

1985 project

CITY OF VALDEZ

BID FORM  
AND  
CONTRACT DOCUMENTS

FOR

ALPINE WOODS SUBDIVISION  
LOWE RIVER FLOOD CONTROL

PROJECT NO. 85805  
CONTRACT NO. 146

RIP-RAP AND DIKE CONSTRUCTION

AUGUST 1985

CONTRACT DOCUMENTS  
INDEX

Request for Bids and Agreement

4 pages

Specifications (Department of Transportation and  
Public Facilities Gold Book; 1981  
"Standard Specifications for  
Highway Construction.")

Special Provisions

5 pages

85805cov

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TTR FIRST DIKE IN  
ALPINE WOODS.

TO PARK D w/ASURAN

SPECIAL PROVISIONS

ALPINE WOODS SUBDIVISION  
LOWE RIVER FLOOD CONTROL

PROJECT NO. 85805      CONTRACT NO. 146

RIP-RAP AND DIKE CONSTRUCTION

GENERAL:

I. Standard Specifications

This contract is subject to and hereby incorporates by reference the 1981 edition of the Department of Transportation and Public Facilities "Standard Specifications for Highway Construction" as modified herein.

II. Insurance

Before signing the Contract or commencing the work or allowing any subcontractor to commence work, the Contractor shall obtain all insurance required under this Article. The Contractor shall maintain this insurance until the final acceptance date. The Contractor shall file with the City as verification of insurance a certificate of insurance showing the type and amounts of insurance, the policy number, expiration date and signed by an authorized representative of the insurance company. Each certificate of insurance will state that the policy or policies have been endorsed whereby the insurance company will provide not less than thirty (30) days written notice to the Engineer of any material change, cancellation or non-renewal of the insurance policies. All insurance policies required under this Article shall name the City of Valdez as an additional insured for the purposes of the project and shall contain a waiver of subrogation against the City.

The Contractor shall provide the following types of insurance:

Workers' Compensation	Minimum Limits
\$100,000 Employers Liability and Workers' Statutory Compensation as required by Alaska State Workers' Compensation Statutes.	Statutory

When specified in the Special Provisions, the Contractor shall provide coverage under the Federal Longshoremen and Harbor Works Compensation Act and the Federal Maritime Liability Law (Jones Act).

Comprehensive General Liability	Minimum Limits*
Bodily Injury and Property Damage Liability; Premises Operations including explosion, collapse and underground; Products and Complete Operations; Broad Form Property Damage; Blanket Contractual; Personal Injury	\$1,000,000 Combined Limit Each Occurrence and Aggregate
Comprehensive Automobile Liability	Minimum Limits*
Bodily Injury and Property Damage, including all owned, hired and non-owned automobiles	\$500,000 Combined Limit Accident
Excess Liability Insurance	Minimum Limits
Umbrella Form	\$1,000,000 Combined Bodily Injury and Property Damage

\*These limits may be reduced only if the excess insurance is increased to provide the same total coverage.

TECHNICAL

M.-S. 71-1-050-5, Rip-Rap Source

Mining Plan Requirements:

1. Prior to commencing work at the site, the Contractor shall furnish their detailed plan of quarry operation including use of existing and produced shot rock for review by the engineer.
2. All work shall be confined within the existing right-of-way.
3. All standing or down brush and timber, which must be removed to expose rock materials but which cannot be utilized by the Contractor or decked for utilization by local residents, shall be piled and burned. This work shall be incidental to other items of work appearing in this Contract. The Contractor shall obtain any required burning permits from local agencies.
4. The existing access route and any extension of this access to the top of the face or faces shall remain at the completion of the project. A safe working face or faces shall be established, maintained and remain at the completion of the project.

5. The quarry site shall be left at the completion of the project in such a condition as to allow further use of the site without extensive development work.
6. The Contractor shall doze all existing shot rock out of the area for current quarry development to an adjacent site, as directed, and shall not use or remove any of such existing material.
7. The Contractor shall use all reasonable means to protect the existing paved highway surface from damage from rocks blasted out or falling off trucks and from operation of equipment. The Contractor shall, at their sole expense, repair and restore the existing pavement to its original condition at the conclusion of the work.

#### 104-106 Final Clean-up and Restoration

##### 1.06.1 General

This item consists of furnishing all supervision, labor, equipment and materials necessary for final clean-up and restoration of all areas disturbed by construction activities to a condition equal to, or better than, before construction started. This does not include clean-up or restoration incidental or directly provided for by other construction items that are necessary for the orderly progress of construction.

##### 1.06.2 Materials

Materials required for satisfactory completion of this work will not be paid for directly but are considered incidental to the Contract unless specifically provided for.

##### 1.06.03 Construction

The Contractor shall clean up all sites disturbed during construction of this project. This includes removal of all construction equipment, disposal of all excess materials, disposal of all rubbish and debris, removal of all temporary construction structures, and grading of the sites so that no standing water is evident.

##### 1.06.4 Method of Measurement

Measurement will be one unit for all work necessary under this item. Final acceptance of the work will constitute measurement.

##### 1.06.5 Basis of Payment

Payment for all work done under this item will be made in one lump sum upon the satisfactory completion and acceptance of all work to be done under this Contract.

Payment will be made under

<u>Item</u>	<u>Day Unit</u>
Final Clean-up and Site Restoration	Lump Sum

107-1.11 Protection and Restoration of Property and Landscape

Add the following:

Blasting shall be restricted within 1000 feet of any utility, structure, or anadromous waters.

Restrictive blasting shall be defined by the formula:

Where:  $W = (D/D_s)^2$

W = Weight of explosives in pounds per delay.

D = Distance in feet between the nearest blast site and the point where it is desired to know the particle velocity.

D<sub>s</sub> = 50

The formula is based upon using delay EB caps with at least eight (8) milliseconds between periods to initiate blast.

At no time within 500 feet of the point of interest shall the particle velocity exceed two (2) inches per second.

In addition, explosives shall not be discharged directly beneath or adjacent to anadromous water bodies if the charge weight and substrate type result in creating an excess of two (2) pounds per square (psi) pressure differential in the ambient hydrostatic pressure of the anadromous waters, without the written approval of the Engineer.

203.1 Description

Amend to read as follows:

Construct a gravel core from local gravel bar materials similar to those at the site for a wing dike as shown on Sheet 2 of 3 titled, "SITE PLAN" and 3 of 3 titled, "SECTION." The construction site will be as staked on the ground by the City.

Contractor shall determine his source subject to approval of materials.

203-3.05 Compaction of Embankments Not Constructed with Moisture and Density Controls.

Amend to read as follows:

Compaction shall be achieved by leveling and rolling with wheeled and tracked equipment which shall be routed to cover the width of the dike. Maximum loose lift thickness shall be thirty (30) inches.

203-4.01 Method of Measurement

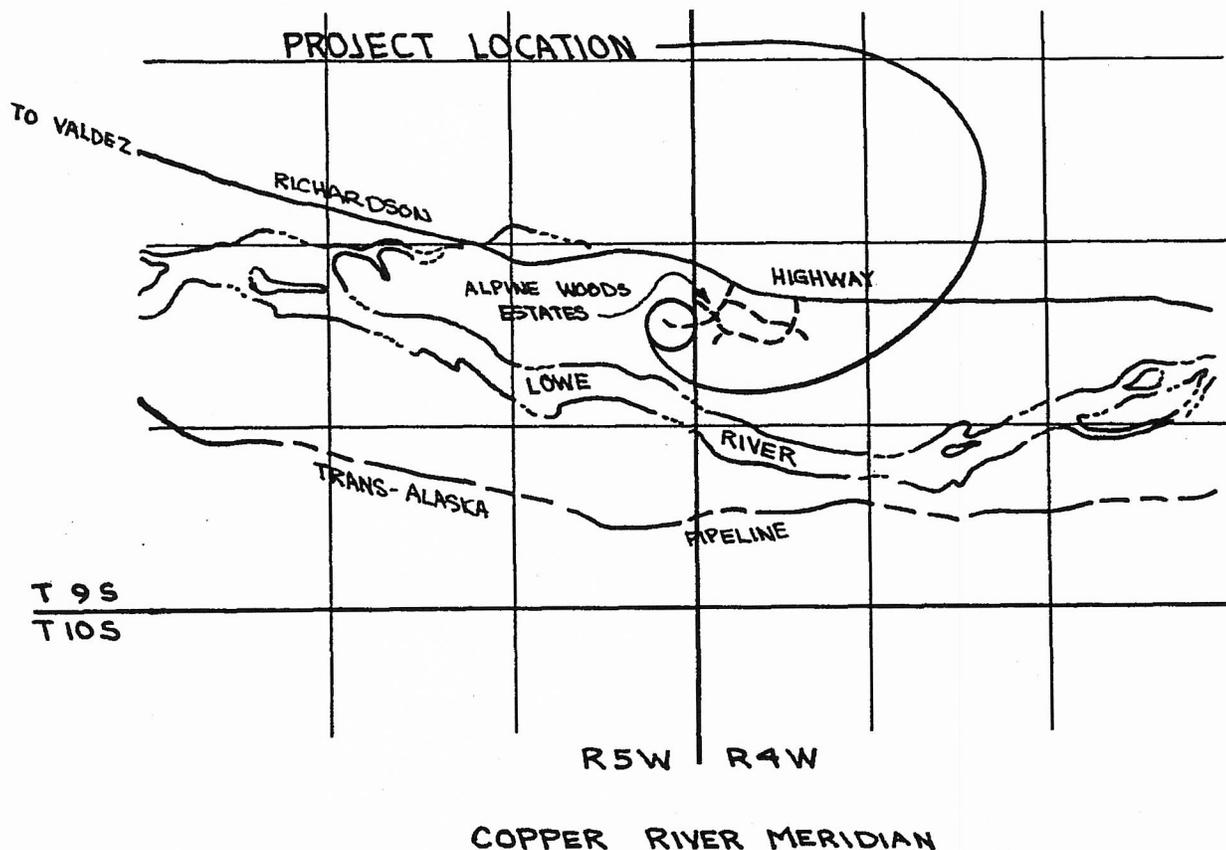
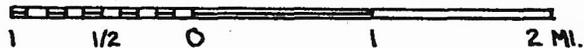
Amend to read as follows:

Measurement shall be by cubic yard of dike built to the grade slopes and width described under 203-1.01.

203-5.01 Basis of Payment

Amend to read as follows:

Payment will be made under Bid Item 5 for the lineal feet of gravel core dike built to the line and grade set by the City including toe trench.



PURPOSE: DIVERT NEW LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY

DATUM: MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS: SEE APPLICATION-ATTACHMENT #1

