19 ft. from mailbox at 2900 Pelican 32 ft. from mailbox at 2901 Pelican																
20																		

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC.GDT 3/3/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-18

PROJECT: Arlene RID
 PROJECT NUMBER: 083-95136
 LOCATION: Anchorage, AK
 CLIENT: Lounsbury & Assoc.

RECORD OF BOREHOLE G09-17

SHEET 1 of 1

DRILLING METHOD: Hollow-Stem Auger DATUM: Ground Surface
 DRILLING DATE: 1/14/09 AZIMUTH: n/a
 DRILL RIG: CME-75 COORDS: See Notes

GS ELEV.:
 TOC ELEV.:
 INCLINATION: -90

DEPTH (ft)	BORING METHOD	SOIL PROFILE				SAMPLES					PENETRATION RESISTANCE				NOTES WATER LEVELS GRAPHIC	
		DESCRIPTION	ICE BOND	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 340 lb Hammer Weight (Automatic) 30 in. Drop	N	REC / ATT	BLOWS / ft				
												10	20	30		40
0		VEGETATION: None														
0.0 - 0.2		Asphalt - 2 in.		GP-GP	[Cross-hatch]	0.2										
0.2 - 0.5		Frozen, moist when thawed, light brown, poorly graded GRAVEL with sand and silt (GP-GM, FILL, Nbn, S1-F1)		SP-SM	[Cross-hatch]	0.5	1	B								Asphalt Coldpatch
0.5 - 1.5		Frozen, moist when thawed, dark brown, poorly graded SAND with silt and gravel (SP-SM, FILL, Nbn, S2-F2)			[Vertical lines]	1.5										
1.5 - 6.5	8 in. O.D. Hollow Stem Auger	Frozen to loose, moist when thawed, light brown, SILT (ML, Vx, F4)		ML	[Vertical lines]		2	HD	7-4-3	7	8/18					Backfilled with Cuttings
		Pocket Penetrometer = 3.0 tsf					3	HD	2-2-3	5	15/18					
		Borehole completed at 6.5 ft.														
		Notes: 1. Groundwater not encountered while drilling (W.D.).														

ANC BOREHOLE 083-95136 ARLENE RID.GPJ GLDR ANC_GDT 3/2/09



DEPTH SCALE: 1 in to 2.5 ft
 DRILLING CONTRACTOR: Discovery Drilling
 DRILLER: Tim Beckner

LOGGED: Dave Luer
 CHECKED: SLA
 DATE: 2/5/2009

Figure A-19

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

VI

TEMPORARY CONSTRUCTION PERMITS AND EASEMENTS

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

VII

EQUAL EMPLOYMENT OPPORTUNITY SPECIAL PROVISIONS

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

VII

MINIMUM RATES OF PAY

Laborers' & Mechanics' Minimum Rates of Pay

Labor for the project must be paid at the prevailing wage rates listed in the Alaska Department of Labor & Workforce Development, Laborers' & Mechanics' Minimum Rates of Pay, Wage & Hour Administration Pamphlet No. 600.

The state of Alaska wage rates can be obtained at:

<http://www.labor.state.ak.us/lss/pamp600.htm>

The Municipality of Anchorage will include a paper copy of the wage rates in the signed Contract.

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

IX

CONTRACT

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

X

CONTRACT PERFORMANCE AND PAYMENT BOND

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

XI

CERTIFICATE OF INSURANCE

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

XII

BID BOND

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

XIII

BIDDER'S CHECKLIST

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

XIV

BID PROPOSAL

**MUNICIPALITY OF ANCHORAGE
PROJECT MANAGEMENT & ENGINEERING DEPARTMENT**

**ARLENE DRIVE / PELICAN DRIVE / PELICAN COURT / KINGFISHER
DRIVE ROAD RECONSTRUCTION R.I.D.**

06-019

XV

PLANS (XX SHEETS)

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Sheet 20
Sheet 21
Sheet 22

Summary

Street Improvements	\$3,967,320.00
Storm Drain Improvements	\$1,390,946.00
Lighting Improvements	\$600,500.00
Construction Engineering @ 15%	\$893,814.90
Subtotal	\$6,852,580.90
Contingency @ 10%	\$685,260.00
Total	\$7,537,850.00
Say	\$7,500,000.00

PRELIMINARY CONSTRUCTION COST ESTIMATE-REPLACE FULL STREET SECTION

Project: 06-019
 Title: Arlene RID
 Location: Anchorage, AK
 Client: Municipality of Anchorage
 Estimated by: CB

Date: 7/26/2010
 Sheet: 1 of 1
 Checked by:
 Approved by:

ITEM NO.	WORK DESCRIPTION	M.A.S.S. SECTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
STREET IMPROVEMENTS						
A-1	Stormwater Pollution Prevention Plan (Type 3)	20.02	1	L.S.	\$50,000.00	\$50,000.00
A-2	Clearing and Grubbing	20.04	1	L.S.	\$10,000.00	\$10,000.00
A-3	Tree Removal	20.06	56	Each	\$350.00	\$19,600.00
A-4	Remove Curb and Gutter	20.08	9,900	L.F.	\$7.00	\$69,300.00
A-5	Remove Pavement	20.09	18,500	S.Y.	\$4.00	\$74,000.00
A-6	Unusable Excavation	20.10	37,800	C.Y.	\$18.00	\$680,400.00
A-7	Classified Fill and Backfill Type II	20.21	42,000	Ton	\$22.00	\$924,000.00
A-8	Classified Fill and Backfill Type IIA	20.21	25,200	Ton	\$22.00	\$554,400.00
A-9	Leveling Course	20.22	2,300	Ton	\$30.00	\$69,000.00
A-10	Geotextile (Type A)	20.25	28,400	S.Y.	\$2.00	\$56,800.00
A-11	Roadway Insulation Board (R=9)	20.26	206,100	S.F.	\$3.00	\$618,300.00
A-12	Reconstruct Driveway, Asphalt (Class D)	20.28	2,505	S.Y.	\$60.00	\$150,300.00
A-13	Reconstruct Driveway, Concrete (Class A3)	20.28	260	S.Y.	\$115.00	\$29,900.00
A-14	Remove, Protection, and/or Restoration of Structures and Obstructions	20.31	1	L.S.	\$50,000.00	\$50,000.00
A-15	P.C.C. Curb and Gutter (Type II)	30.02	10,200	L.F.	\$23.00	\$234,600.00
A-16	A.C. Pavement (Class E)	40.06	2,270	Ton	\$70.00	\$158,900.00
A-17	Adjust Sanitary Sewer Manhole Ring	50.19	6	Each	\$800.00	\$4,800.00
A-18	Adjust Cleanout to Finish Grade	50.21	4	Each	\$600.00	\$2,400.00
A-19	Adjust Valve Box to Finish Grade	60.20	3	Each	\$450.00	\$1,350.00
A-20	Two-Person Survey Crew	65.02	100	Hour	\$250.00	\$25,000.00
A-21	Construction Survey Measurement	65.02	1	L.S.	\$50,000.00	\$50,000.00
A-22	Existing Monument and Lot Corner Search	65.02	1	L.S.	\$1,000.00	\$1,000.00
A-23	Reset Fence	70.08	88	L.F.	\$45.00	\$3,960.00
A-24	Traffic Markings (24" White)	70.10	90	L.F.	\$40.00	\$3,600.00
A-25	Standard Signs	70.11	110	S.F.	\$80.00	\$8,800.00
A-26	Traffic Maintenance	70.12	1	L.S.	\$50,000.00	\$50,000.00
A-27	Relocate Mailbox	70.17	113	Each	\$70.00	\$7,910.00
A-28	Topsoil (4")	75.03	40	M.S.F.	\$800.00	\$32,000.00
A-29	Seeding (Schedule A)	75.04	40	M.S.F.	\$675.00	\$27,000.00
SUBTOTAL:						\$3,967,320.00

PRELIMINARY CONSTRUCTION COST ESTIMATE - STORM DRAIN

Project: 06-019
 Title: Arlene RID
 Location: Anchorage, AK
 Client: Municipality of Anchorage
 Estimated by: CB

Date: 7/26/2010
 Sheet: 1 of 1
 Checked by:
 Approved by:

ITEM NO.	WORK DESCRIPTION	M.A.S.S. SECTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
STORM DRAIN IMPROVEMENTS						
B-1	Unusable Excavation	20.10	862	C.Y.	\$18.00	\$15,516.00
B-2	Dewatering	20.12	1	L.S.	\$20,000.00	\$20,000.00
B-3	Trench Excavation and Backfill	20.13	6,010	L.F.	\$30.00	\$180,300.00
B-4	Roadway Insulation Board (R=9)	20.26	1,000	S.F.	\$3.00	\$3,000.00
B-5	Furnish, Install, and Televis Pipe (10", CPEP, Type S)	55.02	123	L.F.	\$70.00	\$8,610.00
B-6	Furnish, Install, and Televis Pipe (24", CPEP, Type S)	55.02	188	L.F.	\$70.00	\$13,160.00
B-7	Furnish & Install Subdrain (12", CPEP, Type S, Type E Filter Material)	55.03	3,826	L.F.	\$70.00	\$267,820.00
B-8	Furnish & Install Subdrain (18", CPEP, Type S, Type E Filter Material)	55.03	1,280	L.F.	\$70.00	\$89,600.00
B-9	Furnish & Install Subdrain (24", CPEP, Type S, Type E Filter Material)	55.03	593	L.F.	\$80.00	\$47,440.00
B-10	Construct Type I Catch Basin Manhole	55.05	17	Each	\$7,500.00	\$127,500.00
B-11	Construct Type I Manhole	55.05	12	Each	\$7,500.00	\$90,000.00
B-12	Construct Type II Manhole	55.05	3	Each	\$12,000.00	\$36,000.00
B-13	Construct Type II Manhole Top Inlet	55.05	1	Each	\$12,000.00	\$12,000.00
B-14	Construct Catch Basin	55.09	19	Each	\$4,000.00	\$76,000.00
B-15	Remove Manhole or Catch Basin	55.11	3	Each	\$1,000.00	\$3,000.00
B-16	Footing Drain Service	55.18	113	Each	\$500.00	\$56,500.00
B-17	Oil and Grit Separator (Vortech model 7000)	55.22	1	Each	\$80,000.00	\$80,000.00
B-18	Oil and Grit Separator (STC - 2400)	55.22	1	Each	\$40,000.00	\$40,000.00
B-19	Oil and Grit Separator (STC - 900)	55.22	1	Each	\$30,000.00	\$30,000.00
B-20	Filter Rock Drain	55.24	4,690	L.F.	\$40.00	\$187,600.00
B-21	Remove Pipe	70.07	230	L.F.	\$30.00	\$6,900.00
SUBTOTAL:						\$1,390,946.00

PRELIMINARY CONSTRUCTION COST ESTIMATE-LIGHTING

Project: 06-019
 Title: Arlene RID
 Location: Anchorage, AK
 Client: Municipality of Anchorage
 Estimated by: CB

Date: 7/26/2010
 Sheet: 1 of 1
 Checked by:
 Approved by:

ITEM NO.	WORK DESCRIPTION	M.A.S.S. SECTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
LIGHTING IMPROVEMENTS						
C-1	Vacuum Truck	20.03	80	Hour	\$300.00	\$24,000.00
C-2	Heat Trace	55.23	700	L.F.	\$7.00	\$4,900.00
C-3	Heat Trace Control Cabinet	55.23	1	Each	\$10,000.00	\$10,000.00
C-4	Heat Trace WP Junction Box	55.23	4	Each	\$300.00	\$1,200.00
C-5	Trench and Backfill 2' x 3'	80.02	5400	L.F.	\$14.00	\$75,600.00
C-6	Type 1A Load Center Foundation, poured	80.04	1	Each	\$4,500.00	\$4,500.00
C-7	Driven Pile Luminaire Pole Foundation	80.04	33	Each	\$2,600.00	\$85,800.00
C-8	30FT Fixed Base Luminaire Pole	80.05	32	Each	\$3,500.00	\$112,000.00
C-9	Luminaire Arm 8 Ft Length	80.06	32	Each	\$500.00	\$16,000.00
C-10	2" Steel Conduit (GRSC)	80.07	5400	L.F.	\$18.00	\$97,200.00
C-11	1" Steel Conduit (GRSC)	80.07	700	L.F.	\$40.00	\$28,000.00
C-12	Type 1A Junction Box	80.08	42	Each	\$900.00	\$37,800.00
C-13	Conductor, 3C #8 XHHW-2 Cable	80.10	4000	L.F.	\$5.00	\$20,000.00
C-14	Conductor, 3C #6 XHHW-2 Cable	80.10	1400	L.F.	\$6.00	\$8,400.00
C-15	Conductor, 3C #10 XHHW-2 Cable	80.10	200	L.F.	\$4.00	\$800.00
C-16	Conductor, 3C #14 XHHW-2 Cable	80.10	50	L.F.	\$4.00	\$200.00
C-17	Conductor, 1C #6 AWG	80.10	1400	L.F.	\$3.25	\$4,550.00
C-18	Conductor, 1C #8 AWG	80.10	4000	L.F.	\$2.50	\$10,000.00
C-19	Pad Mounted Type 1 Load Center	80.14	1	Each	\$7,300.00	\$7,300.00
C-20	Photocell Installation	80.14	1	Each	\$150.00	\$150.00
C-21	Luminaire, 140W LED Type II	80.23	27	Each	\$1,600.00	\$43,200.00
C-22	Luminaire, 140W LED Type III	80.23	5	Each	\$1,600.00	\$8,000.00
C-23	Luminaire, Reinstall Existing	80.23	1	Each	\$400.00	\$400.00
C-24	Remove Luminaire Pole	80.28	1	Each	\$500.00	\$500.00
SUBTOTAL:						\$600,500.00