VICINITY MAP

CITY OF VALDEZ  
ALPINE WOODS FLOOD CONTROL  
PROJECT NO. 85805

SHEET 1 of 3      AUGUST 1, 1985

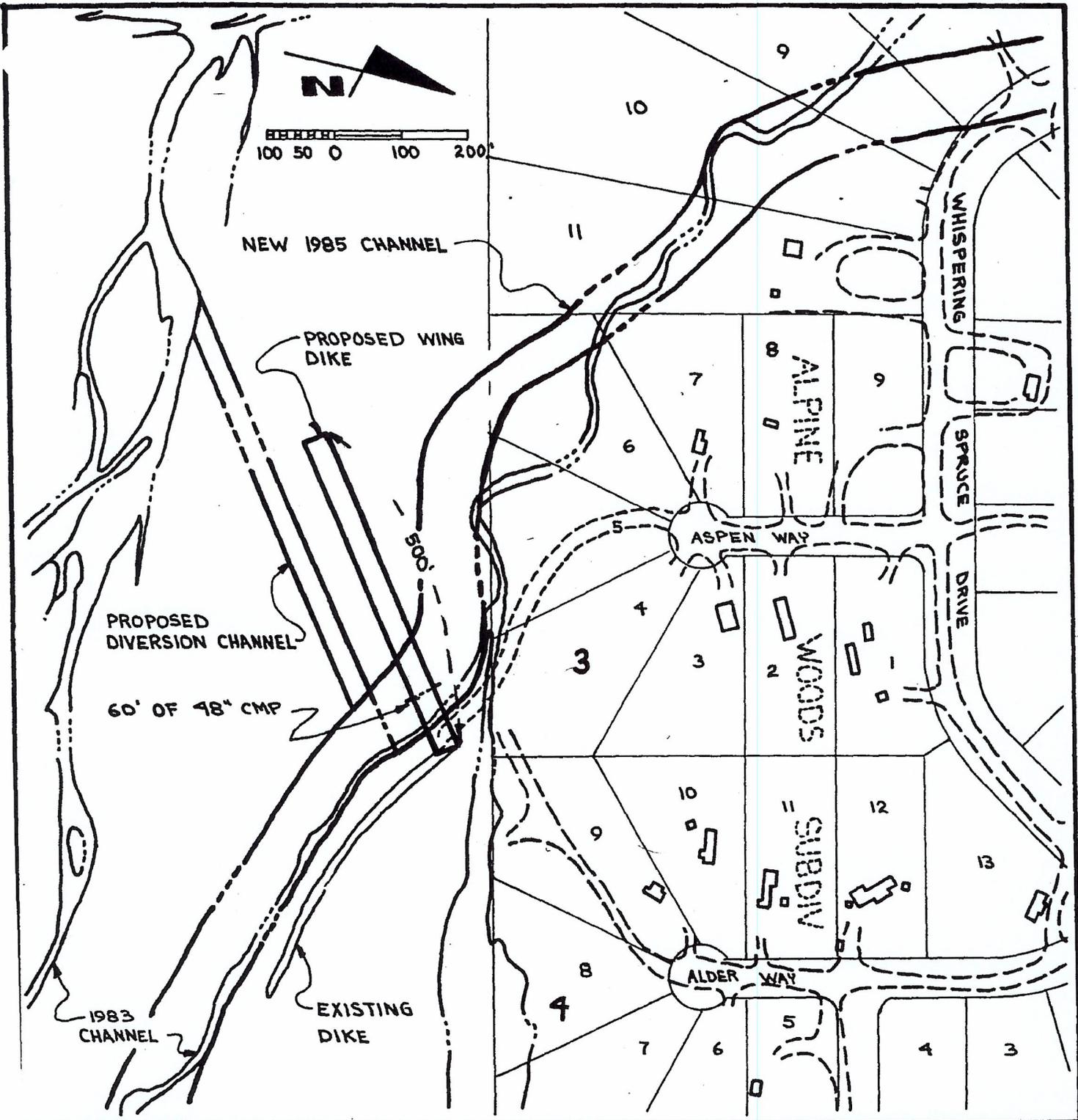
PROPOSED DIVERSION CHANNEL AND WING DIKE

IN: LOWE RIVER DRAINAGE SYSTEM

AT: VALDEZ, ALASKA

APPLICATION BY: CITY OF VALDEZ

REVISED 8-12-85



PURPOSE: DIVERT NEW LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY

DATUM: MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS: SEE APPLICATION-ATTACHMENT #1

**SITE PLAN**

CITY OF VALDEZ  
ALPINE WOODS FLOOD CONTROL  
PROJECT NO. 85805

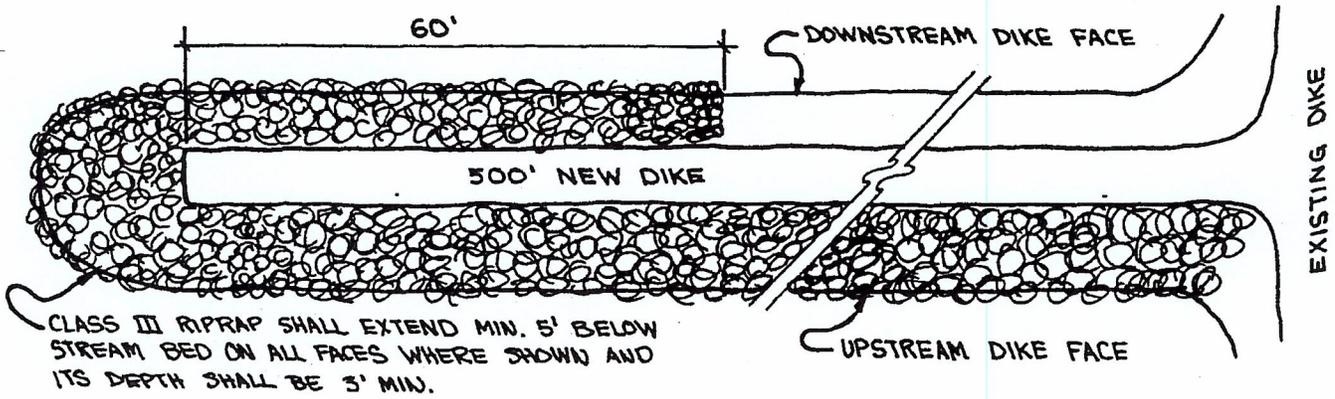
SHEET 2 of 3      AUGUST 1, 1985

PROPOSED DIVERSION CHANNEL AND WING DIKE

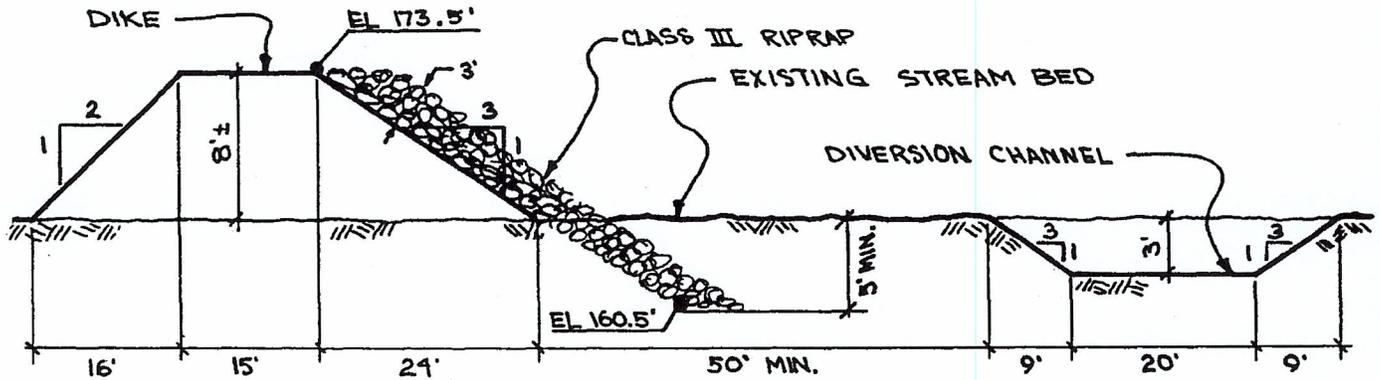
IN: LOWE RIVER DRAINAGE SYSTEM

AT: VALDEZ, ALASKA

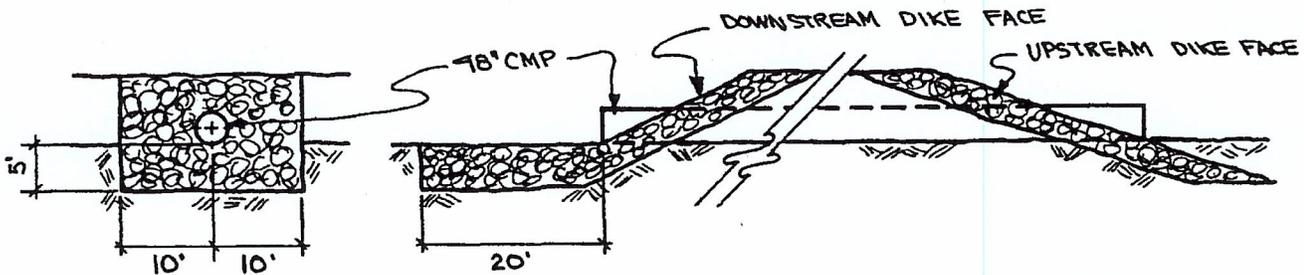
APPLICATION BY: CITY OF VALDEZ



RIP RAP DETAIL - PLAN VIEW



DIKE AND CHANNEL - TYPICAL SECTION



PIPE PROTECTION - TYPICAL SECTION

<p><b>PURPOSE:</b> DIVERT NEW LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY</p> <p><b>DATUM:</b> MEAN SEA LEVEL</p> <p><b>ADJACENT PROPERTY OWNERS:</b> SEE APPLICATION-ATTACHMENT #1</p>	<p align="center"><b>SECTION</b></p> <p align="center">CITY OF VALDEZ ALPINE WOODS FLOOD CONTROL PROJECT NO. 85805</p> <p>SHEET 3 of 3      AUGUST 1, 1985</p>	<p><b>PROPOSED DIVERSION CHANNEL AND WING DIKE</b></p> <p><b>IN:</b> LOWE RIVER DRAINAGE SYSTEM</p> <p><b>AT:</b> VALDEZ, ALASKA</p> <p><b>APPLICATION BY:</b> CITY OF VALDEZ</p>
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CITY OF VALDEZ

ALPINE WOODS SUBDIVISION  
LOWE RIVER FLOOD CONTROL

PROJECT NO. 85805

CONTRACT NO. 146

AUGUST, 1985

Page 1 of 2

August 13, 1985

TO: All Planholders of Record

SUBJECT: Addendum #1

This addendum forms a part of the contract documents and modifies the original contract documents for the above referenced project. Acknowledge receipt of this addendum by signing, dating and submitting the addendum with the bid proposal form.

This addendum makes the following changes:

1. The contractor, its employees and its subcontractors shall keep fully informed of all Federal and State laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The contractor, its employees and its subcontractors shall at all times observe and comply with all such laws, ordinances, regulations, orders and decrees, and/or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree whether by the contractor, its employees or its subcontractors.
2. That the contractor take all necessary measures to protect and maintain traffic during the use of this materials site, including the furnishing of such personnel, equipment and devices as may be required to ensure the safety and the convenience of the traveling public.
3. That any damage done to the new roadway, structures or culverts shall be restored to new condition acceptable to the State.

XC CC5. 4-1-86

ALPINE WOODS SUBDIVISION/LOWE RIVER FLOOD CONTROL  
PROJECT NO. 85805, CONTRACT NO. 146  
ADDENDUM NO. 1

Page 2 of 2

4. Upon completion of use of the material site all surplus materials shall be stockpiled or dressed away from the roadway; any clearing and grubbing shall be disposed of at locations approved by the State and the materials site shall be left in a safe and neat condition acceptable to the State.
5. In the Special Provisions, Section 203.1, Description, page 4 of 5, insert the following as the third paragraph:

"The material to be used for the gravel core construction must be imported."

END OF ADDENDUM

Issued:

  
John Thorp, P.E., City Engineer

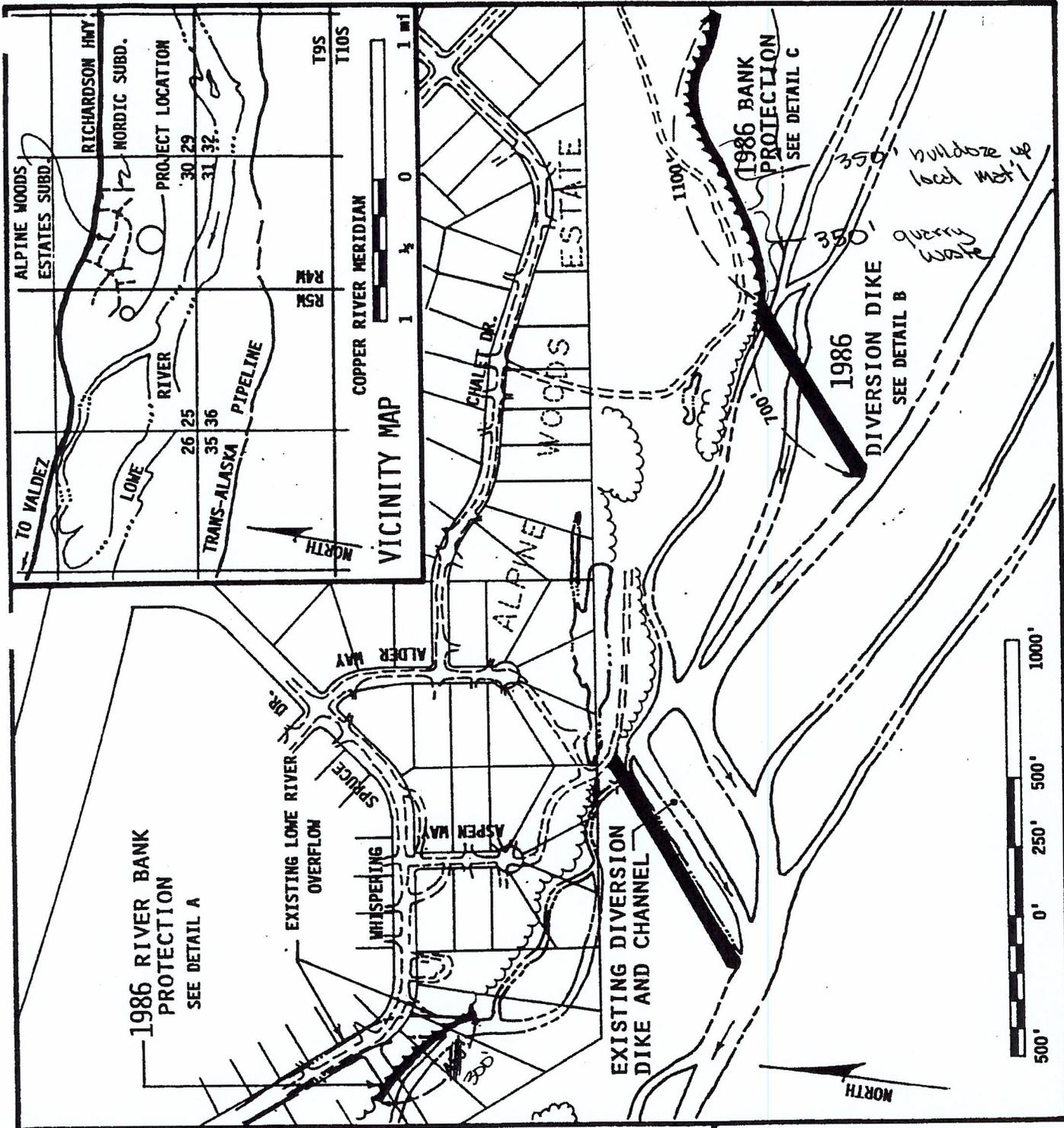
Bidder: \_\_\_\_\_

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

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

Date: \_\_\_\_\_

1986 Project  
 Contract # 175



**PURPOSE:** DIVERT LOME RIVER CHANNEL TO PROTECT PRIVATE PROPERTY

**DATUM:** MEAN SEA LEVEL

**ADJACENT PROPERTY OWNERS:**  
 SEE APPLICATION - ATTACHMENT #1

**PLAN VIEW**

CITY OF VALDEZ  
 ALPINE WOODS FLOOD CONTROL  
 PROJECT NO. 86805

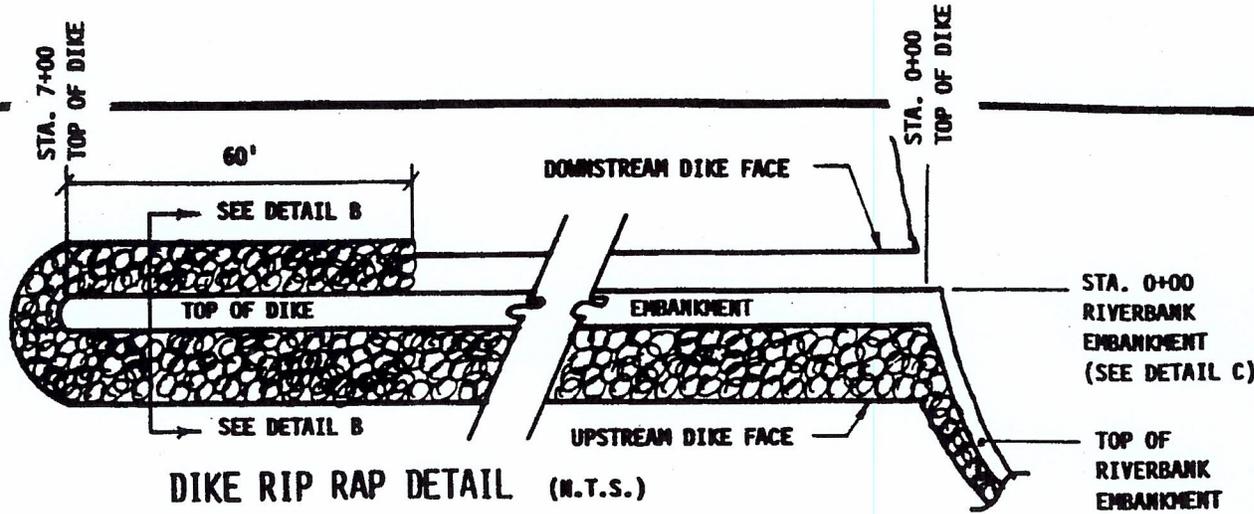
SHEET 1 of 2      DECEMBER 1985

**PROPOSED DIVERSION DIKE AND BANK PROTECTION**

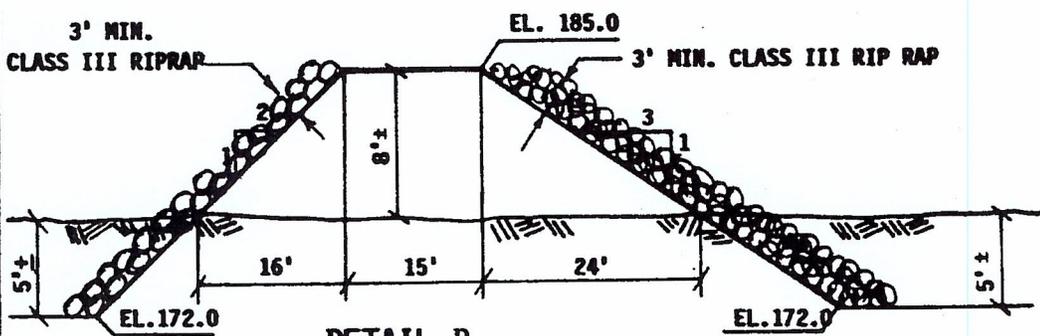
**IN:** LOME RIVER DRAINAGE SYSTEM

**AT:** VALDEZ, ALASKA

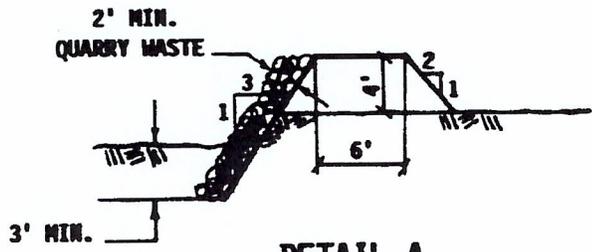
**APPLICATION BY:** CITY OF VALDEZ



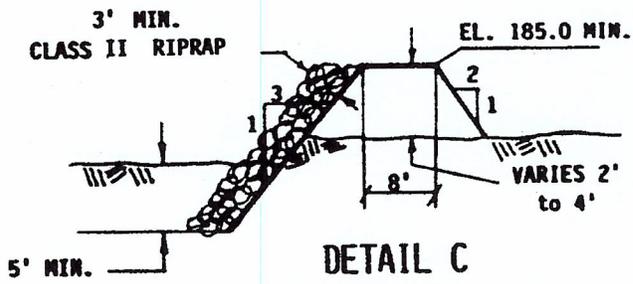
DIKE RIP RAP DETAIL (N.T.S.)



DETAIL B  
TYPICAL SECTION (N.T.S.)



DETAIL A  
TYPICAL SECTION (N.T.S.)



DETAIL C  
TYPICAL SECTION (N.T.S.)

PURPOSE: DIVERT LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY

DATUM: MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS: SEE APPLICATION - ATTACHMENT #1

SECTION VIEWS

REVISED 4-86

CITY OF VALDEZ  
ALPINE WOODS FLOOD CONTROL  
PROJECT NO. 86805

SHEET 2 of 2

DECEMBER 1985

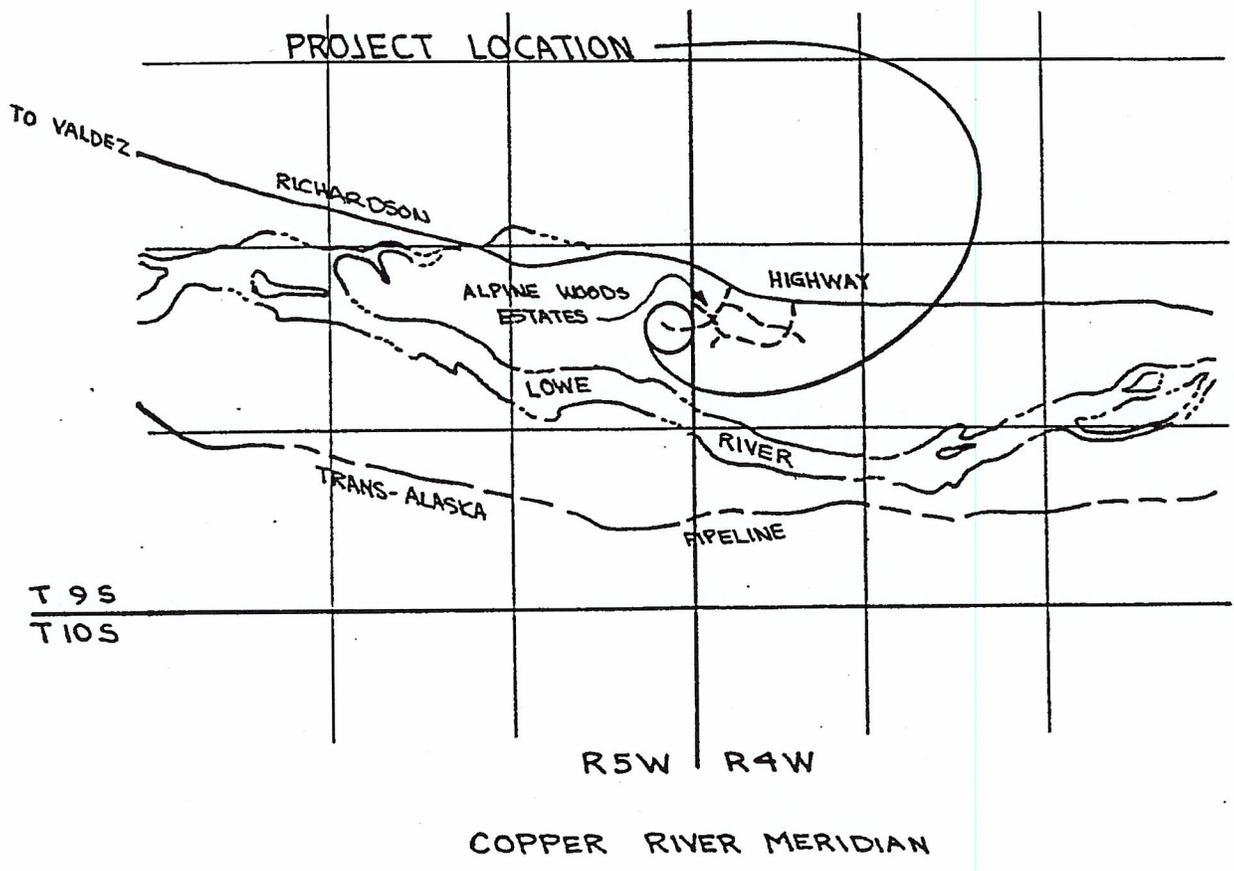
PROPOSED DIVERSION DIKE AND BANK PROTECTION

IN: LOWE RIVER DRAINAGE

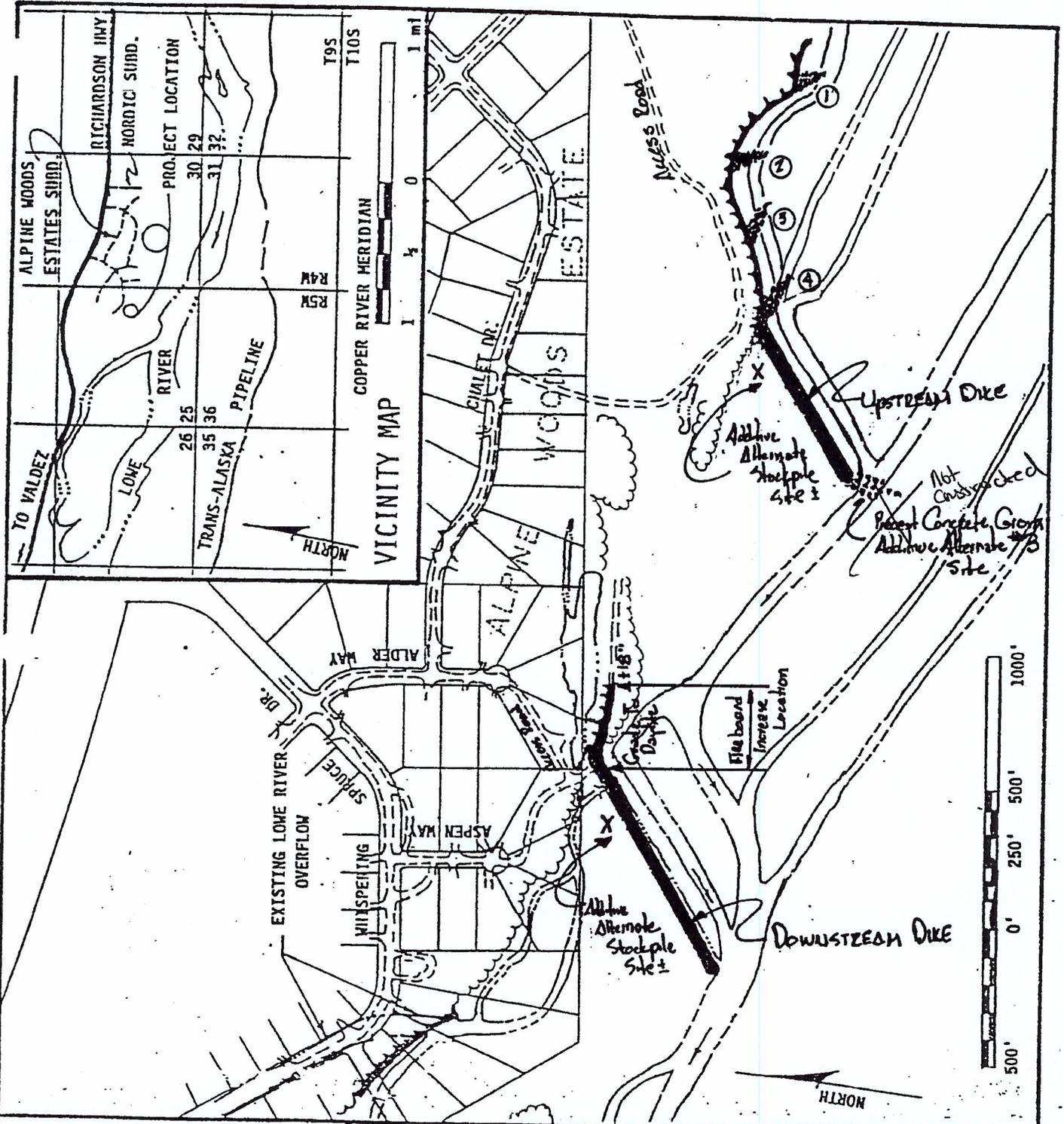
AT: VALDEZ, ALASKA

APPLICATION BY: CITY OF VALDEZ

1988 Work  
 Contract No. 23A



<p>PURPOSE: DIVERT NEW LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY</p> <p>DATUM: MEAN SEA LEVEL</p>	<p>VICINITY MAP</p> <p>CITY OF VALDEZ</p> <p>ALPINE WOODS FLOOD CONTROL</p> <p>PROJECT NO. 88E8CE</p> <p>SHEET 1 of 5      AUGUST 1, 1988</p>	<p>PROPOSED DIVERSION DIKE GROINS AND DOWNSTREAM DIKE IMPROVEMENTS</p> <p>IN: LOWE RIVER DRAINAGE SYSTEM</p> <p>AT: VALDEZ, ALASKA</p>
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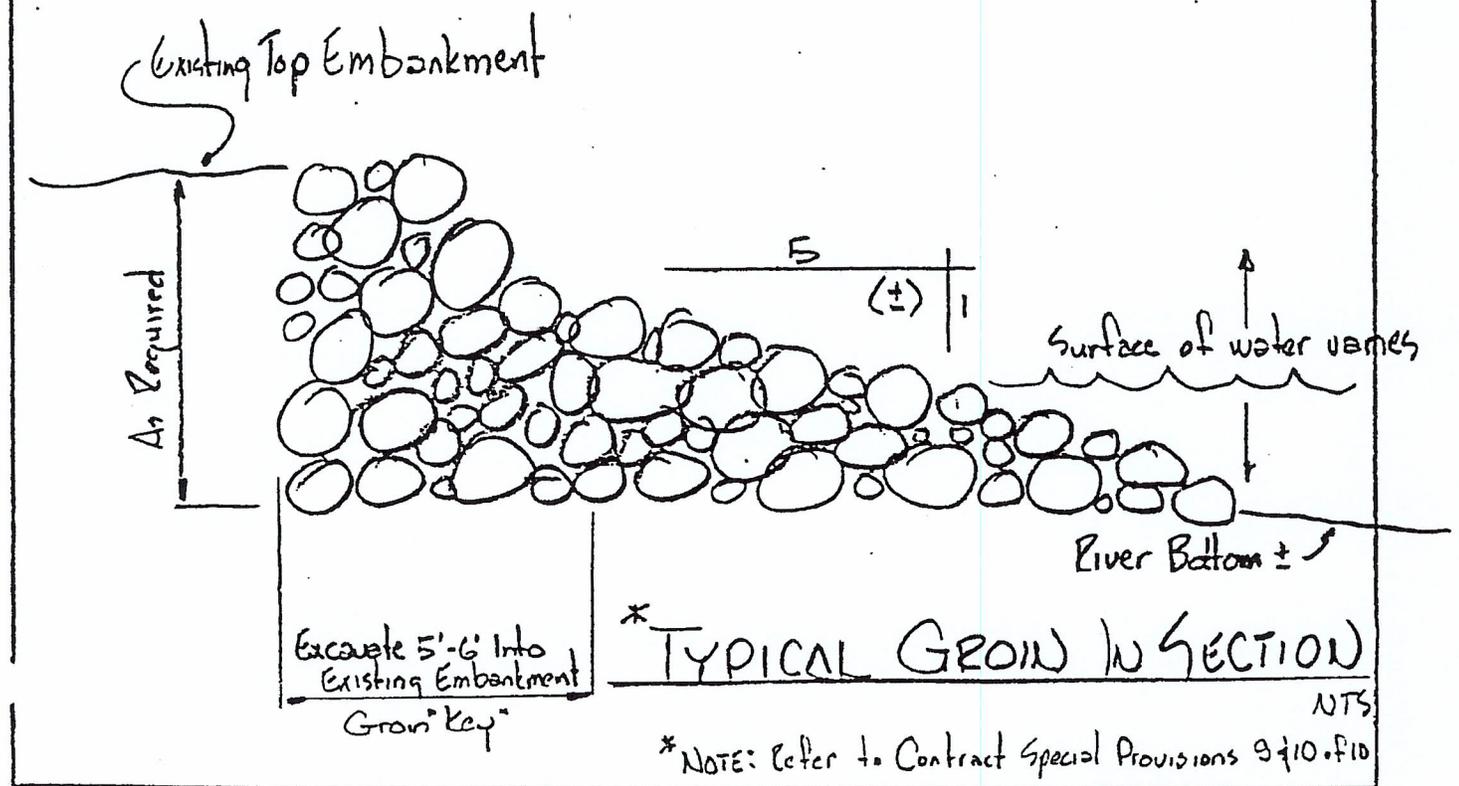
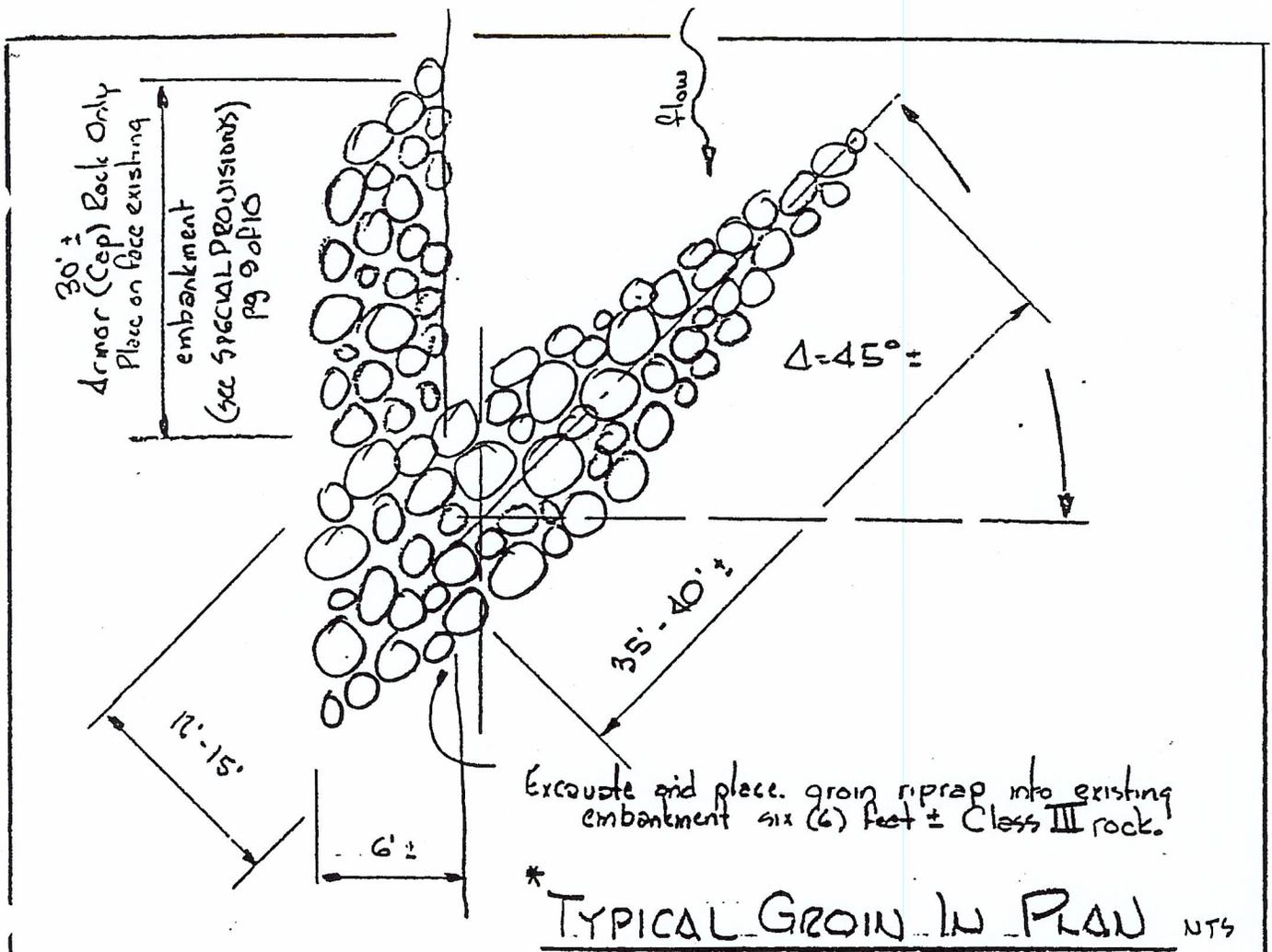


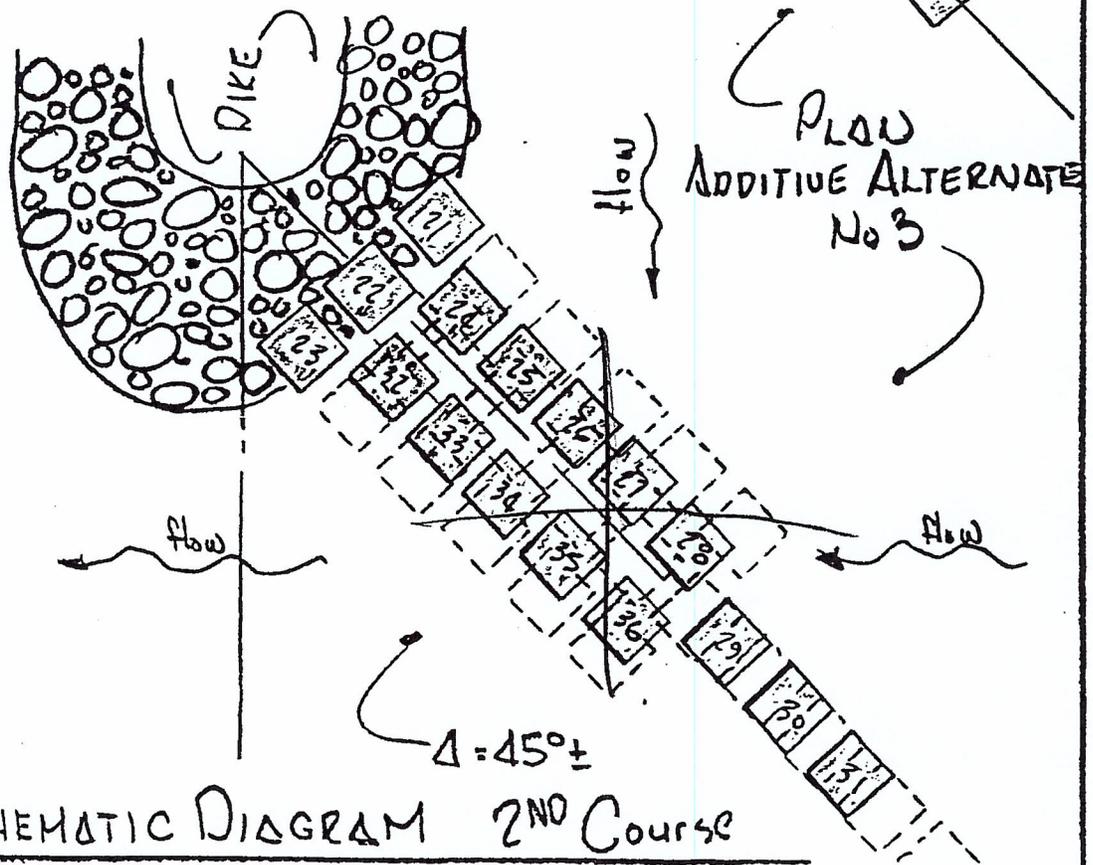
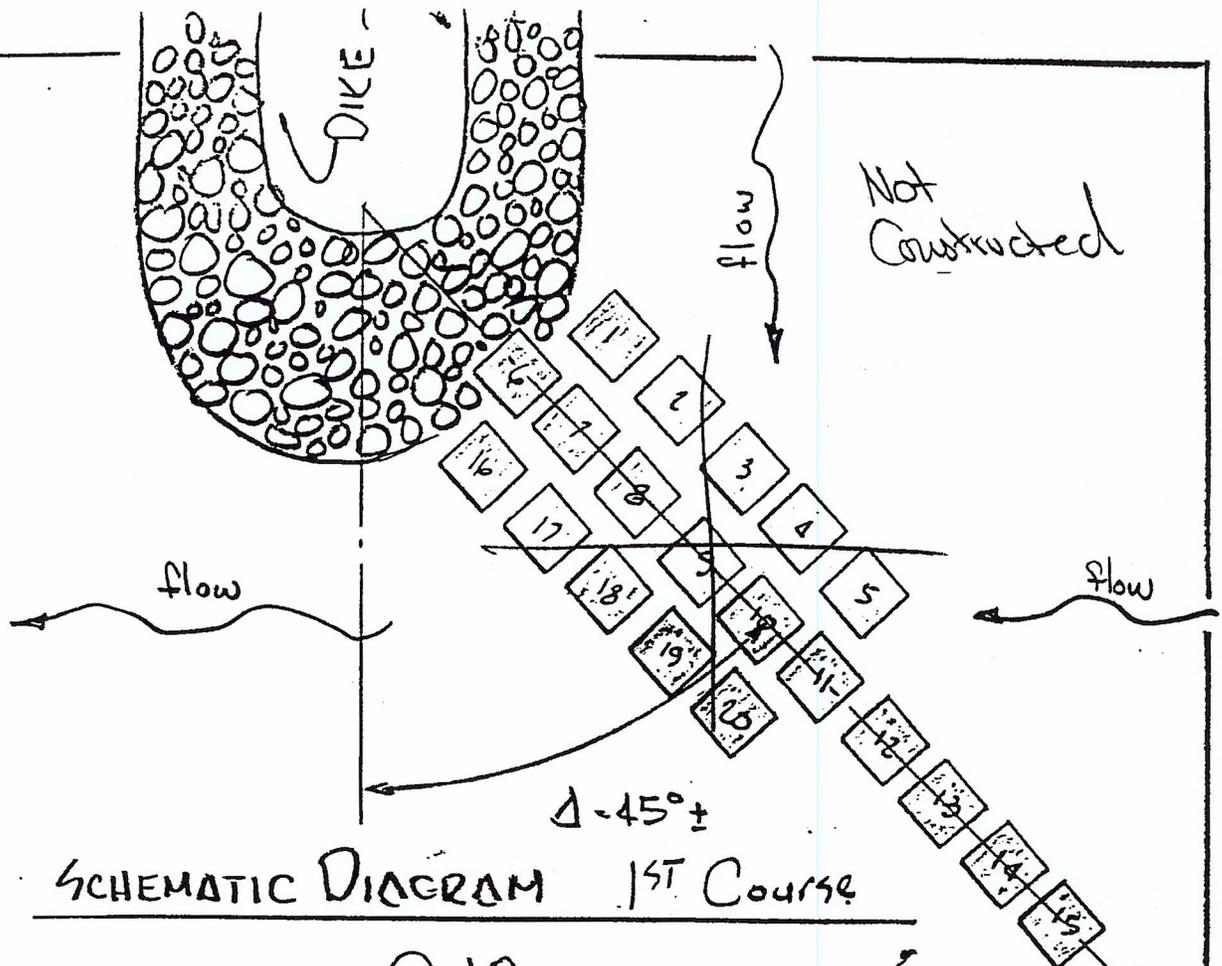
PURPOSE: DIVERT LOWE RIVER CHANNEL TO PROTECT PRIVATE PROPERTY  
 TUM: MEAN SEA LEVEL

PLAN VIEW  
 CITY OF VALDEZ  
 ALPINE WOODS FLOOD CONTROL  
 PROJECT NO. 88806  
 SHEET 2 of 5  
 DECEMBER 1982

PROPOSED DIVERSION DIKE GROINS AND DOWNSTREAM IMPROVEMENTS  
 IN: LOWE RIVER DRAINAGE SYSTEM  
 AT: VALDEZ, ALASKA



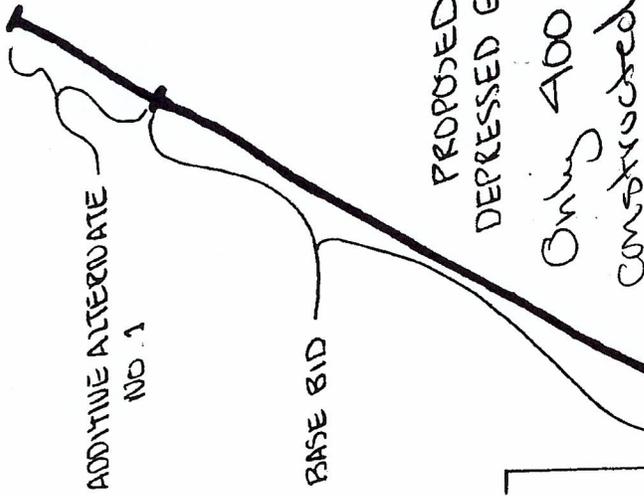




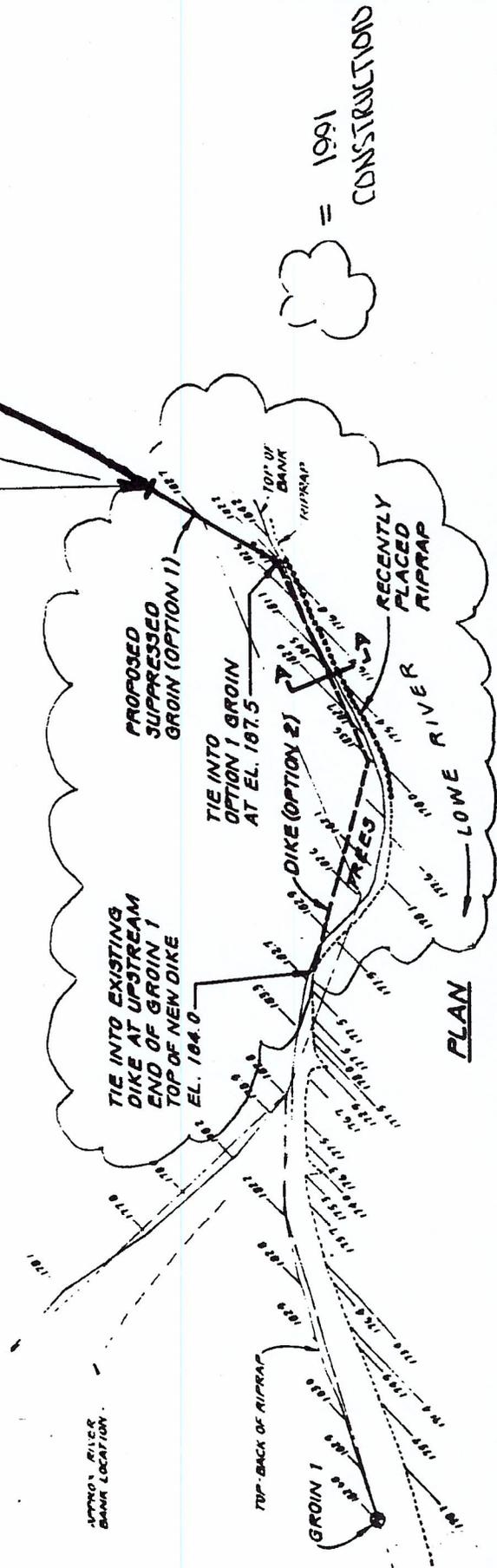
Note:  
Precision placement of concrete blocks not required, however, above should be attempted.

LOWE RIVER FLOOD CONTROL  
1995 IMPROVEMENTS  
SHEET 1 OF 2

1995 Work  
Contract No. 403



TIE INTO EXISTING DEPRESSED GROIN



= 1991 CONSTRUCTIONS



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, ALASKA  
P.O. BOX 898  
ANCHORAGE, ALASKA 99506-0898

REPLY TO  
ATTENTION OF:

JULY 28 1995

RECEIVED  
AUG 02 1995  
CITY OF VALDEZ

Regulatory Branch  
Project Evaluation Section - South  
P-850414

Ms. Charlotte Burrill  
City of Valdez  
Post Office Box 307  
Valdez, Alaska 99686

Dear Ms. Burrill:

Enclosed is the signed Department of the Army permit, file number P-850414, Lowe River 18, authorizing the extension of a groin and dike structure near Valdez, Alaska. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

If changes in the location or plans of the work are necessary for any reason, plans should be submitted to this office promptly. If the changes are unobjectionable, the approval required by law before construction is begun will be issued without delay.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect the proposed work.

In an effort to determine the level of customer satisfaction with the processing of Department of the Army permit applications, the Corps of Engineers, Regulatory Branch asks that you take a few moments to provide us with any constructive comments you feel are appropriate by filling out the enclosed questionnaire. Our interest is to see if we need to improve our service to you, our customer, and how best to achieve these improvements. Additional comments may be provided through the use of an oral exit interview, which is available to you upon request. Your efforts and interest in evaluating the regulatory program are much appreciated.

Please contact me at 1-907-753-2724, toll free in Alaska at 1-800-478-2712, or by mail at the address above, if you have questions.

Sincerely,

Johnny J. Duplantis  
Project Manager, East Unit  
Project Evaluation Section - South

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee City of Valdez

Permit No. P-850414 (MODIFICATION)

Issuing Office U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Dishcharge approximately 2,800 cubic yards (cy) of riprap to construct a 625' depressed groin and dike structure. Approximately 1,800 cy of spoiled material will be excavated and used to construct an embankment.

All work will be performed in accordance with the attached plans, sheets 1-2, dated March 15, 1995.

Project Location: Lowe River floodplain south of Alpine Woods Estates Subdivision located at mile post, Richardson Highway, T. 9 S., R. 4 W., section 30, Copper River Meridian, Valdez, Alaska.

Permit Conditions:

General Conditions:

- 1. The time limit for completing the work authorized ends on May 31, 1998. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Tom Wilson, Acting Manager  
(PERMITTEE)

7/24/95  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Colonel Peter A. Topp  
(DISTRICT ENGINEER) Colonel Peter A. Topp  
Johnny Duplantis, Project Manager  
Project Evaluation Section - South  
Regulatory Branch

28 Jul 95  
(DATE)

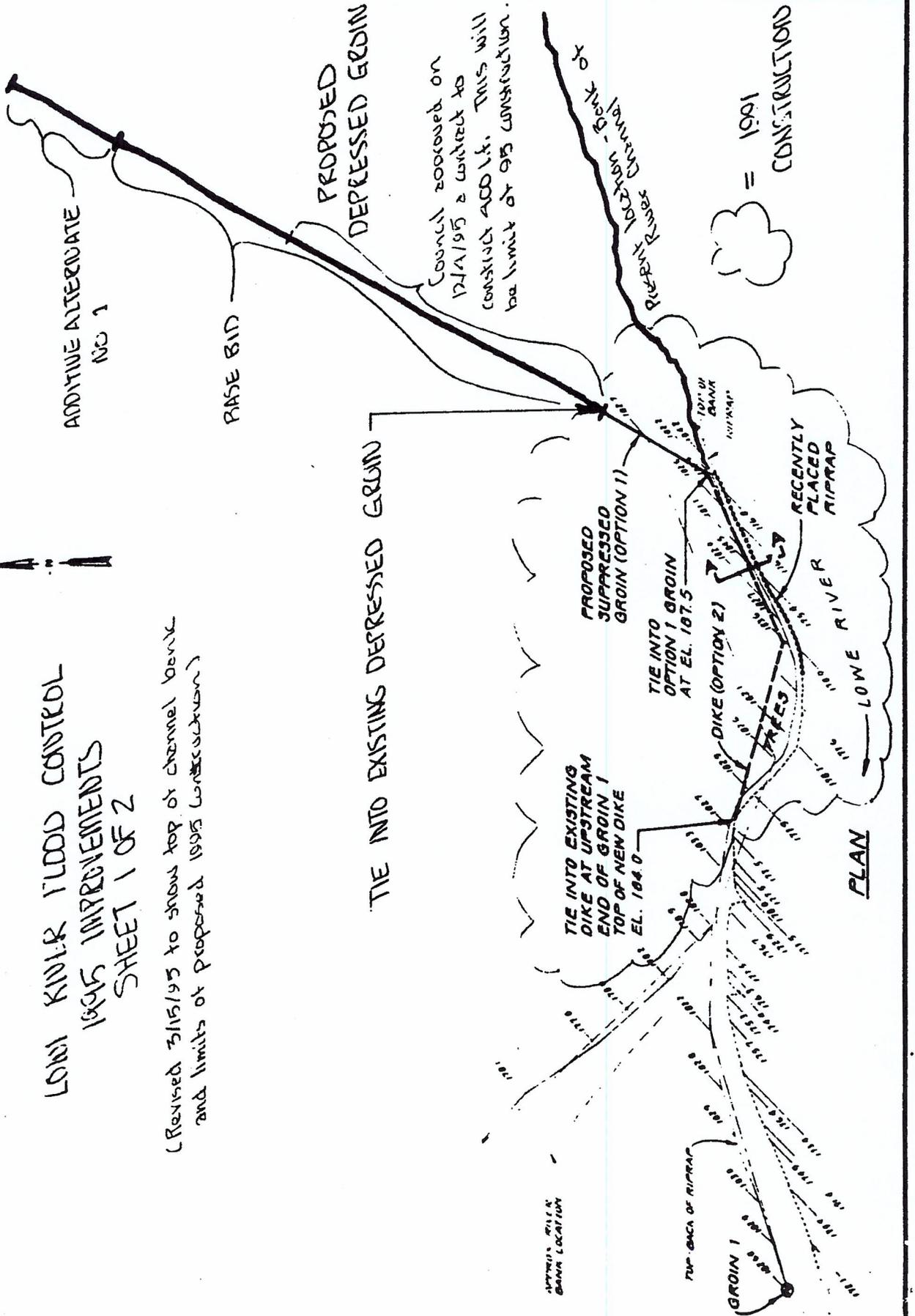
When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEEE)

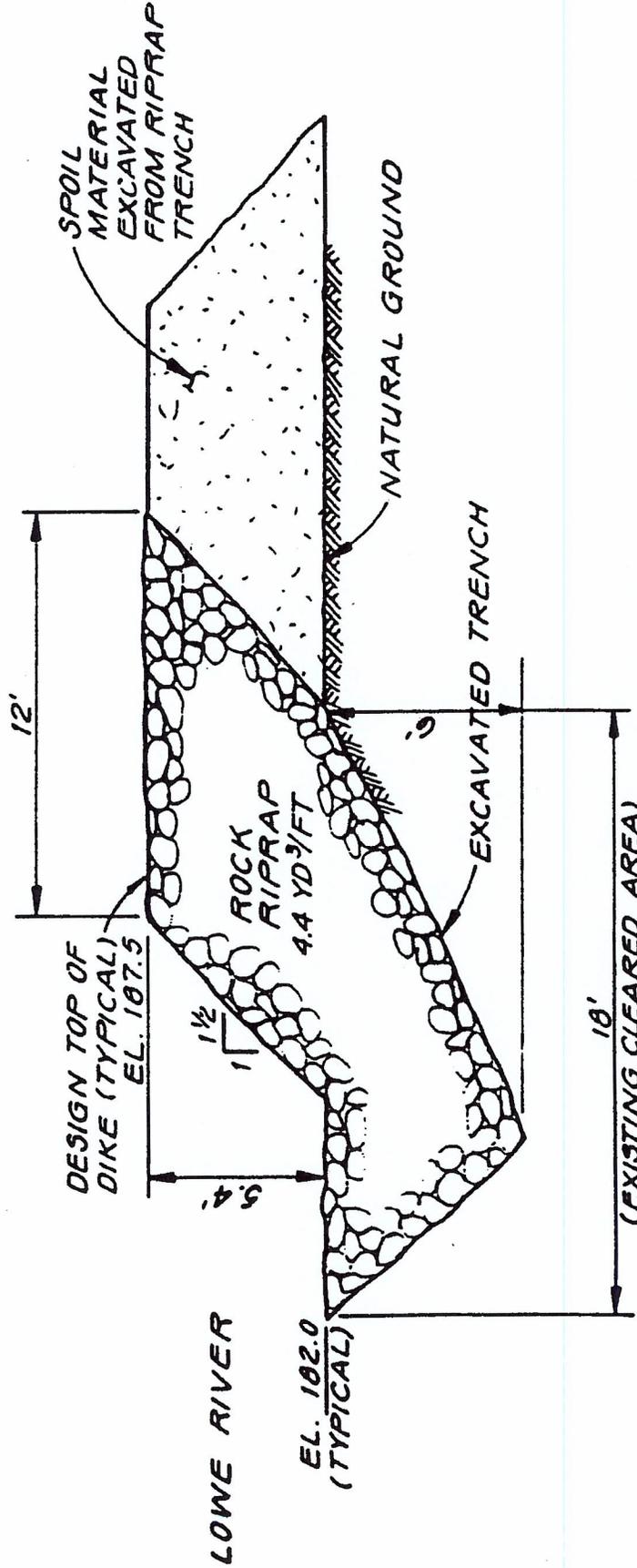
\_\_\_\_\_  
(DATE)

LOWA KINLER FLOOD CONTROL  
1995 IMPROVEMENTS  
SHEET 1 OF 2

(Revised 3/15/95 to show top of channel bank  
and limits of proposed 1995 construction)



LOWE RIVER FLOOD CONTROL  
1995 IMPROVEMENTS  
SHEET 2 OF 2



DEPRESSED GROIN TYPICAL SECTION

SCALE: 1"=5'

Figure A1  
 OPTION 1  
 DEPRESSED GROIN TYPICAL SECTION  
 CITY OF VALDEZ  
 LOWE RIVER STABILIZATION / RELOCATION STUDY



REPLY TO  
ATTENTION OF:  
Regulatory Branch  
East Section  
Q-850414

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, ALASKA  
P.O. BOX 898  
ANCHORAGE, ALASKA 99506-0898

**FEB 26 1996**

40. J. Le  
RECEIVED

FEB 29 1996

CITY OF VALDEZ

Original to  
Clerks office  
2/29/96 CB

Ms. Charlotte Burrill  
City of Valdez  
Post Office Box 307  
Valdez, Alaska 99686

Dear: Ms. Burrill:

Enclosed is a signed Department of the Army (DA) after the fact permit Q-850414, Lowe River 18, authorizing the extension of a groin and dike structure near Valdez, Alaska. Also is a Notice of Authorization which should be posted in a prominent location near the authorized work.

This permit modification resolves the violation. Our records indicate the City of Valdez did not contact this office during the emergency construction of the dike in September 1995. You must promptly contact us by telephone in the future should a similar flooding situation occur requiring work in waters of the U.S., including wetlands. We have expedited procedures for agency coordination and permitting under appropriate emergency conditions.

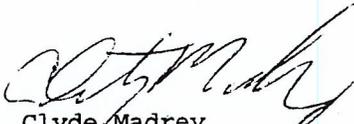
At this time we would also like to address the piecemeal way flood protection work at this location has been reviewed for DA permitting over the years, including numerous modifications and a previous after-the-fact permit. In your letter dated April 12, 1995, to this office in response to agency concerns for your proposed project to extend a groin and dike last year, you indicated additional flood control structures are planned as funding becomes available. We request you consolidate your plans in this regard and either request a jurisdictional determination or submit an application showing all proposed work along the Lowe River at this location so that a comprehensive review can be made for the project in its entirety. Hopefully, that would allow a review of your proposal that minimizes unnecessary adverse effects on the aquatic resource.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect this work.

In an effort to determine the level of customer satisfaction with the processing of Department of the Army permit applications, the Corps of Engineers, Regulatory Branch asks that you take a few moments to provide us with any constructive comments you may feel are appropriate by filling out the enclosed questionnaire. Our interest is to see if we need to improve our service to you, our customer, and how best to achieve these improvements. Additional comments may be provided through the use of an oral exit interview, which is available to you upon request. Your efforts and interest in evaluating the regulatory program are much appreciated.

Please contact Mr. Clyde Madrey at (907) 753-2724, toll free in Alaska at (800) 478-2712 or at the letterhead address, if you have questions.

Sincerely,



Clyde Madrey  
Regulatory Specialist

Enclosure



REPLY TO  
ATTENTION OF:

Regulatory Branch  
East Section

PERMITTEE: City of Valdez

EFFECTIVE DATE: ~~FEB 26 1986~~

EXPIRATION DATE: ~~MAY 31 1998~~

REFERENCE NO.: Q-850414 (Modification)

DEPARTMENT OF THE ARMY  
AFTER THE FACT PERMIT MODIFICATION

Department of the Army permit number 4-950414, Lowe River 18, was issued to the City Of Valdez on August 9, 1985, to:

"place approximately 5,000 cubic yards (cy) of gravel and 2,400 cy of riprap to construct a 500' long diversion dike, remove approximately 1,600 cy of gravel bar material to construct a 450-foot-long diversion channel in the Lowe River, and stockpile 50 to 75 cy of riprap at the site to replace rock eroded away from the toe of the diversion dike, approximately 1,000' south of Whispering Spruce Drive and Aspen Way intersection, Alpine Woods Estates Subdivision, in Valdez, Alaska."

The permit was modified (M-850414) on May 13, 1986, to:

"retain a 300' extension to the existing diversion dike, place approximately 4,200 cubic yards (cy) of rock riprap and 7,300' cy of adjacent gravel bar material and construct a 700' long diversion dike east of the existing dike; place approximately 1,600 cy of gravel and 3,000 cy of rock riprap along a 1,100' area for bank protection upstream of the new diversion dike; and place 1,100 cy of gravel bar material and 750 cy of quarry waste along a 450' area to provide bank protection downstream of the existing diversion dike, to provide flood protection."

RECEIVED

FEB 29 1996

CITY OF VALDEZ

The permit was modified (N-850414) on August 8, 1988, to:

"discharge approximately 1,500 cubic yards (cy) of shot rock and armor rock below the ordinary high water mark of Lowe River 18 to construct your channel control groins. The footprint dimensions of each groin would measure approximately 60-70' in length and 10-12' in width."

The permit was modified (O-850414) on May 6, 1991, to:

"place additional riprap along a 200' section of shoreline, construct a 425' long dike, and a 150' long depressed groin/dike. Approximately 400' cubic yards (cy) of riprap will be placed along a 200' section of shoreline to reinforce existing riprap. Approximately 780 cy of quarry reject material and 30 cy of riprap will be used to construct a 425' long dike located between the existing dike and the proposed depressed groin/dike. To construct the 150' long depressed groin/dike, approximately 360 cy of riprap will be placed in the trench to construct the depressed groin. The purpose of the project is to improve flood control protection for the Alpine Woods Subdivision."

A subsequent modification (P-850414) issued July 28, 1995, authorized:

"the discharge of approximately 2,800 cubic yards (cy) of riprap to construct a 625' depressed groin and dike structure. Approximately 1,800 cy of spoiled material will be excavated and used to construct an embankment."

Pursuant to your request dated November 27, 1995, the permit is hereby modified as follows:

"to place approximately 7,600 cubic yards (cy) of fill material, and 3,200 cy of class III riprap to construct 700' long diversion dike (groin) to protect homes in the Alpine Woods Estates Subdivision, in Valdez, Alaska."

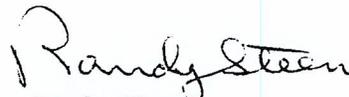
The following special condition has been added to the permit and applies to the work authorized by this modification:

"That all inwater work shall occur during the period of May 15, through July 15."

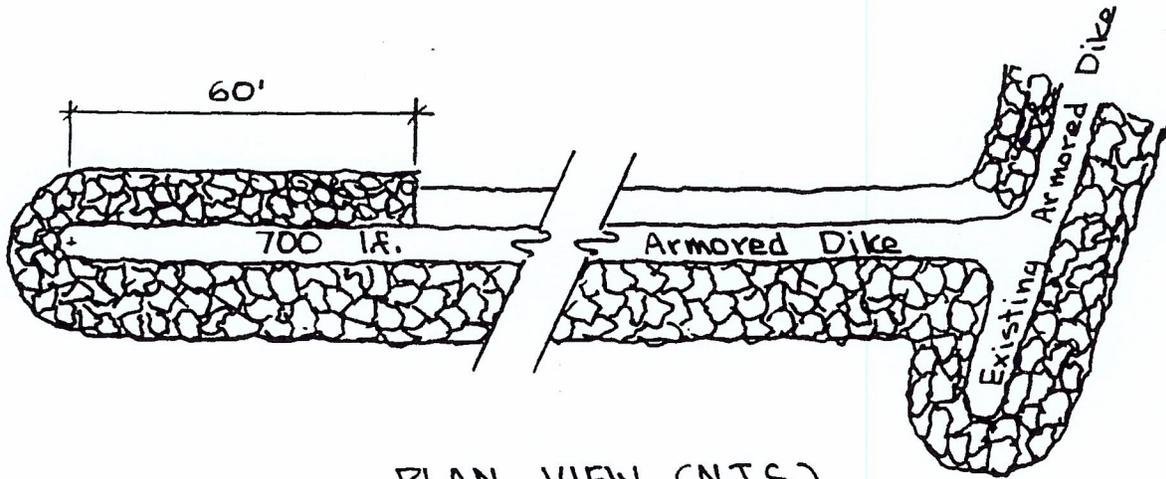
The time limit for completing the work authorized ends on 31 May 1998. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

This authorization and the enclosed plans in sheets 1 and 2 will now become part of the permit. All other terms and conditions of the original permit and subsequent modifications, except for the time limit, remain in full force and effect. This authorization and the enclosed modified plans should be attached to the original permit. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

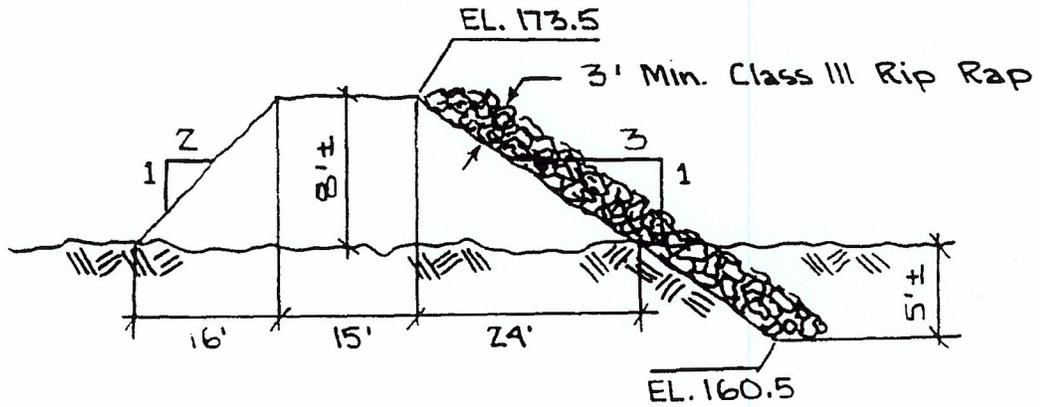
BY AUTHORITY OF THE SECRETARY OF THE ARMY:

  
Randy Steen  
Unit Coordinator

Enclosures



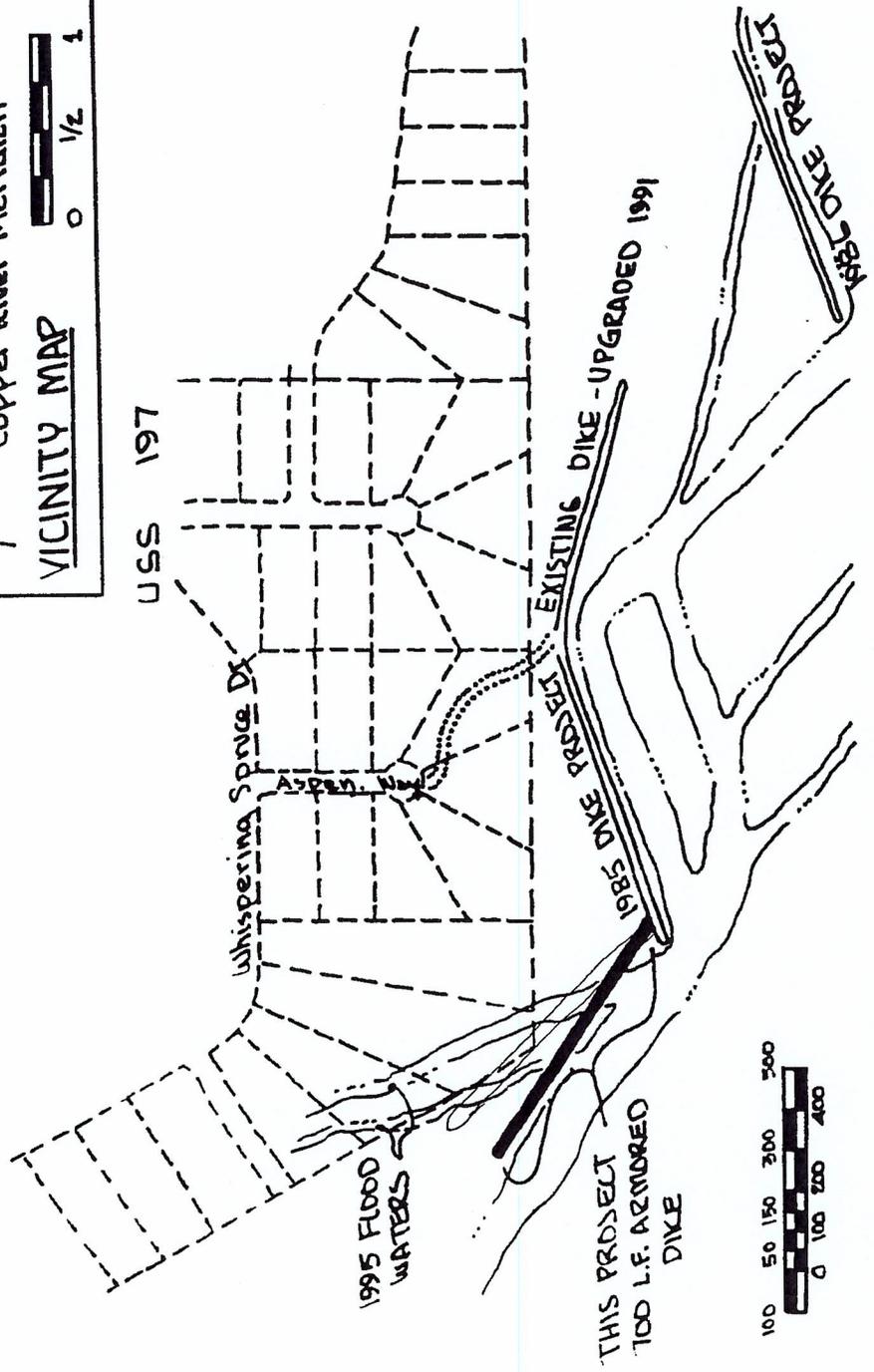
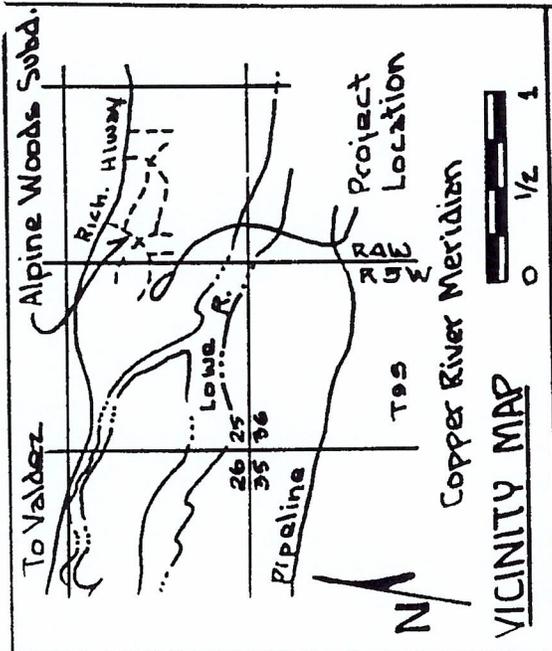
PLAN VIEW (N.T.S.)



TYPICAL SECTION (N.T.S.)

<p>Armored Diversion Dike (Groyne)</p> <p>Purpose: Protect existing structures and private property</p>	<p>Details</p> <p>City of Valdez</p> <p>Alpine Woods / Lowe River Flood Control</p> <p>Sheet 2 of 2</p>	<p>In: Lowe River Drainage System</p> <p>At: Valdez, Alaska</p> <p>Application by: City of Valdez</p>
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November 25, 1995



<p>Armored Diversion Dike (Groyne)</p> <p>Purpose: Protect existing structures and private property</p>	<p>Site Plan</p> <p>City of Valdez</p> <p>Alpine Woods / Lowe River Flood Control</p> <p>Sheet 1 of 2</p>	<p>In: Lowe River Drainage System</p> <p>At: Valdez, Alaska</p> <p>Application by: City of Valdez</p> <p>November 25, 1995</p>
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FEDERAL EMERGENCY MANAGEMENT AGENCY DAMAGE SURVEY REPORT - DATA SHEET		1. DECLARATION NO. FEMA-1072-DR	2. DSR NO. 36443	SUPPLY TO DSR NO.			
PART I - PROJECT DESCRIPTION							
APPLICANT NAME/COUNTY <i>City of Valdez</i>			3. PA IDENTIFICATION NO. <i>261-82200</i>				
10. PROJECT TITLE <i>Repair Dikes</i>		4. INSPECTION DATE <i>10-17-95</i>		5. PROJECT NO. <i>399</i>			
11. DAMAGED FACILITY <i>Dikes along Lowe River</i>		6. % COMPLETE <i>0</i>		7. WORK ACCOM BY <i>F C (C)</i>			
12. FACILITY LOCATION <i>North Bank of Lowe River off of Nordic Ave</i>		8. FINAL DSR YES <input type="checkbox"/>		9. CATEGORY <i>C</i>			
13. DAMAGE DIMENSIONS/DESCRIPTION/SCOPE OF ELIGIBLE WORK DIMENSIONS: DESC/SCOPE: <i>Flooding in the Lowe River damaged two sections of riprap on the right bank. Replace a 120' portion of eroded dike prior to replacing riprap and excavating 4' x 250' of gravel debris deposited by the flood so that the riprap can be replaced.</i>							
14. INSP NO. <i>0169</i>	15. NAME OF FEDERAL INSPECTOR (Print) <i>Richard Lourey</i>		16. AGENCY CODE <i>Fema</i>	RECOMMENDATION <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	ATTACHMENTS		
18. INSP NO.	NAME OF STATE INSPECTOR (Print)		AGENCY CODE	RECOMMENDATION <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	ATTACHMENTS		
19. NAME OF LOCAL REPRESENTATIVE (Print)			CONCUR <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	ATTACHMENTS			
PART II - ESTIMATED COST OF PROPOSED WORK							
ITEM	CODE	MATERIAL AND/OR DESCRIPTION (a)	UNIT OF MEAS (b)	QUANTITY (c)	UNIT PRICE (d)	COST (e)	
1	<i>3250</i>	<i>Slope Protection, R. prop</i>	<i>C.Y.</i>	<i>330</i>	<i>110<sup>00</sup></i>	<i>36,300</i>	
2	<i>4020</i>	<i>Fill, unclassified</i>	<i>C.Y.</i>	<i>240</i>	<i>8.50</i>	<i>6,290</i>	
3	<i>6150</i>	<i>Debris, Channel Exc</i>	<i>C.Y.</i>	<i>300</i>	<i>4.50</i>	<i>1,350</i>	
4							
5							
6							
7							
8							
20. EXISTING INSURANCE TYPE - F: \$ G: \$					21. TOTAL \$ <i>43,940</i>		
PART III - FLOODPLAIN MANAGEMENT/HAZARD MITIGATION REVIEW							
22. IN OR AFFECTS FLOODPLAIN OR WETLAND <input checked="" type="checkbox"/> W <input type="checkbox"/> N		23. FLOODPLAIN LOC <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6		24. % DAMAGE <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4		25. DISASTER HISTORY <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
				26. LAND USE <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7		27. FPM REC <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 7	
PART IV - FOR FEMA USE ONLY							
28. AMOUNT ELIG \$		29. ELIGIBLE <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> V		30. SPECIAL CONSIDERATIONS		31. FLOODPLAIN REVIEW NO.	
33. INSURANCE COMMITMENT REQUIRED Building: \$ Contents: \$		Property: \$ Contents: \$		34. DURATION (Years) F: B: G: P: C: C:			
35. COMMENTS/CHANGES							
FIRST REVIEW (Signature)				DATE		SECOND REVIEW (Signature)	

DAMAGE SURVEY CONTINUATION SHEET

Applicant

City of Valdez

DSR No.

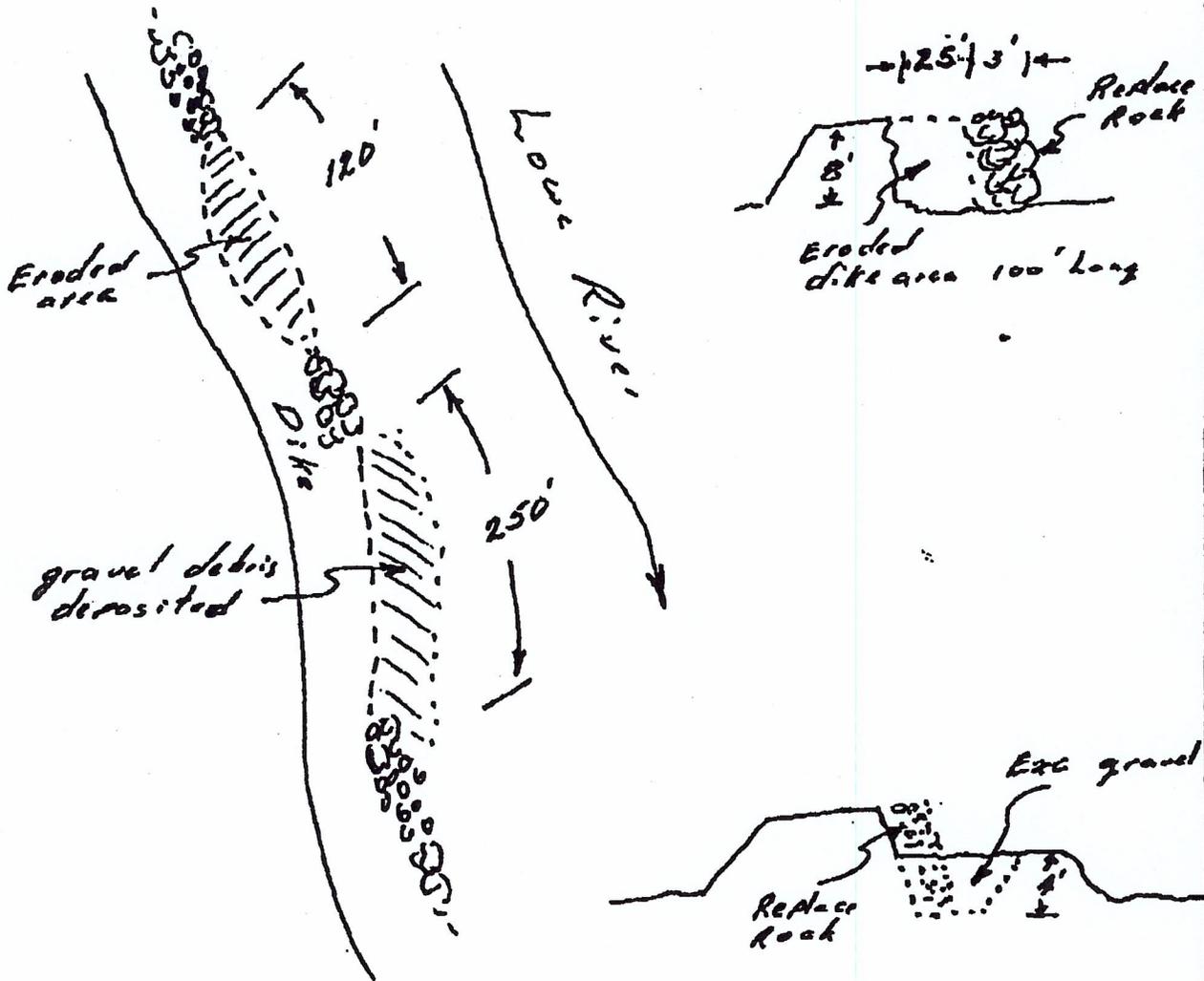
96443

Category

C

Sheet 3 of

Photos, Sketches and/or Narrative



Riprap  $120' \text{ long} \times 8' \text{ high} \times 3' \text{ deep} \div 27 = 107 \text{ cy}$   
 $250' \times 8' \times 3' \div 27 = 222 \text{ cy}$   
330 cy.

Gravel Backfill  $100' \times 25' \times 8' \div 27 = 740 \text{ cy}$

Channel Exc  $250 \times 8' \times 4 \div 27 = 300 \text{ cy}$

LOWE RIVER FLOOD CONTROL  
1995 IMPROVEMENTS  
SHEET 2 OF 2

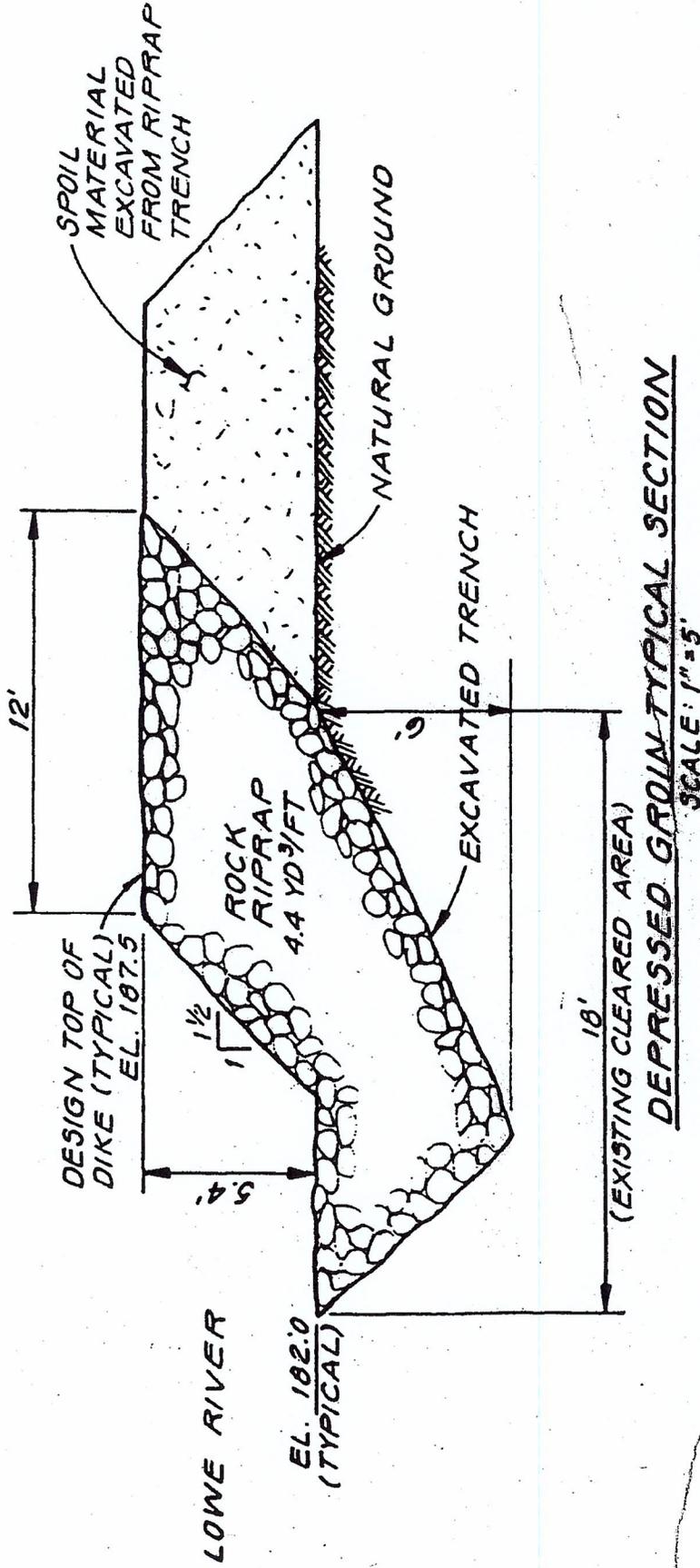
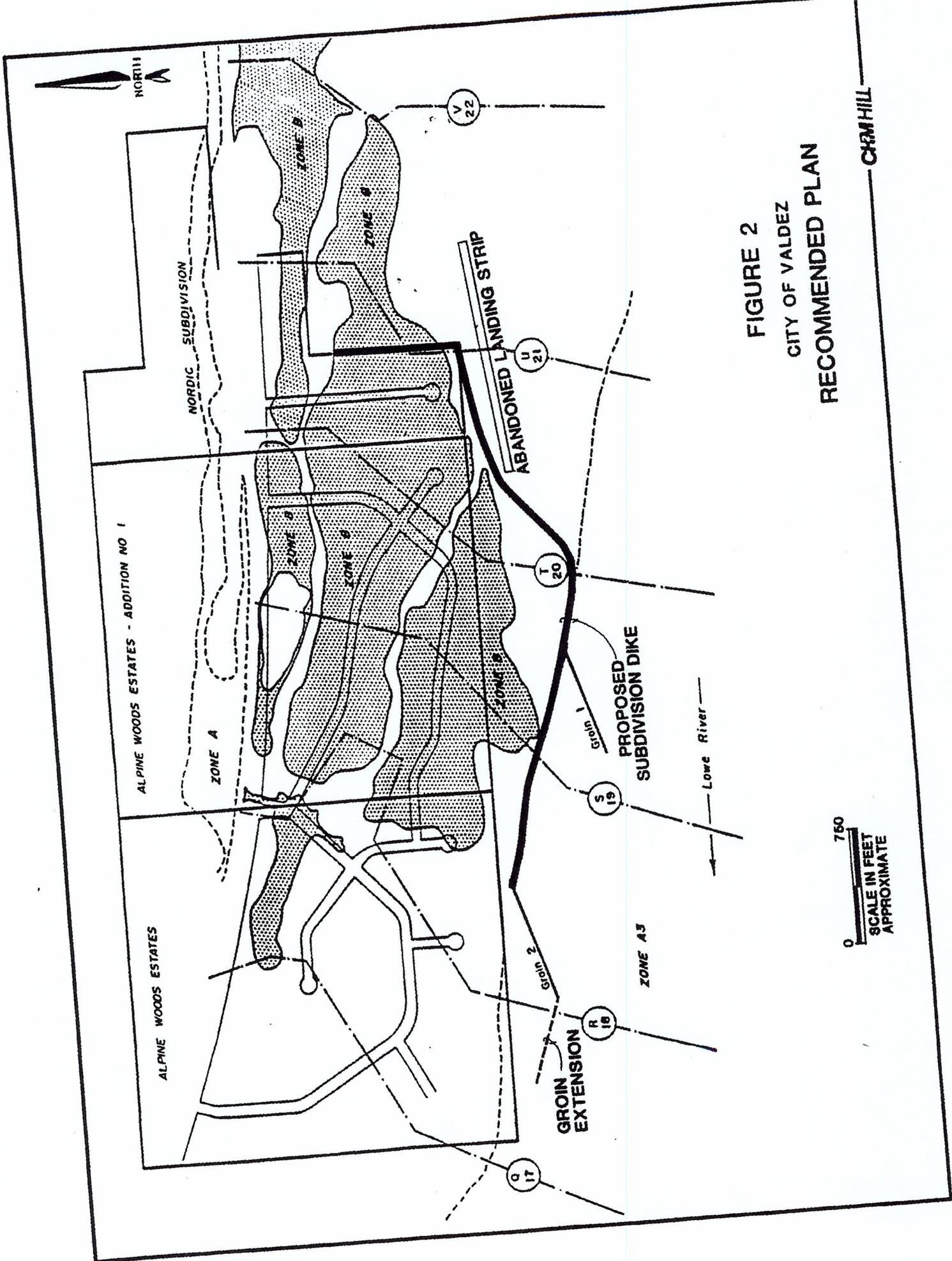


Figure A1  
OPTION 1  
DEPRESSED GROIN TYPICAL SECTION  
CITY OF VALDEZ  
LOWE RIVER STABILIZATION / RELOCATION STUDY  
CARMHILL



**FIGURE 2**  
**CITY OF VALDEZ**  
**RECOMMENDED PLAN**

0 750  
 SCALE IN FEET  
 APPROXIMATE